

MINNESOTA CODE OF AGENCY RULES

RULES OF THE DEPARTMENT OF LABOR AND INDUSTRY

1982 Reprint



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Prepared by

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DEPARTMENT OF LABOR AND INDUSTRY
Division of Voluntary Apprenticeship

Chapter One: Conditions and Training Standards for
Approval of Apprenticeship Programs and Agreements

ApDiv 2
ApDiv 3
ApDiv 4
ApDiv 5
ApDiv 6

Chapter Two: Procedures for Issuance of Certificate
of Registration to Sponsors of Approved Programs

ApDiv 9

Chapter Three: Procedures for Investigations
and Determinations Under the Equal Employment
Opportunity Provisions

ApDiv 13
ApDiv 14
ApDiv 15
ApDiv 16
ApDiv 17

Chapter Four: Procedure for Apprentice
Wage Determinations

ApDiv 20
ApDiv 21
ApDiv 22

Chapter Five: Rules for Procedure for
Apprenticeship Committee Operation

ApDiv 24

Chapter Six: Procedures for Issuance of
Apprenticeship Completion Certificate

ApDiv 26
ApDiv 27

Chapter Seven: Record Maintenance

ApDiv 29
ApDiv 30
ApDiv 31

Chapter Eight: Procedure for Termination or Transfer of Apprenticeship Agreements

ApDiv 34
ApDiv 35

Boiler Inspection

Chapter One: Licenses

Bli 1	Experience required.
Bli 2	Fees.
Bli 3	Expiration, renewals.
Bli 4	Supervision required for boiler operation.
Bli 5	Examinations, requisites for.
Bli 6	In case of loss or destruction.
Bli 7	Complaint procedure.
Bli 8	Must be displayed.
Bli 9	Boiler horsepower rating.
Bli 10	Absence from plant.
Bli 11	Insurance company inspectors.
Bli 12	Railroad locomotives, operators of.
Bli 13	License suspension, revocation.

Chapter Two: Inspections

Bli 21	A.S.M.E., national board standards, rules.
Bli 22	Boilers, pressure vessels must be stamped.
Bli 23	Appurtenances, piping, tests.
Bli 24	Exemptions.
Bli 25	Safety factor.
Bli 26	Low water devices.
Bli 27	Reporting repairs.
Bli 28	Repairs by inspectors prohibited, exception.
Bli 29	Sealing when unsafe.
Bli 30	Sales by inspectors prohibited.
Bli 31	Enforcement procedure.
Bli 32	Insured coverage report.
Bli 33	Appeals.
Bli 34	Grounds of suspension, dismissal.
Bli 35	General provisions.

Chapter Three: Rules for the Navigation of
Power Boats on the Inland Waters of Minnesota

Bli 51	Definitions.
Bli 52	Lights.
Bli 53	Course, speed.
Bli 54	Narrow channels.
Bli 55	Equipment.
Bli 56	Approaching dock.
Bli 57	Reports of damage.
Bli 58	Towing row boats.
Bli 59	Engine mufflers.
Bli 60	Constructing rules.
Bli 61	Consequences of neglect.
Bli 62	Passenger capacity.

Chapter Four: Appendix - Boiler Safety

Bli 71	Blow-off tanks.
Bli 72	Safety valves.
Bli 73	Water gage.
Bli 74	Water column shutoffs.
Bli 75	Steam gage.
Bli 76	Valves, fittings.
Bli 77	Stop valves.
Bli 78	Common main connection.
Bli 79	Blowoff piping.
Bli 80	Blowoff valves.
Bli 81	Feed piping.
Bli 82	Feedwater supply.
Bli 83	Electricity heated generators.

Rules and Regulations Pursuant to
Child Labor Standards Act

Chapter One: Definitions

CLS 1	Definition of home chore.
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Chapter Two: Exceptions to Prohibitions Related
to the Employment of Minors

CLS 5	Approved training programs.
CLS 6	Tasks outside of area of hazard.
CLS 7	High school graduates.
CLS 8	Parental corporations.

Chapter Three: Prohibitions Related to the
Employment of Minors - For Those Under the Age of Eighteen

CLS 11 Prohibited employments.

Chapter Four: Prohibitions Related to the
Employment of Minors - For Those Under the Age of Sixteen

CLS 15 Prohibited employments.

Chapter Five: Certificates and Special Permits

CLS 19 Special exemption permit.
CLS 20 Exemption permit application.
CLS 21 Revocation of permit.
CLS 22 Monthly report on employment and age
certificates.

Rules Relating to Labor Standards Division

8 MCAR S 1.4001 Minimum wage rate for minors.
8 MCAR S 1.4002 Learners or apprentices.
8 MCAR S 1.4003 Handicapped worker permits.
8 MCAR S 1.4004 Equal pay for handicapped.
8 MCAR S 1.4005 Part-time rates.
8 MCAR S 1.4006 Meal allowance.
8 MCAR S 1.4007 Lodging allowance.
8 MCAR S 1.4008 Tip credit -- definitions and clarifications.
8 MCAR S 1.4009 Deductions.
8 MCAR S 1.4010 Records.
8 MCAR S 1.4011 Other special items.
8 MCAR S 1.4012 Hours worked.
8 MCAR S 1.4013 Regular rate of pay.
8 MCAR S 1.4014 Workweek.
8 MCAR S 1.4015 Executive, administrative, professional
personnel.
8 MCAR S 1.4016 Outside salesperson.
8 MCAR S 1.4017 Gratuitous service.
8 MCAR S 1.4018 Wages, how often paid.

Rules of the Department of Labor and Industry
Labor Standards Division
(Fee Employment Agencies)

Chapter One: Definitions

8 MCAR S 1.5001 Accept.
8 MCAR S 1.5002 Method of payment.
8 MCAR S 1.5003 Fee status.
8 MCAR S 1.5004 Misconduct.

Chapter Two: Licensing and Bonding

8 MCAR S 1.5007	Persons to be licensed.
8 MCAR S 1.5008	Examination by department.
8 MCAR S 1.5009	Forms.
8 MCAR S 1.5010	Agency name.
8 MCAR S 1.5011	Agency license.
8 MCAR S 1.5012	Licensure relating to temporary help services.
8 MCAR S 1.5013	License endorsement.

Chapter Three: Contract and Acceptance Forms

8 MCAR S 1.5014	Form of contract.
8 MCAR S 1.5015	Standard language.
8 MCAR S 1.5016	Fee information on contracts.
8 MCAR S 1.5017	Acceptance form standards.

Chapter Four: Fees

8 MCAR S 1.5022	Fee determination.
8 MCAR S 1.5023	Fee deducted from salary.
8 MCAR S 1.5024	Misrepresentation.
8 MCAR S 1.5025	Refunds.
8 MCAR S 1.5026	Fee paid liability.
8 MCAR S 1.5027	Two referrals to same employer.
8 MCAR S 1.5028	Applicant fee collection.
8 MCAR S 1.5029	Fee liability on employer refunds.

Chapter Five: Job Orders

8 MCAR S 1.5035	Job order form.
8 MCAR S 1.5036	Experts as representatives of employers.

Chapter Six: Agency Practices

8 MCAR S 1.5041	Copy of rules and law to manager and counselors.
8 MCAR S 1.5042	Contract requirement.
8 MCAR S 1.5043	Separate agreement with employer.
8 MCAR S 1.5044	Display of licenses.
8 MCAR S 1.5045	Use of name other than that on license.
8 MCAR S 1.5046	Advertising.
8 MCAR S 1.5047	Prohibited activities in connection with an agency.
8 MCAR S 1.5048	Repeal of prior rules.

Chapter Seven: Supervision and Investigation

- 8 MCAR S 1.5053 Information to be furnished the department.
- 8 MCAR S 1.5054 Annual record of service report.

Chapter Eight: Hearing Procedure and Procedure Upon Revocation or Suspension of License

- 8 MCAR S 1.5057 Initiating the contested case.
- 8 MCAR S 1.5058 Service of document of initiation and notice.
- 8 MCAR S 1.5059 Answer to initiating complaint.
- 8 MCAR S 1.5060 Notice of hearing.
- 8 MCAR S 1.5061 Rights under Minnesota Statutes.
- 8 MCAR S 1.5062 Repeal of prior rules.

High Pressure Steam Piping and Appurtenances

- 8 MCAR S 1.6300 Organization and duties of Advisory Council for Steamfitting Examinations.
- 8 MCAR S 1.6301 Duties of the secretary.
- 8 MCAR S 1.6302 Qualifications and duties of inspectors.
- 8 MCAR S 1.6303 Definitions.
- 8 MCAR S 1.6304 Licensing and registration.
- 8 MCAR S 1.6305 Applications for registration.
- 8 MCAR S 1.6306 Qualifications for contracting steamfitter license.
- 8 MCAR S 1.6307 Journeyman steamfitter qualifications.
- 8 MCAR S 1.6308 Examination of applicants for licenses.
- 8 MCAR S 1.6309 Fees for examinations.
- 8 MCAR S 1.6310 Registration of apprentices.
- 8 MCAR S 1.6311 General provisions.
- 8 MCAR S 1.6312 Minnesota code for high pressure steam piping and its competent parts..

Composition of the Minnesota Occupational Safety and Health Codes

Chapter One: General

- 8 MCAR S 1.7001 Adoption of federal Occupational Safety and Health Standards by reference.

Chapter Two: Personal Protective Equipment

- 8 MCAR S 1.7010 Head protection.
- 8 MCAR S 1.7011 Personal protective equipment.

Chapter Three: Walking, Working Surfaces

8 MCAR S 1.7020	Storage racks.
8 MCAR S 1.7021	Ships ladders.
8 MCAR S 1.7022	Ships ladders (special).

Chapter Four: General Environmental Control

MOSHC 40	General.
MOSHC 41	General ventilation and temperature requirements.
MOSHC 42	Minimum levels of illumination.
MOSHC 43	Diffusion and distribution of light.
MOSHC 44	Exit and emergency lighting.
MOSHC 45	Maintaining the level of illumination.

Chapter Five: Ventilation for Garages

MOSHC 60	Size of system.
MOSHC 61	Plans -- approval by Department of Labor and Industry.

Chapter Six: Construction

8 MCAR S 1.7070	Privies heated.
8 MCAR S 1.7071	Ships ladders.
8 MCAR S 1.7072	Ships ladders (special).
8 MCAR S 1.7073	Paint spraying -- building interior.
8 MCAR S 1.7074	Enclosure.
8 MCAR S 1.7075	Warning signs.
8 MCAR S 1.7076	Sidewalk sheds.
8 MCAR S 1.7077	Lights.
8 MCAR S 1.7078	Jobsite shelter.
8 MCAR S 1.7079	Walking-working surfaces.
8 MCAR S 1.7080	Demolition operations.
8 MCAR S 1.7081	Personal protective equipment.

Chapter Seven: Steam Boilers

MOSHC 90	Definition and application.
MOSHC 91	Safety valves.
MOSHC 92	Boiler blow-offs.
MOSHC 93	Exits from boiler room.
MOSHC 94	Boiler valve locks.
MOSHC 95	Non-return valves.

Chapter Eight: Elevators, Dumbwaiters, Escalators and Moving Walks

- 8 MCAR S 1.7100 General provisions.
- 8 MCAR S 1.7101 Inspections, tests and approval.
- 8 MCAR S 1.7102 Accidents.
- 8 MCAR S 1.7103 Elevators, dumbwaiters, escalators and moving walks.
- 8 MCAR S 1.7104 Exceptions and amendments to ANSI A17.1.
- 8 MCAR S 1.7105 Stage and orchestra lifts.
- 8 MCAR S 1.7106 Mechanized parking garage equipment.
- 8 MCAR S 1.7107 Wheelchair elevating devices.

Chapter Nine: Platform Manlifts

- 8 MCAR S 1.7120 General requirements.
- 8 MCAR S 1.7121 Hand powered platform passenger type manlifts.
- 8 MCAR S 1.7122 Special purpose personnel elevators.

Chapter Ten: Maintenance and Repair

- 8 MCAR S 1.7130 Scope.
- 8 MCAR S 1.7131 General.
- 8 MCAR S 1.7132 Blocking and cribbing machinery.
- 8 MCAR S 1.7133 Lockout devices.
- 8 MCAR S 1.7134 Lubrication of moving machinery.
- 8 MCAR S 1.7135 Wire rope clips.

Chapter Eleven: Vehicles

- 8 MCAR S 1.7140 Motorized self-propelled vehicles.
- 8 MCAR S 1.7141 Powered industrial truck operations.
- 8 MCAR S 1.7142 Grease racks, hoists and pits.

Chapter Thirteen: Machine Guarding

- 8 MCAR S 1.7170 Pneumatic power tools.
- 8 MCAR S 1.7171 Machines with revolving parts.

Chapter Eighteen: Access to Employee Exposure and Medical Records

- 8 MCAR S 1.7230 Purpose and scope.
- 8 MCAR S 1.7231 Modified definition.
- 8 MCAR S 1.7232 Conforming amendments.

Chapter Nineteen: Discrimination Against Employees

8 MCAR S 1.7240	Authority and background.
8 MCAR S 1.7241	Purpose and scope.
8 MCAR S 1.7242	Definition.
8 MCAR S 1.7243	Protected activities.
8 MCAR S 1.7244	Unprotected activities.
8 MCAR S 1.7245	Claim procedures.
8 MCAR S 1.7246	Other proceedings.
8 MCAR S 1.7247	Enforcement proceedings.

Chapter Twenty: Rules of Procedure for Practice Before the Minnesota Occupational Safety and Health Review Commission

MOSHC 250	General provisions.
MOSHC 251	Parties and representatives.
MOSHC 252	Pleadings and motions.
MOSHC 253	Prehearing procedures and discovery.
MOSHC 254	Hearings.
MOSHC 255	Post hearing procedures.
MOSHC 256	Miscellaneous provisions.

Chapter Twenty-One: Inspection, Citations and Proposed Penalties

8 MCAR S 1.7270	
8 MCAR S 1.7271	Posting of notice; availability of the act, regulations and applicable standards.
8 MCAR S 1.7272	Objection to inspection.
8 MCAR S 1.7273	Entry not a waiver.
8 MCAR S 1.7274	Conduct of inspections.
8 MCAR S 1.7275	Representatives of employers and employees.
8 MCAR S 1.7276	Trade secrets.
8 MCAR S 1.7277	Consultation with employers and employees.
8 MCAR S 1.7278	Inspection not warranted; informal review.
8 MCAR S 1.7279	Citations; notices of de minimis violations.
8 MCAR S 1.7280	Petitions for modification of abatement date.
8 MCAR S 1.7281	Posting of citations.
8 MCAR S 1.7282	Informal conference.

Chapter Twenty-Two: Recording and Reporting Occupational Injuries and Illnesses

8 MCAR S 1.7290	Purpose and scope.
8 MCAR S 1.7291	Definitions.
8 MCAR S 1.7292	Log and summary of occupational injuries and illnesses.
8 MCAR S 1.7293	Period covered.
8 MCAR S 1.7294	Supplementary record.
8 MCAR S 1.7295	Annual summary.
8 MCAR S 1.7296	Retention of records.
8 MCAR S 1.7297	Access to records.
8 MCAR S 1.7298	Reporting of fatality or multiple hospitalization accidents.
8 MCAR S 1.7299	Falsification, or failure to keep records or reports.
8 MCAR S 1.7300	Change of ownership.
8 MCAR S 1.7301	Petitions for recordkeeping exceptions -- public employment sector.
8 MCAR S 1.7302	Petitions for recordkeeping exceptions -- private employment sector.
8 MCAR S 1.7303	Employees not in fixed establishments.
8 MCAR S 1.7304	Small employers.
8 MCAR S 1.7305	Statistical program.
8 MCAR S 1.7306	Duties of employers.

Chapter Twenty-Three: Variances

8 MCAR S 1.7310	Purpose and scope.
8 MCAR S 1.7311	Effect on variances.
8 MCAR S 1.7312	Temporary variances.
8 MCAR S 1.7313	Permanent variances.
8 MCAR S 1.7314	Modification, revocation and renewal of rules or orders.
8 MCAR S 1.7315	Order denying variance.
8 MCAR S 1.7316	Contest of variance denial before review board.
8 MCAR S 1.7317	Multi-state variances.

Chapter Twenty-Four: Standards Promulgation

8 MCAR S 1.7320	Purpose and scope.
8 MCAR S 1.7321	Definitions.
8 MCAR S 1.7322	Petition for the promulgation, modification or revocation of a standard.
8 MCAR S 1.7323	Initiation.
8 MCAR S 1.7324	Objections.
8 MCAR S 1.7325	Conduct of hearing.
8 MCAR S 1.7326	Powers of presiding officer.
8 MCAR S 1.7327	Certification of the record of a hearing.
8 MCAR S 1.7328	Decision.

Rules Governing Prevailing Wage Determinations

8 MCAR S 1.8001	Authority, scope and purpose.
8 MCAR S 1.8002	Definitions.
8 MCAR S 1.8003	Prevailing wage determinations.
8 MCAR S 1.8004	Basis for each determination.
8 MCAR S 1.8005	Classes of labor.
8 MCAR S 1.8006	Survey procedures.
8 MCAR S 1.8007	Determining the largest number of workers and prevailing wage rate.
8 MCAR S 1.8008	Apprentices.
8 MCAR S 1.8010	Notice of wage determinations.
8 MCAR S 1.8013	Petition for reconsideration of prevailing wage rates.
8 MCAR S 1.8015	Master job classifications.
8 MCAR S 1.8016	Posting of wage rates.
8 MCAR S 1.8017	Wage rate determinations effective date.

Governing Smoking in Factories, Warehouses and Similar Places of Work

LICA 1	Authority, scope and purpose.
LICA 2	Factories, warehouses and similar places of work.
LICA 3	Smoke pollution.
LICA 4	Responsibilities of employer or person in charge.
LICA 5	Minimizing toxic effects of smoke pollution.

Rules to Implement M.S. 176.102 Rehabilitation of
Work Related Injuries and Diseases, Including Rules
Necessary to be a Qualified Rehabilitation Consultant
or Registered Rehabilitation Vendor

RS 1	Definitions.
RS 2	Work status report.
RS 3	Initiation of rehabilitation service.
RS 4	Plan submission.
RS 5	Plan modification.
RS 6	Completion of plan.
RS 7	Change of consultant-vendor.
RS 8	Disputes.
RS 9	Appeal to rehabilitation review panel.
RS 10	Compensation during rehabilitation.
RS 11	Representation.
RS 12	Rehabilitation mandatory: restrictions on settlements.
RS 13	Qualified rehabilitation consultant and registered rehabilitation vendor.
RS 14	Qualifying eligibility criteria for rehabilitation consultant.
RS 15	Procedure for qualifying as rehabilitation consultant.
RS 16	Procedure for approval as an organization registered for the employment of qualified rehabilitation consultants-independent.
RS 17	Procedure for approval as a registered rehabilitation vendor.

Rules of Practice for the Workers' Compensation
Court of Appeals and the Workers' Compensation Division

WC 1	Payment of compensation.
WC 2	Discontinuance of compensation payments.
WC 3	Notice of payments to division.
WC 4	Denial of liability.
WC 5	Claim for refunds from employees or dependents.
WC 6	Medical reports to be filed with the division.
WC 7	Medical authorizations.
WC 8	Change of doctors.
WC 9	Notice of representation.
WC 10	Examinations of files by attorneys.
WC 11	Third-party recovery.
WC 12	Legal documents.
WC 13	Docket procedure.
WC 14	Commencement of proceedings.
WC 15	Answer.
WC 16	Joinder of parties.
WC 17	Temporary orders.
WC 18	Petitions for contribution or reimbursement.
WC 19	Intervention.
WC 20	Second injury law.
WC 21	Pre-trials.
WC 22	Calendar procedures.
WC 23	Findings of compensation judges.
WC 24	Stipulations for settlement.
WC 25	Attorney fees.
WC 26	Taxation of disbursements.
WC 27	Removal from files of documents or exhibits.

Workers' Compensation Court of Appeals

WC 28	Additional evidence.
WC 29	Appeals from orders or decisions of the assistant commissioner or chief attorney.
WC 30	Quorum for acts of the Court of Appeals.
WC 31	Hearings on appeal.
WC 32	Reargument on appeal.
WC 33	Petitions to vacate awards or orders, and for rehearings.
WC 34	Dilatory prosecutions of appeals.
WC 35	Writ of certiorari.

CHAPTER ONE: ApDiv 1-8

CONDITIONS AND TRAINING STANDARDS FOR APPROVAL OF APPRENTICESHIP PROGRAMS AND AGREEMENTS

ApDiv 1 The procedure for establishing an occupation as apprenticeable shall be as follows:

The proposed occupation shall be presented to the Director of Apprenticeship in duplicate and should include a detailed job process for the occupation showing the total amount of time of training, amount of time to be spent in each individual category of training, percentage of journeyman's wage rate to be paid the apprentice, graduated schedule of wage increases and the journeyman's wage rate for the proposed occupation.

ApDiv 2 The minimum training standards to be met shall be the established joint apprenticeship committee standards for the particular trade in a given occupational area. In the event no joint apprenticeship committee standards have been established, the approved Minnesota minimum standards shall be used.

ApDiv 3 The minimum inclusions for coverage in apprenticeship standards shall be the approved Minnesota minimum standards. (APPENDIX A)

ApDiv 4 The apprenticeship agreement may be canceled by the Director of Apprenticeship for failure to comply with related training requirements.

ApDiv 5 All standards and agreements shall be submitted to the Division of Apprenticeship for approval.

ApDiv 6 It shall be the sponsors obligation to:

- (1) Prepare standards for submission to the Division of Apprenticeship.
- (2) Prepare apprenticeship agreements. All sponsors shall use the State of Minnesota Approved Apprenticeship Agreement form.
- (3) All programs operating under a committee shall in its standards provide for a tie breaking procedure so it will be able to reach a majority decision.
- (4) Submit two copies of a safety program providing for a minimum of 50 hours per year for safety training of apprentices. Any request for variance from this regulation must be presented in writing and approved by the Minnesota Apprenticeship Advisory Council.

ApDiv 7-8 Reserved for future use

CHAPTER TWO: ApDiv 9-12**PROCEDURES FOR ISSUANCE OF CERTIFICATE OF REGISTRATION
TO SPONSORS OF APPROVED PROGRAMS**

ApDiv 9 Requirements of program sponsors under the Minnesota Plan for Equal Employment Opportunity in Apprenticeship and Title 29 C.F.R. Part 30 are as follows:

- (a) Programs with fewer than five apprentices shall submit the following:
 - (1) Two copies of proposed standards.
 - (2) Include in its standards the approved equal opportunity pledge.
- (b) Programs with five or more apprentices shall submit the following:
 - (1) Two copies of proposed standards.
 - (2) Include in its standards the approved equal opportunity pledge.
 - (3) A written affirmative action plan.
 - (4) Adopt one of the following four approved selection procedures under the Minnesota Plan for Equal Employment in Apprenticeship:
 - (aa) Selection on basis of rank from pool of eligible applicants.
 - (bb) Random selection from pool of eligible applicants.
 - (cc) Selection from pool of current employees.
 - (dd) Alternative selection methods.

ApDiv 10-12 Reserved for future use

CHAPTER THREE: ApDiv 13-19**PROCEDURES FOR INVESTIGATIONS AND DETERMINATIONS
UNDER THE EQUAL EMPLOYMENT OPPORTUNITY PROVISIONS**

ApDiv 13 Any apprentice or applicant for apprenticeship who believes that he has been discriminated against on the basis of race, color, religion, national origin or sex with regard to apprenticeship or that the equal opportunity standards in respect to his selection have not been followed in the operation of an apprenticeship program may file a complaint. The complaint shall be in writing and shall be signed by the complainant. It must include the name, address, and telephone number of the person allegedly discriminated against, the program sponsor involved, and a description of the circumstances of the failure to apply the equal opportunity standards.

ApDiv 14 The complaint must be filed no later than 90 days from the date of the alleged discrimination.

ApDiv 15 In the case of review boards designated by program sponsors to review such complaints, the referral of such complaint by the complainant to the agency must occur within 90 days or 30 days after the final decision of such review board, whichever is later.

ApDiv 16 Where no review board exists, the apprenticeship agency may conduct such compliance reviews as found necessary in order to make a determination of facts relating to compliance with the equal employment opportunity plan.

ApDiv 17 The apprenticeship agency may, as a result of a compliance review or other reason, deregister the program or refer the matter to the U. S. Attorney General with recommendations for the institution of a court action under Title 7 of the Civil Rights Act of 1964.

ApDiv 18-19 Reserved for future use

CHAPTER FOUR: ApDiv 20-23

PROCEDURE FOR APPRENTICE WAGE DETERMINATIONS

ApDiv 20 Determination of the graduated schedule of wages for an apprenticeship agreement shall be determined by the percentage rate used in the majority of individual apprenticeship agreements on file with the apprenticeship agency in any particular trade. The beginning rate shall not be less than the Federal or State minimum rate, whichever is higher.

ApDiv 21 The journeyman wage rate for apprenticeship agreements where no bargaining agreement exists shall be determined by counties for all trades and for the building construction trades, consideration shall be given to the current established so-called Federal Davis-Bacon rate for that county, wage determinations that have been established under Minn. Laws 1973, Ch. 724, and existing apprenticeship rates on file in the Minnesota Division of Apprenticeship at St. Paul, Minnesota.

ApDiv 22 The only exceptions to this rule shall be programs in penal institutions including stipends paid by the Department of Corrections.

ApDiv 23 Reserved for future use

CHAPTER FIVE: ApDiv 24-25

RULES FOR PROCEDURE FOR APPRENTICESHIP COMMITTEE OPERATION

ApDiv 24 Adoption of apprenticeship committee rules or changes shall be submitted to the Director of Apprenticeship in writing for approval. Legal authority for adoption of rules and for the Director to approve rules will be determined by the Attorney General's office.

ApDiv 25 Reserved for future use

CHAPTER SIX: ApDiv 26-28

PROCEDURES FOR ISSUANCE OF APPRENTICESHIP COMPLETION CERTIFICATE

ApDiv 26 The completion certificate shall be the standard approved state certificate. This certificate shall be signed by the chairman of the State Apprenticeship Advisory Council, the Commissioner of Labor and Industry,

Director of Apprenticeship, a representative of the local joint apprenticeship committee, the employer, and representative from the union if a bargaining agreement exists. In the case of specialty trades where a state license is required, there shall be a signature from such licensing body.

ApDiv 27 Before any certificate of completion is issued, the Division of Apprenticeship must receive a request in writing from the sponsor.

ApDiv 28 Reserved for future use

CHAPTER SEVEN: ApDiv 29-33

RECORD MAINTENANCE

ApDiv 29 Minnesota Apprenticeship Advisory Council business and records shall be kept by the Division of Apprenticeship for the Council.

ApDiv 30 Sponsors shall keep and maintain records of progress as required by the Division of Apprenticeship on record cards furnished by the sponsor or standard progress record cards furnished by the state, on an ongoing basis from the start to the completion of an apprenticeship. These progress records shall be kept on the sponsor's premises and shall be accessible to all authorized personnel of the Minnesota Division of Apprenticeship. The definition of sponsor shall be the employer, association of employers, organization of employees, apprenticeship co-ordinator or individual representing the joint apprenticeship committee. The Division of Apprenticeship shall be notified of the current address where records shall be kept and the person responsible for same.

ApDiv 31 Under the State of Minnesota Plan for Equal Employment Opportunity in Apprenticeship, it shall be the obligation of the sponsor to keep records as required by the Division of Apprenticeship pertaining to individual applicants for apprenticeship whether selected or rejected for five years and be made available upon request to authorized personnel of the Minnesota Division of Apprenticeship. These records pertaining to applicants shall be maintained in such a manner as to permit identification of minority participants.

ApDiv 32-33 Reserved for future use

CHAPTER EIGHT: ApDiv 34-36

PROCEDURE FOR TERMINATION OR TRANSFER OF APPRENTICESHIP AGREEMENTS

ApDiv 34 The Division of Apprenticeship shall be notified in writing by the sponsor of all terminations, cancellations, or transfer of apprenticeship agreements.

ApDiv 35 All terminations, cancellations, and transfers shall be approved by the Director of Apprenticeship. The Director shall notify the sponsor and all other concerned parties in writing. Any decision to terminate, cancel or transfer an agreement by the Director may be appealed under the Voluntary Apprenticeship Law, Section 178.09.

ApDiv 36 Reserved for future use

APPENDIX A**MINNESOTA MINIMUM
STANDARDS OF APPRENTICESHIP****for**_____
(Name of Sponsor)_____
(Address of Sponsor)_____
for occupation(s) of
_____**INDEX**

1. Definitions
2. Policy
3. Qualifications of apprentices
4. Apprenticeship agreement
5. Term of Apprenticeship
6. Credit for previous experience
7. Probation period
8. Responsibilities of the apprentice
9. Supervision of apprentices
10. Schedules of work process and wage schedule
11. Related instruction
12. Hours of work
13. Certificate of completion of apprenticeship
14. Modifications
15. Compliance with the Minnesota Plan for equal employment opportunity in apprenticeship

1. DEFINITIONS

- A. The "Employer" shall mean the apprenticeship sponsor as named above. (Employer, apprenticeship committee, association of employers, or organization of employees.)
- B. "Approval Agency" or "Registration Agency" shall mean the Minnesota Apprenticeship Council.
- C. "Apprenticeship Agreement" shall mean a written agreement (VAL Form #1) between the employer and the apprentice and (if the apprentice is a minor) his or her parent or guardian, and approved by the approval agency. (VAL Form #1 may be obtained from the Minnesota Division of Apprenticeship, Department of Labor and Industry, St. Paul, Minnesota.)

- D. "Apprentice" shall mean a person at least 16 years of age who has entered into an apprenticeship agreement with an employer, which apprenticeship agreement provides for not less than 4000 hours of reasonably continuous employment for such persons and for his or her participation in an approved program of training through employment and through education in related and supplemental subjects.
- E. "Supervisor of Apprentices" shall mean the individual designated by the employer to perform the duties described in section 9 herein.
- F. "Standards" shall mean these entire standards of apprenticeship including these definitions.

2. POLICY

It shall be the policy of the employer:

- A. That all apprentices employed in a trade covered herein shall be governed by the terms of these standards and by the provisions of the Minnesota Voluntary Apprenticeship law.
- B. That the recruitment, selection, employment, and training of apprentices during their apprenticeship, shall be without discrimination because of race, color, religion, national origin, or sex. The employer will take affirmative action to provide equal opportunity in apprenticeship and will operate the apprenticeship program as required under Title 29 of the Code of Federal Regulations, Part 30, and under the Minnesota Plan for Equal Employment Opportunity in Apprenticeship.

3. QUALIFICATIONS OF APPRENTICES

Applicants for apprenticeship must be at least 16 years of age and must be physically qualified to perform the manual work of the trade. Veterans may be given special consideration if otherwise qualified.

4. APPRENTICESHIP AGREEMENT

The apprentice (and if a minor, his or her parent or guardian) shall sign the properly filled out apprenticeship agreement, which agreement shall also be signed by the employer and submitted for approval to the approval agency. The apprenticeship agreement shall contain a clause making these standards a part of said agreement.

The approval agency shall furnish approved copies of said agreement to:

- 1. The Apprentice
- 2. The Employer
- 3. Other interested organizations or agencies as required.

5. TERM OF APPRENTICESHIP

The term of apprenticeship shall be designated in hours, months, or years for the individual trades included in these standards. For each trade to be so included, a job process schedule including the total training term applicable thereto shall be attached to these standards as Appendix.

6. CREDIT FOR PREVIOUS EXPERIENCE

Credit may be awarded for previous experience and/or training that is applicable to training program requirements. If credit is awarded, the apprentice shall be advanced in the graduated wage schedule accordingly.

7. PROBATIONARY PERIOD

An apprentice under these standards shall be subject to a probationary period of not more than 500 hours of employment and instruction extending over not more than 4 months. During such period the apprenticeship agreement shall be terminated by the Director of Apprenticeship at the request in writing of either party, and providing that after such probationary period the apprenticeship agreement may be terminated by the director by mutual agreement of all parties thereto, or cancelled by the director for good and sufficient reason.

8. RESPONSIBILITIES OF THE APPRENTICE

Each apprentice employed under these standards agrees to be punctual and regular in attendance, and to endeavor to the best of his or her ability to perfect the required skills in the chosen craft.

9. SUPERVISION OF APPRENTICES

The employer shall designate a qualified individual as supervisor of apprentices who shall:

- a. Maintain an adequate record of progress in training each apprentice.
- b. Be responsible for assuring that the requirements of the applicable training program are met during the prescribed training term.
- c. Perform such other duties as may be assigned by the employer relative to the development and operation of an effective program of apprenticeship.

10. SCHEDULE OF WORK PROCESSES AND WAGE SCHEDULE

A. The apprentice shall be given work experience and instruction according to the applicable job processes schedule (Appendix A attached).

B. Training experience need not be in the exact order as listed in the schedule. 80% adherence to the schedule shall be considered adequate provided the full training term is accounted for.

C. The job process schedule shall provide for a minimum of 50 hours per year of training in safe work practices.

D. For each job title there should be a minimum graduated wage schedule as follows: (May be in percentages of journeyman wage or a rate per hour)

_____ months-hours _____ % _____ c	_____ months-hours _____ % _____ c
_____ months-hours _____ % _____ c	_____ months-hours _____ % _____ c
_____ months-hours _____ % _____ c	_____ months-hours _____ % _____ c
_____ months-hours _____ % _____ c	_____ months-hours _____ % _____ c
_____ months-hours _____ % _____ c	_____ months-hours _____ % _____ c

Journeyman wage rate on _____ was _____.

11. RELATED INSTRUCTION

During each year of the apprenticeship term, a minimum of 144 hours of related instruction is required. Failure on the part of the apprentice to fulfill his or her related instruction requirement shall be sufficient cause for cancellation of the apprenticeship agreement.

12. HOURS OF WORK

Working hours for apprentices shall be the same as for journeymen in the trade. Time spent in related instruction shall not be considered as hours of work as required by the job process schedule.

13. CERTIFICATE OF COMPLETION OF APPRENTICESHIP

Upon successful completion of the apprenticeship term and related training requirements, and upon appropriate recommendation by the employer, the approval agency shall issue to the apprentice a Certificate of Completion of Apprenticeship.

14. MODIFICATIONS

- A. Details of this program may be modified from time to time subject to approval by the approval agency.
- B. Any such modification shall not, at the time of modification, affect apprenticeship agreements then in effect without the consent of the parties to the agreement.
- C. The employer may withdraw from the program by submitting a written request to the approval agency.
- D. The approval agency may cancel the standards of apprenticeship for good and sufficient reason.

15. COMPLIANCE WITH THE MINNESOTA PLAN FOR EQUAL EMPLOYMENT OPPORTUNITY IN APPRENTICESHIP

- A. The provisions of the subject plan, as may be amended shall apply to the employer or sponsor named in these standards of apprenticeship.
- B. Additional material and information as may be required (Sec. III of the subject plan) shall be attached to these Standards of Apprenticeship as Appendix B, and shall be considered a part thereof subject to approval by the approval agency.

Signature of Sponsor

_____	_____
Title	Date

Approved by the Minnesota Apprenticeship Council

_____	_____
Secretary	Date

CHAPTER ONE: BLI 1-20

LICENSES

Bli 1 Experience Required

Any person desiring to take an examination for a license as a steam engineer or pilot shall make written application therefor under oath, on blanks furnished by the boiler inspector. The application shall be accompanied by a corroborating affidavit of at least one employer or a steam engineer possessing not less than a second class engineer's license, or pilot, as the case may be, certifying to the applicant's experience as stated in his application. If such affidavits are not obtainable, satisfactory evidence of the applicant's experience must be furnished.

Bli 2 Fees

The fee for the examination for an engineer's license shall be: Chief engineer, \$16.00; first-class, \$11.00; second-class, \$11.00; special, \$5.00; and for a license as a pilot, \$5.00. These fees shall also apply to all sub-classes of licenses named in Section 183.51 (1) M.S., which come within these respective classes.

Bli 3 Expiration, renewals

(a) All licenses for engineers and pilots, unless sooner revoked, shall be for a period of one (1) year from the date of issuance, with privilege of renewal without examination upon application therefor to 444 Lafayette Road, 5th floor, and payment of a fee not later than ten (10) consecutive days after the expiration of such license. The renewal license shall be given a consecutive issue number and the same monthly date as the original issue. Applications for renewal shall not be presented prior to thirty (30) days of the expiration date of the license. Engineers who fail to renew their licenses within the ten days of grace herein provided for shall be subject to the following section (b) or (c).

(b) Licenses which have expired less than five years prior to date of application for renewal may be renewed without the necessity of an examination upon filing an application therefor, accompanied by the fee required in rule 2. Applications shall be marked expired renewal and do not have to be signed.

(c) Licenses which have expired five (5) years or more prior to the date of application for renewal may be renewed by filing an application therefor, accompanied by the fee required by rule 2 and passing an examination.

Bli 4 Supervision required for boiler operation

No person shall have charge of as engineer or operate any steam boiler plant who does not possess a license of the class required to operate such steam boiler plant.

Bli 5 Examinations, Requisites for

(a) The examination questions shall be prepared by the chief or deputy chief of the Division of Boiler Inspection. All examinations shall be written unless the applicant is unable to write, in which case the examination may be oral, provided a written record of the same is made, and examination papers shall be kept on file for a period of at least one (1) year.

(b) No license of the class applied for shall be granted to any applicant who fails to obtain a grade of 75 percent in an examination therefor, nor shall any other class be granted.

(c) Applicants who fail to pass an examination shall not be eligible to take another examination for the same class of license within the following periods thereafter: Special thirty-horsepower engineer's (third class) or pilot's license, thirty (30) days; first and second class license, sixty (60) days; chief's license, ninety (90) days.

(d) Failure of an applicant to obtain a passing mark shall not affect the status of any license previously granted to him, but the fee paid for such examination shall not be refunded.

(e) Any deliberate false statement in an application, or in any affidavit presented in connection therewith, shall render the license issued thereon void.

Bli 6 In case of loss or destruction

Upon presentation of a statement of fact showing that a license has been lost, destroyed, or not received, a substitute license may be issued by the chief of the Division of Boiler Inspection without cost to the licensee. The chief may require the presentation to be by affidavit if he deems the circumstances warrant it.

Bli 7 Complaint Procedure

Upon the filing of a complaint in writing in the office of the commission by a boiler inspector charging the holder of a license of any grade with failing to use ordinary care or precaution in the operation of any boiler or pressure vessel, or being habitually under the influence of intoxicating liquor while on duty, or conducting himself in such a manner while on duty as to endanger life, limb or property, the chief of the Division of Boiler Inspection shall make such inquiry or investigation as he deems necessary. If after such inquiry or investigation the chief of the Division of Boiler Inspection believes that the holder of the license should be penalized for the alleged misconduct, he shall so report to the commission. Upon receipt of the report of the chief of the Division of Boiler Inspection the commission shall issue a written order upon the party accused of such misconduct to show cause why the license issued to him should not be suspended or revoked and canceled. Such order to show cause shall be served by registered mail. It shall state the nature of the charges made against the licensee and shall be noticed for hearing as may be ordered by the commission at a stated

time and place within five days after the date of its service or as soon thereafter as possible. A copy of the order shall also be mailed to the employer or owner of the boiler or pressure vessel. The commission may, in its discretion, continue such hearing for the purpose of taking such testimony as any affected party may desire to submit. At such hearing the accused may be represented by counsel if he desires. When the matter has been fully presented the commission shall draw such findings of fact and make such order or determination as all the facts and circumstances warrant. Such findings of fact and order shall be served by mail on the interested parties. When complaint is made to the chief of the Division of Boiler Inspection by anyone other than a district or a deputy boiler inspector charging the holder of a license with such misconduct as to endanger life, limb or property, such complaint shall be in affidavit form, detail the nature of the complaint, name the witnesses the complainant will produce to substantiate the complaint, and give a brief summary of the testimony that will be submitted. The procedure to be followed thereafter will be the same as with the complaints filed by district or deputy boiler inspectors.

Bli 8 Must be displayed

Licenses granted shall be placed in a glassed frame and be displayed in a conspicuous place in the engine or boiler room, or pilot's station.

Bli 9 Boiler Horsepower Rating

Inspectors, in rating the boiler horsepower of a plant, shall use the manufacturer's normal boiler horsepower of each boiler and compute the total horsepower as that of the combined horsepower of all boilers connected with the header, whether all such boilers are in use or not. If the manufacturer's rating cannot be found, ten (10) square feet of heating surface (fire side of tube) shall be considered equivalent to one boiler horsepower. It shall be the duty of all boiler inspectors, including those employed by the insurance companies, to promptly report to the chief of the Division of Boiler Inspection any plant in which the engineer has no license or his license is of a lower class than that required by law for the horsepower of said plant.

Bli 10 Absence from plant

A shift engineer in a high pressure boiler plant of 150 boiler horsepower or more in operation shall not leave said plant for more than 15 minutes at any one time or be more than 200 feet away therefrom without leaving on duty an engineer with a licensee not lower than one grade below that required for the shift engineer.

Bli 11 Insurance Company Inspectors

(a) Inspectors in the employ of the insurance companies shall possess a chief engineer's license or a certificate of competency from the National Board of Boiler and Pressure Vessel Inspectors, and shall place on inspection reports the serial number of their license or certificate.

(b) State or insurance company boiler inspectors seeking a license as authorized shop inspectors on new construction of steam boilers and/or pressure vessels shall qualify by passing a written examination prepared by the National Board of Boiler and Pressure Vessel Inspectors. Such examinations shall be held at St. Paul, Minnesota, by the Division of Boiler Inspection at such times as it may prescribe. Applicants so qualifying shall be given a National Board of Boiler and Pressure Vessel Inspectors' commission serial number, which serial number shall be registered in the office of the chief of the Division of Boiler Inspection. Inspectors having National Board of Boiler and Pressure Vessel Inspectors' commissions obtained in other states shall be registered without another examination.

Bli 12 Railroad Locomotives, Operators of

(a) Operators of railroad locomotives which are utilized for such stationary purpose as generating steam for power or heating are required to have the proper class of engineer licenses issued by the Division of Boiler Inspection.

(b) Operators of railroad locomotives engaged in intrastate or interstate commerce and operators of boilers in private residences and dwellings of not more than four families are not required to possess engineers' licenses issued by the Division of Boiler Inspection.

Bli 13 License Suspension, revocation

Failure of any licensee to comply with any of the foregoing regulations shall constitute grounds for suspending the offending engineer's license for from ten (10) to thirty (30) days, and for repeated or grave offenses an engineer's license may be revoked.

Bli 14 - 20 Reserved for future use

CHAPTER TWO: BLI 20-50

INSPECTIONS

Bli 21 A.S.M.E., National Board Standards, Rules

(a) The engineering standards of boiler and unfired pressure vessels safety shall be that established by the current edition, and current published revisions and interpretations, of the construction codes of the American Society of Mechanical Engineers, which are hereby adopted, included and made a part of these rules and regulations.

(b) The National Board of Boiler and Pressure Vessel Inspectors recommended rules for repairs of power boilers and unfired pressure vessels by riveting and fusion welding are hereby adopted, included and made a part of these rules and regulations.

Bli 22 Boilers, pressure vessels must be stamped

Every boiler or pressure vessel for use in this State shall conform in every detail to the Boiler and Pressure Vessel Laws of the State and rules and regulations adopted by the Department of Labor and Industry, and when correctly constructed in accordance therewith shall be stamped with the respective A.S.M.E. code symbol, or the National Board symbol (NB) or Minnesota Special (MINN. SPC) as the case may be, by an inspector holding a National Board Commission. The chief of the Division of Boiler Inspection may, at the request of the manufacturer, designate any inspector possessing the qualifications required by rule 21 to make the requested shop inspection, for which the manufacturer shall pay the statutory fee, plus cost of transportation and subsistence as established by the Department of Administration.

Bli 23 Appurtenances, piping, tests

(a) The authorized boiler inspector shall inspect all steam boilers, or generators, fired or unfired pressure vessels, appurtenances connected thereto for their safe operation and all pressure piping connecting them to the appurtenances and all piping up to the first stop valve, or the second valve when two are required. They shall be properly prepared for inspection and the inspector given at least 48 hours notice before the time set for the inspection.

(b) Any pressure piping to steam boiler, generator, or pressure vessel appurtenances such as water column, blowoff valve, feedwater regulator, superheater, economizer, stop valves, etc., which are to be shipped connected to the steam boiler, generator or pressure vessel as a unit, shall be hydrostatically tested with the steam boiler, generator or pressure vessel, by an authorized inspector, and if approved so noted on the data sheet.

Bli 24 Exemptions

Boilers and pressure vessels under the direct jurisdiction of the United States government, those insured which have a current state exemption

certificate posted on or near them, those in private residences and dwellings of not more than four families, and railroad locomotives used in intrastate or interstate commerce, pressure vessels used for storage of air, gas or liquid and gas, having an internal or external pressure of 15 pounds or less per square inch, irrespective of size, or five cubic foot capacity or less for pressures not exceeding 30 pounds per square inch, headers or enlargement of a pipe the cross-sectional area of which is not greater than four times the combined area of the inlets, shall be exempt from State inspection. Locomotives used for plant or industrial transportation, stationary power or heating shall be subject to inspection by the State.

Bli 25 Safety Factor

Before the transfer of the title to a used boiler or pressure vessel and its future use in another location, the owner thereof shall cause the same to be inspected by the state (or insurance company) boiler inspector, and in computing its safe working pressure the inspector shall use a safety factor of at least six on non-code boilers and pressure vessels having a butt strap joint and at least seven on lap seam or welded joint.

Bli 26 Low Water Devices

(a) After one year from the adoption of this rule all automatically fired low-pressure steam boilers must be equipped with low-water cut-outs or low-water alarm devices. This rule is not retroactive. It applies to new installations only made after October 26, 1945.

(b) A heating plant is a heating system in which heat is transferred from the boiler to the heating units by means of steam at, above or below atmospheric pressure of 15 pounds per square inch.

Bli 27 Reporting Repairs

The owner or person in charge of a steam boiler, generator or pressure vessel shall notify the boiler inspector of each major repair or alteration made thereto, and the inspector shall then compute the safe working pressure by virtue of said repair or alteration. In the event the boiler is insured, the owner or person in charge thereof shall notify the insurer.

Bli 28 Repairs by inspectors prohibited, exception

Boiler inspectors shall not make any of the repairs they order to boilers. If, however, no competent mechanic is available in the locality in which the boiler is located, the chief of the Division of Boiler Inspection may grant permission to the inspector to make emergency or minor repairs.

Bli 29 Sealing when unsafe

If an inspection of a boiler or pressure vessel shows it to be in an unsafe condition, the inspector shall seal it against further use until the repairs necessary to make it safe for use are made. The owner or user may appeal to the chief of the Division of Boiler Inspection, who shall immediately investigate and either confirm, modify or rescind said order of repair. The owner or user may, upon written request, be granted a hearing before the Commissioner, where he shall have an opportunity to appear and show cause why he should not comply with the decision of the chief of the Division of Boiler Inspection. The Commissioner shall confirm, modify or rescind all orders issued, or may make such requirements as he deems necessary for repairs to be made to correct the unsafe condition. The chief of the Division of Boiler Inspection may in his discretion allow the boiler or pressure vessel to remain in use pending disposition of the appeal.

Bli 30 Sales by inspectors prohibited

Boiler inspectors shall not sell, nor be interested in the sale directly or indirectly of articles or accessories used in the maintenance of boilers and steam machinery, to the owners of the boilers or pressure vessels which they inspect.

Bli 31 Enforcement Procedure

Boiler inspectors shall at all times extend courteous treatment to those whom they serve and to the public, and make special effort to avoid controversy by referring disputes to the office of the chief of the Division of Boiler Inspection. Inspectors shall not commence any legal proceedings relating to the enforcement of boiler, license or inspection laws prior to submitting the matter to the chief of the Division of Boiler Inspection; nor shall they divulge to any person their personal opinions of findings pertaining to their duties as inspectors or disclose to the public any matter of a private nature in the possession of the division.

Bli 32 Insured Coverage Report

Every insurance company insuring a boiler or pressure vessel shall notify the chief of the Division of Boiler Inspection in writing immediately of such coverage. It shall also mail a duplicate of such notification to the assured, who shall, until receipt of exemption certificate, post such notice in a conspicuous place near the boiler or pressure vessel. The person, firm or corporation operating the insured boiler or pressure vessel shall procure and post an exemption certificate within a period of sixty (60) days from the date of coverage, and keep same posted in a conspicuous place near the insured object. If such certificate is not posted within said sixty (60) days from date of coverage the boiler inspector shall make the usual and customary inspection of such boiler or pressure vessel and charge the statutory fee therefor.

Bli 33 Appeals

Any person aggrieved by any action or decision of a boiler inspector may appeal therefrom to the chief of the Division of Boiler Inspection by filing

written notice of such appeal with that officer, who, after notice and hearing, may affirm, modify or rescind such action or decision. The parties affected by any action or decision of the chief of the Division of Boiler Inspection may appeal therefrom to the Department of Labor and Industry.

Bli 34 Grounds of Suspension, dismissal

The failure of any inspector to comply with any of the foregoing regulations may constitute sufficient grounds for the temporary suspension of such inspector; repeated neglect to comply with same shall be sufficient grounds for dismissal from the service.

Bli 35 General Provisions

(a) The blowdown from a boiler or boilers that enters a sanitary sewer system or blowdown which is considered a hazard to life or property shall pass through some form of blowoff equipment that will reduce pressure and temperature as required hereinafter. The temperature of the water leaving the blowoff equipment shall not exceed 150 degrees Fahrenheit. The pressure of the blowdown leaving any type of blowoff equipment shall not exceed 5 pounds per square inch gage. If this pressure is exceeded additional vent area shall be provided. If during the blowdown the water seal level cannot be maintained, the water outlet line shall be reduced one pipe size. The rules of this section are not intended to apply to boiler blowoff tanks which are connected to boilers that operate at 400 pounds per square inch or over.

(b) A boiler blowoff tank shall be designed and correctly fabricated in accordance with the A.S.M.E. Unfired Pressure Vessel Code for at least 25 per cent of the safe working pressure of the boilers to which it is connected, but in no case need a tank be constructed for a working pressure more than 100 pounds per square inch. The minimum thickness of the shell plate and heads shall be 3/8 inch, and shall be of a volume equal to at least twice the volume of water removed from the boiler when the normal water level is reduced not less than four inches.

(c) The water outlet connection shall be connected to the tank so that the tank will remain half full of water after each blowdown, and this vertical leg shall extend to within six inches of the bottom of the tank and the top of this water seal shall also have a 3/4 inch opening to act as a syphon breaker.

(d) The size opening of the blowoff line inlet, water outlet and vent shall have an area ratio of at least 1:15 (to the nearest pipe size. Table 1 gives ratio of openings).

(e) The inlet shall enter the shell at a tangent and shall be above the surface of the water in the tank. A wearing plate of steel of the same thickness as the shell shall be attached to the inside of the shell opposite the inlet opening.

(f) The vent pipe shall be connected to the uppermost part of the tank and carried without any intervening stop valve or other obstruction as direct as possible to the outside atmosphere. It shall discharge at a point of safety not less than seven feet above adjacent areas or walkways.

(g) The tank shall have a suitable access opening, a manhole if practical; if not possible, then handholes, for inspection and cleaning of the interior. All pipe connections shall be made as direct as possible and shall be equipped, where practical, with sweep bends having a radius of at least four times the diameter of the pipe. Where conditions make the use of sweep bends prohibitive, long sweep fittings may be used. If couplings are welded in the openings they shall be extra heavy.

(h) The tank shall be fitted with a drain connection which is at least 2½ inch standard pipe size and with a cold water supply which is at least one inch pipe size. The drain line should contain fittings to facilitate cleaning.

(i) The tank shall be provided with supporting legs which shall give a distance of at least 12 inches from the bottom of the tank to the floor. Blowoff tanks placed under ground shall be installed in a properly walled pit having space of not less than 18 inches between the tank and the wall.

(j) The tank shall be fitted with a pressure gage graduated from 0 to 30 pounds, the minor graduations indicating a pressure not greater than one pound. The pressure gage shall be connected to a siphon, the opening of which shall be at least 1/4 inch inside diameter.

(k) The tank shall be fitted with a water gage glass of at least 1/2 inch diameter. The lower connection to the glass shall be made at a point about four inches below the water line and the upper connection about six inches above the water line.

(l) The tank shall be fitted with an opening for a thermometer well, located close to the water outlet connection and in contact with the water in the tank. If the outlet is not fitted with a water cooling device, the retained water shall be reduced to at least room temperature before blowing down a boiler.

(m) Blowdown centrifugal separator, closed and other types of blowoff tanks are permissible when approved by the chief of the Division of Boiler Inspection.

TABLE NO. 1

Boiler Blowoff Inlet	Water Outlet	Vent
*3/4	3/4	2
1	1	2½
1¼	1¼	3
2	2	5
2½	2½	6

**To be used only with boilers of 100 square feet of heating surface or less.*

Bli 36 - 50 Reserved for future use

CHAPTER THREE: BLI 51-70

RULES FOR THE NAVIGATION OF POWER BOATS ON THE INLAND WATERS OF MINNESOTA

Bli 51 Definitions

"Boat" means any vessel navigating inland waters of the state, propelled by machinery, carrying passengers or cargo for hire and operated by a licensed pilot. The following regulations shall be followed by vessels navigating the lakes and rivers of Minnesota. A vessel is "under way" within the meaning of these rules when it is not at anchor, or made fast to the shore, or ground. The word "visible" in these rules, when applied to lights, shall mean visible on a dark night with a clear atmosphere. An approved life preserver shall be either: A vest-like article with straps and buckles attached thereto that will fit around the body directly below the arms so as to keep the upper part of the person above water; or a cushion with at least two straps attached thereto. Both of these shall be made of kapok or cork and shall be designed to keep a dead weight of 20 pounds afloat for at least 24 hours. The materials used must comply with the United States Coast Guard specifications.

Bli 52 Lights

The rules concerning lights shall be complied with in all weathers from sunset to sunrise, and during such time no other lights which may be mistaken for the prescribed lights shall be exhibited. If operated between sunset and sunrise, a vessel shall be equipped with a green light on the starboard side and a red light on the port side of the bow of the boat and shielded so they cannot be seen across the bow, and a white stern light visible from any angle within 360°. Such boats shall have ready a lantern or flash light which shall be temporarily exhibited in sufficient time to avoid collision.

Bli 53 Course, Speed

When two vessels are crossing, so as to involve risk of collision, the vessel which has the other on its own starboard side shall keep out of the way of the other. When a machinery driven vessel and a sailing vessel or rowing boat are proceeding in such direction as to involve risk of collision, the power driven vessel shall keep out of the way of the sailing vessel or rowing boat. Where, by any of these rules, one of the two vessels is to keep out of the way, the other vessel shall keep its course and speed. Every vessel which is directed by these rules to keep out of the way of another vessel shall, if possible, avoid crossing ahead of the other. Every vessel which is directed by these rules to keep out of the way of another vessel shall, on approaching it, if necessary, slacken its speed or reverse or stop.

Power vessels, when under way, shall keep a safe distance from rowing or other small boats.

Bli 54 Narrow Channels

In narrow channels every vessel shall, when it is safe and practical, keep to that side of the fairway or mid-channel which lies on the starboard side of such vessel. Sailing vessels or power boats shall keep out of the way of boats fishing with nets or lines. This rule shall not give to any vessel or boat the right of obstructing a fairway or channel used by vessels other than fishing vessels or boats.

Bli 55 Equipment

When in use, every vessel subject to these rules shall carry oars or pole, an anchor, a fire extinguisher and at least one approved life preserver for each passenger.

Bli 56 Approaching Dock

All power boats must slow down at least two hundred feet from dock or landing place. When about to land, the boat must head straight in, against the wind if possible, and if practicable avoid curving or circling into landing place.

Bli 57 Reports of Damage

Pilots of motor boats shall report in writing to the office of the chief of the Division of Boiler Inspection any accident causing damage in excess of \$100.00. They shall also promptly report any other pilot who does not properly discharge the duties of a pilot and any person who flashes a light into the face of a pilot or otherwise commits an act that endangers the safety of a motor boat.

Bli 58 Towing Row Boats

Every owner or lessee of a sailing or power vessel carrying passengers for hire which tows trailer row boats shall see that the row boats towed are provided with oars, even when they are equipped with outboard motors.

Bli 59 Engine Mufflers

Vessels propelled by an internal combustion engine shall at all times be so equipped as to completely and effectually "muffle" the sound of such engine by diverting its exhaust under water, or otherwise. Every vessel subject to these rules may be operated with mufflers or cut-outs while actually competing in any race licensed to be held by the council or other governing body of the city, village, or town adjacent or nearest to that portion of the body of water on which such race is to be held.

Bli 60 Constructing Rules

In obeying and constructing these rules due regard shall be had to all dangers of navigation and collision, and to any special circumstances which may render a departure from the above rules necessary in order to avoid immediate danger.

Bli 61 Consequences of Neglect

Nothing in these rules shall exonerate any vessel, or the owner or pilot or crew thereof, from the consequences of any neglect to keep proper lookout, or of the neglect of any precaution which may be required by the ordinary practice of good navigation, or by special circumstances of the case.

Bli 62 Passenger Capacity

The capacity of all steam and gasoline vessels not otherwise provided for shall be determined by the following rules, to-wit: Multiply the length (in feet), the breadth of the planking or plating, and the depth inside at the place of minimum depth. The product of these dimensions multiplied by .6, excluding fractional part of such product, shall be deemed the capacity of cubic feet. To determine the number of persons a boat is permitted to carry on the inland waters of this state, divide such product by eight and drop any resulting fraction.

Example: The carrying capacity of a boat 18 feet in length, 5½ feet in breadth, and 2¼ feet in depth shall be determined as follows:

$$18 \times 5\frac{1}{2} \times 2\frac{1}{4} \times .6 = 134 = 16 \text{ persons}$$

8 8

Then estimate the weight of all equipment and machinery and divide by 150. To this quotient add one and subtract this sum from the number secured by above formula.

Example: Weight of equipment and machinery, 450 lbs.

$$450 \div 150 = 3 + 1 = 4$$

$$16 - 4 = 12 \text{ passengers}$$

Bli 63-70 Reserved for future use

CHAPTER FOUR: BLI 71-90

APPENDIX - BOILER SAFETY

Bli 71 Blow-off Tanks

Suggested sizes of blow-off tanks are given in the following table:

Up to 3 HP pipe not to exceed 18" in diameter has been used, provided the volume of the water seal is at least equal to 1 gauge of water of the boiler to which it is connected and vapor space at least 50 per cent of the volume and boiler pressure not over 100 pounds per square inch.

Boiler Rating	Tank Size
3 to 10 H.P.	24" x 36"
11 to 25 H.P.	24" x 48"
26 to 50 H.P.	30" x 36"
51 to 75 H.P.	30" x 48"
76 to 150 H.P.	36" x 54"
151 to 250 H.P.	36" x 60"
251 to 600 H.P.	42" x 66"
Over 600 H.P.	48" x 72"

Bli 72 Safety Valves

(a) Each boiler shall have at least one safety valve and if more than 500 square feet of water heating surface it shall have two or more safety valves.

(b) Every safety valve shall be connected to the boiler independent of any other steam connections, and attached as close as possible to the boiler, without any unnecessary pipe or fitting and shall stand in an upright position. No valve of any description shall be placed between the required safety valve or valves and the boiler, nor on the discharge pipe between the safety valve and the atmosphere. All safety valves shall discharge at a point of safety not less than seven feet from running boards, platforms, or adjacent areas.

Bli 73 Water Gage

(a) When the boiler operating pressure exceeds 100 psi, the watergage glass shall be fitted with a gate or plug-valved drain to the ash pit or other safe discharge point.

(b) The lowest visible part of the water gage glass shall be at least 2 inches above the lowest permissible water level, which level shall be not less than one inch above the fire surface. If the lowest water-gage shut-off valve is more than 7 feet above the floor or platform from which it is operated, the operating mechanism shall indicate by its position whether the valve is opened or closed.

Bli 74 Water Column Shutoffs

(a) When shutoffs are used in pipe connections between a boiler and water column or between a boiler and the shutoff valves required for the gage glass they shall be either out-side-screw-and-yoke or leverlifting type gate valves or stopcocks with levers permanently fastened thereto and marked in line with their passage, or such other through-flow construction as to prevent stoppage by deposits of sediment, and to indicate by the position of the operating mechanism whether they are in open or closed position; and such valves or cocks shall be locked or sealed open. Where stopcocks are used they shall be a type with the plug held in place by a guard or gland.

(b) Apparatus which does not permit the escape of an appreciable amount of steam therefrom, may be placed in the pipes connecting a water column or gage glass to a boiler.

(c) The steam and water connections to a water column, including all pipe, fittings, valves, and drains, shall be such that they are readily accessible for internal inspection and cleaning by providing a cross or fitting with a back outlet at each right-angle turn, or by using pipe bends or fittings which will permit the passage of a rotary cleaner. The water column shall be fitted with at least a 3/4 inch pipe size cock or drain with a suitable connection to the ash-pit, or other safe point of waste.

Bli 75 Steam Gage

(a) Each steam gage shall be connected to a siphon of at least 1/4 inch pipe size and be fitted with a cock provided with a tee or lever handle arranged to be parallel to the pipe in which it is located when the cock is open. If the pipe is longer than 10 feet a shutoff valve or cock arranged so that it can be locked or sealed open may be used near the boiler.

(b) The dial of the steam gage shall be graduated to approximately double the pressure at which the safety valve is set but in no case to less than 1 1/2 times this pressure.

Bli 76 Valves, fittings

(a) Valves and pipe fittings shall conform to the American Standards for the maximum allowable working pressure. Fusion welded joints are permitted if the welding procedure and operator are qualified.

(b) All valves and fittings on all feedwater piping from the boiler up to and including the first stop valve and the check valve shall be equal at least to the requirements of any standard accepted by the A.S.M.E. Code for pressure 1.25 times the maximum allowable working pressure of the boiler.

(c) All valves and fittings for feed-water piping between the required check valve and the globe or regulating valve, and including any by-pass piping up to and including the shutoff valves in the by-pass, shall be equal at least to the

saturated requirements of any standard accepted by the A.S.M.E. Code for a pressure rating equal to the expected operating pressure required to feed the boiler for a saturated steam temperature corresponding to the minimum set pressure of any safety valve on the boiler drum or the actual temperature of the water, whichever is greater.

(d) Valves and fittings made of any material permitted by the A.S.M.E. Code for pressure ratings of 125 pounds or more and marked as required by the Code may be used for feed line and blowoff service up to 80 per cent of the rated pressure.

Bli 77 Stop Valves

Each steam-discharge outlet, except safety-valve, reheater inlet and outlet, or superheater inlet connections, shall be fitted with a stop valve located at an accessible point in the steam-delivery line and as near to the boiler nozzle as convenient and practicable. When such outlets are over 2 inches pipe size, the valve or valves used on the connection shall be the outside-screw-and-yoke rising-spindle type so as to indicate at a distance by the position of its spindle whether it is closed or open. A plug-cock-type valve may be used provided the plug is held in place by a guard or gland, and it is equipped to indicate at a distance whether it is closed or open and it is equipped with a slow-opening mechanism.

Bli 78 Common main connection

When boilers are connected to a common steam main, the steam connection from each boiler having a manhole opening shall be fitted with two stop valves having an ample free-blow drain between them. The stop valves shall consist preferably of one automatic nonreturn valve (set next to the boiler) and a second valve of the outside-screw-and-yoke type; or, two valves of the outside-screw-and-yoke type shall be used.

Bli 79 Blowoff Piping

(a) Each boiler shall have a bottom blowoff pipe fitted with a valve or cock in direct connection with the lowest water space practicable.

(b) All fittings between the boiler and valves shall be of steel for pressure over 100 psi. For pressures up to 200 psi cast iron valves may be used if they meet the requirements of the American Standard for 250 pounds; and if of steel shall be equal to the requirements of the American Standards as given in the A.S.M.E. Code. For pressures over 200 psi. The valves or cocks shall be of steel and at least equal to the A.S.M.E. Code Standard.

Bli 80 Blowoff Valves

(a) On all stationary boilers, when the allowable working pressure exceeds 100 psi., each bottom blowoff pipe shall have two slow-opening valves, or one slow-opening valve and a quick-opening valve or a cock complying with the A.S.M.E. Code requirement.

(b) The bottom blowoff pipes of every traction and/or portable boiler shall have at least one slow-or-quick-opening blowoff valve or cock conforming to the A.S.M.E. Code requirement.

(c) Blowoff valves and cocks shall be located in some convenient and accessible place, using extension valve stems if necessary to secure safe operation.

Bli 81 Feed Piping

(a) The feed-pipe shall be provided with a check valve near the boiler and a valve or cock between the check valve and the boiler, and when two or more boilers are fed from a common source, there shall be a globe or regulating valve on the branch to each boiler between the check valve and the source of supply. Wherever globe valves are used on feed piping, the inlet shall be under the disk.

(b) A combination stop-and-check valve in which there is only one seat and disk, and a valve stem is provided to close the valve when the stem is screwed down, shall be considered only as a stop valve, and a check valve shall be installed as provided in (a).

Bli 82 Feedwater Supply

(a) A boiler having more than 500 sq. ft. of water heating surface (50 B H P) shall have at least two means of feeding, one of which shall be a pump, inspirator, or injector. Where a source of feed is available at a sufficient pressure 6 per cent higher than that at which the safety valve is set to blow, this may be considered one of the means. For boilers other than those fired with spreader-type stokers or with gaseous, liquid, or pulverized fuels, if pumps only are used, one shall be steam driven.

(b) When electrically-driven feed pumps are used and there is no other reliable independent source of electrical supply, there shall be maintained ready for service steam-driven feed pumps or injectors (inspirators) of sufficient capacity to safeguard the boilers in case of failure of electric power.

Bli 83 Electricity heated generators

(a) All appliances required for electric steam generators shall be attached in accordance with the following:

A cable at least as large as one of the incoming power lines to the generator shall be provided for grounding the generator shell. This cable shall be permanently fastened on some part of the generator and shall be grounded in an approved manner. A suitable screen or guard shall be provided around high tension bushings and a sign posted warning of high voltage. This screen or guard shall be so located that it will be impossible for anyone working around the generator to accidentally come in contact with the high tension circuits. When adjusting safety valves, the power circuit to the generator shall be open. The

generator may be under steam pressure but the power line shall be open while the operator is making the necessary adjustments.

(b) Each kw. of electrical energy consumed by an electric steam generator, operating at maximum rating, shall be considered the equivalent of 1 sq. ft. of heating surface of a fire tube boiler when determining the required amount of safety valve capacity.

RULES AND REGULATIONS PURSUANT TO CHILD LABOR STANDARDS ACT

CHAPTER ONE: CLS 1-4

Definitions

CLS 1: Definition of Home Chore. Home chore is work usual to the home of the employer. Work performed in connection with or as part of the business, trade, or profession of the employer is not a home chore. Home chores are all those variable tasks normal to the running of a household and include but are not limited to mowing lawns, raking leaves, removing snow, light housekeeping, washing clothes or dishes, vacuuming, cleaning yards and preparing food.

CLS 2-4: Reserved for Future Use

CHAPTER TWO: CLS 5-10

Exceptions to Prohibitions Related to the Employment of Minors

CLS 5: Approved Training Programs. Prohibitions related to employment do not apply to a minor being trained in a state-approved apprenticeship training program or to a minor enrolled in a training program approved by the Division of Vocational-Technical Education, Minnesota Department of Education.

CLS 6: Tasks Outside of Area of Hazard. A minor who performs employment tasks which do not require being in or entering the immediate area of the hazardous operation, equipment or materials is excluded from the prohibitions of CLS 11 and CLS 15.

CLS 7: High School Graduates. A minor who has reached the age of seventeen and has graduated from high school shall be excluded from the prohibitions of CLS 11.

CLS 8: Parental Corporations. The prohibitions under CLS 11 and CLS 15 do not apply to a minor working for a corporation totally owned by one or both parents in which the daily corporate business is supervised by the parent or parents. In addition, with respect to agricultural employment, CLS 11 and CLS 15 do not apply to a minor employed by a family farm corporation as defined under Minn. Stat. 500.24 (1973) where the minor's parent is a member of the said family farm corporation.

CLS 9-10: Reserved for Future Use

CHAPTER THREE: CLS 11-14**Prohibitions Related to the Employment of Minors—
For Those Under the Age of Eighteen**

CLS 11: Prohibited Employments. No minor under the age of eighteen shall be employed:

(a) in or about a place of employment where chemicals, compounds, dusts, fumes, vapors, gases, or radio-active materials or other substances are present at excessive temperatures or in injurious, explosive, toxic, or flammable quantities. Minors employed in retail stores, service stations, and automobile service garages are not covered by this prohibition.

(b) in or about any place where explosives or pyrotechnics are manufactured, stored, handled, or fired.

(c) in or about logging or lumbering operations and paper mills.

(d) in or about sawmills, lath mills, shingle mills, or cooperage stock manufacturing plants.

(e) in or about mines, quarries, and sand or gravel pits.

(f) in or about construction or building projects.

(g) in or about ice harvesting operations.

(h) on boats or vessels used for commercial purposes. Minors performing guide or other non-operational services are not covered by this prohibition.

(i) to operate or to assist in the operation of power-driven machinery, including but not limited to:

(1) industrial trucks (forklifts);

(2) meat saws and meat grinders;

(3) milling machines;

(4) punch presses, press brakes and shears; and

(5) woodworking machinery such as circular saws, radial saws, jointers, and shaping machines.

(j) to operate any non-automatic elevator, lift, or hoisting machine.

(k) to drive motor vehicles, except as follows:

(1) sixteen and seventeen year old minors may drive up to 24,000 pound, single-unit vehicles (excluding buses) and may carry passengers at any time with a CLASS C license, and

(2) sixteen and seventeen year old minors may drive over 24,000 pound, single-unit vehicles (excluding buses) with a CLASS B license but may not carry passengers, and

(3) fifteen year old minors who have completed an approved Driver Education course may, with a restricted farm work license, drive a motor vehicle in accordance with Minnesota Statute 171.041.

However, as provided in M.S. 177.322, no one under eighteen years of age shall operate a motor vehicle while in use as a carrier of persons for hire, nor shall any person under eighteen years of age drive a passenger carrying vehicle as a hired driver

(l) as a brakeman, fireman, engineer, motorman, or conductor for a railroad, street railway, or interurban railroad or in switching or gate-tending.

(m) as a lifeguard. Minors who have received a Red Cross lifesaving certificate or its equivalent and who work under uninterrupted adult supervision are not covered by this prohibition.

(n) in aerial acts using such equipment as flying rings, horizontal bars, or trapezes. Nor shall a minor be employed in weight-lifting, balancing, casting, or human pyramiding acts, or as a rope walker, contortionist, or in other exhibitions dangerous or injurious to the life, limb, or health of the minor.

(o) in the operation, erection, or dismantling of rides or machinery in an amusement park, street carnival, or traveling show, or in the loading or unloading of passengers on rides.

(p) in any rooms constituting the place in which intoxicating liquors or non-intoxicating malt liquors are served or consumed or in any tasks involving the serving, dispensing, or handling of such liquors that are consumed on the premises except that:

(1) minors who have reached the age of seventeen may be employed to perform bussing or dishwashing services in those rooms or areas of a restaurant, hotel, motel, or resort where the presence of intoxicating liquor is incidental to food service or preparation, and

(2) minors who have reached the age of seventeen may be employed to perform bussing or dishwashing services or to provide waiter or waitress service in rooms or areas where the presence of non-intoxicating malt liquor is incidental to food service or preparation, and

(3) minors who have reached the age of sixteen may be employed to provide musical entertainment in those rooms or areas where the presence of intoxicating liquor and non-intoxicating malt liquor is incidental to food service or preparation, and

(4) minors are not prevented from working at tasks which are not prohibited by other sections of these regulations or the law in establishments where liquor is sold, served, dispensed, or handled in those rooms or areas where no liquor is consumed or served.

(q) in window-washing, wall-cleaning, painting, or other building maintenance or repair higher than 12 feet above the ground or floor level, using ladders, scaffolding, safety belts, outside vertical conveyors, or like equipment.

(r) in oxy-acetylene or oxy-hydrogen welding.

(s) in any occupation or activity, or on any site, which is hazardous or dangerous to life, limb, or health.

CLS 12-14: Reserved for Future Use

CHAPTER FOUR: CLS 15-18

Prohibitions Related to the Employment of Minors—

For Those Under the Age of Sixteen

CLS 15: Prohibited Employments. In addition to the restrictions in Chapter Three, no minor under the age of sixteen may be employed:

- (a) in or about airport landing strips and taxi or maintenance aprons.
- (b) except as stated in Chapter Three, CLS 11 (k) (3), as a driver of a motor vehicle or an outside helper thereon.
- (c) as loaders or launchers for skeet or trap shooting.
- (d) to lift or carry, or otherwise personally care for, patients in hospitals or nursing homes.
- (e) to do welding of any kind.
- (f) to operate or assist in the operation of machinery, including but not limited to:
 - (1) farm type tractors and other self-propelled vehicles, except that those minors trained under either the 4-H Federal Extension Service or the U.S. Office of Education Vocational Agriculture Training programs may work on equipment permitted by their certificate of training;
 - (2) laundry, rug cleaning or dry cleaning equipment;
 - (3) sidewalk type snow blowers and other power-driven lawn and garden equipment;
 - (4) drill presses, milling machines, grinders, lathes and such portable power-driven machinery as drills, sanders, and polishing and scrubbing equipment for floor maintenance;
 - (5) meat slicers;
 - (6) textile-making machinery; and
 - (7) bakery machinery.
- (g) in oiling, cleaning, or maintaining any power-driven machinery, either portable or stationary, while in motion or at rest.
- (h) in work involving the use of pits, racks, or lifting apparatus at service stations or in mounting tires on rims.
- (i) in processing plants to do work which includes killing, plucking, singeing, drawing, brining, smoking, slicing, grinding, chopping, or cutting operations.
- (j) in walk-in meat freezers or meat coolers, except that occasional entrance to such areas which is incidental to the occupation is not prohibited.
- (k) in any occupation in agriculture that the U.S. Secretary of Labor finds and declares to be particularly hazardous for the employment of children below the age of sixteen.

(l) in any manufacturing or commercial warehouse, to do work which includes packaging, shelving, stock-clerking, or cleaning.

(m) in a car wash to attach cars to or detach them from mechanized conveyor lines or to operate or contact the car while it is connected to the conveyor apparatus.

CLS 16-18: Reserved for Future Use

CHAPTER FIVE: CLS 19-22

Certificates and Special Permits

CLS 19: Special Exemption Permit. The commissioner may grant exemptions from any provisions of the act, pursuant to Laws of Minnesota 1974, Chapter 432, Section 7, Subd. 5, for an individual minor when it is determined that said exemption is in the best interests of a minor in accordance with both of the following:

(a) the minor has a special talent, unique qualifications, or special need for the particular employment for which the exemption is sought, and

(b) the health, education or welfare of the minor will not be detrimentally affected by the employment or by the environment in which the employment is to be conducted.

CLS 20: Exemption Permit Application. Each permit application shall specify:

- (a) name of minor;
- (b) address of minor;
- (c) address of parent(s) or guardian(s) if different than (b).
- (d) a description of the proposed employment;
- (e) proposed dates of employment from beginning to end;
- (f) particular section(s) of the act for which an exemption is sought.

CLS 21: Revocation of Permit. The commissioner may revoke any permit when in his opinion the employment of the child in such employment is detrimental to said minor's health, education or welfare.

CLS 22: Monthly Report on Employment and Age Certificates. The following submissions shall be made to the Labor Standards Division:

(a) The superintendent of schools, his agent, or authorized representative shall remit monthly one copy of each employment certificate.

(b) The superintendent of schools, his agent, or authorized representative and superintendents, principals, or headmasters of independent or parochial schools shall remit monthly one copy of each age certificate.

(Filed December 27, 1974)

DEPARTMENT OF LABOR AND INDUSTRY
RULES RELATING TO LABOR STANDARDS DIVISION

§ 1.4001 Minimum wage rate for minors. Employers claiming an employee is under 18 must have his or her birthdate substantiated by a birth certificate or an age certificate issued by the Department of Labor and Industry (through the local Superintendent of Schools) or a photocopy of the employee's driver's license or a Minnesota identification card issued by the Department of Transportation included in the payroll records kept for such employee. Failure to provide proof of the ages of minors employed makes the employer liable for the adult minimum wage. The Child Labor Standards Act provides as follows: Minn. Stat. § 181A.06, subd. 1. Every employer shall require proof of the age of any minor employee or prospective employee by requiring the minor to submit an age certificate, a copy of his birth certificate, or a copy of his driver's license. Upon the request of a minor, an age certificate shall be issued by or under the authority of the school superintendent of the district in which the applicant resides. Superintendents, principals, or headmasters of independent or parochial schools shall issue age certificates to minors who attend such schools.

§ 181A.12, subd. 1. Any employer who hinders or delays the department or its authorized representative in the performance of its duties under §§ 181A.01 to 181A.12 or refuses to admit the commissioner or his authorized representative to any place of employment or refuses to make certificates or lists available as required by §§ 181A.01 to 181A.12, or otherwise violates any provisions of §§ 181A.01 to 181A.12 or any regulations issued pursuant thereto shall, upon conviction therefor, be guilty of a gross misdemeanor. Subd. 2. Any other person violating any provision of §§ 181A.01 to 181A.12 or any regulations issued pursuant thereto or assisting another in such a violation is guilty of a misdemeanor.

§ 1.4002 Learners or apprentices. A learner is a student enrolled in a state approved high school vocational on-the-job training program in which supervision is provided by the school for the on-the-job experiences, a training plan is established for each individual student learner, and school credit is given for job experiences. For the first 300 hours of employment, the learner shall be paid at a rate of not less than the wage rate for minors.

§ 1.4003 Handicapped worker permits. Subminimum wage rates may be paid to handicapped workers only after receiving a permit from the Labor Standards Division. If no permit is issued, a worker, no matter how severely handicapped, shall be paid the minimum wage. The subminimum rate will be based on the extent to which the worker's performance is limited but in no case may it fall below 50% of minimum wage.

No profit-making organization may employ handicapped workers at a subminimum wage for more than 10% of its total work force unless granted a special permit by the Commissioner of Labor and Industry to exceed the 10% limitation.

Sheltered workshops are excluded from the above percentage limitations of numbers of employees and percentage of minimum wage, but not from the permit requirement.

§ 1.4004 Equal pay for handicapped. Where a handicapped person is now performing or is being considered for employment where he or she will perform work which is equal to work performed by a non-handicapped person such handicapped person shall be paid the same wage as a non-handicapped person with similar experiences.

§ 1.4005 Part-time rates. Part-time employees may not be paid wages below the minimum rates established for adults and minors, except as provided for under Minn. Stat. § 177.23, subd. 11 and 12.

§ 1.4006 Meal allowance. A meal allowance is credited toward the minimum wage only when the meal is furnished by the employer and accepted by the employee. The employer shall not require the employee to accept meals as a condition of employment. A meal is defined as an adequate portion of a variety of wholesome, nutritious foods and shall include at least one food from each of the following four groups: fruits or vegetables; cereals, bread or potatoes; eggs, meat or fish; milk, tea or coffee, except that for breakfast, eggs, meat or fish may be omitted if both cereal or bread are offered. The employer must keep a record of each meal accepted by the employee.

Meals must be consistent with the employee's work shift. Meal periods of less than twenty minutes may not be deducted from hours worked, nor may meal periods be deducted where the employee is not entirely free from work responsibility.

The meal allowance is \$1.15 per meal.

§ 1.4007 Lodging allowance. A lodging allowance of \$1.50 per day may be credited towards the minimum wage if furnished by the employer and accepted by the employee. Such lodging must be adequate, decent, and sanitary according to usual and customary standards. However, lodging, the nature of which is ordinarily and commonly considered to be a tenancy in the chief place of residence of the employee, shall be credited toward the minimum wage of that employee at the rate of the fair market value of the lodging provided. The tenancy shall be evidenced by a written lease agreement providing for at least a month to month tenancy, and shall include exclusive, self contained bathroom and kitchen facilities.

§ 1.4008 Tip credit—definitions and clarifications.

A. Minn. Stat. § 177.28, subd. 4 "provides that a tip credit may not be taken unless at the time the credit is taken the employer has received a signed statement for that pay period from the tipped employee stating that he did receive and retain during that pay period all gratuities received by him in an amount equal to or greater than the credit applied against the wages due by his employer. The statements shall be maintained by the employer as part of his business records."

B. The department in its investigations and audits shall require the employer to provide the signed tip statements at the time of its audit or no tip credit will be allowed.

C. Tip credit is based on the actual amount of tips received by the employee divided by the number of hours worked in a given pay period. A maximum tip credit may be allowed up to 20% of the applicable minimum wage. The employer's records must also indicate that the individual employee received at least \$35.00 per month in gratuities in order that any tip credit be allowed in that period.

D. Tip pooling may not be a condition of employment. Tip sharing or pooling shall be on an individual person-to-person basis. Another employee who benefits because the recipient shares the gratuity with him or her shall not have such remuneration considered in the calculation of his or her wages.

E. A gratuity is presented indirectly when the sum of money is included in the statement of charges and no notice is made on the statement indicating that the amount is not a tip to be presented to the employee as a gratuity.

F. A service person is one who in a given situation performs the main service for a customer and is to be considered the recipient of the gratuity for purposes of wage calculation.

G. Gratuities presented to a service person via inclusion on a charge or credit card shall be credited to that pay period for which they appear on the service person's tip statement.

H. Money presented by customers, guests or patrons at a banquet as a gratuity to be divided among the service people shall be credited to that time period for which it appears on the service person's tip statement.

I. Where a tip is given by a customer through a credit or charge card, the full amount of tip must be allowed the service person minus only the percentage deducted from the tip in the same ratio as the percentage deducted from the total bill by the service company.

J. Tip credit may only be claimed or allowed consistent with the provisions of this rule.

§ 1.4009 Deductions. Deductions from the minimum wage, whether direct or indirect, may not be made for shortages in money receipts or merchandise, for the purchase or maintenance of uniforms, for spoilage, for breakage, for cash shortages or losses resulting from walkouts, bad checks or robbery or for fines for disciplinary purposes. These are considered matters separate from wages. The term "uniform" means wearing apparel and accessories required by the employer to be worn by the employee as a condition of employment.

§ 1.4010 Records. By definition, "hours worked each day" includes beginning and ending time of work each day, which shall include A.M. and P.M.

designations, and such designations shall be included in the employer's records.

§ 1.4011 Other special items. Other special items in a particular case which are not specifically outlined by law or regulations shall be ruled on by the Commissioner of Labor and Industry.

§ 1.4012 Hours worked. Hours worked include training time, call time, cleaning time, waiting time, or any other time when the employee must be either on the premises of the employer or involved in the performance of duties in connection with his or her employment. Rest periods of less than 20 minutes may not be deducted from total hours worked.

§ 1.4013 Regular rate of pay. In calculating overtime compensation due, the regular rate of pay is determined by dividing the employee's remuneration in any workweek by the total hours worked.

Payments which are not considered part of the employee's remuneration (for the purposes of calculating regular rate of pay) include:

- A. reimbursement for expenses incurred on the employer's behalf;
- B. premium payments for overtime work or work on Saturdays, Sundays, holidays or scheduled days off—if the premium rate is at least 1½ times the normal rate;
- C. bonuses given at the employer's discretion (as to both time and amount of payment);
- D. cash or other valuables in the nature of gifts on special occasions;
- E. payments for occasional periods when no work is performed including but not limited to vacation, holiday, or illness;
- F. payments made pursuant to a bona fide profit-sharing plan or trust or bona fide thrift or savings plan, if amounts are determined without regard to production or efficiency;
- G. contributions irrevocably made by an employer to a trustee or third person pursuant to a bona fide plan for providing old-age, retirement, life, accident, or health insurance or similar benefits for employees.

Overtime pay shall be paid no later than the payday immediately following the regular payday for the pay period in which it was earned. Credit granted the employer for such items as meals must be included in the employee's remuneration total.

§ 1.4014 Workweek. The period of time used for determining compliance with the minimum wage rate, overtime compensation, and designation as a part-time employee is the workweek, which is defined as a fixed and regularly

recurring period of 168 hours—seven consecutive 24 hour periods. This is true whether the employee is paid on an hourly, piecework, commission, or any other basis. Once the workweek is established, it remains fixed, although it may be changed if the change is intended as permanent rather than as an evasion of the overtime provisions. If no workweek is designated, it shall follow the calendar week.

The Commissioner of Labor and Industry may upon receiving application made by an employer establish a different period of time to be used as workweek for purposes of this regulation.

No employer shall be deemed to have violated Minn. Stat. § 5, 177.25, subd. 1 by employing any employee of a retail or service establishment for a workweek in excess of the applicable workweek specified therein, if (1) the regular rate of pay of such employee is in excess of one and one-half times the minimum hourly rate applicable to him or her under Minn. Stat. § 177.24 and (2) more than half the compensation for a representative period (not less than one month) represents commissions on goods or services. In determining the proportion of compensation representing commissions, all earnings resulting from the application of a bona fide commission rate shall be deemed commissions on goods or services without regard to whether the computed commissions exceed the draw or guarantee.

§ 1.4015 Executive, administrative, professional personnel. The primary duties of the employee are determinative of his or her status under this exemption. Only where the employee's primary duties meet all the criteria under a particular test may the employer consider the employee to be exempt from the overtime wage provisions.

A. Manage: For purposes of this rule, the term manage means to control and direct the business operations of a given enterprise, department or branch establishment. Duties involved in managing must involve the making of decisions and the issuance of directions to other employees which involve skill and judgment. The term includes those employees that act primarily and principally in a directive capacity as opposed to those who primarily do the actual work.

B. Discretionary powers: The thrust of this criteria is to distinguish between those employees empowered to independently commit their employers on matters of importance and those employees who merely make day to day decisions which, although necessary to the daily operations of the employer's business, are routine, or follow prescribed procedures, or involve a determination of whether specific standards are met, or are lacking in substantial importance to the employer's business as a whole. One test which should be utilized in determining whether an employee exercises discretionary powers is to ask whether the decisions being made involve a discretion as to company policy or procedure or commit the employer on matters of substantial importance. Mere recommendations with respect to policies and procedures are not sufficient unless it can be shown that the employer consistently accepted and followed those recommendations.

C. Sole charge: Only one employee per enterprise, department or branch establishment may be considered to be in sole charge regardless of the number of work shifts per day.

D. In determining exempt and non-exempt work under this rule, work directly related to executive or administrative work may be included if the executive work which it relates to is actually performed by the employee. It is not sufficient to claim certain work is exempt where the executive or administrative function it might be directly related to is not performed by the employee.

EXECUTIVE Test I

A. receives at least \$250 per week in salary;

B. manages the enterprise by which he is employed or a recognized department or subdivision thereof;

C. customarily directs the work of two or more other employees.

EXECUTIVE Test II

A. receives at least \$155 per week in salary;

B. manages and supervises a department of at least two other full-time people (a full-time employee is defined as one who works at least 35 hours in a workweek);

C. has authority to hire or fire or suggest changes in employees' status;

D. regularly exercises discretionary powers;

E. either

1. devotes less than 20% of time worked (or 40% in retail or service establishments) to non-exempt work, or

2. owns 20% or more of the business, or

3. has sole charge of an independent or branch establishment.

ADMINISTRATIVE Test I

A. receives at least \$250 per week in salary or fee;

B. either

1. performs office or nonmanual work directly related to management policies or general business operations, or

2. performs functions in the administration of a school system or subdivision thereof, in work directly relating to academic instruction;

C. regularly exercises discretion or independent judgment.

ADMINISTRATIVE Test II

A. receives at least \$155 per week in salary or fee;

B. either

1. performs office or nonmanual work directly related to business operations or management policies, or

2. administers an educational system or subdivision thereof in work relating to academic instruction;

C. regularly exercises discretion and independent judgment and makes important decisions;

D. either

1. directly assists owner or bona fide executive or administrative employee, or

2. performs supervised work only along lines requiring special training or experience, or

3. executes special assignments;

E. devotes less than 20% of time worked (or 40% in retail or service establishments) to non-exempt work.

PROFESSIONAL Test I

A. receives at least \$250 per week in salary or fee;

B. either

1. performs work requiring advanced knowledge in a field of science or learning, or

2. performs work as a teacher in the activity of imparting knowledge, or

3. performs work requiring invention, imagination, or talent in a recognized field of artistic endeavor;

C. consistently exercises discretion and judgment.

PROFESSIONAL Test II.

A. receives at least \$170 per week in salary or fee;

B. either

1. performs work requiring advanced knowledge in a field of learning customarily acquired by prolonged specialized intellectual study (not a general academic education, an apprenticeship, or training in routine mental or physical processes), or

2. performs original work dependent on his own creativeness in a recognized field of artistic endeavor, or

3. is a certified teacher working as such or recognized as such in the school system where he works;

C. consistently exercises judgment and discretion;

D. performs predominantly intellectual work so varied that the output cannot be standardized by time necessary for accomplishment;

E. devotes less than 20% of his hours worked to activities not essential to his professional work.

§ 1.4016 **Outside salesperson.** Salesperson is defined as one who makes sales of, or obtains orders or contracts for, materials, services, or the use of facilities for which payment will be made. Incidental deliveries, collections, and other non-sales or non-solicitation work that is directly related to the primary sales duties shall be considered the work of a salesperson. An outside salesperson is hired for the express purpose of performing such duties away from the employer's place(s) of business and conducts no more than 20% of sales on those premises. The hours of non-outside sales work may not exceed 20% of the hours worked by employees who are not outside salespersons.

§ 1.4017 **Gratuitous service.** Gratuitous service is voluntarily donated work performed by a person who receives for it no monetary compensation or other valuable consideration. The individual may be reimbursed for out-of-pocket expenses needed to perform the services, but only if these expenses are itemized. The acceptance of an expense allowance (that is, a gross sum provided him with no itemized list of expenses) makes the individual non-exempt. (See ch. 177.23, subd. 7(5).)

"Non-profit organization" is defined as a corporation, community chest, fund, or foundation, organized and operated exclusively for religious, charitable, scientific, literary, or educational purposes, or for the prevention of cruelty to children or animals, no part of the net earning of which inures to the benefit of any private shareholder or individual, and no substantial part of the activities of which is carrying on propaganda, or otherwise attempting to influence legislation. (See ch. 177.23, subd. 7(5).)

§ 1.4018 **Wages, how often paid.** The payment of wages due must be made at least once every 30 days.

RULES OF THE
DEPARTMENT OF LABOR AND INDUSTRY
LABOR STANDARDS DIVISION
(Fee Employment Agencies)

Chapter One: §§ 1.5001-1.5006 Definitions.

For purposes of those provisions of law relating to Fee Employment Agencies including Minn. Stat. § 184.01 et seq. the following terms shall have the meaning given to them.

§ 1.5001 Accept. Accept means that the applicant has agreed with the employer on a specific position, wages, hours, working conditions and a specific starting date and has signed an acceptance form in which the agency has designated the terms of the acceptance. Within three weekdays of signing the acceptance form, excluding Saturday, Sunday and legal holidays, the applicant may withdraw the acceptance by notifying the agency in writing, provided that the applicant did not actually start the job.

§ 1.5002 Method of payment. "Method of payment" means the specific procedure for paying the agency's placement fee after the placement is made. Method of payment must be stated in bold face type on the contract and be consistent with the disclosure requirements of the federal Truth-In-Lending Act, Regulation Z.

§ 1.5003 Fee status. "Fee status" is the designation on the job order which describes the fee liability for placement. The designation shall be limited to one of the following terms:

A. "FEE PAID" or "EMPLOYER-PAID FEE" means that the employer has agreed to pay the entire fee directly to the agency.

B. "FEE REIMBURSED" means that the applicant shall pay the fee to the agency and shall subsequently be paid back by the employer. If reimbursement is to be only partial, it must be so specified.

C. "SPLIT FEE" means that the applicant and employer shall each pay a specified proportion of the fee to the agency.

D. "APPLICANT-PAID FEE" means that the entire fee shall be the responsibility of the applicant.

E. "FEE NEGOTIABLE" means that the employer and the applicant will confer to settle the matter of fee responsibility prior to the acceptance of a job.

F. "CONDITIONAL FEE PAID" means that the employer has agreed to pay the fee but will require a separate fee-liability agreement with the applicant.

§ 1.5004 Misconduct. Misconduct is defined as a willful action involving assault and battery, an immoral act, the malicious destruction of property, the theft of money or property or other conduct which markedly interferes with and adversely affects the individual's employment. The following also constitutes misconduct:

- A. Excessive absenteeism;
- B. Excessive tardiness;
- C. Refusal to comply with orders of superiors;
- D. Violation of known and acknowledged company rules;
- E. Falsification of records;
- F. Drinking on the job;
- G. Sleeping on the job.

§ § 1.5005-1.5006 Reserved for future use.

Chapter Two: § § 1.5007-1.5013 Licensing and Bonding.

§ 1.5007 Persons to be licensed. An employment agency license shall be obtained by any individual or entity whose agents physically operate in Minnesota as described in Minn. Stat. § 184.21, subd. 2, irrespective of whether such operations are on a short-term or a transient basis.

§ 1.5008 Examination by department. The department shall examine the recruitment, search, counseling, and/or placement activities of a business in order to determine whether an employment agent's license shall be obtained. After considering its findings and any recommendations of the Employment Agency Advisory Council, the department shall decide whether an employment agency license shall be required.

§ 1.5009 Forms. Application for an employment agency license shall be on forms approved and supplied by the department. Bonds shall be on forms approved and supplied by the department.

§ 1.5010 Agency name. Only one name may be used per agency license. This will not prohibit an agency from applying for more than one license per location. Each application must be accompanied by the appropriate bond and fees. A corporation may operate and do business only under its corporate name.

§ 1.5011 Agency license. An agency shall not commence operations until a license has been formally issued by the department. Existing agencies applying for an additional license are not exempt from this provision.

§ 1.5012 Licensure relating to temporary help services. An organization that hires persons to work in temporary positions for employers who are clients of that organization is a temporary help service. If at any time a fee, other than liquidated damages due under an agreement between the service and the company, is charged by such organization for the permanent placement of individuals, then that organization is operating as a fee employment agency and shall be licensed as such.

§ 1.5013 License endorsement. An employment agent shall return to the department within five calendar days the license of any manager or counselor who leaves the employ of that agent. An employment agent requesting consent to change the name or address provided on the license shall return the license to the department for endorsement no less than 10 calendar days prior to the requested date of change, along with a new bond or bond rider covering the change.

Chapter Three: §§ 1.5014-1.5021 Contract and Acceptance Forms.

§ 1.5014 Form of contract. Contract and acceptance forms shall contain uniform provisions and shall follow standards adopted by the department. All contracts shall be printed on letter size paper (8½ x 11) in 8-point type size or larger.

§ 1.5015 Standard language. It shall be provided in bold face type:

A. at the top of all contracts "Legal Contract - Read and Understand."

B. on all contracts and acceptance forms that "All agreements and contracts are subject to the rules of the Department of Labor and Industry and the laws of the State of Minnesota."

C. directly above the signature line on all contracts "I have read and understand the above contract. I have discussed this contract with a representative of the agency and have received a duplicate."

§ 1.5016 Fee information on contracts. Applicant contracts shall contain all of the following statements unless language less restrictive to the applicant is approved by the department:

A. I understand that a fee shall be due if I accept the position I am referred to or any position the employer offers me within 90 calendar days of the last contact between the agency and the company in reference to me. The fee shall be based on the position accepted. The agency shall inform me of all contacts made subsequent to my interviews with the employer.

B. I understand that if an employer I am referred to sends me to another employer, whose job I accept, a fee is due.

C. I understand that only one fee is payable for a position. If I am referred

to the same position by two agencies, the fee shall be due the agent who first described the specific opening and gave the name of the employer, provided the interview with the employer is arranged by the agent within 10 calendar days and is subsequently consummated.

D. I understand that if the agency sends an employer my resume and I contact that employer on my own before being notified of the agency contact, I am not obligated to the agency for a fee unless I specifically request that the agency pursue this particular contact.

Where the applicant undertakes no fee liability of any nature, the contract as an alternative to a-e above, may read: "I understand that I am not liable for any fee and that compensation to the agency is to be settled between the employer and the agency."

§ 1.5017 Acceptance form standards. The acceptance form to be signed by the applicant shall contain the following information:

- A. title of job accepted
- B. company name and address
- C. salary
- D. hours
- E. job description
- F. training to be received if a trainee position
- G. starting date
- H. acceptance date
- I. name of counselor making placement
- J. job order number referred on
- K. fee status, including description of
 - 1. exact fee arrangements for fee reimbursed or split fee position
 - 2. the amount of the fee
 - 3. the percentage rate according to the fee schedule
 - 4. the carrying charges or interest; if applicable.

§§ 1.5018-1.5021 Reserved for future use.

Chapter Four: §§ 1.5022-1.5034 Fees.

§ 1.5022 Fee determination. The following terms and methods shall be used in determining amount of fee due:

A. "One month's wages" (or "salaries" or "earnings"), when used to determine an agency's fees, means four and one-third weeks' gross income minus overtime income, tips or gratuities, traveling expense and other expense actually incurred in producing income.

B. A fee based on an annual salary is to be calculated upon the first month's (four and one-third weeks) salary times twelve. A fee based on a monthly salary is to be calculated only on the first month's salary.

C. For positions where income is based totally or partially on commissions or bonuses, the agent may assess a fee based on a reasonable estimate of the applicant's expected first year's earnings. If employment is terminated for any reason prior to the end of the first year, the fee shall be recomputed at the rate applicable to the actual gross earnings as listed on the agent's fee schedule.

D. A fee shall be based on salary received for only the first forty hours per week of employment. Executive, administrative, and professional positions as defined by regulations issued pursuant to the Minnesota Fair Labor Standards Act (Minn. Stat. § 177 - Rules and Regulations LS 15) (8 MCAR § 1.4015) are excluded from this provision.

§ 1.5023 Fee deducted from salary. No employment contract shall authorize the employer to deduct from the salary of the applicant any installments of the fee. An authorization for deductions from the applicant's salary shall be a separate and distinct agreement.

§ 1.5024 Misrepresentation. An applicant shall not be liable for the agency fee if there is a misrepresentation of any material factor by the employer or by the agency. An applicant is not released from the liability for the fee if the job is retained. A material factor is one which constitutes substantially and mainly whether a job would have been accepted if that factor was lacking or was different than stated.

§ 1.5025 Refunds. When a job which is presumed permanent becomes temporary, any refund due the applicant shall be remitted within five calendar days. The monies shall not be retained by the agency in the anticipation of finding another job for the applicant.

§ 1.5026 Fee paid liability. No contract shall provide that an applicant who has accepted a fee paid job is obligated to terminate that position or accept the fee liability if the agency is unable to collect the fee from the employer.

§ 1.5027 Two referrals to same employer. When an applicant is referred to an employer for a position to which he or she is not employed, and another

agent refers the same applicant to the same employer for another position to which he or she is employed, the fee is payable to the second agent.

§ 1.5028 Applicant fee collection. No fee or portion of a fee shall be collected from an applicant before the agreed upon starting date.

§ 1.5029 Fee liability on employer refunds. An agency may not demand any money from an applicant on a fee paid or split fee position after 90 calendar days of employment because of refunds to the employer. Fees may be charged (because of refunds to the employer) to applicants who voluntarily leave or are terminated due to misconduct within 90 calendar days of employment on a fee paid or split fee position, provided the applicant contract fully explains the nature of the potential liability.

§ § 1.5030-1.5034 Reserved for future use.

Chapter Five: § § 1.5035-1.5040 Job Orders.

§ 1.5035 Job order form. The following information must be contained on the job order form for each bona fide job order:

A. A sequential job order number. Each job order shall have its own number, which is to be included in any advertisement for that job. The word "job" and symbol "#" must precede the job order number in a written advertisement. Advertising via other media, including telephone answering devices shall indicate appropriate job order numbers. Any simple system involving letters and numbers may be used, providing it allows rapid retrieval of the job order in question.

B. date order received. A "standing job order" shall be reaffirmed with the employer on a monthly basis.

C. person who received order.

D. method by which order received. This includes phone, mail, face-to-face, or other method.

E. job title. The title used by the employer is considered the job title.

F. job description, containing primary duties.

G. company name.

H. company address.

I. company phone number.

J. contact person(s), including name of person who gave the order and person to contact for interview.

K. minimum starting salary.

L. maximum starting salary.

M. benefits offered.

N. skills required.

O. educational requirements.

P. type and amount of experience required.

Q. days and hours of work, including shifts.

R. special post-hire training, if any. This relates to any promises concerning training to be received by the applicant as a new employee. The nature of the various training areas must be specified.

S. job availability date.

T. fee status. One of the following terms shall be used to indicate the fee status:

1. FEE PAID or EMPLOYER-PAID FEE;
2. FEE REIMBURSED;
3. SPLIT FEE;
4. APPLICANT-PAID FEE;
5. FEE NEGOTIABLE;
6. CONDITIONAL FEE PAID.

§ 1.5036 Experts as representatives of employers. When an employer requests an expert in an occupation to suggest suitable persons for employment and the expert requests an employment agent to refer applicants for such a position, the expert shall be deemed the representative of the employer and the request to the employment agent is considered a bona fide job order from the employer.

§§ 1.5037-1.5040 Reserved for future use.

Chapter Six: §§ 1.5041-1.5052 Agency Practices.

§ 1.5041 Copy of rules and law to manager and counselors. No employment agency owner shall fail to provide the manager and counselors with a copy of the employment agency law and the published rules and regulations currently in force.

§ 1.5042 **Contract requirement.** A contract is required between the applicant and the agency whether the fee is paid by the employer or by the applicant. The applicant shall be given a duplicate of all agreements between the applicant and the agency, including the contract and acceptance form.

§ 1.5043 **Separate agreement with employer.** An agent may negotiate a separate agreement with an employer for special services regarding recruitment, search, screening, referral, and placement, provided that the separate agreement does not violate the law or these rules and regulations.

§ 1.5044 **Display of licenses.** Each manager or counselor license shall be displayed in a conspicuous place on or near the individual's desk.

§ 1.5045 **Use of name other than that on license.** No employment agency, manager or counselor shall use any name in the conduct of business or advertising other than that name which appears on the license.

§ 1.5046 **Advertising.** Every ad for a job opening which is placed with a newspaper or other advertising medium shall be checked by the employment agency with the employer when placed to ascertain that the job order is current and unchanged. Any knowledge received before the last cancellation time that the job is no longer available or is changed in nature shall be reflected in the ad.

§ 1.5047 **Prohibited activities in connection with an agency.** An employment agency shall not be conducted in connection with any other activity in which a charge is made to the applicant for personal service, except vocational training schools licensed or accredited by the State Department of Education. This rule does not prevent the separate operation of a temporary help service at the same office or an office adjacent to a licensed employment agency, provided that any permanent placement activities are conducted by an employment agent licensed in accordance with the law and these rules and regulations.

§ 1.5048 **Repeal of prior rules.** Upon the effective date of these rules, the rules of the Department of Labor and Industry entitled LIEmp 1 through LIEmp 47, filed January 15, 1971 are repealed.

§ § 1.5049-1.5052 Reserved for future use.

Chapter Seven: § § 1.5053-1.5056 Supervision and Investigation.

§ 1.5053 **Information to be furnished the department.** Information which is needed to administer the provisions of Chapter 184 and Chapter 175 shall be furnished the department upon its request. A request for information shall state the need for such information. Each agency shall, within 10 calendar days, supply the requested information or file a written statement explaining why it is not submitting the information.

§ 1.5054 Annual record of service report. A record of service shall be maintained in a separate ledger in the office of each employment agency for a period of three years and shall contain the information required by Minn. Stat. § 184.38, subd. 5. Each agency shall submit annually to the department with its agency license renewal application, a summary of the above record which contains the following information for the preceding year:

- A. total applicants placed;
- B. total annual salaries of placements;
- C. total amount of fees collected.

The individual summary shall be used solely for compilation of statistical data for the employment industry as a whole.

The summary shall be submitted on a form provided by the department which shall make provision for its protection from usage inconsistent with its purpose.

§§ 1.5055-1.5056 Reserved for future use.

Filed with Secretary of State and Commissioner of Administration December 13, 1974.

Chapter Eight: §§ 1.5057-1.5062 Hearing Procedure and Procedure Upon Revocation or Suspension of License.

§ 1.5057 Initiating the contested case.

A. Initiation by complaint.

1. Any person authorized by law to submit to the department a complaint that his or her individual rights or privileges are being denied or that duties owed are being defaulted upon may initiate a contested case by filing a complaint.

2. A complaint shall contain:

- a. Name and address of the complainant.
- b. Name and address of those against whom the complaint is made.
- c. Relief sought and grounds therefor.
- d. Signature of the complainant or the complainant's attorney.

B. Initiation by department order. The department may order a contested case commenced to determine the rights, duties, and privileges of specific parties.

§ 1.5058 Service of document of initiation and notice. Within ten days following receipt of the complaint or adoption of the order initiating the contested case, the department shall serve all known parties a copy of the document of initiation and a notice stating:

- A. Commencement of the contested case.
- B. Time and place of the pre-hearing conference, if any.
- C. The purpose of the pre-hearing conference.
- D. Name of the hearing officer.
- E. Rights of the parties to counsel and to a formal hearing.

F. Failure to attend may prejudice the party's right in this and subsequent proceedings.

§ 1.5059 Answer to initiating complaint. Within twenty days after service of the complaint (excluding the day of service), an adverse party may interpose an Answer to the initiating complaint or order. A copy of such Answer shall be served on all parties to the contested case. The original together with an attached affidavit of service shall be filed with the department within five days after service is completed.

§ 1.5060 Notice of hearing. Not less than thirty days prior to the hearing date, the department shall serve a notice of hearing on all parties to the case. Such notice shall contain:

- A. Time and place of the hearing.
- B. The purpose and procedure for the hearing.
- C. The issues to be determined.
- D. The name of the hearing officer who will preside.

§ 1.5061 Rights under Minnesota Statutes. Parties to a contested case shall have all rights under Chapter 184 and Chapter 15 of the Minn. Stat.

§ 1.5062 Repeal of prior rules. Upon the effective date of these rules, the rules of the Department of Labor and Industry relating to Fee Employment Agencies filed January 8, 1969 are repealed.

Filed with the Secretary of State January 15, 1971 and the Commissioner of Administration January 18, 1971.

§ 1.6300 Organization and duties of Advisory Council for Steamfitting Examinations.

A. The Council shall organize by electing from its members a chairman and a secretary, which elections must be confirmed by the Commissioner, Department of Labor and Industry before becoming effective.

B. The Council shall meet not less than two times a year for examinations and shall meet at such other times as it deems necessary or when called by the secretary.

C. The Council shall examine all applicants for contracting or journeyman steamfitters' licenses, and after being satisfied of an applicant's qualifications and passage of the examination, shall certify the applicant to the Department for issuance of a license.

D. Upon information coming to the Council of any licensee having obtained his license through error, misrepresentation, or fraud, or of his incompetency, or of a willful violation of any of the rules and regulations, applicable to the work of steamfitting or to the adopted Code of Minimum Standards, the Council shall make an investigation as to the probable truth of such information. If the facts elicited by such investigation appear to warrant a suspension or revocation of the licensee's license, the Council shall file with the Commissioner written charges against the licensee and recommendation for the suspension for a stated length of time or revocation of the license. Thereupon, the Commissioner shall proceed in accordance with the provisions of Minnesota's Administrative Procedures Act. If the license is suspended, it shall be reinstated at the end of the period of suspension, and if it is revoked an application for a new license cannot be made within one year from the date of revocation.

E. If any person whose license has been suspended or revoked has adjusted the cause for the suspension or revocation in a manner satisfactory to the Council, or if the period of suspension has elapsed, the Council shall so certify to the Commissioner who may reinstate the suspended license or reissue the revoked license to such person, as the case may be, for the remainder of the license year.

F. The Council shall notify the Department of any misbehavior, neglect of duty or incompetency, with a recommendation for dismissal if it deems the charge to be of sufficient gravity.

G. The Council shall recommend to the Department any changes it deems advisable to these rules or the Code of Minimum Standards.

H. The Council shall keep a record of all meetings, hearings, and examinations.

I. The Council shall determine questions of interpretation of provisions of the Code of Minimum Standards, which determinations shall be subject to

review by the Department, and shall submit questions of interpretation of the law or of these rules directly to the Department.

J. The Council shall faithfully perform duties outlined by the Code of Minimum Standards, and these rules.

K. A member of the Council may be removed during his term of office in accordance with Minn. Stat. § 15.059, subd. 4.

§ 1.6301 Duties of the secretary. The Secretary of the Council shall be an employee of the Department and have general charge of the office of the Steamfitting Division and its books and records, including those of the Council. Specifically, his duties shall include the following:

A. Maintain a record of all proceedings of the Council, together with the necessary registers pertaining to applications for examinations and licenses, showing thereon, for each, the date of application, name, qualifications, place of business, place of residence, and whether the license was granted or not.

B. To receive all moneys derived for examination fees and remit same to Department.

C. To issue all licenses upon receipt of certification from the Council, and approved by the Commissioner, that the applicant has qualified and has successfully passed the examination. He shall sign and issue renewals of licenses without such certification.

D. To call meeting of the Council whenever he deems the same to be necessary, or when requested by a majority of the Council or by the Commissioner.

E. To issue notices and summons to licensees, complaints and witnesses of hearings by the Council on charges or violations of the law or the Code of Minimum Standards.

F. To issue notices to applicants for licenses of the time and place of examination.

G. To keep complete and detailed records of complaints and evidence pertaining thereto and have the same at hearings of the Council thereon.

H. To furnish to the Council such information in his possession as may be necessary for the proper performance of its duties or as it from time to time require.

I. To prepare, with the advice and assistance of the Council, a budget of expenses quarterly and transmit a copy thereof to the Department.

J. To supervise the duties of inspectors and employees of the Division

and notify the Council of any incompetence, misbehavior, or neglect of duty by them.

§ 1.6302 Qualifications and duties of inspectors. Inspectors shall be responsible for the fulfillment of their duties, which shall include the following:

A. They shall report to the Secretary of the Council or the Department all violations of the law or Code of Minimum Standards, with recommendation for action on such violations.

B. They shall inspect the installation of all high pressure steam piping and appurtenances when requested or when deemed advisable to determine if such installation meets code requirements. They shall also inspect high pressure steam piping underground and overhead or in any building at any time to determine the safety operations of such steam piping and appurtenances.

C. They shall at all times be alert in ascertaining whether persons engaging in the business or occupation of high pressure steam piping are complying with the provisions of the registration act and Code of Minimum Standards, and especially as to whether or not such persons are licensed.

D. They shall be thoroughly conversant with all provisions of the registration act, the Code of Minimum Standards, and these rules.

E. They shall at all times be courteous in the conduct of their duties and shall acquaint the persons engaged in the business of high pressure steam piping with the provisions of the registration act and Code of Minimum Standards.

F. They shall be furnished with a badge or certificate of identification and shall display the same whenever requested when on duty.

G. They shall refrain from debating any question of disputes where violations are found, but shall be empowered to inform violators or the provisions of the code.

H. They shall not divulge any of their opinions or findings pertaining to their duties as inspectors to any person not connected with the Division of Steamfitting Standards unless instructed to do so by their superior officers, nor shall they divulge to the public any matters of a private nature in the possession of the Division.

I. They shall not have authority to start any action or legal proceeding pertaining to the enforcement of the registration act or Code of Minimum Standards unless instructed by their superior officers to do so.

J. They shall have authority to give notice to installers or the property owner by attaching a tag to the steam piping or equipment advising that the piping installation does not meet the Minnesota code requirements or that it was installed by persons not licensed to make such installation and that the

equipment shall not be put into operation until the law and code are complied and the tag removed by an authorized person.

§ 1.6303 Definitions.

A. High pressure steam shall mean a pressure in excess of 15 pounds per square inch.

B. A contracting steamfitter is any person engaged in the planning, superintending and practical installation of high pressure steam piping and appurtenances, and otherwise lawfully qualified to construct high pressure steam piping installations and make replacements to existing plants, who is also qualified to conduct the business of high pressure steam piping installations and who is familiar with the laws, rules, regulations and minimum standards governing same.

C. A journeyman steamfitter is any person other than a contracting steamfitter who, as his principal occupation is engaged in the practical installation of high pressure steam piping and appurtenances in the employ of a contracting steamfitter.

D. A steamfitter's apprentice is any person other than a contracting or journeyman steamfitter, who, as his principal occupation is engaged in learning and assisting in the installation of high pressure steam piping and appurtenances under the supervision of a licensed steamfitter.

§ 1.6304 Licensing and registration.

A. No person, firm, corporation or association shall engage in the business or work at the occupation of high pressure steam piping in the State of Minnesota without first obtaining a license and being registered as a contracting or journeyman steamfitter, as the case may be, and no licensed contractor shall employ a journeyman steamfitter, to install high pressure steam piping unless such journeyman is a licensed steamfitter; and no person shall work as a steamfitter's apprentice for more than thirty days without being registered as such, nor longer than four years without making application for examination and license as a steamfitter.

B. Licenses shall be granted as contracting or journeyman steamfitters upon proof of qualifications therefor as hereinafter provided, and no apprentice shall be registered as such who is not at least sixteen years of age.

C. An applicant for a contractor's license to do business in the name of a firm or partnership shall be a bona fide member or employee of such firm or partnership. An applicant for a contractor's license to do business in the name of a corporation shall be a regular employee or member in such corporation.

§ 1.6305 Applications for registration.

A. Application for a contractor's license and registration shall be made to

the Secretary of the Division of Steamfitting Standards at least thirty days prior to the next scheduled examination on blanks provided for that purpose by the Division. Application for a journeyman's license shall be filed with the Division at least ten days prior to the next examination. The Council may waive the rule applying to journeyman examinations in emergency cases. If the statements made by the applicant in said application form indicate that he possess the necessary qualifications to take an examination, the Secretary shall notify him of the time and place of examination. If, on examination, the applicant fully qualifies, the Council shall so certify to the Department, which shall thereupon issue to him a license as a contracting or journeyman steamfitter, as the case may be, for the remainder of the calendar year. If an applicant fails to qualify at an examination, the Council shall so certify to the Secretary, who shall notify the applicant of his failure to pass.

B. Any applicant who fails to pass the first examination may be re-examined at the next regular examination of which he is notified without the payment of another fee, but thereafter, all applications for re-examination shall be accompanied by the regular statutory fee.

§ 1.6306 Qualifications for contracting steamfitter license. Applicants for license as a contracting steamfitter shall:

A. Be at least twenty-one years of age.

B. Possess sufficient education to read and comprehend blueprints, specifications and terms of contracts, and to compute the cost of installing high pressure steam piping and equipment.

C. Have worked at the trade of steamfitting for at least five years.

D. Be examined as to their knowledge of high pressure steamfitting, the requirements of the laws and regulations and minimum standards for the installation of high pressure steam piping in the State of Minnesota, their ability to lay out a plan of high pressure steam piping, and their knowledge of the physics and mechanics applicable to high pressure steam piping.

E. Generally demonstrate to the Council their fitness to properly, intelligently and lawfully carry on the business of a contracting and employing steamfitter in the State of Minnesota.

F. Be of good moral character.

G. Pay an examination fee.

H. Pass the required examination by at least 70 percent.

§ 1.6307 Journeyman steamfitter qualifications.

A. Applicants for license shall be at least twenty years of age.

B. Possess sufficient education to read and comprehend blueprints and specifications for the installation of high pressure steam piping.

C. Be of good moral character.

D. Have been a registered apprentice or journeyman steamfitter for at least four years.

E. Pay an examination fee.

F. Pass the required examination by at least 70 percent.

§ 1.6308 Examination of applicants for licenses.

A. Examinations shall consist of written or oral questions and drawings of plans and sketches, except that when an applicant is handicapped for a written examination, his examination may be entirely oral. All questions and sketches shall pertain to practical experience and knowledge of steamfitting and be standard, but may be changed from time to time.

B. Examination papers shall be reviewed by at least two members of the Council. Each answer or sketch shall be graded on the basis of 100 for perfect. The Council may grant up to 10 percent for experience in the trade or to persons who are certified welders based upon actual experience on high pressure steamfitting as shown on the application. An average of at least 70 percent shall constitute the passing mark.

C. Applicants shall be notified of the outcome of their examination after their papers have been graded. The notice to those who failed to pass shall inform them of their privilege of re-examination without the payment of another fee at the next examination held of which they are notified.

§ 1.6309 Fees for examinations.

A. Fees shall be for the examination and to cover the cost of a license for the remainder of the calendar year in which the examination is taken or for which the application is made if the applicant qualifies for a license.

B. After February a license may be reinstated upon payment of the regular examination fee; however, the Council may at its discretion require the applicant to be re-examined and pass an examination before being reinstated as a licensed steamfitter.

§ 1.6310 Registration of apprentices.

A. All steamfitters' apprentices who are at least sixteen years of age shall be registered with the Division of Steamfitting Standards, unless they are indentured through some recognized Apprenticeship Training Program. Each registration shall give the name, address and age of the apprentice and the date of commencement of his term of apprenticeship, and also the name and

address of his present and past employers as such apprentice. The registration shall be good until the completion of the term of apprenticeship, provided that when an apprentice is thereafter transferred from one contracting steamfitter to another, a notice of such transfer shall be filed with the Division of Steamfitting Standards or the Division of Voluntary Apprenticeship. Upon completion of the term apprenticeship, which shall consist of four years, the apprentice shall make application for examination and license as a journeyman or contracting steamfitter.

B. All contracting steamfitters shall within ten days of the employment of an apprentice inform the Division of Steamfitting Standards of the employment of such apprentice, giving his name, address, age and date of employment, unless such apprentice is indentured by some plan recognized by the Division of Voluntary Apprenticeship.

C. All registered apprentices shall inform the Division of Steamfitting Standards of changes of employment and their address.

§ 1.6311 General provisions.

A. A contracting steamfitter's license shall entitle him to work as a journeyman steamfitter under rules and regulations applicable to journeyman steamfitters, but a journeyman steamfitter's license shall not entitle the holder thereof to do business as a contracting steamfitter.

B. A contracting steamfitter employing a journeyman steamfitter or an apprentice steamfitter shall comply with all the laws, rules, regulations and minimum standards of the State of Minnesota.

1. Paying promptly for labor and material furnished an owner.

2. Reporting income tax and conforming to the laws governing the relationship of master and servant, including the carrying or workmen's compensation insurance, paying the Social Security tax, paying wages when due, furnishing written contracts of employment and employing licensed steamfitters on high pressure pipe work.

C. All certificates of licenses of a contracting steamfitter shall be posted in a conspicuous place in the office of the contractor's place of business and license cards issued to persons shall at all times be in possession of the licensee during business hours and shall be displayed when required by a representative of the Division of Steamfitting Standards or the Department. Such card shall at no time be in the possession of any other person than the licensee to whom it was issued. Licenses issued hereunder shall not be transferrable.

D. The right of any firm, corporation or association to do business under a license issued to a member thereof shall depend upon the holder's active continuance in the business of such firm, corporation or association.

E. If the member of a firm, corporation or association holding a license for

it shall sever his connection with such concern, the concern shall have no right to continue the business of high pressure steamfitting without procuring another license.

F. Changes in the name or place of business of a firm, corporation or association for which an individual is holding a license and the removal of the residence of a licensed journeyman from one city to another shall be reported immediately to the Secretary of the Division of Steamfitting Standards by the licensee.

G. When a steamfitter's license is revoked, the licensee shall at once surrender his certificate and identification card to the Secretary of the Division of Steamfitting Standards.

H. Duplicate licenses and identification cards may be issued by the secretary upon proof that the original is lost or mutilated.

I. When a license has for any cause been suspended for a stated time, it shall automatically be again in force on the expiration of the period of suspension if such period is within the time for which the license was issued; provided, that if the cause for suspension has been adjusted in manner satisfactory to the Council, it may recommend to the Department a reduction of the period of suspension or immediate reinstatement of the license.

J. When a license has for any cause been revoked, it cannot be renewed without the procedure for an original license; provided, that where a license has been revoked for some cause other than incompetency the Department may in its discretion waive the requirement of an examination if an application for a new license is made within one year from the date of revocation, but not thereafter.

§ 1.6312 Minnesota code for high pressure steam piping and its competent parts.

A. Scope. This code prescribes minimum requirements for design, manufacture, test, and installation of power piping systems, as defined below, for steam generating plants, central heating plants, industrial plants, and district heating.

B. Classification.

1. Power piping systems shall be understood to include all steam piping and the component parts such as pipe, flanges, bolting, gaskets, valves, and fittings, within or forming a part of the above-mentioned plants, including central and district heating steam or hot water distribution piping away from the plant, building heating piping when the pressure exceeds 15 psi gage for steam or 30 psi gage for hot water and a temperature exceeding 250°F., whether the piping is installed underground or elsewhere.

2. Valves, fittings, and piping for boilers, as prescribed in the ASME

Code for Power Boilers, are within the scope for this code but provisions of the ASME Code for Power Boilers shall govern where they exceed corresponding requirements of this code.

3. Economizers, heaters, tanks, and other pressure vessels are outside the scope of this code, but connecting piping shall conform to the requirements herein specified.

C. Standards and specifications.¹

1. Unless otherwise specified, reference to an "American Standard," in this code is to the latest revision of that standard as approved by the American Standards Association. The use of the latest revisions of all other standards or specifications mentioned in this code is intended.

2. The standards and specifications cited herein are minimum requirements. Dimensions and materials, unless otherwise specified, shall comply with these standards and specifications.

3. Construction shall be equal to or better than required by this code. Materials shall have physical and chemical properties at least equal to its minimum requirements.

4. Adherence to American Standard dimensions is strongly recommended wherever practicable. However, other designs of at least equal strength and tightness and capable of withstanding the same hydrostatic test requirements may be used.

D. Pressures and temperatures. All pressures referred to in this code, unless otherwise stated, are expressed in pounds per square inch above atmospheric pressure, i.e., psi gage. All temperatures, unless otherwise stated, are the metal temperatures of the respective materials.

E. General requirements—materials.

1. The materials used shall be capable of meeting the physical and chemical requirements and tests of the respective specifications in Table 1 of ASA B31.1-1955 Code for Pressure Piping. Any materials allowed under this code shall not be used for service in excess of pressures and temperatures herein specified except as noted.

2. Should it be desired to use any materials or methods of manufacture not now covered by this code or which may be developed in the future, it is intended that the manufacturer shall provide details of design and construction which will be as safe as otherwise provided by the rules in the code. Where it is desired to use materials not included in Table 1, written application shall be made to the Department fully describing the proposed material

¹ The policy of the Sectional Committee in making reference to standards and specifications is stated in 8 MCAR § 1.6312 III. 4.

and the contemplated use, requesting that an allowable stress (S value) be assigned. Such materials shall not be used until the stress values have been approved.

Note: Table 1 refers to American Standard Code for Pressure Piping and is not printed in this code book.

F. Flanges. The dimensions and drilling for all line or end flanges shall conform to the requirements of the B16 series of the American Standards for cast iron, steel and bronze material for the respective pressures and temperatures as stated in the specific requirements of this section (see 8 MCAR § 1.6312 Z., EE., JJ., and DD.). For marking of flanges, see 8 MCAR § 1.6312 III. 2. of this code.

G. Valves.

1. It is mandatory that valves be

a. of the design or equal to the design which the manufacturer thereof recommends for the service, and

b. of materials allowed by the code for the pressure and temperature. Body metal thickness of steel valves shall not be less than that required by American Standard for Steel Pipe Flanges and Flanged Fittings, (ASA B16.5). Each valve, of a size permitting, shall bear the maker's name or trademark and reference symbol to indicate the service conditions for which the maker guarantees it. (See also 8 MCAR § 1.6312 III. 2. of this code.)

2. All screw-end valves shall be threaded according to the American Standard for Taper Pipe Threads (B2.1). Flanged-end valves shall have connecting-end flanges conforming to the B16 series of American Standards for cast iron, steel and bronze corresponding to the maximum pressure and service for which the valve is to be used. Face-to-face dimensions shall comply with B16.10 for types of valves covered in the standard. Welding-end valves may be used if welded directly into the line in accordance with 8 MCAR § 1.6312 DDD. It is recommended that the ends be prepared in accordance with details shown therein.

H. Pressure reducing and relief valves.

1. Where pressure reducing valves are used, one or more relief or safety valves shall be provided on the low pressure side of the reducing valve in case the piping or equipment on the low pressure side does not meet the requirements for the full initial pressure. The relief or safety valve shall be located adjoining or as close as possible to the reducing valve. Proper protection shall be provided to prevent injury or damage caused by escaping fluid or steam and-in compliance with 8 MCAR § 1.6312 TT. 3. c.

2. The use of hand-controlled by-passes around a reducing valve is permissible provided the by-pass does not have a greater capacity than the reducing valve and the low pressure side is adequately protected by relief valves.

3. The flange dimensions, wall thickness, and material of reducing and relief valves shall conform to the requirements specified herein for valves and fittings for the pressures and temperatures to which they may be subjected.

4. It is mandatory that a pressure gage be installed on the low-pressure side of a reducing valve. Where two or more reducing valves are installed in series, a pressure gage shall be installed on the low pressure side of each pressure reducing valve.

5. Exhaust and pump suction lines for any service and pressure shall have relief valves of suitable size unless the lines and attached equipment are designed for the maximum pressure to which they may accidentally or otherwise be subjected, or unless a suitable alarm indicator, such as a free blowing relief valve is installed where it will warn the operator of such equipment.

I. Fittings. The minimum metal thickness of all flanged or screwed fittings and the strength of factory-made welding fittings shall not be less than that specified for the pressures and temperatures in the respective American Standards. (For markings on fittings, see 8 MCAR § 1.6312 III. 2. of this code.)

J. Special fittings.

1. Where special screwed or flanged fittings are required to overall dimensions differing from those of the regular shapes specified in the American Standards referred to, they shall conform to these standards with respect to minimum wall thickness and flange dimensions (if flanged) and to the specific requirements of this section of the code. They shall be designed to withstand the hydrostatic test pressures as specified in 8 MCAR § 1.6312 U. All material shall conform to the requirements given herein for the particular pressure and temperature rating.

2. Special welded steel fittings such as elbows, tees, etc., may be used if they comply with the requirements of Section 6, of this code. Fittings with welding ends may be used in accordance with the specific requirements of this section, 8 MCAR § 1.6312 Y. 3., DD. 2., II. 2., or NN. 2., regarding the service intended.

K. Bolting.

1. The following standards shall apply to bolting:

a. For steam service pressure in excess of 250 psi or for steam or water service temperature exceeding 450°F., the bolting material shall conform to ASTM Specification A 193.

b. For temperatures exceeding 750°F. only bolt studs are recommended.

c. When cast iron flanges are used, bolting material shall be of car-

bon steel conforming to ASTM Specification A 307, Grade B, or A 107, Grade 1120, except as otherwise permitted in 8 MCAR § 1.6312 BBB. 4.

2. Flange bolts or bolt-studs shall be of the dimensions and material specified for the purpose in the corresponding American flange standards. Bolts or bolt-studs shall extend completely through the nuts and, if desired, may have reduced shanks of a diameter not less than the diameter at root of threads.

3. Carbon steel bolts may be American Standard regular square or heavy hexagon bolts and shall have American Standard heavy semi-finished hexagonal nuts (B18.2).

4. Alloy steel bolt-studs may be threaded at both ends or full length, or American Standard (B18.2) heavy semi-finished hexagon bolts may be used. They shall have American Standard heavy semi-finished hexagonal nuts (B18.2). It is recommended that all bolts or bolt-studs and accompanying nuts intended for high-temperature service be threaded in accordance with American Standard B1.1 Class 2A external threads, Class 2B internal threads.

5. Nuts shall be American Standard heavy semi-finished hexagonal (B18.2) and shall be threaded as indicated herein. Nuts shall conform to ASTM Specification A194. Nuts cut from bar stock so that their axes will be parallel to the direction of rolling of the bar may be used in all sizes for joints in which one or both flanges are cast iron; they shall not be used for joints in which both flanges are steel except for nut sizes ½ in. and smaller, which are permissible in any case.

6. Washers, when used under nuts, shall be of forged or rolled steel.

L. Pipe threads. All pipe threads on pipes, valves, fittings, etc., shall conform to the American Standard for Taper Pipe Threads (B2.1).

M. Pipe joints. Pipe joints shall comply with fabrication rules and details in 8 MCAR § 1.6312 BBB. 4. of this code.

Qualification of welding procedures and welders under Section IX of the ASME Boiler and Pressure Vessel Code is acceptable in lieu of the requirements of 8 MCAR § 1.6312 DDD. of this code.

N. Gaskets.

1. Gaskets where required, shall be of a material that resists attack by the fluid carried in the pipe line; shall be strong enough to hold the pressure, and perform the purpose intended throughout the temperature range encountered. Gaskets shall be as thin as the finish of surfaces will permit to reduce possibility of blowing out.

2. For all lines under pressure and above 250°F. the gaskets shall be

metallic, asbestos, or other non-burning material. For further details concerning gaskets, refer to 8 MCAR § 1.6312 BBB. 5. of this code.

O. Thermal expansion.

1. Thermal expansion of piping shall be provided for preferably by pipe bends, offsets, or changes in direction of the pipe line itself. Where pipe bends or offsets are used or where the pipe line direction is changed to provide for expansion, the provisions of 8 MCAR § 1.6312 CCC. 4. of this code shall be followed.

2. Expansion joints of either the slip-sleeve or swivel types may be used if:

- a. their materials conform to this code;
- b. their structural and working parts are of ample proportions; and
- c. for pressures above 15 psi, the design prevents complete disengagement of the working parts while in service.

3. Non-reinforced corrugated copper expansion joints shall not be used for steam pressures exceeding 25 psi. Corrugated copper expansion joints when reinforced with exterior rings or sleeves may be used for steam pressures not exceeding 200 psi.

4. Nothing in this paragraph shall be construed to limit using expansion joints, corrugated pipe, or creased, corrugated, wrinkled, or plain bends made of the same material as the remainder of the pipe, or of other material suitable for the pressure and temperature conditions.

P. Hangers, supports, anchors.

1. Piping and equipment shall be supported in a thoroughly substantial and workmanlike manner, rigid enough to prevent excessive vibration and anchored sufficiently to prevent undue strains on boilers and equipment served. Hangers, supports, and anchors shall be made of durable materials. In tunnels and buildings of permanent fireproof construction, these materials shall be noncombustible. In buildings of nonfireproof construction, piping may be supported on or hung from wood structures if all piping used for conveying fluid at temperatures above 250°F. is spaced or insulated from such wooden members to prevent dangerous heating.

2. Hangers and supports shall permit free expansion and contraction of the piping between anchors. All piping shall be carried on adjustable hangers or properly levelled supports, and suitable springs, sway bracing, vibration dampeners, etc., shall be provided where necessary.

3. Pipe hangers, supports, anchors, etc., shall be designed and fabricated to comply with 8 MCAR § 1.6312 ZZ., of this code.

Q. Pipe sleeves.

1. Where steam pipes pass through walls, partitions, floors, beams, etc., constructed of combustible material, protecting metal sleeves or thimbles shall be provided to give a clearance of not less than $\frac{1}{4}$ in. under hot and cold conditions all around the pipe, or pipe and covering. When steam pipes pass through metal partitions, etc., a clearance of at least $\frac{1}{4}$ in. under hot and cold conditions shall be left all around the pipe, or pipe and covering. In any case, if the fluid temperature exceeds 250°F., the pipe shall be insulated inside the sleeves with a covering of at least standard thickness.

2. Walls, floors, partitions, beams, etc., shall not be cast solidly to or built up around and in contact with a steam, hot water, or hot oil pipe. Where such pipe must be installed in a concrete floor or other building member, it shall be protected for the entire buried length with a suitable protecting pipe sleeve of steel, cast iron, wrought iron, or tile; exception may be taken to the preceding rules where pipes pass through walls, floors, partitions, etc., that must be kept watertight.

R. Drains, drips, and steam traps.

1. Suitable drains or drips shall be provided wherever necessary to drain the condensate from all sections of the piping and equipment wherever it may collect. Suitable drains shall also be provided to empty water lines, water storage tanks, equipment containing water, etc., when such piping and equipment is out of service. At least one valve shall be placed in each drip or drain line.

2. Drip lines from steam headers, mains, separators, and other equipment shall be properly drained by traps installed in accessible locations and below the level of the apparatus drained. Drip pumps, drip tanks, and open discharge drips (preferably with orifice control) may be used in lieu of traps, if they are safely installed, protected, and operated under regular supervision. All drain lines shall have drip valves for free blow to the atmosphere.

3. Drip lines from steam headers, mains, separators, or other equipment operating at different pressures shall not be connected to discharge through the same trap. Where several traps discharge into one header which is or may be under pressure, a stop valve and a check valve shall be placed in the discharge line from each trap.

4. Trap discharge piping shall have the same thickness as the inlet piping unless it is vented to atmosphere or operated under low pressure and has no stop valves. The trap discharge piping shall have at least the pressure rating of the maximum discharge pressure to which it may be subjected. Trap discharge piping shall be protected against freezing where necessary. Drainage from steam traps, if open to the atmosphere, shall be safeguarded to prevent accidents from hot discharge.

5. The discharge of a high pressure trap shall not empty into a low pressure receiver unless first run through a flash tank or there is an ample sized

vent so a trap failure could not increase the pressure in low pressure receiver tank.

S. Inspection and tests. All material shall be capable of meeting the inspection and test requirements described in the corresponding specification listed in Table 1 of ASA B31.1-1955. Unless otherwise specified by the purchaser, the manufacturer's certification that these tests have been met shall be accepted.

T. Cleaning. The inside of all pipes, valves, and fittings shall be smooth, clean, and free from blisters, loose mill scale, sand, and dirt when erected. All lines should be cleaned after installation and before placing in service.

U. Hydrostatic tests.

1. Before erection. All valves, fittings, etc. shall be capable of withstanding a hydrostatic shell test made before erection equal to twice the primary steam service pressure, except that steel fittings and valves shall be capable of withstanding the test pressures as given in the American Standard for Steel Pipe Flanges and Flanges Fittings (ASA B16.5) for the specific material, pressure standard and facing involved (ring joint facing for welding ends). Pipe shall be capable of meeting the hydrostatic test requirements contained in the respective specifications in Table 1 ASA B31.1-1955, under which it was purchased.

2. After erection. All piping systems shall be capable of withstanding a hydrostatic test pressure of one and one-half times the design pressure, except that the test pressure shall in no case exceed the adjusted pressure-temperature rating for 100°F. as given in the American Standard for Steel Pipe Flanges and Flange Fittings (ASA B16.5) for the material and pressure standard involved. For systems joined wholly with welded joints the adjusted pressure rating shall be that for ring joint facing. For systems joined wholly or partly with flanged joints the adjusted pressure rating shall be that for the type of facing used.

3. The hydrostatic test after erection shall be applied wherever practicable and shall comply with 8 MCAR § 1.6312 DDD. 10. of this code. In no case shall the test pressure be less than 50 psi nor shall it be made with a test medium having a temperature in excess of 100°F.

V. Thickness of pipe. For inspection purposes the minimum thickness of pipe wall required at different pressures and for temperatures shall not exceed those recommended by the manufacturer.

W. Variations in pressure and temperature.

1. Piping systems shall be considered safe for operation if the maximum sustained pressure and temperature on any part do not exceed the pressure and temperature allowed by this code, for all component parts of the system. It is recognized that occasional departures from the nominal operat-

ing pressure and temperature inevitably occur and therefore the piping system will also be considered safe for occasional operation for short periods at higher pressures and temperatures.

2. Either pressure or temperature, or both may exceed the nominal design values if the computed stress in the pipe wall does not exceed the allowable S value for the expected temperature by more than the following allowances for the period of duration indicated:

a. Up to 15 per cent increase above the S value during 10 per cent of the operating period.

b. Up to 20 percent increase above the S value during one per cent of the operating period.

**SPECIFIC REQUIREMENTS
STEAM PRESSURES ABOVE 350 PSI AND NOT ABOVE 2500 PSI
AND TEMPERATURES NOT IN EXCESS OF 1100°F**

X. Valves.

1. All valves in nominal sizes

3 in. and smaller for pressures above 250 psi but not above 400 psi,

2 in. and smaller for pressures above 400 psi but not above 600 psi, and

1½ in. and smaller for pressures above 600 psi

may have screwed, flanged, or welding ends. Stem threads of gate, angle, and globe valves of above sizes may be internal or external with reference to the valve bonnet.

2. For all valves larger than sizes specified in 8 MCAR § 1.6312 X. 1. flanged or welding ends shall be used. Stem threads of gate, angle, and globe valves shall be external with reference to the valve body and used with an outside yoke. Bonnet joints may be flanged, welded, or of other designs, except that screwed bonnet connections which depend upon the thread to make a tight joint are not permitted. Steam valves 8 in. and larger shall have a by-pass of at least ¾ in. nominal size. Sizes of by-passes should be increased if required for mechanical strength or vibration. Pipe for by-passes shall be seamless steel of a material at least equal to that used for the line. Pipe lighter than Schedule 80 of ASA B36.10 shall not be used for by-passes. By-passes may be integral or attached.

3. All valves shall be manufacturer's standard, or equal for the respective pressure and temperature and shall be steel, or nonferrous material as recommended by the manufacturer and as stipulated in this code for this pressure-temperature range. Malleable-iron valves may be used for service pressures not over 300 psi and temperatures not over 500°F. Flanges of steel

flanged valves shall comply with the American Standard B16.5 for respective pressure and temperature.

Y. Fittings.

1. All fittings in nominal sizes above

3 in. for pressures above 250 psi but not above 400 psi,

2 in. for pressures above 400 psi but not above 600 psi, and

1½ in. for pressures above 600 psi but not above 2500 psi shall have flanged ends or welding ends.

2. Flanged fittings shall conform to the American Standard B16.5 for dimensions and for pressure and temperature ratings and shall be of cast or forged steel, but nonferrous materials may be used subject to limitations under 8 MCAR § 1.6312 E.

3. Welding fittings shall comply with American Standard for Steel Butt-Welding Fittings (ASA B16.9) or American Standard for Steel Socket-Welding Fittings (ASA B16.11) where applicable, and the material shall conform to ASTM Specifications A 216, A 217, or A 234, or material conforming to the requirements of 8 MCAR § 1.6312 E. Special fittings or welded assemblies fabricated in shop or field shall conform to this code. The material of special welding fittings shall conform to ASTM Specifications A 216, A 217, or A 234, or to the requirements of 8 MCAR § 1.6312 E. Special fittings or welded assemblies shall be construed to embrace cast, forged, rolled, or extruded fittings of special dimensions, and built-up manifolds, segmental elbows, fabricated swages, orange-peel bull plugs, or any similar construction not covered by American Standards B16.9 or B16.11 for factory-made welding fittings.

4. Forged-or-cast-steel screwed fittings are permitted in small nominal sizes up to and including

3 in. for pressures above 250 psi but not above 400 psi,

2 in. for pressures above 400 psi but not above 600 psi, and

1½ in. for pressures above 600 psi but not above 2500 psi if their design is suitable for the pressure and temperature. Malleable-iron screwed fittings conforming to the 300 lb American Standard B16.19 may be used for pressures not over 300 psi if the temperature is not over 500°F.

Z. Pipe joints. Flanges and bolting shall conform to the American Standard B16.5 for respective pressures and temperatures. Unions shall be forged steel and suitable for the pressure or malleable iron to the AAR Specification M404. For joints other than welded, refer to 8 MCAR § 1.6312 BBB. of this code. Welded joints shall be constructed as detailed under 8 MCAR § 1.6312

DDD. of this code and welding operators shall qualify according to 8 MCAR § 1.6312 EEE.

AA. Pipe.

1. For pressures above 600 psi, the pipe shall be
 - a. seamless steel meeting ASTM Specifications A 106, A 312, A 335 or A 376; or
 - b. forged and bored steel meeting A 369; or
 - c. automatic welded steel meeting A 312; or
 - d. electric-fusion-welded steel pipe meeting with ASTM Specification A 155.
 2. For pressures above 250 psi, but not above 600 psi, pipe shall be
 - a. seamless steel in accordance with ASTM Specification A 106;
 - b. electric-fusion-welded steel pipe in accordance with ASTM Specification A 155;
 - c. electric-resistance-welded steel pipe of ASTM Specification A 135; or
 - d. seamless or electric-resistance-welded steel pipe of ASTM Specification A 53.
 3. For service up to 750°F. and pressures of not over 250 psi, any of the following classes of pipe may be used:
 - a. electric-fusion-welded steel pipe of ASTM Specification A 134, or A 139;
 - b. electric-resistance-welded steel pipe of ASTM Specification A 135;
 - c. seamless or welded steel pipe of ASTM Specification A 53; or
 - d. wrought iron pipe of ASTM Specification A 72.
 4. Grade A seamless steel pipe of ASTM Specification A 106, wrought iron pipe of ASTM A 72, Grade A seamless steel pipe of ASTM A 53, or Grade A electric-welded pipe of ASTM A 53, A 135 or A 139 shall be used for close coiling, cold bending, or other special uses.
 5. Pipe permissible for the service specified in 8 MCAR § 1.6312 AA.
3. may be used for temperatures higher than 750°F., unless otherwise pro-

hibited, if the S value in accordance with 8 MCAR § 1.6312 V. is used when calculating the pipe wall thickness.

6. Pipe meeting API Specification 5L may also be used. (See 8 MCAR § 1.6312 E.)

BB. Bolting. Bolting shall conform to ASTM Specification A 193. Nuts shall conform to ASTM Specification A 194. (See 8 MCAR § 1.6312 K.)

**STEAM PRESSURES ABOVE 125 PSI AND NOT ABOVE 250 PSI
AND TEMPERATURES NOT IN EXCESS OF 450°F**

CC. Valves.

1. Gate, angle, and globe valves 3 in. and smaller may have inside screw. All stop valves 8 in. and over shall be by-passed. Pipe used in a by-pass, shall be of steel or wrought iron. All gate valves larger than 3 in. shall have outside screw and yoke where clearance permits. Where clearance is insufficient, non-rising stem gate valves are permissible but it is recommended an indicator be required where lack of one would be a hazard.

2. All valves shall be manufacturer's standard or equal for the specified pressure and temperature. Bodies, bonnets, and yokes shall be of cast iron, malleable iron, steel, bronze, brass, nickel, or nickel alloy. Drilling and facing of flanges of flanged valves shall comply with American Standard B16b, B16.5 (for 150 lb steel), or B16.24 (for bronze).

DD. Fittings.

1. Fittings shall be of steel, cast iron, malleable iron, bronze or brass.

2. Flanged steel fittings shall conform to the requirements for 300 lb. fittings in the American Standard B16.5, except that the 150-lb fittings conforming to the American Standard B16.5 may be used for the adjusted pressure-temperature ratings established therein.

3. Welding fittings shall comply with American Standard for Steel Butt-Welding Fittings (B16.9) or American Standard for Steel Socket-Welding Fittings (B16.11) where applicable, and the material shall conform to ASTM Specifications A 216, A 217, or A 234 or material conforming to the requirements of 8 MCAR § 1.6312 E. Special fittings or welded assemblies fabricated in shop or field shall conform to this code. The material of special welding fittings shall conform to ASTM Specifications A 216, A 217, or A 234, or to the requirements of 8 MCAR § 1.6312 E. Special fittings or welded assemblies shall be construed to embrace cast, forged, rolled, or extruded fittings of special dimensions, and built-up manifolds, segmental elbows, fabricated swages, orange-peel bull plugs, or any similar construction not covered by American Standards B16.9 or B16.11 for factory-made welding fittings.

4. Flanged cast-iron fittings shall conform to the Class 250 American

Standard B16b and may be used for the pressure and temperature ratings established therein. Screwed cast-iron fittings shall conform to the 250 lb American Standard B16.4.

5. Screwed malleable-iron fittings shall conform to the 300-lb American Standard B16.19 except that 150-lb malleable-iron fittings conforming to the American Standard B16.3 may be used for pressures not in excess of 150 psi.

6. Flanged brass or bronze fittings shall conform to the 300-lb American Standard B16.24, except that 150-lb brass or bronze fittings conforming to B16.24 may be used for pressure not in excess of 150 psi.

7. Screwed brass or bronze fittings shall conform to the 250-lb American Standard B16.17.

EE. Pipe joints. Steel flanges and bolting shall conform to the 300 lb American Standard B16.5. Cast iron flanges shall conform to the Class 250 American Standard B16b for the pressure and temperature ratings established in the standard. Bronze flanges and bolting shall conform to the 150 lb and 300 lb American Standard B16.24 for the respective pressures and temperatures. The 150 lb American Standard B16.5 may be used if permitted by its table of adjusted pressure-temperature ratings. Unions shall be suitable for the pressure. For joints other than welded, refer to 8 MCAR § 1.6312 BBB. 2. of this code. Welded joints shall be constructed as detailed under 8 MCAR § 1.6312 DDD. and welding operators shall qualify according to 8 MCAR § 1.6312 GGG. of this code.

FF. Pipe.

1. For pressures and temperatures within this specific requirement group, any of the following classes of pipe may be used:

- a. electric-fusion-welded steel pipe of ASTM Specification A 134, or A 139;
- b. electric-resistance-welded steel pipe of ASTM A 135;
- c. seamless or welded steel pipe of ASTM Specification A 53; or
- d. wrought iron pipe of ASTM Specification A 72.

2. Copper pipe or tubing and brass pipe may be used for this class of service provided the temperature is not above 406°F.

3. Grade A seamless steel pipe of ASTM Specification A 53, or wrought iron pipe of ASTM Specification A 72, or Grade A electric-welded pipe of ASTM A 53, A 135 or A 139 shall be used for close coiling, cold bending, or other special uses.

4. The foregoing shall not exclude cast-iron pipe if it conforms to the specifications and pressure-temperature ratings in this section of the code.

5. Pipe permissible for the above service may be used for temperatures higher than 450°F., unless otherwise prohibited, if an S value in accordance with 8 MCAR § 1.6312 V. is used.

6. Pipe meeting API Specifications 5L may also be used. (See 8 MCAR § 1.6312 E.)

GG. Bolting. Bolting material shall be of steel. Carbon steel bolts and bolt studs purchased under a definite specification may be able to resist calculated stresses for piping systems up to 250 psi and temperatures of 450°F., but for pressures in excess of 160 psi, ASTM Specification A 193 is recommended for bolting material, except that where cast-iron flanges are used bolting material shall be of carbon steel. Nuts shall meet ASTM Specification A 194.

STEAM PRESSURES ABOVE 25 PSI BUT NOT ABOVE 125 PSI AND TEMPERATURES NOT IN EXCESS OF 450°F.

HH. Valves. All valves shall be manufacturer's standard for the specified pressure and shall have cast iron, malleable iron, steel or brass bodies, bonnets, disks, and yokes. Drilling and facing of flanges of flanged valves shall conform with American Standard B16.1 or B16.24.

II. Fittings.

1. Fittings shall be of steel, cast iron, malleable iron, bronze or brass.

2. Flanged steel fittings shall conform to the requirements for 150-lb fittings in the American Standard B16.5.

3. Welding fittings shall comply with American Standard for Steel Butt-Welding Fittings (B16.9) or American Standard for Steel Socket-Welding Fittings (B16.11) where applicable, and the material shall conform to ASTM Specifications A 216, A 217, or A 234, or material conforming to the requirements of 8 MCAR § 1.6312 E. Special fittings or welded assemblies fabricated in shop or field shall conform to this code. The material of special welding fittings shall conform to ASTM Specifications A 216, A 217, or A 234, or to the requirements of 8 MCAR § 1.6312 E. Special fittings or welded assemblies shall be construed to embrace cast, forged, rolled, or extruded fittings of special dimensions, and built-up manifolds, segmental elbows, fabricated swages, orange-peel bull plugs, or any similar construction not covered by American Standards B16.9 or B16.11 for factory-made welding fittings.

4. Flanged cast-iron fittings shall conform to the Class 125 American Standard B16.1 and may be used for the pressure and temperature ratings established therein. Screwed cast-iron fittings shall conform to the 125-lb American Standard B16.4.

5. Screwed malleable-iron fittings shall conform to the 150 lb. American Standard B16.3.

6. Flanged brass or bronze fittings shall conform to the 150-lb American Standard B16.24. Screwed brass or bronze fittings shall conform to the 125-lb American Standard B16.15.

JJ. Pipe joints. Steel flanges shall conform to the 150 lb American Standard B16.5. Cast-iron flanges and bolting shall conform to the Class 125 American Standard B16.1 for the pressure and temperature ratings established in the standard. Bronze flanges and bolting shall conform to the 150 lb American Standard B16.24. Unions shall be suitable for the pressure and temperature. For joints other than welded refer to 8 MCAR § 1.6312 BBB. 2. of this code. Welded joints shall be constructed as detailed under 8 MCAR § 1.6312 DDD. of this code. Welding operators shall qualify according to 8 MCAR § 1.6312 DDD. of this code. Cast-iron pipe joints may be welded with bronze, nickel, or nickel alloy, or 18 Cr-8 Ni electrodes, if the temperature is not over 353°F.

KK. Pipe. Pipe shall be of steel, wrought iron, cast iron, copper, or brass subject to the limitations given in 8 MCAR § 1.6312 V. Steel pipe meeting ASTM Specification A 120 may be used except for close coiling or bending.

LL. Bolting. Bolting material shall be of carbon steel or wrought iron threaded in accordance with American Standard for Screw Threads, (B1.1), coarse thread series.

STEAM PRESSURES 25 PSI AND BELOW AND TEMPERATURES NOT IN EXCESS OF 450°F.

MM. Valves. All valves shall be of the manufacturers' standard for 25 psi pressure and shall have cast iron, malleable iron, or brass bodies, bonnets, disks, and yokes. Flanges of flanged valves shall conform to the 25 lb American Standard B16B2 for pipe sizes 4 in. and above and to the 125 lb American Standard B16.1 for sizes under 4 in., or to American Standard B16.24.

NN. Fittings.

1. For minimum requirements fittings shall be of cast iron, malleable iron, or other material allowed under this code.

2. Cast iron. Flanged cast-iron fittings shall conform to the 25-lb American Standard B16b2. Screwed cast-iron fittings shall conform to the 125-lb and 250-lb American Standard B16.4.

3. Malleable iron. Screwed malleable-iron fittings shall conform to the 150-lb American Standard B16.3.

4. Brass or bronze. Screwed brass or bronze fittings shall conform to the 125-lb American Standard B16.15.

5. Steel. Welding fittings shall comply with American Standard for Steel Butt-Welding Fittings (B16.9) or American Standard for Steel Socket-Welding Fittings (B16.11) where applicable, and the material shall conform to ASTM Specifications A 216, A 217, or A 234, or material conforming to the requirements of 8 MCAR § 1.6312 E. Special fittings or welded assemblies fabricated in shop or field shall conform to this code. The material of special welding fittings shall conform to ASTM Specifications A 216, A 217, or A 234, or to the requirements of 8 MCAR § 1.6312 E. Special fittings or welded assemblies shall be construed to embrace cast, forged, rolled, or extruded fittings of special dimensions, and built-up manifolds, segmental elbows, fabricated swages, orange-peel bull plugs, or any similar construction not covered by American Standards B16.9 or B16.11 for factory-made welding fittings.

OO. Pipe joints. For minimum requirements cast iron flanges shall conform to the 25 psi American Standard B16b2. Companion flanges shall conform to Class 125 American Standard B16.1. Bronze flanges shall conform to 150 lb American Standard B16.24. Unions when used shall be suitable for the pressures. For joints other than welded, refer to 8 MCAR § 1.6312 BBB. 2. of this code. Screwed joints may be used for pipe sizes as detailed under 8 MCAR § 1.6312 BBB. 2. of this code. Welded joints shall be constructed as detailed under 8 MCAR § 1.6312 DDD. and welding operators shall qualify according to 8 MCAR § 1.6312 DDD.2. of this code. Cast-iron pipe joints for this class of service may be welded with bronze, nickel, or nickel alloy, or 18 Cr-8 Ni electrodes, if the temperature is not over 353°F.

PP. Pipe. Pipe shall be of steel, wrought iron, brass, copper, or cast iron. (For limitations on copper pipe and tube and brass pipe, see 8 MCAR § 1.6312 SS. 7.

QQ. Bolting. Bolting material shall be of steel or wrought iron.

RR. Boiler feed systems and other water piping not otherwise covered.

1. Classification. The following requirements shall apply to all boiler feed systems and systems for water, except that on boiler feed systems the piping from the boiler drum or equivalent point to and including the feed valves required by ASME Boiler and Pressure Vessel Code.

2. Hot water systems shall be designed for the highest pressure and temperature actually existing in the piping under normal operation.

3. Boiler feed piping systems shall be designed for the highest pressure exerted by the boiler feed pumps at any load under normal operation and on the highest corresponding temperature, actually existing. Where water passes through heaters in series, the temperature rating of the piping shall conform to the actual temperatures produced by the heaters in each part of the system; but in no case shall pipe or fitting be rated less than 1.25 times the safety valve setting on the boiler.

SS. Boiler feed piping.

1. Boilers having more than 500 sq. ft. of water heating surface shall have at least two means of feeding water. Each source shall be capable of supplying water to the boiler at a pressure of 6% higher than the highest setting of any safety valve on the boiler. For boilers that are fired with solid fuel not in suspension, one source of feeding shall be steam operated.

2. The feed pipe to the boiler or boilers shall be provided with a check valve and at least one globe valve or plug cock. The stop or globe valve to be placed between the check valve and boiler and when a globe valve is used, the water inlet shall be under the disk.

3. All valves and fittings on the feed water piping from the pump to the boiler including the stop and check valves shall be equal at least to the requirement of the American Standards for a pressure 1.25 times the maximum allowable working pressure of the boiler or 1.25 times the lowest set pressure of any safety valve in the boiler drum, except as otherwise provided in the A.S.M.E. Boiler Code or American Standards Association.

4. Valves and fittings made of any material permitted by the Code for pressure rating of 125 pounds or more and marked as required by the Code may be used for feed line and blow-off service up to 80 per cent of the rated pressure, except where certain materials are specified, and in no case shall they be used for temperatures exceeding that permitted by the Code.

5. Design.

a. Where the pressure and temperature requirements of the feed piping system, as defined in 8 MCAR § 1.6312 RR. fall within the scope of 8 MCAR §§ 1.6312 X. - 1.6312 BB., inclusive, the feed piping system shall be designed in accordance with these paragraphs but flanges, fittings and valves may be selected in accordance with the adjusted pressure-temperature ratings given in the American Standard for Steel Pipe Flanges and Flange fittings B16.5. Where the requirements of the feed piping system or hot water piping, as defined in 8 MCAR § 1.6312 RR., fall within the scope of 8 MCAR §§ 1.6312 CC. - 1.6312 LL., inclusive, the entire piping system including fittings and flanges shall conform to or at least be equal to the steam piping requirements in 8 MCAR §§ 1.6312 CC. - 1.6312 LL.

b. All pressures and temperatures specified in 8 MCAR §§ 1.6312 RR. - 1.6312 SS. refer to continued normal operation. For short time operation excess pressures and temperatures may be allowed as specified in 8 MCAR § 1.6213 W.

6. By-passes. No by-passes around valves shall be required for pressures under 600 psi. For pressures 600 psi and above, it is recommended that all valves 8 in. and over in size be equipped with a by-pass of at least $\frac{3}{4}$ in. nominal size.

7. Exceptions.

a. Brass or copper pipe and tube may be used where a temperature of 406°F. is not exceeded.

b. Cast-iron pipe may be used where a pressure of 300 psi or a temperature of 450°F. is not exceeded.

TT. Blowoff piping and tanks.

1. Classification. The following requirements for blowoff piping apply to the entire system beyond the blowoff valves on the boiler to the blowoff tank or other point where the pressure is reduced approximately to atmospheric and cannot be increased by closing a valve. However, boiler blowoff piping that may be subjected to full boiler pressure, shall be capable of withstanding full boiler pressure.

2. Design. Blowoff piping shall be designed as for saturated steam in accordance with the following table, but all fittings shall be of steel.

a. Steel fittings shall be used on the blow-off piping between the boiler and the blow-off valves when the pressure exceeds 100 psi. All pipe connections between the boiler and the blow-off tank shall be made as direct as possible using sweep bends having a radius of four times the diameter of the pipe. Where conditions make the use of sweep bends prohibitive, long sweep fittings that comply with the standards of blow-off fittings set out in the A.S.M.E. Power Code may be used.

b. The inlet shall enter the shell at a tangent and shall be above the surface of the water in the tank. A wearing plate shall be attached to the inside of the shell opposite the inlet opening.

c. The outlet opening shall be connected with internal pipe or baffle extending downwards to within a few inches of the bottom of the tank. A ¾-inch syphon breaker shall connect the outlet piping with the vent pipe.

3. RECOMMENDED PIPE SIZES FOR BLOW-OFF SYSTEMS UP TO 450 POUNDS

Blow-off Inlet	Water Outlet	Vent
*¾	¾	2
1	1	2½
1¼	1¼	3
1½	1½	4
2	2	5
2½	2½	6

*For boilers of 100 square feet of heating surface or less.

a. The blow-down from any boiler shall not be connected directly to any sanitary sewer system. The blow-down must first pass through a blow-off tank or other apparatus that will reduce the pressure to not more than 5 pounds and the temperature to not more than 180 degrees F.

b. All piping between the boiler and blow-off valve on pressures exceeding 100 pounds shall be of double strength. Galvanized pipe or fittings shall not be used.

c. When the pressure exceeds 100 pounds, two blow-off valves shall be used, at least one valve shall be of the slow opening type.

d. Globe valves or gate valves are not to be used on new installations unless such globe or gate valves are designed for blow-off service.

e. Blow-off tanks shall be installed in such a manner that inspection can be made of any part of the tank at all times.

f. Blow-off tanks placed under-ground shall be installed in a properly walled pit with a space of not less than 18 inches between the tank and wall, and not less than 12 inches between the tank and the floor.

g. The end of the blow-off pipe from any steam boiler or the vent pipe from any blow-off tank or other apparatus shall not terminate in any location where the discharge can endanger the life or limb of any person or the property in which any such apparatus is located.

h. The State Plumbing Code provides: "The exhaust, blow-off, sediment or drip pipe from any steam boiler or steam trap shall not be connected directly to any sewer, drain, soil waste, or vent pipe. The water or steam of condensation from such pipe before it shall enter any sewer or drain shall be discharged into a suitable catch basin or condenser." The foregoing section is adopted and made a part of this Code.

UU. Water column.

1. Crosses shall be used on all right angle turns on the piping to the water column. The minimum size pipe connecting the water column to the boiler shall be not less than one inch in diameter.

2. No pipe connections may be made on the water column piping except those connected to equipment or appurtenances used to measure, record or regulate. This would include steam gauge, low water cut-off, pressure controls, pump controls, etc. Not included would be such equipment as whistles or soot blowers.

3. Cast iron plugs shall not be used in crosses. Galvanized pipe or galvanized fittings shall not be used on any connection directly to the boiler.

4. If any valves are used between the water column and boiler, they

shall be of the straight way type with either a lever or rising stem and shall be sealed open.

5. On power boilers where pressures exceed 100 pounds, two valves shall be used on the blow-off pipe on the water column, one of which shall be of the plug type with gland and shall be installed as close to the water column as possible.

VV. Safety valves.

1. Each boiler shall have at least one safety valve and if it has more than 500 square feet of water heating surface, it shall have two or more safety valves.

2. When two or more safety valves are used on a boiler, they may be mounted either separately or as twin valves made by placing individual valves on Y bases, or duplex valves having two valves in the same body casing. Twin valves in the same body shall be the same size.

3. The safety valve or valves shall be connected to the boiler independent of any other steam connection, and attached as close as possible to the boiler, without any unnecessary intervening pipe or fitting. Every safety valve shall be connected so as to stand in an upright position, with spindle vertical.

4. No valve of any description shall be placed between the required safety valve or valves and the boiler, nor on the discharge pipe between the safety valve and the atmosphere. When a discharge pipe is used, the cross-sectional area shall be not less than the full area of the outlet. All safety valve discharges shall be so located or piped as to be carried clear from running boards or platforms. If the discharge pipe is more than ten feet in length, the diameter of the pipe should be increased to the next size to relieve any back pressure on the safety valve. If the discharge pipe runs in both a horizontal and vertical position, it shall be pitched away from the valve and properly drained.

5. When a safety valve discharge pipe runs in a vertical position it should be supported with proper hangers in such a manner as to avoid any vibration or undue stress on the safety valve, and also provisions must be made to drain any collection of condensate so it will not accumulate above the seat of the safety valves. It is recommended that drip pan elbows be used whenever possible to drain accumulation of condensation from relief valves.

WW. Steam piping.

1. When boilers are connected to a common steam main, the steam connection from each boiler having a manhole opening shall be fitted with two stop valves having an ample free blow drain between them. The discharge of this drain shall be visible to the operator while manipulating the valve. The stop valves shall consist preferably of one automatic non-return valve (set

next to boiler) and a second valve of the outside-screw-and-yoke type; or, two valves of the outside-screw-and-yoke type shall be used.

2. When pressure reducing valves are used, one or more relief or safety valves shall be provided on the low pressure side of the reducing station in the event that the piping or equipment on the low pressure side does not meet the requirements for the full initial pressure. Proper protection shall be provided to prevent possible injury or damage caused by the discharge from the safety valves. The relief or safety valves shall be installed as close to the reducing valves as possible. It is mandatory that a pressure gage be installed on the low pressure side of the reducing valve.

XX. Service water and condensing water systems.

1. Above 175 psi but not above 400 psi. Service water piping systems above 175 psi but not above 400 psi shall be designed as prescribed for 250 psi saturated steam pressure in 8 MCAR § 1.6312 CC. - GG., except that for valves, the manufacturer's rating shall be adhered to for the service pressure.

2. Above 43 psi but not above 175 psi. Service water piping systems above 43 psi but not above 175 psi shall be designed as prescribed for 125 psi saturated steam pressure in 8 MCAR § 1.6312 HH. - LL.

3. 43 psi and below. Condensing water and service water systems up to and including 43 psi pressure shall be designed as prescribed for 25 psi saturated steam pressure in 8 MCAR § 1.6312 MM. - QQ. Bell and spigot joints may be used if permitted by 8 MCAR § 1.6312 BBB.

4. By-passes. No by-passes around valves shall be required.

5. Welding. Welding operators for work on service water and condensing water systems shall qualify according to 8 MCAR § 1.6312 DDD. of this code.

YY. Instrument and control piping.

1. Scope.

a. These requirements shall apply to the design of instrument and control piping for safe and proper operation of the piping itself. They do not cover design of piping to secure proper functioning of instruments for which the piping is installed.

b. The term "Instrument Piping" shall apply to all valves, fittings, tubing and piping used to connect instruments to main piping or to other instruments or apparatus or to measuring equipment as used within the classification of 8 MCAR § 1.6312 B.

c. The term "Control Piping" shall apply to all valves, fittings, tubing and piping used to interconnect air or hydraulically operated control

apparatus also classified in accordance with 8 MCAR § 1.6312 B. as well as to interconnect instrument transmitters and receivers.

d. Sampling piping shall apply to all valves, fittings, tubing and piping used for the collection of samples of steam, water and oil. It shall conform to minimum requirements for the main line to which it connects.

e. This paragraph does not include tubing used in permanently closed systems, such as fluid-filled temperature responsive devices.

2. **Materials and design.** The materials employed for valves, fittings, tubing and piping shall meet the particular conditions of service and the requirements of the applicable specifications listed under general 8 MCAR § 1.6312 E., F., and G., with allowable stresses.

3. **Take-off connections.**

a. Take-off connections at the source together with attaching bosses or adapters when used shall be made of material at least equivalent to that of the pipe or vessel to which they are attached. They shall be designed to withstand full line pressure and temperature and all stresses including those induced by fatigue, without failure. The nominal pipe size of the take-off connections shall be not less than ½ in. for service conditions not in excess of either 900 psi or 800°F., and ¾ in. nominal pipe size (for adequate physical strength) for conditions which exceed either of these limits.

b. To prevent overstressing the main steam line by contact with the colder condensate return from the instrument, steam meter or instrument take-off connections shall be lagged in with the steam main. For temperatures in excess of 800°F. they may also be arranged to make metallic contact lengthwise with the steam main.

c. Bosses or adapters may be used for temperatures not exceeding 800°F., provided the hole drilled through the pipe wall is the same diameter as the inside diameter of the takeoff connections. For higher temperatures the adapter may be provided with a thermal sleeve which extends entirely through the pipe wall.

4. **Main line shut-off valves.** Shut-off valves shall be provided at the end of take-off connections. They shall be capable of withstanding the maximum working pressure and temperature of the piping system to which the take-off nipples are attached.

5. **Reservoirs or condensers.** In dead end steam service, and optionally for other services, condensing reservoirs, and connecting nipples which immediately follow the main line shut-off valves, shall be made of low carbon steel or other suitable material for the saturated steam temperature corresponding to the actual line pressure.

6. **Connecting tubing or piping.**

a. For instruments (between shut-off valves and instrument).

(1) Copper, copper alloys and other non-ferrous materials, may be used in dead end steam, water, oil, and similar services up to the maximum main line pressures and temperatures provided that the temperature within the connecting lines for continuous service does not exceed 406°F. Where condensers are used of a design such that they are filled with part steam and part water so that the temperature of the water in the reservoir is above 406°F., a five foot length of uninsulated steel tubing shall immediately follow the condenser, ahead of the connecting copper tubing to the instrument.

(2) For higher pressures and temperatures steel or alloy steel may be used up to the maximum.

(3) The minimum size of the tubing or piping is a function of its length, the volume of fluid required to produce full scale deflection of the instrument, and the service of the instrument. When required to prevent plugging as well as to obtain sufficient mechanical strength, the inside diameter of the pipe or tube should not be less than 0.36 in., with a wall thickness of not less than 0.049 in. When these requirements do not apply, smaller sizes with wall thickness in due proportion, may be used.

(4) The piping shall be designed in accordance with 8 MCAR § 1.6312 V., with due allowance for water hammer when required. Unless required by corrosive conditions however, the factor "C" need not apply. In view of the absence of proper standards on the matter, the hardness of the tubing used should conform to the specifications established by the manufacturer of the fittings to be used.

b. For control. The same materials may be used for control piping as for Instrument Piping except that the minimum inside diameter shall be 0.178 in. instead of 0.36 in., with a minimum wall thickness of 0.028 in.

7. Other valves.

a. Blowdown valves at or near the instrument shall be of the gradual opening type and for steam service shall be suitable for saturated steam temperature corresponding to the actual line pressure. For other than steam service they shall be suitable for the actual main line pressure and temperature.

b. When blowdown valves are used, valves at the instrument as well as any intervening fittings and tubing between such blowdown valves and the meter, may be suitable only for 1½ times the design pressure at 100°F. When blowdown valves are not used, instrument valves shall conform to the requirements of 8 MCAR § 1.6312 YY. 7. a.

8. Fittings and joints. For dead-end steam service and for water above 100°F., steel fittings of the flared or socket welded types, items A and C, 8 MCAR § 1.6312 JJJ., or other suitable types of similar design shall be used in accordance with the pressure-temperature conditions given in the chart in this section.

9. Special safety provisions.

a. Connecting piping subject to clogging from solids or deposits shall be provided with suitable connections for cleaning.

b. Connecting piping handling air and gases containing moisture or other extraneous materials shall be provided with suitable drains or settling chambers or traps in accordance with 8 MCAR § 1.6312 R.

c. Connecting piping to which may contain liquids shall be protected from damage due to freezing by heating or other adequate means.

10. Supports. Supports shall be furnished as specified in 8 MCAR § 1.6312 P. not only for safety but also to protect the piping against detrimental sagging, external mechanical injury, abuse and exposure to unusual service conditions.

11. Installation. Instrument and control piping shall be inspected and tested in accordance with 8 MCAR § 1.6312 S. and U., and cleaned as specified in 8 MCAR § 1.6312 T.

ZZ. Fabrication of pipe hangers, supports, andhorns, sway bracings, and vibration dampeners.

1. General materials requirements. All materials used in the fabrication of equipment included in this chapter of the code shall be capable of meeting the general requirements designated herein. The dimensions and the physical and chemical characteristics of these materials shall be chosen so that the factors of safety, under the operating conditions, are not less than those specified herein under 8 MCAR § 1.6312 AAA. 7. Construction equal to or better than required by this code is mandatory, including the use of materials having physical and chemical properties at least equal to its minimum requirements.

2. Materials standards.¹ All materials used shall be capable of meeting the respective standard specifications given in 8 MCAR § 1.6312 E.

3. Specific material requirements.

a. All equipment for permanent hangers, supports, and anchors shall be fabricated from durable materials for the service conditions involved.

b. In tunnels and in buildings of fireproof construction, the use of wood and wire for piping supports shall be limited to rigging and temporary supports during erection. All permanent supports shall be fabricated from noncombustible materials.

¹The policy of the Sectional Committee in making reference to standards and specifications is stated in 8 MCAR § 1.6312 III. 4.

c. In buildings of nonfireproof construction and in areas outside of buildings, piping may be supported by or hung from wooden structures provided that all piping used for conveying fluids at a temperature above 230°F. shall be spaced for insulated from such wooden members to prevent dangerous heating.

d. Steel and wrought iron. Steel or wrought iron, except as provided in 8 MCAR §§ 1.6312 ZZ. 3., 1.6312 AAA. 1., 1.6312 AAA. 2., and 1.6312 AAA. 3., shall be used throughout in the fabrication of hanger rods, turnbuckles, beam clamps, pipe clamps, and straps, chains, supports, rollers, guides, bases, and all other parts used for the support of piping. Parts of supports which are subjected principally to bending or tension loads, and which are subjected to working temperatures for which carbon steel is not recommended, shall be made of suitable alloy steel.

AAA. Suggested maximum spacing between pipe supports for straight runs of standard wall pipe and heavier pipe at maximum operating temperature of 750°F.

(Does not apply where there are concentrated loads between supports, such as flanges, valves, specialties, etc.)

Nom. Pipe Size In.	1	1½	2	2½	3	3½	4	5	6	8	10	12	14	16	18	20	24
Max. Span Ft.	7	9	10	11	12	13	14	16	17	19	22	23	25	27	28	30	32

The above spacing based on a combined bending and shear stress of 1500 psi when pipe is filled with water and the pitch of the line is such that a sag of 0.1 in. between supports is permissible.

1. Cast iron. Cast iron may be used for the fabrication of roller bearing bases, rollers, guides, anchor bases, brackets, and parts of piping supports upon which the loading will be mainly that of compression. Cast iron shall not be used for hanger rods, turnbuckles, clamps, or any parts which will be subjected principally to tension loads.

2. Malleable-iron castings. Malleable-iron castings of suitable design may be used for pipe clamps, beam clamps, hanger flanges, clips, bases, swivel rings, and parts of pipe supports but their use shall be limited to such cases where the malleable iron will not be within a distance of 12 in. from piping subjected to temperatures of 450°F.

3. Corrosion resistant metals. Non-ferrous metals or corrosion-resisting steel alloys should be used for equipment to support piping under conditions causing excessive corrosion of ordinary steel or wrought iron. Cast-iron or

malleable-iron castings, if warranted as a protection against the expected corrosion, also may be used but their use shall be subject to the requirements of 8 MCAR § 1.6312 AAA. 1., 1.6312 AAA. 2.

4. Protective coatings.

a. Under conditions causing atmospheric rusting or slight corrosion, corrosion-resisting materials need not be used, but a protective coating such as a hot dipped galvanizing, a weather-resisting paint, or other suitable protection shall be applied after fabrication to all parts where required. Under conditions causing mild corrosion such as atmospheric rusting, which are not of an intensity to warrant the use of corrosion-resistant materials, a durable protective coating such as hot-dipped galvanizing, weather resisting paint or other suitable protection should be applied to all parts after fabrication or after installation.

b. Under any conditions, exposed screw threads on parts of this equipment where corrosion-resisting materials are not used shall be greased immediately after fabrication. Paints, slushes, or other suitable protective coatings may be used instead of grease.

5. General limitations.

a. Supports shall prevent excessive variation of supporting effort, and possible resonance with imposed vibrations. The construction shall also be such that complete release of the piping load will be impossible in the case of spring failure or misalignment.

b. *The fabrication of helical and elliptical springs for spring hangers* and supports shall be in accordance with the respective specifications. Springs shall be fabricated so that the proper working fiber stress, depending upon the type of spring and the service for which it is intended, shall not be exceeded.

c. All parts of the supporting equipment shall be fabricated and assembled so that they will not be disengaged by movement of the supported piping.

d. Pipe, straps, or bars of strength equal to the equivalent hanger rod may be fabricated for use instead of hanger rods.

e. Hangers used for the support of piping of 2 in. nominal pipe size and larger shall be fabricated to permit adequate adjustment after erection while still supporting the load. Exception to this may be made in cases where hangers are to be used for the support of piping requiring exact grades, for which they may be fabricated as rigid hangers.

f. Screw adjustments shall be fabricated so that all threaded members conform to American Standard B1.1 coarse-thread series - Class 2 fit. Turn-buckles and adjusting nuts shall have the full length of thread in service.

Means shall be provided for determining that full length of thread is in service. All screw or equivalent adjustments shall be provided with suitable locking features.

g. Supports shall be spaced so as to prevent excessive sag, bending and shear stresses in the piping, with special consideration given to those piping sections where flanges, valves, etc., impose concentrated loads. Where calculations are not made, suggested maximum spacing of hangers or supports for carbon steel piping operating at 750°F. and lower are given in 8 MCAR § 1.6312 AAA. Where greater distance between supports, concentrated loads, higher temperatures, or vibration considerations are involved, special consideration should be given to effects of bending and shear stresses. See also 8 MCAR § 1.6312 CCC. 4. e.

6. Dimensional limitations.

a. Straps. Straps shall be limited to the minimum dimensions of 1/8 in. thickness by 1 in. width for use in locations protected from the weather. The minimum strap thickness for locations exposed to the weather shall be 1/4 in. As exceptions to this, where straps are to be used for supporting pipe of 1 in. nominal size or smaller, the minimum strap dimensions shall be 1/16 in. thickness by 3/4 in. width in locations protected from the weather, and 1/8 in. thickness in locations exposed to the weather.

b. Hanger rods. The maximum load carried by a hanger rod used for the support of piping shall be based on the allowable stress of the material as specified in Par. 607, except that in no case shall hanger rods less than 3/8 in. diameter be used for supporting pipe of 2 in. nominal size and smaller or less than 1/2 in. diameter rod for supporting pipe 2-1/2 in. nominal size and larger. Safe loads for all threaded hanger rods shall be based on the root area of the threads. When the temperature of any part of a hanger rod does not exceed 450°F. and hanger rod material conforms to ASTM Specification A 107, such rods may be used for support of loads not in excess of those given in 8 MCAR § 1.6312 AAA. Where rods are exposed to the weather or other corrosive elements, they shall be protected as stated in 8 MCAR § 1.6312 AAA. 4. or fabricated from materials as described in 8 MCAR § 1.6312 AAA. 2., according to the conditions. The minimum rod sizes for ferrous materials for these corrosive conditions shall be given for the noncorrosive condition. For nonferrous materials the minimum rod area for corrosive conditions shall be increased by the ratio of allowable stresses of steel to allowable stress of the nonferrous material used.

c. Load carrying capacities of threaded hot rolled steel rod to ASTM Spec. A-107.

Nominal Rod Diam.	Root Area Thread	Maximum Safe Load, Pounds, 450°F.
3/8	0.068	610
1/2	0.126	1,130
5/8	0.202	1,810

Nominal Rod Diam.	Root Area Thread	Maximum Safe Load Pounds, 450°F.
3/4	0.302	2,710
7/8	0.419	3,370
1	0.552	4,960
1-1/8	0.693	6,230
1-1/4	0.889	8,000
1-3/8	1.053	9,470
1-1/2	1.293	11,630

d. Chain. Chain used for hangers shall be limited to stock having a minimum diameter of 3/16 in. or equivalent area for supporting pipe of 2 in. nominal size or smaller. For supporting pipe of 2-1/2 in. nominal size and larger, chain used in the fabrication of hangers which are to be located in places protected from the weather shall be limited to stock having a minimum diameter of 3/8 in. or equivalent area. Rods for chain hangers shall be fabricated in accordance with 8 MCAR § 1.6312 AAA. 6. Where such composite chain hangers are to be exposed to the weather or other corrosive elements, castings and chain stock as well as the rods and all parts shall be fabricated, where applicable, from materials with the same minimum requirements as described in 8 MCAR § 1.6312 AAA. 3. or protected as stated in 8 MCAR § 1.6312 AAA. 4. according to conditions. The minimum sizes of chain stock for these corrosive conditions shall be as given above for the noncorrosive condition.

e. Bolted clamps. Bolted clamps formed from plate or rectangular sections used in connection with rod or chain hangers shall have a minimum thickness of 3/16 in. Bolts used with these clamps shall have a minimum diameter of 3/8 in. All parts of the bolted clamps, including bolts, shall conform with the requirements of 8 MCAR §§ 1.6312 ZZ. 3., and 1.6312 AAA. 8.

f. Welded attachments. Lugs, plates, angle clips, etc., used as part of an assembly for the support or guiding of pipe may be welded directly to the pipe provided the material is of good weldable quality and the design is adequate for the load. The design of hanger lugs for attachment to piping for high temperature service shall be such as to provide for differential expansion between the pipe wall and the attached lug. Welds shall be proportioned so that the shear stresses shall not exceed 0.8 times the S values of the code under which piping is designed for the respective operating temperatures of the piping. If materials for attachments have different stress values than the pipe the lower stress value of the two should be used. All such attachment welds shall be pre-heated as required for the pipe. Post heating is required for carbon steel attachments to carbon steel pipe if the attachment welds exceed 3/4 in. throat dimension. Pre-heating and post heating of attachments to alloy pipe shall be in accordance with the procedure qualifications. Welding shall be done by operators and procedures qualified in accordance with the rules of 8 MCAR § 1.6312 DDD.

7. Allowable stresses.

a. The allowable stress for the base material of all parts of supporting assemblies shall not exceed the appropriate S value taken from the allowable stress tables in the applicable section of the code at the maximum operating temperature of the part in question for seamless material of the same nominal chemical analysis and with tensile and yield strengths not higher than the materials used.

For other carbon steel materials used below 650°F. the allowable stress shall be no more than 12,000 psi.

The allowable stress shall be reduced 25 per cent for threaded members based on the area, at the root of threads and for welds in support assemblies or for attachments to piping.

b. An increase in allowable stress of 20 percent shall be allowed for short time overloading conditions.

c. For requirements pertaining to springs see 8 MCAR §§ 1.6312 AAA. 5. a. and 1.6312 AAA. 5. b.

8. Loading.

a. The required strength of all supporting equipment, except springs, shall be based on the weight of the pipe, the weight of medium transported or the medium used for testing, whichever is heavier, and the weight of the insulating cover, if used.

b. Weight calculations for springs should be based upon the normal operating conditions of the piping. They should not include the weight of the hydrostatic test fluid. Springs shall be designed for unit fiber stresses that will not be exceeded during any condition of loading or test; otherwise suitable travel stops to prevent overstressing the spring shall be provided.

c. Exceptions may be made in the case of supporting equipment for large gas or air piping, exhaust steam relief or safety valve relief piping, but only under conditions where the possibility of any of these lines becoming full of water or other liquid is very remote.

d. Wind pressure shall be included in the calculations for the strength and structural features of the supports for exterior piping. Snow and ice loads shall also be considered in localities where such conditions occur.

9. Supports permitting pipe movement. Hangers and supporting equipment shall be fabricated and assembled to permit the free movement of piping as caused by thermal expansion and contraction or by other causes. This should be accomplished by the use of long rod hangers, spring hangers, chains, hangers or supports fitted with rollers, machined blocks, elliptical or circular rings of larger diameter than the pipe causing contact only at the bot-

tom, trolley hangers or equivalent. Rolling supports shall be accurately made, properly guided, and shall roll freely. Hanger rods shall be provided with welded or forged eyes, pivoting clamps, T heads with suitable sockets, or equivalent. In all cases allowance shall be made for rod clearance to permit swinging without setting up severe bending action in the rods. When pipe is covered by insulation, a suitable metal shield properly constructed and secured to the covered pipe should be used to protect the covering at points where the pipe is supported on movable rolling supports or in larger diameter rings, except that where the nature of the material permits, the pipe may rest directly on the insulation without metallic supports.

10. Spring hangers, compensating hangers, sway bracings, and vibration dampeners.

a. The design fabrication and installation of this equipment shall not constrain the piping when expansion or contraction occurs, to such an extent as to cause excessive transfer of loads from support to piping or from support to support. In any case, supports, whether of the rigid or spring types, shall be capable of taking the entire piping load imposed by weight transfer, by failure of springs in spring supports, or added load resulting from testing during erection.

b. All springs shall be provided with means to prevent misalignment, buckling, eccentric loading of the spring and with stops to prevent excessive spring deflection that would be the cause of excessive spring stresses.

c. It is recommended that all hangers employing springs be provided with means to indicate at all times the proper position of the spring with respect to the hot and cold position of the piping system, except where they are used either to cushion against shock or where the operating temperature of the piping system does not exceed 250°F.

d. Each spring or compensating-type hanger or support shall be designed to exert a supporting force equal to the load at point of attachment to the pipe, as determined by weight balance calculations. On high temperature and critical lines where changes in thermal conditions in the piping cause a change in supporting effect of such hanger or support, the excess or deficiency of support shall be included in the determination of total stresses in the piping.

e. On high temperature and critical piping at locations subject to appreciable movement with thermal changes, the use of spring or compensating type hangers or supports, designed to provide a substantially uniform supporting force equal to the load throughout the range of travel, is recommended. The piping should also be supported in a manner to keep thrust and moments on equipment at a minimum.

f. On high temperature and critical piping when conditions of 8 MCAR § 1.6312 AAA. 10. e. do not apply, either compensated type hangers or supports, or spring hangers, which are designed for a maximum variation in

supporting effect of 25 percent for the total vertical travel between the hot and cold positions, may be used.

g. When necessary to prevent abnormal movement or vibration in pipe lines, sway braces or vibration dampeners shall be used. They shall be installed so as to cause minimum possible restraint to the normal thermal movements. The use of sway braces of the energy-absorbing or instant counter force acting type are recommended for control of undesirable pipe line movement. Rigid braces are also effective in controlling movement provided they do not restrict the flexibility of the piping or provided their effect is taken into account in the design of the piping flexibility.

11. Counterweights when used instead of spring hangers shall be provided with stops to limit travel. Weights shall be positively secured with bolts or placed in suitable box compartments. The fabrication of chains, cables, hanger and rocker arm details, or other devices used to apply the counterweight load to the piping, shall be subject to the requirements indicated herein under 8 MCAR §§ 1.6312 ZZ. 1. and 1.6312 ZZ. 2.

12. Anchors and guides.

a. Anchors, guides, pivots, or restraints shall be fabricated and assembled in such a form as to secure the desired points of piping in relatively fixed positions. They shall permit the line to expand and contract freely in opposite directions away from the anchored or guided point, and shall be so arranged as to be structurally suitable to withstand the thrust, torsional forces and load conditions of operation. Materials and fabrication shall be in accordance with the requirements of 8 MCAR §§ 1.6312 ZZ. 1., 1.6312 ZZ. 3., and 1.6312 AAA. 7.

b. Where corrugated or slip-style expansion joints are used, anchors shall be provided to force the expansion movement into the joint, with such anchors designed to withstand a force equal to the force as recorded by the manufacturer for the operating pressure at which the joint is to be used. If the manufacturer does not supply this force figure, the anchor shall be designed to withstand a force equal to the sum of the product of the maximum internal area times the maximum working pressure in the line plus an allowance to overcome friction. Where friction factor is not known, the anchor shall be designed to withstand a force equal to twice the product of the maximum internal area times the maximum pressure in the line. In all cases the allowable stresses in the line shall be in accordance with 8 MCAR § 1.6312 AAA. 7.

c. All lines containing expansion joints shall be properly guided to direct movement into the expansion joint.

BBB. Fabrication of pipe joints other than welded.

1. Classification.

a. Ferrous pipe. Specific requirements are outlined herein for threaded joints and the more common type of flanged joints. However, this code permits the use of special joints such as rubber or flexible rings held tight by pressure and properly retained; sleeve or gland type, hub and spigot, screwed or flanged union connections, flared and compression type joints and any other connection, the joints and materials of which are suitable for the service conditions encountered as required by other sections of the code.

b. Nonferrous pipe. Valves, fittings, and flanges may be attached to nonferrous pipe and tubing by the following methods, and may be used at pressures and temperatures permitted by this code for the pipe or tubing unless otherwise specified:

(1) By threading when the pipe is made to standard pipe size dimensions.

(2) By flanged or lapped connection.

(3) By soldered or brazed socket sleeve type joints.

(a) Joints of the socket sleeve type, in accordance with American Standard for Cast Brass Solder-Joint Fittings (ASA B16.18) and American Standard for Wrought Copper and Wrought Bronze Solder-Joint Fittings (ASA B16.22), may be used for pressure and temperature ratings therein specified.

(b) Other socket sleeve type joints using a brazing solder melting at or above 1100°F., where the brazed junction between pipe and sleeve extend full depth of socket, are acceptable. Fillet brazed joints are not acceptable.

(4) By flared or compression type joints where such joints are suitable for the pressure encountered.

2. Threaded joints. Screw threads shall conform to American Standard for Taper Pipe Threads (ASA B2.1) or to API Standards 5L for line pipe threads and 5A for casing threads.

3. Flange requirements.

a. Flanges cast or forged integral with pipe, fittings or valves shall be permitted in sizes and for the maximum service ratings covered by the American Standards or as defined in other sections of this code.

b. Screwed companion flanges shall be permitted in sizes and for maximum service ratings covered by American Standards or as defined in other sections of this code. The requirements for threaded joints in 8 MCAR § 1.6312 BBB. 3. apply to this type of flange.

c. Lapped flanges shall be permitted in sizes and pressure standards

established in the American Standard for Steel Pipe Flanges and Flanged Fittings (ASA B16.5) or as defined in other sections of this code.

d. Slip-on welding flanges shall be permitted in sizes and pressure standards established in the American Standard for Steel Pipe Flanges and Flanged Fittings (ASA B16.5) or as defined in other sections of this code. For methods of welding, see Fig. 6a-b. For service below 150 psig, slip-on flanges fabricated from flat plates may be substituted for hubbed slip-on flanges, provided the inherent weakness of locating the weld at the region of highest flange stress is taken into account in establishing the service temperature and pressure conditions. For service 150 psig and above, slip-on flanges fabricated from flat plate may be used provided the thickness of the flange is equivalent to the flange thickness of the next higher pressure class for the same size (ASA B16.5). The method of attachment shall be as shown in Fig. 6 a-b.

e. Welding neck flanges shall be permitted in sizes and pressure standards established in the American Standard for Steel Pipe Flanges and Flanged Fittings (ASA B16.5) or as defined in other sections of this code. The bore of the flange shall correspond to the inside diameter of the pipe used. The welding shall comply with 8 MCAR § 1.6312 DDD. on welding of pipe joints.

f. Socket-welding flanges shall be permitted in sizes and pressure established in the American Standard for Steel Pipe Flanges and Flanged Fittings (ASA B16.5), or as defined in other sections of this Code.

g. Steel flanges, provided with grooves into which the pipe is expanded, shall be permitted in sizes and for maximum service ratings outlined for screwed companion flanges in 8 MCAR § 1.6312 BBB. 3.

4. Flange facing, facing finish and flange bolting.

a. The flanges described in the following standard are regularly faced as shown below:

Rating	Material	Dimensional Standard	Facing
25	Cast iron	ASA B16b2	Plain (flat)
125	Cast iron	ASA B16.1	Plain (flat)
250	Cast iron	ASA B16b	1/16 raised
150 & 300	Brass or bronze	ASA B16.24	Plain (flat)
150	Corrosion resistant	MSS SP-42	Plain (flat)
150 & 300	Steel	ASA B16.5	1/16 raised
400, 600, 900, 1,500 & 2,500	Steel	ASA B16.5	1/4 raised

b. Other flange facings as shown in American Standard for Steel Pipe Flanges and Flanged Fittings (ASA B16.5) are permitted. Such facings shall be subject to pressure temperature limitations shown in ASA B16.5 or as defined in other sections of this code.

c. The finish of facings shall be in accordance with MSS Standard Finishes for Contact Faces of Connecting-End Flanges of Valves and Fittings (MSS SP-6).

d. 25 psi and Class 125 cast-iron integral or screwed companion flanges may be used with a full face gasket or with a ring gasket extending to the inner edge of the bolt holes. When using a full-face gasket, the bolting may be of heat-treated carbon-steel (ASTM A 261), or alloy steel (ASTM A 193). When using a ring gasket, the bolting shall be of carbon-steel equivalent to ASTM A 307 Grade B without heat-treatment other than stress relief.

e. When bolting together two Class 250 integral or screwed companion cast-iron flanges, having 1/16 in. raised faces, the bolting shall be of carbon steel equivalent to ASTM A 307 Grade B, without heat-treatment other than stress relief.

f. 150 psi steel flanges may be bolted to cast-iron valves, fittings, or other parts, having either integral Class 125 cast-iron flanges or screwed Class 125 companion flanges. When such construction is used, the 1/16 in. raised face on the steel flange shall be removed. When bolting such flanges together using a ring gasket extending to the inner edge of the bolt holes, the bolting shall be of carbon steel equivalent to ASTM A 307 Grade B, without heat treatment other than stress relief. When bolting such flanges together using a full face gasket, the bolting may be heat treated carbon steel (ASTM A 261) or alloy steel (ASTM A 193).

g. 300 psi steel flanges may be bolted to cast-iron valves, fittings, or other parts having either integral Class 250 cast-iron flanges or screwed Class 250 cast-iron flanges or screwed 250 cast-iron companion flanges without any change in the raised faces on either flange. Where such construction is used, the bolting shall be of carbon-steel equivalent to ASTM A 307 Grade B, without heat treatment other than stress relief. Good practice indicates that the raised face on the steel flange should be removed, but also in this case, bolting shall be of carbon-steel equivalent to ASTM A 307 Grade B without heat-treatment other than stress relief.

5. Gaskets.

a. Dimensions of nonmetallic gaskets are shown in American Standard for Nonmetallic Gaskets (ASA B16.21).

b. Paper, vegetable fiber, rubber, or rubber-inserted gaskets shall not be used for temperatures in excess of 250°F.

c. Asbestos composition gaskets may be used as permitted in the American Standard for Steel Pipe Flanges and Flanged Fittings (ASA B16.5). This type of gasket shall not be used on lines carrying oil or other fluids above their spontaneous ignition temperatures unless specifically approved in the individual sections of this Code.

d. The use of metal or metal asbestos gaskets, is not limited as to pressure provided that the gasket material is suitable for the service temperature. These types of gaskets are recommended for use with the small male and female or the small tongue and groove facings. They may also be used with steel flanges having large male-and-female, large tongue-and-groove, or raised face.

e. Full face gaskets shall be used with all bronze flanges and are recommended for corrosion resistant steel flanges conforming to MSS SP-42, and may be used with 25 psi or Class 125 cast-iron flanges. Ring gaskets, with an outside diameter extending to the inside of the bolt holes, may be used with cast-iron flanges or with plain or raised face steel flanges.

f. In order to secure higher unit compression on the gasket, gaskets of a width less than the full male face of the flange may be used with steel flanges with any of the following facings; raised face, large male and female; otherwise, widths of gaskets for large male and female joints are recommended to be equal to the width of the male face. Widths of gaskets for small male and female, or for all tongue-and-groove joints shall be equal to the width of the male face, or tongue. All gaskets shall have an inside diameter equal to, or larger than, the port opening.

g. Rings for ring joints shall be of dimensions and quality established in the American Standard for Ring-Joint Gaskets and Grooves for Steel Pipe Flanges and Flanged Fittings (ASA B16.20).

CCC. Expansion and flexibility.

(NOTE: The provisions of this Chapter are not applicable to gas, air and oil cross-country transmission (underground) piping.)

1. Preamble. Piping systems are subject to a diversity of loadings creating stresses of different types and patterns, of which only the following more significant ones need generally be considered in piping stress analysis:

a. Pressure, internal or external.

b. Weight of pipe, fittings and valves, containing fluid and insulation, and other external loadings such as wind.

c. Thermal expansion of the line.

The first two loadings produce sustained stresses which are evaluated by conventional methods. The stresses due to thermal expansion on the other hand, if of sufficient initial magnitude will be relaxed as a result of local flow in the form of yielding or in the form of creep. The stress reduction which has taken place will appear as a stress of reversed sign in the cold condition. This phenomenon is designated as self-springing of the line and is similar in effect to cold springing. This amount of such self-springing will depend on the magnitude of the initial hot stress and the temperature. Accordingly, while the

hot stress tends to diminish with time, the sum of the hot and cold stresses during any one cycle will remain substantially constant. This sum is referred to as the stress range. The fact that the stress range is the determining factor leads to the selection of an allowable combined stress (range) in terms of the sum of the hot and cold S values.

2. Where due to severe service conditions or special configurations, excessive local strains may occur under prolonged heating in materials of limited ductility, the effect of such conditions should be considered. For example, it is possible to have a pipe line configuration with the following adverse conditions:

a. One or more branches which are small in size compared with the majority of the piping.

b. A calculated high expansion stress level in the small size branch with the remainder of the piping at relatively low expansion stress levels.

c. A relatively small elastic deformation in the small size branch coincident with the high expansion stress level; and a relatively large amount of absorbed expansion stored in the low stressed areas of the system to act as an elastic follow up spring thereby maintaining elastic deformation on the small size, high expansion stressed area.

When all three of the above conditions exist, it is possible to produce an undesirable amount of creep in the small size, high expansion stressed area. Such undesirable creep could be avoided by a redesign of the piping or by judicious cold springing of the system.

Until more is known about the fabrication and treatment of austenitic steels, it is recommended that the design of piping systems of such materials be approached with greater overall care as to general elimination of local stress raisers, inspection, material selection, fabrication quality and erection. As a part of this approach the need for hot plastic flow can be minimized by careful cold springing.

3. The beneficial effect of judicious cold springing in assisting the system to attain its most favorable condition sooner is recognized. Inasmuch as the life of a system under cyclic condition depends primarily on the stress range rather than the stress level at any one time, no credit for cold spring is warranted with regard to stresses. In calculating end thrusts and moments acting on equipment containing moving or removable parts with close clearances, the actual reactions at any one time rather than their range are significant and credit accordingly is allowed for cold spring in the calculations of thrusts and moments.

4. Materials.

a. This chapter applies to all classes of materials permitted by the code.

b. The thermal expansion range e shall be determined from 8 MCAR § 1.6312 CCC. 4. c. the difference between the unit expansion shown for the maximum normal-operating metal temperature and that for the minimum normal-operating metal temperature (for hot lines, this may usually be taken as the erection temperature). For materials not included in this table, reference shall be made to authoritative source data, such as publication of the National Bureau of Standards.

c. Linear expansion of piping.

Constants per 100 Ft.		Formula:
Metal		E = expansion in inches per 100 Ft. of pipe
Steel	.00804	
Wrought Iron	.00816	F = starting temperature
Cast Iron	.00780	T = final temperature
Copper and Brass	.01140	E = constant $\times (T - F)$

d. General.

(1) Piping systems shall be designed to have sufficient flexibility to prevent thermal expansion from causing 1 failure from over-stress of the piping material or anchors, 2 leakage at joints, or 3 detrimental distortion of connected equipment resulting from excessive thrusts and moments.

(2) Flexibility shall be provided by changes of direction in the piping through the use of bends, loops, and off-sets; or provisions shall be made to absorb thermal strains by expansion joints of the slip joint or bellows type.

*If desirable, flexibility may be provided by creasing or corrugating portions or all of the pipe.

(3) In order to modify the effect of expansion and contraction, runs of pipe may be cold sprung. Cold spring may be taken into account in the calculation of the reactions as shown, provided an effective method of obtaining the designed cold spring is specified and used.

To find temperature of saturated steam, take square root of gauge pressure times 14 plus 198.

Example: Find temperature of 100# psi saturated steam.

$$100^2 = 10 \times 14 = 140 \text{ plus } 198 = 338^\circ$$

$$100\# \text{ Saturated Steam} = 338^\circ\text{F.}$$

e. Supports.

*In this case, anchors or ties of sufficient strength and rigidity shall be installed to provide for end forces due to fluid pressure and other causes.

(1) Pipe supports and restraints not expressly considered in flexibility calculations shall be designed to minimize interference with the thermal expansion of the line.

(2) The design and spacing of supports shall be checked to assure that the sum of the longitudinal stresses due to weight, pressure, and other sustained external loading does not exceed allowable stress.

f. Elastic constants and coefficients of thermal expansion. The coefficients of thermal expansion and values of linear expansion per one hundred feet are given in 8 MCAR § 1.6312 CCC. 4. c.

DDD. Welding of pipe joints.

1. General.

a. This chapter concerns the welding of pipe joints in both wrought and cast ferrous materials, and more specifically covers butt joints in pipe, valves, flanges and fittings, specifically covers butt joints in pipe, valves, flanges and fittings, and fillet joints in pipe branches, slip-on flanges, socket weld fittings, etc., as applied in pipe lines and connections to apparatus or equipment. The requirements of this code are applicable except where the welding of such joints are covered by other codes or state regulatory bodies (such as the Power Boiler and Unfired Pressure Vessel Sections of the ASME Boiler and Pressure Vessel Code.) The general provisions of this chapter are subject to accompanying code regulations as to pressure, temperature and fluid carried.

b. These rules apply to the manual application of shielded metal arc, inert-gas metal arc, and gas welding processes, and to the automatic, semi-automatic and machine welding application of the submerged arc and inert gas shielded arc processes. These rules may, however, be applied to other manual or machine welding processes in so far as the rules are applicable.

c. Standard qualifications for welding procedures, welders and welding operators made in accordance with Section IX of the ASME Boiler and Pressure Vessel Code will also qualify for such work under this code as outlined below.

2. Manufacturer's or contractor's responsibility. Each manufacturer or contractor shall be responsible for the quality of the welding done by his organization and shall, except as provided in 8 MCAR § 1.6312 DDD. 2. f., conduct tests not only of the welding procedure to determine its suitability to insure welds which will meet the required tests, but also of the welders to determine their ability to properly apply the procedure, as follows:

a. The welding procedure followed during the qualifying test shall be recorded in detail, and shall be accessible to the purchaser or his agent. This procedure shall be adhered to during subsequent construction. Recommended forms for recording the results of Procedure Qualification tests are given in 8 MCAR § 1.6312 HHH. 1. and 1.6312 HHH. 2.

b. Qualification tests on ferrous materials shall be in accordance with the provisions of Standard Qualification for Welding Procedures, Welders, and Welding Operations, 8 MCAR §§ 1.6312 FFF. - 1.6312 GGG. Qualification tests may be in accordance with the provisions of Part A, Section IX, ASME Boiler and Pressure Vessel Code.

c. Welding qualification tests on nonferrous materials shall be in accordance with Part B, Requirements for Nonferrous Materials, Section IX, ASME Boiler and Pressure Vessel Code.

d. The employer shall assign an identification number, letter or symbol to each welder which shall be used to identify the work of that welder.

e. The employer shall maintain a record of the welders employed by him, showing the date and result of tests and the identification mark assigned to each. These records shall be certified by the manufacturer and be accessible to the purchaser or his agent.

f. To avoid duplication of qualification tests of procedures or welders, the procedures or welders qualified as required above by one employer may, if suitable, be accepted by another employer on piping using the same or an equivalent procedure wherein the essential variables are within the limits established in 8 MCAR §§ 1.6312 FFF. 2. and 1.6312 GGG. 2. It is the contractors, fabricators, or purchasers prerogative to accept or reject qualification tests made by others. An employer accepting the qualification tests of welders by another employer shall clearly indicate in his record of such welders, the employer by whom the welders were qualified and the dates of such qualification; by so doing the employer accepts the responsibility for the welder's workmanship.

3. Definitions. For convenience in reference, some of the more common terms relating to pipe welding are defined in "Standard Welding Terms and Their Definitions" (American Welding Society A3.0).

4. Material. All ferrous materials used in the fabrication of any welded pipe or piping assembly or attachments welded thereto, and covered by this code shall be of good weldable quality and conform to ASTM or API material specifications.

5. Base metal preparation for welding.

a. Butt welds.

(1) End preparation. Preparation of pipe ends shall be done preferably by machining and/or grinding, although oxygen or arc cutting is acceptable if the cut is reasonably smooth and true and all heavy oxide is thoroughly cleaned from the flame cut surfaces.¹ The discoloration which

¹Preheating may be required on certain alloy materials of the air hardening type in order to prevent surface checking or cracking adjacent to the torch cut surface.

may remain on the flame cut surface is not considered to be detrimental oxidation. End preparations are given in Fig. 3, as representing present recommended practice. For more detailed dimensional information, reference may be made to American Standard Steel Pipe Flanges and Flanged Fittings (ASA B16.5).

(2) **Cleaning.** Surfaces for welding shall be cleaned and shall be free from paint, oil, rust, scale, or other objectionable material which may be detrimental to the weld.

(3) **Alignment.** The ends of pipe-to-pipe, pipe-to-fitting, and pipe-to-valve joints shall be aligned as accurately as is practical within the existing commercial tolerances on pipe diameters, pipe wall thickness and out-of-roundness. Alignment should provide the most favorable conditions for the deposition of the root bead. This alignment must be preserved during welding. In smaller internal diameter shall be internally trimmed so that the adjoining internal diameters will result in approximately the same thickness as in Fig. 4. In no case, however, shall trimming of the inside diameter result in a wall thickness less than the minimum required for the service condition as prescribed in the applicable section of this code.

(4) **Spacing.** The root opening of the joint shall be as given in the manufacturer's procedure specification.

(5) **Backing rings.** Backing rings may or may not be used.

(a) **Ferrous rings.** Where ferrous metal backing rings are used they shall be made from material of good weldable quality and shall not exceed .05 percent sulphur.

(b) The material of the backing ring should be compatible with the chemical composition of the pipe, valve, fitting, or flange with which it is to be used and preferably be of the same composition. When two abutting surfaces are welded to a third member used as a backing ring and one or two of the three members are ferritic and the other member or members are of an austenitic grade of material, a procedure qualification shall be required.

(c) Backing rings may be of the continuous machined or split band type. Some acceptable types are shown in Fig. 5.

(d) If pipe ends are bored for accurate fitting machined rings, such boring shall not reduce the pipe wall below the minimum required thickness. In some instances it may be necessary to deposit weld metal on the inside diameter of the pipe or welding fitting to provide sufficient material for machining to insure satisfactory seating of machined backing rings.

(e) If the pipe ends are of the upset type they may be bored to allow for a completely recessed backing ring, provided in any case the remaining net section of the finished joint is not less than the minimum required thickness.

(f) Nonferrous rings. Backing rings of nonferrous or non-metallic materials may be permitted provided they have no effect on the mechanical, physical, and chemical properties of the weld. The satisfactory use of such materials shall be determined by procedure qualification.

b. Fillet welds. Slip-on flanges², socket weld fittings, and valves shall be prepared in accordance with applicable parts of 8 MCAR § 1.6312 DDD. 5. and reference to Figs. 6 and 7.

6. Welding procedure.

a. Butt welds.

(1) Butt joings may be of the single Vee, double Vee, or other suitable type of groove with or without backing rings. When backing rings are used, typical joint designs as in 8 MCAR § 1.6312 DDD. 5. a. (5) (c) are recommended.

(2) When backing rings are used and the nominal pipe wall thickness and service conditions are such that it is not considered necessary or practical to machine the inside of the pipe, the joint design shown in Fig. (5) is recommended.

(3) When backing rings are used and the nominal pipe wall thickness and service conditions are such that it is considered necessary to machine the inside of the pipe, the joint designs shown in Fig. 5 (b) or 5 (c) or applicable combinations of these joint design details are recommended.

(4) If tack welds are used, they shall either be made by a qualified welder and the same procedure as the completed weld, or be removed during the welding operation. When heavy assemblies are transferred from the location of fit-up to the location of welding, extreme care should be exercised to see that all joints have been adequately tack welded or welded to prevent the cracking of these welds, or the distortion of the assembly during such transfer. Piping which is to be welded in place shall be properly aligned and adequately supported during tack welding and subsequent welding in order to avoid the possible cracking of tack welds and initial beads.

(5) The welding procedure shall be such as to assure substantially full root penetration and thorough fusion of the deposited metal with the base metal. Assurance of the specified degree of penetration actually obtained in production welds, is dependent upon the degree and type of examination made. The degree of examination and basis of rejection shall be a matter of prior agreement between the fabricator or contractor and purchaser.

(6) The external surface of butt welds shall be free from under-

²A 1/8 in. vent hole may be desirable in the hub of any slip-on flange which is subject to being front and back welded and which is also subject to furnace stress relieving.

cuts greater than 1/32 in. in depth, overlaps or abrupt ridges or valleys and shall merge smoothly into the pipe surface at the weld toe. The thickness of weld reinforcement shall not exceed:

(a) 3/32 in. for pipe thickness up through 1/2 in.

(b) 1/8 in. for pipe thickness over 1/2 in. through 1 in.

(c) 1/8 in. times weld width for pipe thickness over 1 in.

b. Fillet welds. Fillet welds may be convex to concave. The size of a fillet weld is determined by the leg length of the largest inscribed right isosceles triangle.

c. Seal welds. Seal welding of threaded joints is permitted provided the external threads are entirely covered by the seal weld. Seal welds shall not exceed 3/8 in. throat dimension and shall not be considered as contributing to the strength of joints. Seal welding shall be done by qualified welders.

7. Preheating. Preheating shall be required as stipulated for the various materials listed in the various "P" groups, as follows:

a. Preheating of materials listed under "P" numbers 1 and 2 is not mandatory but under certain conditions is recommended.^{1, 2}

b. Preheating to 300°F. minimum shall be required when welding all materials listed under "P" number 3.

c. Preheating to 375°F. minimum shall be required when welding all materials listed under "P" number 4.

d. Preheating to a temperature of 450°F. minimum shall be required when welding material listed under "P" numbers 5 and 6.

e. Preheating of material listed under "P" number 7 shall be a matter of agreement between the manufacturer or contractor and the purchaser.

f. Preheating of the austenitic stainless grades of material listed under "P" number 8 is optional and is not a requirement of this code.

g. When welding dissimilar materials having different preheat requirements, the preheating temperature shall be that established in the procedure specification.

¹Under field conditions or otherwise where the ambient temperature is less than 32°F., local preheating to a hand-hot condition is suggested for all materials listed in "P" numbers 1 and 2.

²Experience has indicated that preheating to 250°F. is advisable (regardless of ambient temperature) when welding those materials listed under "P" number 1 which have minimum tensile properties of 70,000 psi or higher.

(1) Preheating may be accomplished by any suitable method provided that it is uniform and that the temperature is maintained above the minimum during the actual welding operations.

(2) The preheating temperature shall be checked by the use of temperature indicating crayons, thermocouple pyrometers, or any other suitable method to assure that the required preheat temperature is obtained prior to and maintained during the welding operation.

8. Stress relieving.

a. Materials requiring stress relieving. Unless otherwise provided in other sections of this code, the following stress relieving schedule will apply:

(1) Welded joints in carbon steel materials as listed under "P" number 1, shall be stress relieved when the pipe wall thickness is 3/4 in. or greater.³

(2) Welded joints in wrought iron pipe as listed under "P" number 2 shall require stress relieving only as a matter of agreement between the purchaser and the fabricator.

(3) Welded joints in carbon molybdenum steel material listed under "P" number 3, shall be stress relieved when the pipe wall thickness is 1/2 in. or greater.

(4) Welded joints in all other alloy materials listed under "P" number 3, and all materials listed under "P" numbers 4, 5, and 6, shall be stress relieved without regard to wall thickness.

(5) Stress relieving or other post weld heat treatment of the high alloy ferritic materials listed under "P" number 7 and the austenitic stainless grades of material listed under "P" number 8 is not a requirement of this code, but may be performed as a matter of agreement between the purchaser and the fabricator. If stress relieving or heat treatment is agreed upon, it should be compatible with the analysis of both the base metal and the weld metal and should be determined as most suitable for the particular service application.

(6) In welds between dissimilar ferritic materials, if either material requires stress relieving, the joint shall require stress relieving.

(7) In welds between austenitic and ferritic materials, stress relieving or other post weld heat treatment of the welded joint is optional. Stress relieving or heat treatment, if used, shall be a matter of agreement between the contractor and the purchaser. Due to differences in the coefficient

³In unreinforced and reinforced branch connections, the thickness of the run shall govern. When flanges are attached by fillet welds, the thickness of the pipe shall govern.

of thermal expansion existing between dissimilar materials, careful consideration should be given to the selection of a heat treatment, if any, that will be beneficial to the welded joint.

b. Stress relieving temperature.¹

(1) Stress relieving shall be performed at a temperature of 1100° F. or over for carbon steels, and 1200°F. or over for ferritic alloy steels. The exact temperature range shall be established in the Procedure Specification.

(2) When stress relieving a joint between dissimilar ferritic materials or between austenitic and ferritic materials, having different stress relieving requirements, the temperature used shall be that established in the Procedure Specification.

(3) The parts heated shall be brought uniformly to the required temperature and held at that temperature for a period of time proportioned on the basis of at least 1 hr. per in. of pipe wall thickness, but in no case less than 1/2 hr., and shall be allowed to cool slowly and uniformly.

c. Method of stress relieving.

(1) Heating the complete structure as a unit.

(2) Heating a complete section containing the weld or welds to be stress relieved before attachment to other sections of work.

(3) Heating a part of the work by heating slowly a circumferential band containing the weld at the center. The width of the band which is heated to the required temperature shall be twice that of the weld reinforcement but need not exceed the width of the weld reinforcement by more than 2 in. Extreme care should be used to obtain a uniform temperature around the entire circumference of the pipe. The temperature shall diminish gradually outward from the ends of this band.

(4) Branches or other welded attachments for which stress relief is required, should preferably be furnace stress relieved. Where furnace stress relief is impractical, local stress relief may be accomplished by heating a circumferential band around the pipe on which the branch or attachment is welded with the branch or attachment at the middle of the heated band. The width of the band shall be at least 2 in. greater than the diameter of the weld joining the branch or attachment to the header. The entire band shall be brought up to the temperature and held for the time specified.

¹ Stress relieving should not be confused with other post weld heat treatments which, if required, shall be a matter of agreement between the manufacturer and the purchaser. Such post weld heat treatments may or may not obviate the necessity of stress relieving depending upon the maximum temperature attained in the post weld heat treatment and the rate of cooling from the temperature.

d. Equipment for local stress relieving. Stress relieving may be accomplished by:

- (1) Electric induction heating,
- (2) Electric resistance heating,
- (3) Fuel fired ring-burners,
- (4) Fuel fired torch,

or other suitable means of heating provided a uniform temperature is obtained and maintained during the stress relieving cycle.

The stress relieving temperature shall be checked by the use of thermocouple pyrometers or other suitable equipment to be assured that the proper stress relieving cycle has been accomplished.

9. Identification. After completing a welded joint, the welder shall stamp or otherwise identify it as his work with his assigned number, letter or symbol.

10. Hydrostatic tests.

a. Piping and associated equipment fabricated with welded joints shall be capable of withstanding hydrostatic tests as specified in the section of this code covering the class of service for which the pipe is to be used.

b. In all cases, the required test pressure shall be maintained a sufficient length of time to enable an inspection to be made of all joints and connections.

11. Inspection of welded joints.

a. The acceptability of all types of production welds, whether or not complete or random radiography, magnetic particle, fluid penetrant, sectioning, etc., are specified, shall also be judged on the basis of a careful visual examination and/or shop or field hydrostatic test. Injurious defects shall be removed and repaired in accordance with subparagraphs (c) and (d) below.

b. When required in the specification or contract, or by agreement between the purchaser and the manufacturer or contractor, the quality of butt welds shall be checked, as follows:

(1) When random radiographic examination, sectioning, or a combination of both, are specified, welded butt joints shall conform to ASME Unfired Pressure Vessel Code, Section VIII, Par. UW-52, except that unfusion attendant to root misalignment as permitted in 8 MCAR § 1.6312 DDD. 5. a. (3) shall be considered acceptable provided that such does not encroach on the minimum wall thickness. Furthermore, penetration shall be

complete to the inside diameter of the pipe which has the greater inside diameter of the two pieces being joined.

(2) When full radiographic examination is specified, welded butt joints shall conform to the ASME Unfired Pressure Vessel Code, Section VIII, Par. UW-51.

c. All defects in welds requiring repair, shall be removed by flame or arc gouging,¹ grinding, chipping and/or machining. All repair welds shall be made using the same, or other qualified welding procedures as that used in making the original welds, including preheating and stress relieving if originally required.

d. All repair welds shall meet the requirements of 8 MCAR § 1.6312 DDD. 2. and shall be acceptable to the purchaser or his agent.

12. Qualification of procedures and welders. The qualification of welding procedures, welders and welding operators for welded joints of pipe shall be in accordance with 8 MCAR §§ 1.6312 FFF. - 1.6312 GGG.

Qualification tests may also be made in accordance with the provisions of Part A, Section IX, ASME Boiler and Pressure Vessel Code.

EEE. Standard qualification for welding procedures, welders and welding operators.

1. General requirements. Specific reference to the following material is made in 8 MCAR § 1.6312 DDD., Ch. 4, Welding of Pipe Joints. Reference to this Chapter in general, and to 8 MCAR § 1.6312 DDD. 2. in particular, should be made before proceeding further in Appendix A. It is assumed that the manufacturer or contractor has an organization familiar with the various welding codes and capable of designing, engineering, and supervising welded construction.

Each manufacturer or contractor is responsible for the welding done by his organization, and shall conduct the tests required in this section to qualify the welding procedures he uses in the construction of the weldments built under this code and the performance of welders and welding operators as defined in 8 MCAR § 1.6312 GGG. who apply these procedures, and shall maintain records thereof.

a. Scope. The following rules apply to the qualification of welding procedures and welder performance for all types of manual, semi-automatic and automatic arc and gas welding processes permitted in other sections of the code. These rules may also be applied in so far as they are applicable to other manual or machine welding processes.

b. Definitions. Some of the more common terms relating to welding are defined in Appendix C. These are in substantial agreement with the definitions of the American Welding Society (A 3.0) given in "Standard Welding Terms and their Definitions".

2. Weld orientation. The orientations of pipe welds with respect to horizontal and vertical planes of reference are classified in accordance with Fig. 8 into four positions. These are flat, horizontal, vertical, and overhead.

3. Welding Positions for Qualification Tests.

a. Test welds for both Procedure Qualification and Performance Qualification shall be made on groove welds in pipe in one or more of the specified basic qualification test positions shown in Fig. 9. An angular tolerance of ± 15 deg. from the specified horizontal and vertical planes shall be allowed in making the test welds.

b. Both Procedure and Performance Qualifications on groove welds in pipe in a given position, shall also qualify for groove welds in plate and fillet welds in pipe and plate for equivalent welding positions as shown in Fig. 9.

c. The Basic Qualification Test positions are, as follows:

(1) Pipe—Horizontal Rolled; Weld—Flat Position. Pipe with its axis in the horizontal plane and rolled during welding so that the weld metal is deposited from the top and within ± 15 deg. from the vertical plane.

(2) Pipe—Vertical Fixed; Weld—Horizontal Position. Pipe with its axis in the vertical position and the weld with its axis in the horizontal plane.

(3) Pipe—Horizontal Fixed; Weld—Flat, Vertical and Overhead Positions. Pipe with its axis in the horizontal plane and the welding groove in the vertical plane. Welding shall be done without rotating the pipe so that weld metal is deposited from the flat, vertical, and overhead positions.

d. Qualification in test position covered in 8 MCAR § 1.6312 EEE. 3. c. (1) qualifies for that position only. Test positions covered in 8 MCAR §§ 1.6312 EEE. 3. c. (2) or 1.6312 EEE. 3. c. (3) shall qualify for the respective test positions and also for test position covered in 8 MCAR § 1.6312 EEE. 3. c. (1).

Qualification in test position covered in both 8 MCAR §§ 1.6312 EEE. 3. c. (2) and 1.6312 EEE. 3. c. (3) are required for qualification in all weld positions, regardless of orientation of weld or pipe axis.

e. In cases when production welding is to be done in one particular position outside of that defined in 8 MCAR § 1.6312 EEE. 3. c. (1) both procedure and welder qualification may be made for that position, with the limitation that procedure and welder qualification shall be varied only for the actual special position tested. An angular tolerance of ± 10 deg. shall apply.

4. Types of test specimens.

a. Test specimens for making qualification tests are two types; reduced-section tension specimens and guided-bend specimens.

b. The reduced-section tension test is used to determine the tensile strength of the weld joint in procedure qualification tests. The dimensions and preparation of the test specimen shall conform to the requirements. The alternative 0.505 in. specimen may be used for material 3/4 in. and over in thickness.

c. The guided-bend test is used to check for degree of soundness and ductility of the weld in both Procedure and Performance qualification tests. Guided-bend test specimens are of three kinds, as follows:

(1) Side-bend test specimens that conform to the requirements shall be used in making guided-bend tests of welds that are over 3/4 in. in thickness and may be used in making guided-bend tests of welds that are over 3/8 in. in thickness.

(2) Face-bend and root-bend test specimens that conform to the requirements shall be used in making guided-bend tests of welds that are 1/16 in. to 3/8 in. in thickness and may be used in making guided-bend tests of welds that are up to 3/4 in. in thickness. The face bend specimen shall be bent with the face of the weld in tension, and the root bend specimen shall be bent with the root of the weld in tension.

5. Reduced section tension tests.

a. The reduced-section tension test specimens shall be ruptured under tensile load. The tensile strength shall be computed by dividing the maximum load by the product of the least width and corresponding thickness of the specimen as measured before load is applied.

b. The reduced-section tension test specimen shall have a tensile strength that is not less than the minimum of the specified tensile strength of the base material or of the weaker of the two if materials of different specified minimum tensile strengths are used. If the specimen breaks in the base metal outside of the weld or fusion line, the test shall be accepted as meeting the requirements provided the strength is not more than 5 percent below the specified minimum tensile strength of the base metal.

6. Guided-bend test.

a. Side-bend, face-bend, and root-bend specimens shall be bent in a test-jig that has been approved by the Division of Steamfitting Standards.

b. The specimen shall be placed on the die of the test-jig with the weld at mid-span. The side of the specimen turned toward the gap of the jig shall be the face for face-bend specimens, the root for root-bend specimens, and the side with the greater defects, if any, for side-bend specimens. The specimen shall be forced into the die by applying load on the plunger until the curvature of the specimen is such that a 1/32 in. diameter wire cannot be inserted between the die and the specimen.

c. Guided-bend specimens shall have no cracks or other open defects exceeding 1/8 in. measured in any direction on the convex surface of specimen after bending except that cracks occurring on the corners of the specimen during testing shall not be considered, unless there is definite evidence that they result from slag inclusions or other internal defects.

FFF. Procedure qualification.

1. General. The procedure of welding to be followed in construction shall be established and recorded in detail by the manufacturer or contractor as a procedure specification, and in the investigation to qualify this procedure, the procedure specification shall be followed. The results of the procedure qualification test shall likewise be recorded in detail. Recommended forms for the procedure specification and procedure qualification test results are given in 8 MCAR § § 1.6312 HHH. 1. and 1.6312 HHH. 2. It is not necessary that these exact forms be used, but the information contained therein should be set forth in any alternate form which is adopted.

2. Essential variables. The welding procedure must be set up as a new Procedure Specification and must be completely requalified when any of the changes listed below are made in the procedure. Changes other than those given below may be made in a procedure without the necessity for requalification provided the Procedure Specification is revised to show these changes.

V-1 A change from one welding process to another welding process.

V-2 A change in the specification of either or both of the base metals to be welded from one P-number in Table 1 to another P-number. Joints involving two base metals of different P-numbers shall be qualified even where procedure qualification tests on each of the two base metals welded to itself have previously been made.

V-3 A change in filler metal analysis or type shall require re-qualification under the following conditions:

a-1 For metal arc-welding with covered electrodes a change from one F-number to any other F-number.

a-2 For metal arc welding with covered electrodes a change in the chemical composition of the weld deposit from one A-number to any other A-number.

b-1 For gas welding a change from A GAXX to a GBXX type of filler metal and vice versa.

b-2 For gas welding a change from silicon-killed to an aluminum-killed type of filler metal and vice versa.

b-3 For gas welding a change in weld metal composition from one A-number to any other A-number.

c-1 For inert-gas consumable electrode metal arc-welding a change in weld metal composition from one A-number to any other A-number.

c-2 For inert-gas nonconsumable electrode metal arc welding a change in weld metal composition from one A-number to any other A-number.

d-1 For submerged arc welding a change from a filler metal containing 1.75 to 2.25 percent manganese to a filler metal containing less than 1.00 percent manganese or vice versa shall require requalification. The presence or absence of 1/2 per cent molybdenum in the filler metal analysis shall not require requalification.

d-2 For submerged arc-welding a change in filler metal analysis from one A-number to any other A-number.

e-1 For any other welding process a change in the composition of the deposited weld metal from one A-number to any other A-number.

V-4 In submerged arc welding, a change in the nominal composition or type of flux used (requalification is not required for a change in flux particle size).

V-5 The addition of other welding positions than those already qualified (see 8 MCAR § 1.6312 EEE. 3.).

V-6 A change in the heat treating temperature and time cycle range.¹

V-7 In metal arc-welding, the omission of the backing ring in welding single-welded butt joints; and in gas-welding, the addition of the backing ring in welding single-welded butt joints.

V-8 In semi-automatic or automatic welding, a change from multiple pass per side to single pass per side.

V-9 In semi-automatic or automatic welding, a change from single arc to multiple arc, or vice versa.

V-10 In inert-gas arc-welding (consumable and nonconsumable electrode) a change from one type of inert-gas to another.

V-11 For inert-gas arc-welding, a change from the consumable to nonconsumable electrode process or vice versa.

V-12 For inert-gas nonconsumable electrode arc-welding a change in electrode (such as carbon electrode to tungsten electrode).

3. Preparation of test joint.

¹The time may vary with the thickness of a specific material without requiring re-qualification.

a. The base material, the filler metal, and the joint welding procedure shall comply with the Procedure Specification.

b. The base materials shall consist of pipe having a minimum nominal diameter of 5 in. and a minimum wall thickness of 3/8 in. Larger diameter and heavier wall pipe may be used, however, and will equally satisfy the procedure requirements. A smaller size pipe may be used such as job-size pipe, but in such cases the procedure shall be qualified only within the limitations. The test joint shall be welded using the type of welding groove specified in the Procedure Specification for use in construction.

4. Type and number of test specimens. The type and number of test specimens that must be tested to qualify a Procedure Specification are given in Fig. 10, together with range of thickness that is qualified for use in construction by a given pipe wall thickness used in making the Qualification. The test specimens shall be removed in the order shown in Figs. 10 and 11. All tests shall meet the requirements prescribed in 8 MCAR §§ 1.6312 EEE. 5. and 1.6312 EEE. 6.

GGG. Performance qualification.

1. General. These performance qualification tests are devised to determine the ability of welders and operators to make sound welds.

a. Performance qualification of operators. The following tests are required for operators of machine welding equipment in which the rate of travel and the position of the welding-head with respect to the work are controlled mechanically except for minor adjustments for such factors as out-of-roundness, and lead-angle.

(1) To assure that such an operator can carry out the provisions of the welding procedure, one 12 in. pipe joint, or equivalent length of welded joint shall be examined by radiography for each procedure under which he does welding. The radiographs of the joint shall meet the standard for radiography given in the ASME Power Boiler Code, Par. P-102 (h) (8) to allow the operator to weld.

(2) Examination by sectioning may be made in lieu of radiographic examination. The welded joint shall be quartered and one side of each of the four cuts shall be etched. Each etched section shall conform to the requirements of Par. UW 52 (e) (4) of the 1952 ASME Unfired Pressure Vessel Code.

(3) If objectionable defects are disclosed by the above methods of examination, it shall be cause for examination by the same method of the second and subsequent joints welded by the operator under the machine welding procedure, until the operator demonstrates that he is capable of carrying out the provisions of the procedure.

(4) Each manufacturer or contractor shall maintain a record of

the procedures under which welding operators are examined and the results of the examination.

b. *Performance qualification of welders.* Each welder who welds on piping constructed under the rules of this code shall pass the tests prescribed herein for performance qualification. Operators of machine welding equipment as defined in 8 MCAR § 1.6312 GGG. 1. a. are excluded. The essential variables of the qualification and the test results obtained by each welder shall be recorded as a performance qualification. A recommended form for recording the Performance Qualification test results is given in 8 MCAR §§ 1.6312 HHH. 1. and 1.6312 HHH. 2.

2. *Essential variables.* A welder must be requalified whenever one or more of the changes listed below are made in the Procedure Specification. Changes other than those listed do not require requalification. A welder that prepares welding procedure qualification test welds meeting the requirements of 8 MCAR § 1.6312 FFF. 4. is thereby qualified.

W-1 A change from the filler metal used in a performance qualification to a filler metal having a different F-number. Qualification under any F-number up to and including F4 shall qualify a welder for all lower F-numbers.¹

W-2 The addition of other welding positions than those already qualified (see 8 MCAR §§ 1.6312 EEE. 2. and 1.6312 EEE. 3.).

W-3 A change from upward to downward or from downward to upward in the progression specified for any pass of a vertical weld, other than a wash pass.

W-4 The omission of the backing ring in arc-welding single-welded butt joints.

W-5 The addition of the backing ring in gas welding.

W-6 A change from one welding process to any other welding process.

3. *Preparation of test joint.*

a. The base material, the filler material, and the welding shall comply with the essential variables entered in the Procedure Specification, except as otherwise specified in 8 MCAR § 1.6312 GGG. 3. e.

b. The base material shall consist of pipe having a minimum nominal diameter of 5 in. and a minimum wall thickness of 1/4 in.

c. *The dimensions of the welding groove for the test joint used in*

¹For example, a welder who qualified with Number F4 electrodes is thereby qualified to weld with electrodes listed under Numbers F1, F2, and F3. Independent qualifications are required for Numbers F5 and F6.

making performance qualification tests on single-welded butt joints with backing ring shall be the same as those for any procedure specification qualified by the manufacturer, or contractor.

d. The dimensions of the welding groove for the test joint used in making performance qualification tests on single-welded butt joints without backing ring shall be the same as those for any procedure specification qualified by the manufacturer.

e. Where a welder is to be qualified with electrodes conforming to ASTM A 316 or A 298, and the proper size pipe materials are not readily available, carbon steel pipe may be substituted for the performance test with the following limitations:

(1) Performance qualification with low-alloy steel electrodes (F-numbers 1, 2, 3, and 4) using carbon steel pipe material is permissible, provided the test specimens are pre-heated, welded, and post heated in accordance with the procedure specification for the type electrode involved, and further provided that the total alloy content of the weld metal deposit does not exceed 6 per cent.

(2) Performance qualification with austenitic electrodes (F-number 5) using carbon steel pipe material is permissible. No preheating or post heating is required.

4. Type and number of test specimens.

a. The types and number of specimens required for a Performance Qualification are given in Fig. 10, together with the range of thickness that is qualified for use in construction by a given wall thickness of test pipe used in making the qualification. All specimens shall be tested and shall meet the requirements prescribed in 8 MCAR § 1.6312 EEE. 6.

b. Two specimens shall be removed from test welds as shown in Figs. 10 and 11 at approximately 90 deg. apart, with the pipe in the horizontal rolled and vertical fixed position (see Fig. 9). Four specimens shall be removed from the 45 deg. positions of the test weld made with the pipe in the horizontal fixed position (see Figs. 9, 10 and 11). All four specimens shall be tested in order to qualify the welder. Face-bend tests shall be made when required on the specimens from the first and third quadrants (Fig. 10). Root-bend tests shall be made, when required, on the specimens from the second and fourth quadrants (Fig. 10).

5. Retests. A welder who fails to meet the requirements for one or more of the test specimens may be retested. The welder shall make a new test weld for each position on which he has failed, all of which shall pass the test requirements.

6. Requalification. Requalification under a given procedure specification shall be made when there is a specific reason to question his ability to

make welds that meet the Specification. Requalification need be made in only a single test pipe thickness.

HHH. Recommended Forms of Procedure Specification.

1. Metal Arc-Welding Process.

Procedure Specification for Metal Arc-Welding of
.

Specification No. Date

Process. The welding shall be done by the metal arc process.

Base Metal. The base material shall conform to the Specifications for
. (insert here references to standard ASME, ASTM, API, or other code designations, or give the chemical analysis and physical properties.

Filler Metal. The filler metal shall conform to Classification Number of the ASTM Specification for (insert here the title of the desired specification).

Position. The welding shall be done in the (give the position or positions in which the welding will be done. See 8 MCAR § 1.6312 EEE. 3.

Preparation of Base Material. The edges or surfaces of the parts to be joined by welding shall be prepared by (state whether sheared, machined, ground, gas cut, etc.), as shown on the attached sketches and shall be cleaned of all oil or grease and excessive amounts of scale or rust. (The sketches referred to should show the arrangement of parts to be welded with the spacing and details of the welding groove, if used. Such sketches should be comprehensive and cover the full range of material or base metal thicknesses to be welded.)

Electrical Characteristics. The current used shall be (state whether direct or alternating and if alternating give the frequency). The base material shall be on the (state whether negative or positive when direct current is used) side of the line.

Joint Welding Procedure. The welding technique, such as electrode sizes, and mean voltages and currents for each electrode, shall be substantially as shown on the attached sketches. (The sketches referred to may be the same as mentioned under "Preparation of Base Material" or may be separate sketches. They should show, for the minimum thickness and for several intermediate thicknesses of base material, the welding technique to be used, whether weaving or beading, the number of layers or passes and diameter of electrode with the mean voltage and current for each layer or pass, and in the case of vertical welds the progression of each pass, whether upward or downward.)

NOTE: Since, in the welding of many materials in the flat position and particularly for the ordinary mild steels, the proper welding "heat" can be readily determined by the appearance of the individual beads of welding, the use of a "Standard Appearance Weld" may be desirable for the flat position. Such a weld should be made in the maximum thickness that will be used in construction, except that the maximum thickness of the Standard Appearance Weld need not exceed 3/4 in. and should show approximately 2 in. of the surface of each layer, and a cross section through the weld at each layer, where such cross section is found necessary to produce a clearly understandable photograph. When a Standard Appearance Weld is used, the following paragraph should be used in lieu of specifying current and voltage values.

Appearance of Welding Layers. The welding current and manner of depositing the weld metal shall be such that the layers of welding as deposited shall have the appearance shown on the photographs attached hereto. There shall be practically no undercutting on the side walls of the welding groove or the adjoining base material.

Cleaning. All slag or flux remaining on any bead of welding shall be removed before laying down the next successive bead.

Defects. Any cracks or blow holes that appear on the surface of any bead of welding shall be removed by chipping, grinding, or gouging before depositing the next successive bead of welding.

Peening. (If peening is to be used, it shall be incorporated as part of the specifications, a description being given of the degree of peening to be done.)

Treatment of Under Side of Welding Groove. (The method of preparing the under or second side of a groove for welding on that side should be stated in this paragraph.)

Preheating and Temperature Control. (This paragraph should describe any preheating and control of temperature during and after welding that will be done.)

Heat Treatment. (This paragraph should describe any heat treatment or stress relieving that is given the welded parts before or after welding.)

2. Oxyacetylene Welding Process.

Procedure Specification for Oxyacetylene Welding of

Specification No. Date

Process. The welding shall be done by the oxyacetylene process.

Base Metal. The base material shall conform to the Specifications for
 (insert here references to standard ASME, ASTM, API or other code

designations, or give the chemical analysis and physical properties.

Filler Metal. The filler metal shall conform to Classification Number of the ASTM Specification for (insert here the title of the desired specification).

Position. The welding shall be done in the (give the position or positions in which the welding will be done. See 8 MCAR § 1.6312 EEE. 3.

Preparation of Base Material. The edges or surfaces of the parts to be joined by welding shall be prepared by (state whether sheared, machined, ground, gas-cut, etc.) as shown on the attached sketches and shall be cleaned of all oil or grease and excessive amounts of scale or rust. (The sketches referred to should show the arrangement of parts to be welded with the spacing and details of the welding groove, if used. Such sketches should be comprehensive and cover the full range of material or base metal thicknesses to be welded.

Size of Welding Tip. The range in size of welding tips used shall be as shown on the attached sketch. (The sketches referred to may be the same as mentioned under "Preparation of Base Material" or may be a separate set. They should show the range of tip sizes for each thickness of material).

Nature of Flame. The flame used for welding shall be (state whether a neutral flame or one with slight excess of acetylene is to be used).

Method of Welding. The method of welding shall be that known as (describe whether "backhand" or "forehand").

Size of Welding Rod. The size of rod used for the various base material thicknesses shall be as shown on the attached sketch. (The sketches referred to may be the same as mentioned under "Preparation of Base Material", or may be a separate set.)

Number of Layers of Welding. The number of layers of welding used shall be as shown on the attached sketches. (The sketches referred to may be the same as mentioned under "Preparation of Base Material" or may be a separate set. They should show the range of thicknesses for which one, two or more layers are used.)

Cleaning. All slag or flux remaining on any layer of welding shall be removed before laying down the next successive layer.

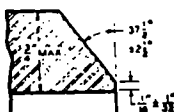
Defects. Any cracks or blow holes that appear on the surface of any layer of welding shall be removed by chipping, grinding, or gas gouging before depositing the next successive bead of welding.

Peening. (If peening is to be used it shall be incorporated as part of the specifications, a description being given of the degree of peening to be done.)

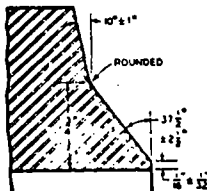
Treatment of Under Side of Welding Groove. (The method of preparing the under or second side of a groove for welding on that side should be stated in this paragraph.)

Preheating and Temperature Control. (This paragraph should describe any preheating and control of temperature during and after welding that will be done.

Heat Treatment. (This paragraph should describe any heat treatment or stress relieving that is given the welded parts before or after welding).



(a) RECOMMENDED END PREPARATION FOR PIPE WALL THICKNESSES $\frac{3}{16}$ IN. TO $\frac{3}{4}$ IN. INCLUSIVE



(b) RECOMMENDED END PREPARATION FOR PIPE WALL THICKNESSES ABOVE $\frac{3}{4}$ IN.

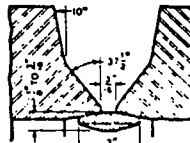
FIG. 3



(a) BUTT JOINT WITH SPLIT BACKING RING



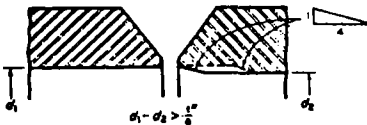
(b) BUTT JOINT WITH BORED PIPE ENDS AND SOLID MACHINED OR SPLIT BACKING RING



(c) BUTT JOINT WITH TAPER-BORED ENDS AND MACHINED BACKING RING

* REFER TO ASA-B18.5 FOR DETAILED DIMENSIONAL INFORMATION ON PIPE BORE.

FIG. 5 Typical Joints With Backing Ring.

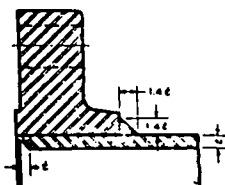


$d_1 - d_2 > \frac{1}{8}$ "

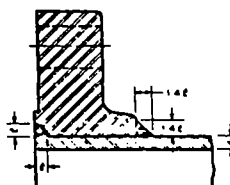


$d_1 - d_2 = \frac{1}{8}$ " OR LESS

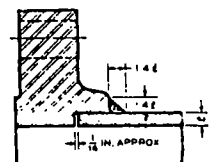
FIG. 4 Butt Welding of Pipes or Fittings of Unequal Wall Thicknesses.



(a) FRONT AND BACK WELD



(b) FACE AND BACK WELD



(c) SOCKET WELD FLANGE

FIG. 6 Details of Welding Flanges

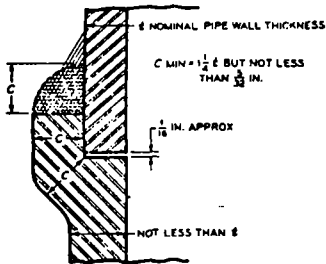
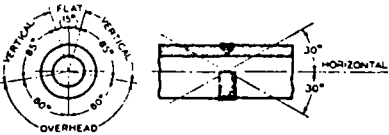


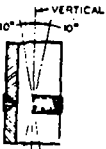
FIG. 7 Minimum Dimensions Required for Socket Weld Fittings

BUTT WELDS IN PIPE IN WHICH THE AXIS OF THE PIPE AT THE JOINT DOES NOT DEVIATE FROM THE HORIZONTAL BY MORE THAN $\pm 30^\circ$ AND THE PIPE IS ROTATED SO THAT THE WELDING IS ALWAYS DONE WITHIN $\pm 15^\circ$ OF A VERTICAL PLANE AT THE JOINT.



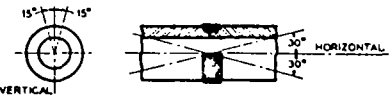
(Horizontal Rolled Position-Flat Weld)

BUTT WELDS IN PIPE IN WHICH THE AXIS OF THE PIPE AT THE JOINT DOES NOT DEVIATE FROM THE VERTICAL BY MORE THAN $\pm 10^\circ$ AND THE PIPE MAY OR MAY NOT BE ROTATED DURING WELDING SO THAT A HORIZONTAL WELD IS PRODUCED AROUND THE ENTIRE CIRCUMFERENCE.



WHEN THE PIPE IS FIXED AND THE AXIS OF THE PIPE AT THE JOINT DEVIATED FROM A HORIZONTAL PLANE BY MORE THAN $\pm 30^\circ$ AND FROM THE VERTICAL BY MORE THAN $\pm 10^\circ$, THE WELDING WILL BE DONE IN A COMBINATION OF HORIZONTAL AND OVERHEAD POSITIONS.

(Vertical Fixed Position-Horizontal Weld)



BUTT WELDS IN PIPE IN WHICH THE AXIS OF THE PIPE AT THE JOINT DOES NOT DEVIATE FROM THE HORIZONTAL BY MORE THAN $\pm 30^\circ$ AND THE PIPE IS FIXED IN THIS POSITION SO THAT THE WELDING IS DONE IN A COMBINATION OF FLAT VERTICAL AND OVERHEAD POSITIONS OF WELDING. (As Shown in the Sketch Above).

(Horizontal Fixed Position-Flat, Vertical, and Overhead Welds)

FIG. 8 Positions of Groove Welds

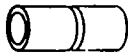










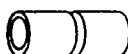



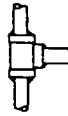





BASIC QUALIFICATION TEST:		ALSO QUALIFIES FOR:	
GROOVE WELDS IN PIPE	GROOVE WELDS IN PLATE	PIPE	PLATE
 PIPE-HORIZONTAL ROLLED WELD-FLAT	 FLAT	 ROLLED	 FLAT
 PIPE-VERTICAL FIXED WELD-HORIZONTAL	 FLAT  HORIZONTAL	 HORIZONTAL  ROLLED	 FLAT  HORIZONTAL
 PIPE-HORIZONTAL FIXED WELD-FLAT, VERTICAL AND OVERHEAD	 FLAT  OVERHEAD  VERTICAL	 HORIZONTAL, VERTICAL AND OVERHEAD  ROLLED	 VERTICAL  FLAT  HORIZONTAL  CLOSED-END

FIG. 9 Qualifying Positions in Groove Welds in Pipe and Corresponding Allowable Working Positions in Groove Welds in Plate and Fillet Welds in Pipe and Plate

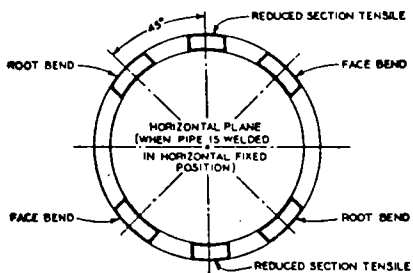


FIG. 10 Order of Removal of Test Specimens from Welded Pipe (For Pipe 1/16 to 3/4 in. Thick).

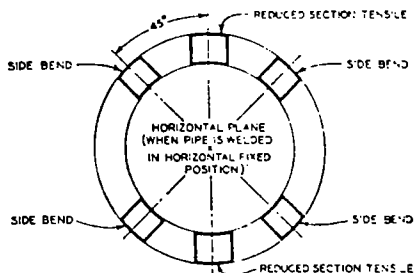


FIG. 11 Order of Removal of Test Specimens from Welded Pipe (For Pipe over 3/4 in. Thick)*
 *May be used also for Thicknesses 3/8 in. to 3/4 in.

III. Materials—their specifications and identification.

1. Scope. This code includes (1) requirements for marking component parts of piping systems which are made in accord with the standards and specifications named in the appendix to this section. (2) the policy of the Sectional Committee in making reference to standards and specifications.

2. Marking. All valves, fittings, flanges, bolting, pipe and tubing shall be marked in accordance with the marking sections of the standards and specifications to which reference is made in the code, or in accordance with the requirements of MSS SP-25, Standard Marking System for Valves, Fittings, Flanges and Unions of the Manufacturers Standardization Society of the Valve and Fittings Industry.

3. Materials. All materials used in piping systems designed and constructed under the provisions of this code shall be capable of meeting the physical and chemical properties and tests as set forth in the appropriate specifications given in the individual sections of the code and listed in the appendix to this section. It is strongly recommended that the materials covered by these specifications be used. However, other materials, the specifications for which are not listed but which have properties equal or superior to the minimum requirements herein given, may also be used in accordance with Section requirements.

4. Standards and specifications—policy.

a. Unless otherwise specified, the reference “American Standard” in this code shall mean the latest revision of the standard for the particular purpose as approved by the American Standards Association. The use of the latest revisions of all other standards or specifications mentioned in this code is intended.

b. The lack of year designation of the numerous dimensional standards and material specifications to which reference is made, and which are, in effect, made a part of the code in so far as they apply, is recognized. It is, however, not considered practicable to refer to a specific edition of each of these standards and specifications in individual sections because they are likely to be revised much more frequently than is this large basic code, and frequent revision of this code just to keep the designation of the reference standard or specification up to date is not considered desirable. Instead, the appendix to this section includes specific edition references and will be revised at short intervals as needed.

JJJ. Fittings for instrument and control piping. This appendix covers the descriptions of and specification references to the various types of fittings permissible for use with Instrument and Control Piping, covered under 8 MCAR § 1.6312 YY.

1. High-pressure service.

a. Flared fittings (requiring a flaring tool).

(1) The construction of the tube end of flared fittings (i.e., tubing end of connector body, nut and sleeve when used) shall conform to Specification Mil-F-5509 for minimum performance requirements, except that all straight threads shall be Class 2. Modifications may be used if test performance conforms with the requirements of 8 MCAR § 1.6312 JJJ. a. (3).

(2) The angle of flare of tubing shall be 37 deg. from the centerline, or 74 deg. included angle, and flare dimensions shall be in accord with Army-Navy Design 10061.

(3) The test performance shall equal or exceed the requirements of Specification Mil-F-5506.

(4) All pipe threads shall be either American Standard Taper Pipe Threads (ASA B2) or Dryseal American Standard Taper Pipe Threads (NPTF).

b. Flareless fittings.

(1) Flareless fittings of which the male connector shall be of a style whereby the gripping member shall grip or bite into the outer surface of the tube, thereby holding the tube against pressure, without appreciably distorting the inside tube diameter. The gripping member also forms a pressure seal against the body of the fitting.

CAUTION: When the bite-type fitting is used, the joint shall first be made up tight, then disassembled to make sure the depth of "bite" is adequate, and then reassembled.

When the grip-type fitting is used, the outside diameter of the tubing must be determined by "no-go" gage applied to the tube at right angles to each other at the point where the fitting will grip it, to be within the tolerance established by the fitting manufacturer.

(2) The test performance shall equal or exceed the requirements of Specification Mil-F-5506.

c. Socket-welded fittings. Socket-welded fittings shall conform in general design to ASA B16.11.

d. Silver brazed socket-type fittings. Silver-brazed socket-type joints for valves and fittings shall be made with suitable brazing alloys having melting points above 1000°F. Socket depth shall be the equivalent of thread length in fittings of the same diameter and pressure class, and a shoulder shall be provided for the pipe or tubing to butt against. Silver brazing alloy shall either be end-fed into the fittings, or shall be provided in the form of a pre-inserted ring in a groove in the fitting. The brazing alloy shall be sufficient to completely fill the annular clearance between the socket and the pipe or tubing.

2. Medium-pressure service.

a. Flared type. Flared type in accordance with SAE General Specifications, Figs. 1 to 4, and Tables 1 and 2, 1949 SAE Handbook.

b. Inverted flared type. Inverted flared type in accordance with SAE General Specifications, Fig. 18, and Tables 11 and 12, 1949 SAE Handbook.

c. Compression type. Compression type, in accordance with SAE General Specifications, Figs. 9 through 13 and Tables 5 and 6 for service up to 500 psi 100°F. up to 1/2 in. tube, 250 psi for larger tubes.

3. Low-pressure service.

a. Soldered type. Soldered type, per American Standard for Soldered Joint Fittings (ASA B16.18), for service under the following limitations.

b. Maximum pressure 50 psi, with max. line temperature well below melting point of solder so as to minimize failure due to creep under load.

PREFACE

Composition of the Minnesota Occupational Safety & Health Codes

The Minnesota Occupational Safety and Health Codes include several documents, standards or codes. They are as follows:

1. The rules and regulations of the Department of Labor and Industry which are identified by the prefix MOSHC (8 MCAR § 1.7 _____).
2. 8 MCAR § 1.7001 (MOSHC 1) adopting by reference the following standards and codes:
 - (a) Title 29 CFR, Part 1910—Occupational Safety and Health Standards as published in Volume 43, No. 206 of the Federal Register on October 24, 1978 and corrected in Volume 43, No. 216 on November 7, 1978; and subsequent changes made prior to February 1, 1980.
 - (b) Title 29 CFR, Part 1926—Construction Safety and Health Regulations as published in Part VII, Volume 44, No. 29 of the Federal Register on February 9, 1979 and corrections made up to October 17, 1978 including General Industry Occupational Safety and Health Standards identified as applicable to construction work.
 - (c) Title 29 CFR, Parts 1915, 1916, 1917 and 1918—Safety and Health Regulations for Maritime Employment as published in Part II, Volume 39, No. 119 of the Federal Register on June 19, 1974 and subsequent changes made prior to February 1, 1980.
 - (d) Title 29 CFR, Part 1928—Occupational Safety and Health Standards for Agriculture as published in Part II, Volume 40, No. 81 of the Federal Register on April 25, 1975 and subsequent changes made prior to February 1, 1980.
3. Chapter Eight (8 MCAR §§ 1.7100-1.7119) and Chapter Nine (8 MCAR §§ 1.7120-1.7129) adopt by reference the American National Standard Safety Code for Elevators, Dumbwaiters, Escalators and Moving Walks, ANSI A17.1-1978.
5. Chapter Eight (8 MCAR § 1.7107) adopts by reference Section IV, State Building Code, 2 MCAR §§ 1.18811 through 1.18813, "Wheelchair Elevating Devices."

The standards, rules and regulations adopted by reference may be obtained from the following sources:

Federal Standards (Federal Register):	Superintendent of Documents U.S. Government Printing Office Washington, D.C. 20420
ANSI A17.1-1978:	American Society of Mechanical Eng. 345 East 47th Street New York, New York 10017
Wheelchair Elevating Devices: (State Building Code)	Document Section Department of Administration 117 University Avenue St. Paul, Minnesota 55155

Chapter One: 8 MCAR §§ 1.7001-1.7009

General

8 MCAR § 1.7001 Adoption of federal Occupational Safety and Health Standards by reference. The Minnesota Department of Labor and Industry Occupational Safety and Health Codes and rules are amended by incorporating and adopting by reference, and thereby making a part thereof, Title 29 of the Code of Federal Regulations as follows:

Part 1910—Occupational Safety and Health Standards as published in Volume 43, No. 206 of the Federal Register on October 24, 1978 and corrected in Volume 43, No. 216 on November 7, 1978 which incorporates changes, additions, deletions and corrections made up to November 7, 1978; and subsequent changes made prior to February 1, 1980:

Federal Register, Vol. 43, No. 234, dated 12/5/78—"Corrections to 1910.1043—Occupational Exposure to Cotton Dust."

Federal Register, Vol. 43, No. 234, dated 12/5/78—"Corrections to 1910.1046—Occupational Exposure to Cotton Dust in Cotton Gins."

Federal Register, Vol. 43, No. 237, dated 12/8/78—"Corrections to Tables of Exposure Limits for Air Contaminants, 1910.1000."

Federal Register, Vol. 43, No. 220, dated 11/14/78—"Lead Standard, 1910.1025."

Federal Register, Vol. 44, No. 19, dated 1/26/79—"Corrections to Lead Standard, typographical."

Federal Register, Vol. 44, No. 50, dated 3/13/79—"Modifications to Lead Standard, Portions of Standard Stayed."

Federal Register, Vol. 44, No. 168, dated 8/28/79—"Corrections to Lead Standard, Exemption of Construction Industry."

Federal Register, Vol. 44, No. 138, dated 7/17/79—"Occupational Exposure to Chlorine, Lifting of Stay."

Federal Register, Vol. 44, No. 206, dated 10/23/79—"Appendices to Lead Standard."

Federal Register, Vol. 44, No. 232, dated 11/30/79—"Corrections to Appendices to Lead Standard."

Federal Register, Vol. 45, No. 20, dated 1/29/80—"Servicing Multi-Piece Rim Wheels, 1910.177."

Part 1926—Construction Safety and Health Regulations as published in Part VII, Volume 44, No. 29 of the Federal Register on February 9, 1979 which incorporates changes, additions, deletions and corrections made up to October 17, 1978 and includes General Industry Occupational Safety and Health Standards (29 CFR Part 1910) which have been identified as applicable to construction work.

Parts 1915, 1916, 1917, and 1918—Safety and Health Regulations for Maritime Employment as published in Part II, Volume 39, No. 119 of the Federal Register on June 19, 1974 which incorporates changes, additions, deletions and corrections made up to June 3, 1974; and subsequent changes made prior to February 1, 1980:

Federal Register, Vol. 42, No. 141, dated 7/22/77—"Commercial Diving Operations, which added sections 1915.59, 1916.59, 1917.59 and 1918.99."

Federal Register, Vol. 43, No. 88, dated 5/5/78—"Occupational Exposure to Benzene, supersedes previous standards included in Parts 1915, 1916, 1917 and 1918."

Part 1928—Occupational Safety and Health Standards for Agriculture as published in Part II, Volume 40, No. 81 of the Federal Register on April 25, 1975 and subsequent changes made prior to February 1, 1980:

Federal Register, Vol. 41, No. 206, dated 11/22/76—"Non-substantive changes to guarding of farm field equipment."

Federal Register, Vol. 42, No. 141, dated 7/22/77—"Excludes commercial diving operations standards from agricultural applicability."

Federal Register, Vol. 42, No. 146, dated 7/29/77—"Excludes air contaminant standards from agricultural operations."

Federal Register, Vol. 43, No. 122, dated 6/23/78—"Occupational Exposure to Cotton Dust in Cotton Gins, amends 1928.21 by adding paragraph (a)(5)."

Federal Register, Vol. 43, No. 127, dated 6/30/78—"Occupational Exposure to Cotton Dust in Cotton Gins, corrections of errors in 1928.21 and 1928.113."

Federal Register, Vol. 43, No. 153, dated 8/8/78—"Occupational Exposure to Cotton Dust in Cotton Gins, correction of errors in 1928.113."

Federal Register, Vol. 43, No. 234, dated 12/5/78—"Occupational Exposure to Cotton Dust in Cotton Gins, corrections to Appendix C."

8 MCAR § 1.7002-1.7009 Reserved for future use.

Chapter Two: 8 MCAR §§ 1.7010-1.7019
Personal Protective Equipment

§ 1.7010 Head protection. Employees working in areas where there is danger of scalp injury if the employee's hair should become entangled in moving machinery parts shall be protected by having their hair contained or secured in a shop cap, snood, or similar device.

§ 1.7011 Personal protective equipment.

A. High visibility vests and other high visibility equipment.

1. Employees (other than police and fire protection personnel covered by paragraph 3 of this section) exposed to vehicular traffic when the work area is on the driving lanes or on the shoulders or berms, or on the median adjacent to streets, highways, or roadways shall be provided with and required to wear warning vests or other high visibility garments. For work during the hours of darkness this protective equipment must be made of or marked with reflectorized material.

2. Where employees are continually protected from vehicular traffic by permanent or semi-permanent barricades, high visibility vests or other high visibility equipment are not required.

3. Law enforcement and fire protection personnel shall be provided with, and be required to wear, high visibility, reflectorized outer garments at any time such personnel are engaged in vehicular traffic control.

§§ 1.7012-1.7019 Reserved for future use.

Chapter Three: 8 MCAR §§ 1.7020-1.7039
Walking, Working Surfaces

§ 1.7020 Storage racks. No employee shall be required or permitted to work on an elevated platform or rack intended primarily for the storage of materials unless such storage area has been provided with the safeguards specified in 29 CFR 1910.23 (c) (1). Existing 8 MCAR § 1.7071 "Ships Ladders" and 8 MCAR § 1.7072 "Ships Ladders (Special)" from Chapter Six: "Construction" will be renumbered as 8 MCAR §§ 1.7021 and 1.7022 and included in Chapter Three: "Walking, Working Surfaces." This change is intended to allow these standards to apply to General Industry locations.

§ 1.7021 Ships ladders.

A. General.

1. Employers shall replace fixed and portable ladders with ships ladders whenever possible.

2. The angle of rise of ships ladders shall be between 50 and 60 degrees measured from the horizontal.

3. Soffits. Where ladders are located one above the other, soffits shall be enclosed except where solid treads and risers are provided.

4. Tread height. The height between treads shall be 8 to 12 inches.

5. Tread surfaces other than steel grating shall be provided with skid resistance.

6. Tread size. Treads shall be flat steps with minimum of 6 inches in width and at least 24 inches long.

7. Handrails shall be provided on both sides of ladders and shall be placed to run parallel with stringers and be positioned 12 to 14 inches measured vertically, from the stringers.

8. Handrail diameter. Handrail diameters shall be 1-1/4 to 1-5/8 inches O.D.

9. Entrances. When ships ladders serve door entrances, handrails shall continue to the door.

10. Stringers. Ladder stringers shall be at least six inches in depth and permanently attached at terminations.

§ 1.7022 Ships ladders (special).

A. Ships ladders shall be provided in all buildings where mechanical equip-

ment is located on the roof in order to make all equipment accessible to maintenance and inspection personnel.

1. Ships ladders shall be placed at an angle between 50 and 60 degrees measured from the horizontal.

2. The opening in ceilings and building roofs shall have a minimum area of nine square feet and a minimum width of two feet.

3. No ships ladders shall be located in or pass through elevator shafts, elevator penthouses, or elevator machine rooms.

4. Inside a penthouse handrails shall continue through ceiling and roof openings to a distance of 36 inches. A guardrail and intermediate rail shall be provided on all open sides with a substantial chain guard on the entrance side.

§ § 1.7023-1.7039 Reserved for future use.

CHAPTER FOUR: MOSHC 40-59

GENERAL ENVIRONMENTAL CONTROL

MOSHC 40 General. Plans showing the location and type of dust, fumes, gas, vapor or mist generating operation and the method of control to be employed at each point of dissemination, together with the details of design and operation of such dust, fumes, gas, vapor, or mist control measures, shall be submitted in duplicate before installation of the proposed equipment by the owner or his authorized agent. One copy each to the Department of Labor and Industry and to the State Board of Health for review and conditional approval subject to final acceptance after tests have been conducted to determine whether the control measure is effective in maintaining the concentrations of toxic materials below those specified herein.

MOSHC 41 General Ventilation and Temperature Requirements

(a) Air shall be provided and distributed in all workrooms as required in this Code.

(b) Outside air shall be provided to all workrooms at the rate of 15 cubic feet per minute per person or 1½ air changes per hour, whichever is greater.

(c) Air circulated in any workroom shall be supplied through air inlets arranged, located and equipped so that the workers shall not be subjected to air velocities exceeding 200 feet per minute except under special circumstances specified in this Code or where approved by the Department of Labor and Industry.

(d) The following tables shall be used as a guide in appraising and controlling health hazards associated with extremes in temperature and humidity.

High Environmental Dry and Wet-Bulb Temperatures* That Can Be Tolerated in Daily Work by Healthy, Acclimatized Men Wearing Warm Weather Clothing

Activity	Relative Humidity %	15-25 Dry Bulb	fpm Wet Bulb	Air Movement		300 Dry Bulb	fpm Wet Bulb
				100 Dry Bulb	fpm Wet Bulb		
Summer season	80	89	84	91	85	93	87
Light sedentary activities	60	94	82	96	84	98	85
(ET 85° F.)	40	100	79	101	81	103	82
	20	109	75	110	75	110	75
	5	119	69	118	69	117	68
Summer season	80	83	78	86	81	89	83
Heavy work	60	88	76	90	78	93	80
(ET 80° F.)	40	93	73	95	75	97	76
	20	100	69	101	70	102	70
	5	107	64	107	64	106	63
Winter season	80	78	73	81	77	85	79
Light or heavy work	60	81	71	85	74	88	76
(ET 75° F.)	40	86	68	89	70	91	72
	20	91	63	93	65	94	66
	5	97	58	97	58	97	59

*(Including Radiation Effect.)

(e) If thermal radiation appears to be an important factor, the value listed above should be corrected accordingly.

(f) The minimum air temperature of 60° F. shall be maintained in all rooms where work of a strenuous nature is performed, and the minimum air temperature of 65° F. shall be maintained in all other workrooms unless prohibited by process requirements.

(g) Air from any exhaust system handling materials listed herein shall not be recirculated without written permission from the Department of Labor and Industry.

MOSHC 42 Minimum Levels of Illumination

(a) Illumination by daylight or artificial light shall be supplied for traversed spaces, such as hallways, roadways, etc., during working hours, and for work when attended by operators. Minimum levels of illumination, as listed in the following table, are required in all places of employment in Minnesota. Values greater than these minima shall be used when ordered by the Occupational Safety and Health Division.

ILLUMINATION ON TRAVERSED SPACES

	Recommended Minimum Foot-Candles
Roadways, yard thoroughfares.....	2-1
Storage spaces, aisles and passageways in workrooms, excepting exits and passageways leading thereto.....	3-2
Spaces such as stairways, hallways, exits and passages leading thereto	5-3
Spaces such as locker rooms, wash rooms, toilet rooms, and passageways where there are exposed moving machines, hot pipes, or live electric parts.....	6-4

ILLUMINATION AT THE WORK

Where discrimination of detail is not essential:

Work such as handling material of a coarse nature, grinding clay products, rough sorting, coal and ash handling, foundry charging	5-3
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Where slight discrimination of detail is essential:

Work such as rough machining, rough assembling, rough bench work, rough forging, grain milling.....	10-5
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Where moderate discrimination of detail is essential:

Work such as machining, assembly work, bench work, fine core making in foundries.....	30
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Where close discrimination of detail is essential:

Work such as fine lathe work, pattern making, tool making, weaving or sewing light-colored silk or woolen textiles, office work, accounting, typewriting.....	50
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Where discrimination of minute detail is essential:

Work such as drafting, weaving or sewing dark colored material, very fine inspection or inspection of very dark goods	100-25
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(b) The preceding table gives the range of minimum illumination values that are considered desirable for different classes of work. These values are based upon practice established through years of experience. Elderly persons

or persons with defective eyesight require more light than do those having perfect vision. A range of foot-candle values is given for each group of operations. In modern practice it will usually be found desirable to select values in or even beyond the upper portion of the range.



Poorly Lighted Industrial Plant.



Same Plant Well Lighted.

(c) It is recognized that any specific process when carried on in different factories is performed with different degrees of fineness and with other variations, so that one factory may need more illumination than another for the same class of work. In the table, ranges of foot-candle values are given to correspond to the variations actually existing in practice. Attention is called to the fact that the values in the table are operating values, that is, they apply to measurements of the lighting system in ordinary use, not simply when the lamps and reflectors are new and clean.

MOSHC 43 Diffusion and Distribution of Light

(a) Lighting, whether natural or artificial, shall be such as to provide good distribution of light and to avoid glare and objectionable shadows and extreme contrasts. In artificial lighting, lamps shall be so installed in regard to their height, location and spacing and shall be so equipped with reflectors, shades or other suitable accessories as to accomplish these objects.

(b) Bare light sources, such as exposed lamp filaments, located within the ordinary field of the worker's vision are presumptive evidence of glare.

(c) The principal causes of glare are: 1. The light source may be too bright; that is, it may have too high a candlepower per square inch of area. 2. The light source may be too powerful for comfort; that is, it may have too great a total candlepower in the direction of the eye. 3. A given light source may be located at too short a distance from the eye or it may lie too near the center of the field of vision for comfort; that is, within too small an angle from the ordinary line of sight. 4. The contrast between the light source and its darker surroundings may be too great. 5. The time of exposure may be too great; that is, the eye may be subjected to the strain caused by a light source of given strength within the field of vision for too long a time.

(d) Glare from natural lighting may frequently be reduced by the use of refracting or diffusing glass in windows and skylights, and by the rearrangement of machines and benches so that operators are not required to face windows.

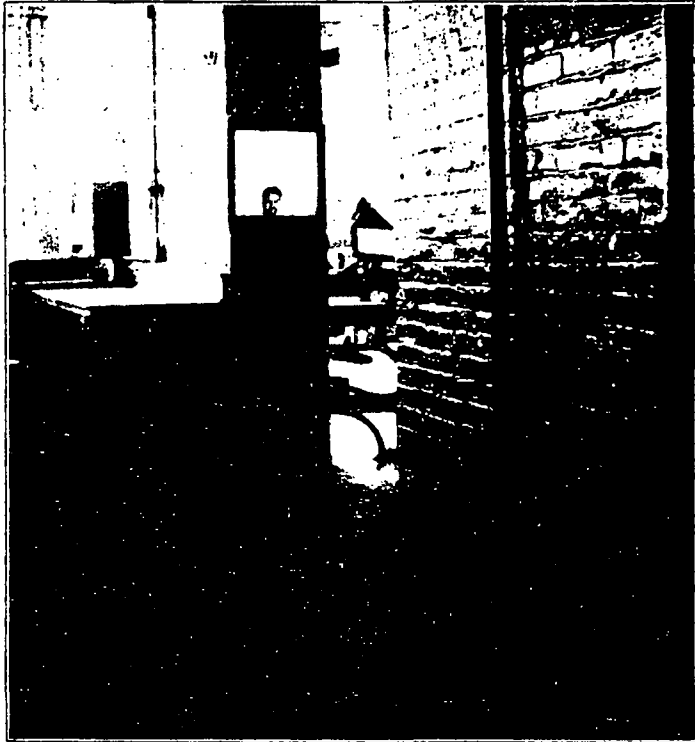
MOSHC 44 Exit and Emergency Lighting. The lighting to be provided in all important stairways and all exits from work places and in the passageways related thereto shall be so supplied that it will not be subject to failure of the room or work-space lighting from internal causes. In artificial illumination, the service for exit and emergency lighting shall preferably be from an independent connection or connections extending back to the main service entrance. In cases of unusual danger which may exist on account of the type of building or nature of the work, crowded conditions, or lack of suitable exit space, an independent service shall be assured by connecting to a separate source of supply without or within the building. During the hours of occupancy when daylight is lacking, this separate source of supply shall be connected so as to function continuously or to come on automatically upon failure of the regular lighting service.

MOSHC 45 Maintaining the Level of Illumination

(a) The proper maintenance of equipment for both natural and artificial lighting is essential. Systems which are adequate when first installed will soon deteriorate unless properly maintained. For continued effectiveness and economy in lighting, the factory owner shall establish a regular definite system of maintenance so that skylights, side windows, lamps and accessories are at all times kept clean, in proper adjustment and in good repair. Means

for easy access to all lighting units shall be provided for employees in charge of their maintenance. Walls and ceilings shall be repainted at regular intervals and preferably in light tones. This is especially true where systems of indirect lighting are used.

(b) Especially in connection with the maintenance of lighting systems, attention is called to the desirability of having available in the factory an



Blind Corner Mirror.

instrument with which the foot-candles of illumination received at any point can be measured. One instrument, the foot-candle meter, while not designed for precise measurement, has a wide field of usefulness because, with a little practice, determinations are easily made and are accurate enough for most practical purposes. The foot-candle meter is small, light in weight and entirely self-contained. Illumination is read directly from the scale without computation or manipulation.

(c) By measuring light actually delivered to the work, the foot-candle meter automatically reveals the combined effect of all possible causes of deterioration. Ignorance of the magnitude of deterioration has often been the cause of inadequate maintenance.

MOSHC 46-59 Reserved for Future Use

CHAPTER FIVE: MOSHC 60-69**VENTILATION FOR GARAGES**

MOSHC 60 Size of System. Provide a ventilation system capable of removing a volume of air equal to the floor area times a height of six (6) feet not less than once every ten (10) minutes. Exhaust ducts are to be not more than fourteen (14) inches from the floor, so placed as to remove carbon monoxide gas from the entire garage. An equal amount of tempered fresh air should be provided for, preferably 10 to 11 feet high.

MOSHC 61 Plans — Approval by Department of Labor and Industry. Plans showing the location and type and the method of control to be employed at each point of dissemination, together with the details of design and operation of control measure, shall be submitted in duplicate before installation of the proposed equipment by the owner or his authorized agent, one copy each to the Department of Labor and Industry and to the State Board of Health, for review and conditional approval, subject to final acceptance after tests have been conducted to determine whether the control measure is effective in maintaining the concentration of toxic materials below those specified in this code.

MOSHC 62-69 Reserved for Future Use

**Chapter Six: 8 MCAR §§ 1.7070-1.7089
Construction**

§ 1.7070 Privies heated.

A. Privies shall be provided on all construction and engineering projects as provided for in the sanitation laws of Minnesota.

1. Privies shall be placed inside of heated buildings wherever possible to do so.

2. Where privies are not placed inside of heated buildings, provisions shall be made for heating privies to a minimum of heat that can be emitted from the installation of a 1300 watt heater or other type equivalent heater.

§ 1.7071 Ships ladders.

A. General.

1. Employers shall replace fixed and portable ladders with ships ladders whenever possible.

2. The angle of rise of ships ladders shall be between 50 and 60 degrees measured from the horizontal.

3. Soffits. Where ladders are located one above the other, soffits shall be enclosed except where solid treads and risers are provided.

4. Tread height. The height between treads shall be 8 to 12 inches.

5. Tread surfaces other than steel grating shall be provided with skid resistance.

6. Tread size. Treads shall be flat steps with minimum of 6 inches in width and at least 24 inches long.

7. Handrails shall be provided on both sides of ladders and shall be placed to run parallel with stringers and be positioned 12 to 14 inches measured vertically, from the stringers.

8. Handrail diameter. Handrail diameters shall be 1-1/4 to 1-5/8 inches O.D.

9. Entrances. When ships ladders serve door entrances, handrails shall continue to the door.

10. Stringers. Ladder stringers shall be at least 6 inches in depth and permanently attached at terminations.

§ 1.7072 Ships ladders (special).

A. Ships ladders shall be provided in all buildings where mechanical equipment is located on the roof in order to make all equipment accessible to maintenance and inspection personnel.

1. Ships ladders shall be placed at an angle between 50 and 60 degrees measured from the horizontal.

2. The opening in ceilings and building roofs shall have a minimum area of 9 square feet and a minimum width of 2 feet.

3. No ships ladders shall be located in or pass through elevator shafts, elevator penthouses, or elevator machine rooms.

4. Inside a penthouse handrails shall continue through ceiling and roof openings to a distance of 36 inches. A guardrail and intermediate rail shall be provided on all open sides with a substantial chain guard on the entrance.

§ 1.7073 Paint spraying—building interior.

A. Non-flammable paints. Where spray painters are applying non-flammable paint on walls, ceilings, fixtures, etc., at such time when employees other than painters are employed in or near such areas, safeguarding measures shall be taken to protect the lives and health of spray painters and others as per this code.

1. Respiratory mouth and nose masks and/or fresh air hoods shall be provided for spray painters by employers at no cost to spray painters.

2. Such personal respiratory equipment shall meet the requirements of ANSI Z88.2-1969—"Practices for Respiratory Protection."

3. Areas being spray painted shall be sealed off from other areas of the building by means of curtains. Employees other than painters shall not be required to work in such enclosed areas.

4. Such curtains shall have no openings except entry ways, which shall be kept closed during painting.

5. Cross ventilation shall be provided to remove spray paint fumes from the enclosures to the outside air by means of either mechanical exhaust or window ventilation.

6. Provisions shall be made to prevent exhaust fumes from re-entering any part of the building.

B. Flammable paints. In addition to meeting the requirements of A. above, where flammable paints are being applied: 8 MCAR §§ 1.7079, 1.7080 and 1.7081 shall be added to Chapter Six: Construction.

1. All motors, lights, switches, and electrical appliances shall be de-energized. (Exception: Portable vapor proof lights may be used when located twenty feet or more from the painting area.)

2. Air pollution control board should be consulted for any air pollution control measures required.

§ 1.7074 Enclosure. The ground actually occupied by the building construction operations or engineering project shall be shut off by an enclosure from places accessible to the public. The enclosure shall be such as to avoid any risk that might arise from the fall of any objects whatsoever. Places on the building site that are accessible to the workers shall be protected in a similar manner.

§ 1.7075 Warning signs. Warning signs and red lights shall be conspicuously placed and maintained at all dangerous places on the job.

§ 1.7076 Sidewalk sheds. Whenever a building shall be erected or increased over two stories in height, or whenever a building of more than 25 feet in height is to be demolished upon any street of a municipality on which municipal regulations will not allow sidewalks to be blockaded, the owner, builder, or contractor constructing, repairing or demolishing such building shall erect and maintain, during the period of such construction and repair, a shed which shall extend over not less than one-half the width of the sidewalk and shall have a minimum width of three feet. The side wall toward the building shall be sealed with boards. The roof over the shed shall be constructed to support the approximate load carried, but in no case shall the planks on the roof be less than 2 inches in thickness. The street side of the sidewalk shed shall have a hand and an intermediate rail.

§ 1.7077 Lights. Every sidewalk shed shall be kept in good repair, free from unnecessary obstruction and properly lighted at night. The ends of the sidewalk shed walk shall be marked with red lights on the street side.

§ 1.7078 Jobsite shelter.

A. General. From November 1 to March 15 of each winter season, all construction jobs shall be provided with a suitable place for employees to change their clothes and eat their lunch.

B. Definitions.

1. Suitable place means an enclosed shed, designated area within a new or existing structure, or van, panel truck or mobile home.

2. A man-day is equivalent to one man working an 8-hour shift.

C. Scope. The provisions of this standard apply to those construction projects which have exceeded 30 man-days.

D. Size. The size of jobsite shelters shall be based on the maximum number of employees using the room at one time. The minimum space requirements, in square feet per person, shall be determined by the values as shown in the table below:

Number of Persons	Square Feet per Person
25 or less	13
26 - 74	12
75 - 149	11
150 and over	10

E. Temperature. Jobsite shelters shall be heated to a temperature of at least 50 degrees Fahrenheit during all periods when the shelter is occupied.

F. Contaminated clothing storage. If toxic or harmful substances are handled so that work clothes become contaminated, facilities shall be provided so that street clothes and work clothes will not be stored in contact with each other.

G. Lighting. Jobsite shelters shall be lighted with not less than 10 foot-candles of light.

H. Crew mobility. The requirements of this standard can be met by furnishing transportation to a reasonably convenient location which meets the other requirements of this standard.

§ 1.7079 Walking-working surfaces.

A. Labeling floor or wall opening covers.

1. In those instances where floor or wall opening covers are used, they shall be labeled, "Floor Opening—Do Not Remove," or "Wall Opening—Do Not Remove" as applicable with lettering at least 2 inches in height and such covers shall be secured against accidental displacement.

B. Tripping and impaling hazards.

1. Where employees are exposed to tripping or impaling hazards caused by projecting conduit ends, reinforcing rods, pipe ends, or similar objects, these hazards shall be barricaded, guarded, or otherwise covered.

C. Construction stairways.

1. In addition to the requirements of 29 CFR 1926.501, semi-finished permanent stairways or temporary stairways to a second floor are to be in place before supports or structure to the sixth floor are raised. Similarly, the supports or structure on multi-floored buildings shall never be more than 5 floors ahead of stairways.

2. On steel frame buildings, stairways shall extend to the uppermost floor that has been planked or decked. Ladders for access purposes may be used only above that point.

3. A second means of egress remote from the prime means of egress shall be provided, for emergency use, when any multi-floored structure reaches the 30-foot level or the fourth floor.

4. Ladders which meet the requirements of 29 CFR 1926.450 may be used as a second means of egress.

D. Multi-stage suspension scaffolds.

1. Multi-stage suspension scaffolds shall meet the requirements of 29 CFR 1926.451 (i) with the exception of 1926.451 (i) (8).

2. In addition, the following requirements shall be met:

a. All multi-stage suspension scaffolds shall be equipped with at least one additional emergency support cable and automatic locking device at each end of the platform capable of supporting the work platform in the event one or both of the main suspension cables should fail.

b. The two additional emergency support cables required in a. above shall provide the required strength for a safety factor of six times the platform's intended load, including support for scaffold platforms, materials, tools, and employees working on the scaffold.

c. Employees shall tie off with a lanyard to the scaffold system in lieu of a lifeline to the building. The section of scaffold system or cable used by employees for attachment of lanyard, when tying off to the scaffold in lieu of a lifeline as required above, shall be capable of supporting at least six (6) times the intended load.

§ 1.7080 Demolition operations. The cutting or removal of reinforcing steel or cables that are suspending debris, or the removal of columns or studs that support debris, shall not take place in close proximity to any area where employees are working unless the area has been isolated by a protective enclosure separating the work area from falling or sliding debris.

§ 1.7081 Personal protective equipment.

A. High visibility vests and other high visibility equipment.

1. Employees exposed to vehicular traffic when the work area is on the driving lanes or on the shoulders or berms, or on the median adjacent to streets, highways, or roadways shall be provided with and required to wear warning vests or other high visibility garments. For work during the hours of darkness, this protective equipment must be made of or marked with reflectorized material.

2. Where permanent or semi-permanent barricades are installed to protect employees from vehicular traffic, high visibility vests or other high visibility equipment are not required.

§ § 1.7082-1.7089 Reserved for future use.

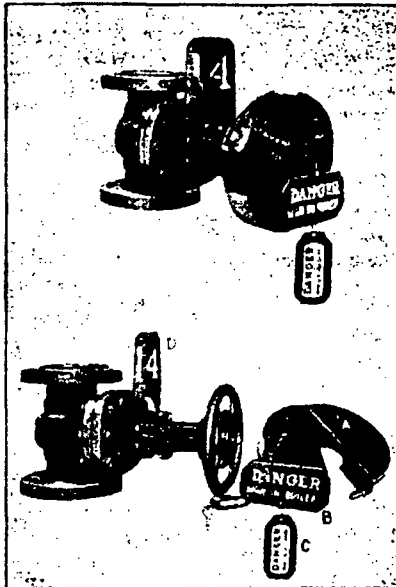
CHAPTER SEVEN: MOSHC 90-99**STEAM BOILERS****MOSHC 90 Definition and Application**

(a) Any steam boiler with a safety valve set to permit a pressure exceeding 15 pounds shall be considered a high-pressure steam boiler.

(b) The requirements of this item shall not apply to: Heating plants in buildings occupied solely for residence purposes, with accommodations therein not to exceed four families; to railroad locomotives, nor to railroad locomotive engineers employed by railroad companies.

MOSHC 91 Safety Valves. Safety valves shall not discharge within 7 feet of floor, platform, ground, or boiler top, across a passageway or foot-walk or in such a way as to endanger persons operating stop valves. The arrange-

ment of piping must not be such as to create a back pressure on the safety valve.



Boiler Valve Lock

MOSHC 92 Boiler Blow-offs. Open blow-offs shall not discharge within 7 feet of floor, platform, or ground, across a passageway.

MOSHC 93 Exits from Boiler Room. Safe exit from all parts of boiler room shall be provided by at least two stairways, ladders permanently fastened in place, or other means of exit.

MOSHC 94 Boiler Valve Locks

(a) An effective valve locking device is one which will prevent any motion of the valve stem, and which is so attached to the valve that it cannot be removed.

(b) When two or more boilers are connected to a common steam, feed-water, or blow-off line, at least one controlling valve in the connection from each boiler to each such common steam, feed-water, or blow-off line shall be equipped with an effective valve locking device; and whenever a person is working in any boiler of a battery, the steam, feed-water, and blow-off valves shall be closed and locked.

MOSHC 95 Non-Return Valves

(a) A non-return valve is one which will automatically close and prevent steam from the main line from flowing back into the boiler if the pressure in the latter should fall below that in the steam line.

(b) Where two or more boilers are connected to one steam line, a non-return valve shall be provided in the main steam connection of each boiler, either in addition to or combined with the regular stop valve.

MOSHC 96-99 Reserved for Future Use

Chapter Eight: 8 MCAR §§ 1.7100-1.7119**Elevators, Dumbwaiters, Escalators and Moving Walks****8 MCAR § 1.7100 General provisions.****A. Scope.**

1. The matters covered in this code shall include regulations for passenger elevators, freight elevators, hoists, lifts, dumbwaiters, moving stairways, moving walks, or any mechanical device or apparatus, permanently installed and fixed in position in any building or structure except private residences, for the purpose of conveying people, animals, vehicles, merchandise, building materials or any other load regardless of whether said load is to be conveyed above or below the grade line.

2. The regulations given herein shall apply to the construction, installation, alteration and operation of all such installations listed in 8 MCAR § 1.7100 A.1. of this section, which are constructed, installed, or altered within the limits of the State of Minnesota after July 7, 1980.

B. Definitions.

1. An existing elevator installation or moving stairway shall mean one on which construction was begun prior to July 7, 1980.

2. A new elevator or moving stairway installation shall mean one on which construction was begun after July 7, 1980.

C. Existing installations.

1. All existing installations may be continued in service as long as they are properly maintained and are installed and maintained in a safe condition. The Department of Labor and Industry shall have the authority to shut down any piece of equipment covered by this chapter, which is dangerous to life, limb and adjoining property, and such equipment shall not be put back into operation until such unsafe condition has been corrected and approved by the Department of Labor and Industry. Specific requirements for existing installation are:

a. Car gates. A door or gate shall be provided at each entrance to the car.

b. Car tops. Tops of car enclosures shall be so designed and installed as to be capable of sustaining a load of three hundred (300) pounds on any square area two (2) feet on a side and one hundred (100) pounds applied at any point. Simultaneous application of these loads is not required.

c. Car walls. All sides of the elevator car, except the sides used for entrance and exit, shall be permanently enclosed.

d. Hoistway enclosure. Hoistways shall be enclosed throughout their height with material equivalent to the rest of the building construction.

e. Hoistway entrance guarding. All elevator hoistway landing openings shall be provided with entrances which shall guard the full width of the opening to not less than seventy-two (72) inches in height.

f. Locking devices. Passenger and freight elevators shall be equipped with hoistway-unit system hoistway door interlocks.

g. Car door or gate electric contacts. Car doors or gates shall be provided with electric contacts conforming to Rule 111.5 of ANSI A17.1-1978.

h. Non-crushing astragals. A fire resistive, non-shearing, and non-crushing member of either the meeting or overlapping type shall be provided on the upper panel of vertical opening hoistway doors to close the space between the rigid door sections when in contact with the stops.

i. Car safety and speed governors. The car of every elevator suspended by wire rope shall be provided with a car safety device attached to the lower member of the car frame. On all elevators where travel exceeds two stories or 15 feet, car safeties shall be activated by speed governors.

j. Operating devices. All operating devices shall be of the enclosed electric type. Rope or rod operated devices activated by hand, or rope operating devices activated by wheels, levers or cranks, shall be removed. Exception: This shall not be considered a material change.

2. Any installation, which is materially changed after July 7, 1980 shall comply with all of the requirements covering a new installation. A material change shall be defined as any change which moves the location, increases or decreases the length of travel, changes the type of operation, increases the speed or carrying capacity or changes the types of power supply of an existing installation.

3. Any installation, whether new or existing, which shall become damaged, defective or worn by fire or other causes including ordinary wear to such an extent that it becomes dangerous to life, limb and adjoining property, shall be repaired or rebuilt in conformity with the provisions of this chapter for new installations. Such equipment shall be taken out of service until such unsafe condition has been removed.

8 MCAR § 1.7101 Inspections, tests and approval.

A. Approval of plan. Any person, firm or corporation desiring to install, relocate, alter materially or extend any installation covered by this chapter shall be required to obtain approval for so doing from the Department of Labor and Industry.

B. Inspections and tests. It shall be unlawful for any person, firm or

corporation to put into service any installation covered by this chapter whether such installation is newly installed, relocated, or altered materially without such installation being inspected and approved by the Department of Labor and Industry. The installer of any equipment included in this chapter shall notify the Department of Labor and Industry seven days prior to completion of the installation for such inspection. The Department of Labor and Industry shall have the authority to require tests necessary to prove the safe operation of any installation providing these tests meet the requirements as outlined in ANSI A17.1-1978 and supplements.

C. Approval. A certificate or letter of approval shall be issued by the Department of Labor and Industry for such installation when the entire installation is completed in conformity with this chapter. The entire installation shall include all enclosures or shafts, gates, doors, machinery safety and control devices and all other appurtenances necessary.

8 MCAR § 1.7102 Accidents.

A. To be reported. The owner or person in control of an elevator or other installation covered by this chapter shall promptly notify the Department of Labor and Industry of any accident to person or apparatus, on, about or in connection with such elevator or other installation, and shall afford the Department of Labor and Industry every facility for investigating such accident and the damage resulting therefrom. Notification may be given to the Department of Labor and Industry by telephone or verbally, but such notification shall be confirmed in writing.

B. Investigation. The Department of Labor and Industry shall make or cause to be made an investigation and the report of such investigation shall be placed on file in the office of the Department of Labor and Industry. Such report shall give in detail the cause or causes, so far as they can be determined, and such report shall be open to public inspection.

C. Operation discontinued. When an accident involves the failure or destruction of a part of the installation or the operation mechanism, the elevator or other installation shall be taken out of service and shall not be used again until it has been made safe and such reuse approved by the Department of Labor and Industry. The Department of Labor and Industry may, if deemed necessary, order the discontinuance of operation of any such elevator or installation until a new certificate of approval has been issued.

D. Removal of parts restricted. No part of the damaged installation, construction or operating mechanism shall be removed from the premises until permission is granted by the Department of Labor and Industry.

8 MCAR § 1.7103 Elevators, dumbwaiters, escalators and moving walks.

A. Applicable standards. The ninth edition of the American National Standard Safety Code for Elevators, Dumbwaiters, Escalators and Moving Walks, ANSI A17.1-1978, including supplement A17.1a-1979, is hereby incorporated

by reference and made a part of these Minnesota Department of Labor and Industry Occupational Safety and Health Rules.

8 MCAR § 1.7104 Exceptions and amendments to ANSI A17.1.

A. Winding drum machine. Winding drum machines shall not be permitted on new elevator installations nor as replacements on existing installations.

B. Swing doors. Horizontal swing doors, either single section or center opening two section, shall not be permitted on new elevator installations nor as replacements on existing installations unless the conditions are such as to make it impossible to install other than swing doors.

C. Side exits. Side emergency exits on elevator cars shall not be permitted.

D. Solid bumpers. Solid bumpers shall not be permitted on new installations nor as a replacement on existing installations.

E. Door unlocking devices. Hoistway door unlocking devices shall not be permitted except at the bottom landings.

1. Top and bottom landings shall be provided with hoistway access switches conforming to Rule 111.9b and 111.9c of ANSI A17.1-1978.

2. The door at the lowest landing shall be provided with a special key not easily duplicated and said key shall be available only to elevator mechanics and inspectors. The interlocks shall be designed and adjusted as to prevent movement of the car until after the door is closed and in the locking position.

3. Access to hoistways for emergency purposes.

a. The operating means for unlocking hoistway doors shall be kept on the premises by the person responsible for the maintenance and operation of the elevators in a location readily accessible to qualified persons in case of an emergency but where they are not accessible to the general public.

F. Door openings. Elevator doors shall provide a clear opening of at least 32 inches.

G. Door closing speed. Automatic closing doors shall have a closing interval of not less than 3 seconds except center opening horizontal slide doors.

H. Emergency elevators. In each lobby served by elevators complying with ANSI Rule 211.3 of the elevator code identified as ANSI A17.1-1978, all automatic-operation elevators serving three or more stories above or below the main floor or having a travel of twenty-five (25) feet or more above or below the main floor, at least one elevator car serving all floors in a building shall have a platform size that is standard for the elevator supplier, and capable of accommodating an ambulance stretcher in its horizontal position. The opening to the elevator car shall be capable of passageway for such ambulance stretcher.

I. Height of call buttons. Exterior elevator call buttons shall be placed not higher than sixty (60) inches above the floor. No emergency stop switch, door opening and door closing buttons, or elevator floor buttons shall be placed higher than sixty (60) inches above the floor.

J. Standby power. In every building over one story and more than 75 feet in height, emergency power shall be provided for at least one passenger elevator in each bank. This emergency power shall be transferable to any other elevator in the bank and shall be capable of operating the elevator with a full load at contract speed or not less than 150 feet per minute. Emergency power shall be provided by an approved self-contained generator set to operate whenever there is a loss of power in the normal power supply. The generator shall be in a separate room having at least a one-hour fire resistive occupancy separation from the remainder of the building and shall have an on-site fuel supply adequate to operate the equipment for two hours. See Uniform Building Code Standard 18-1.

K. Emergency communications. Every elevator car shall be provided with a two-way communication system connected to an approved emergency service which operates 24 hours every day.

L. Illumination. A guarded light and convenience outlet shall be provided on the top and underside of each elevator car.

M. Limited use of an elevator. When a building or structure is to be equipped with one or more elevators, at least one of such elevators may be approved for limited use prior to the completion of the building or structure. The use of such elevators may be permitted by the Department of Labor and Industry under the authority of a limited permit issued for each class of service. Such limited permit shall specify the class of service permitted and it shall not be issued until the elevator has been tested with rated load and the car safety and terminal stopping equipment has been tested to determine the safety of the equipment and until permanent or temporary guards or enclosures are placed on the car and around the hoistway and at the landing entrance on each floor. Landing entrance guards shall be provided with locks that can be released from the hoistway side only. Automatic and continuous pressure elevators shall not be placed in a temporary operation from the landing push buttons unless door locking devices and/or interlocks are installed and operative.

N. Dumbwaiters and handpower elevators. All dumbwaiters and hand-powered elevators shall be equipped with a broken rope safety device.

O. Car safety mechanism switch. Car safety mechanism switches shall be of the manually reset type.

P. Hoistway door protection in passenger elevators. Hoistway doors on all passenger elevators shall not be solely dependent upon the door edge reopening device for protection from the doors closing on an obstruction, but shall also be provided with an approved light beam or electronic door protection device.

Q. Emergency keys. All keyed switches installed to operate elevators on emergency service will be required to be keyed alike to a pattern approved by the Department of Labor and Industry. In lieu of the above, keys for emergency elevator service may be in a metal box placed in a location approved by the Department of Labor and Industry, provided said box is locked with a 5-pin tumbler core lock or equivalent which is keyed to the same pattern.

R. One (1) car in each bank of automatic-operation elevators serving five (5) or more floors above or below the main floor or having a travel of fifty (50) feet or more above or below the main floor shall meet the requirements of Rule 211.3a of ANSI A17.1-1978.

S. Vents required. Hoistways of elevators serving more than three (3) floors shall be provided with means for venting smoke and hot gases to the outer air in case of fire. Vents may be manually openable or remote control automatic vents. They shall be located in the wall or roof of the penthouse or overhead machinery space above the roof. Vents passing through machine rooms must be in non-combustible ducts. When a vent is installed in the roof of the hoistway, a protective grill shall be provided to prevent persons from falling into hoistway.

8 MCAR § 1.7105 Stage and orchestra lifts. Stage and orchestra lifts shall be designed, installed, constructed and maintained so as to be reasonably safe to life, limb and adjoining property and shall be approved by the Department of Labor and Industry prior to installation or construction.

8 MCAR § 1.7106 Mechanized parking garage equipment. Mechanized parking garage equipment shall be designed, constructed, installed and maintained so as to be reasonably safe to life, limb, and adjoining property, and shall conform to the standards specified in the American Standard Safety Code for Mechanized Parking Garage Equipment ANSI A113.1-1964 (R1971).

8 MCAR § 1.7107 Wheelchair elevating devices. Wheelchair elevating devices shall conform to the requirements of State Building Code, Section IV, 2 MCAR §§ 1.18811 through 1.18813.

8 MCAR §§ 1.7108-1.7119 Reserved for future use.

Chapter Nine: 8 MCAR §§ 1.7120-1.7129

Platform Manlifts

8 MCAR § 1.7120 General requirements.

A. Installation limitations. Subject to the approval of the Department of Labor and Industry, manlifts may be installed in buildings where such manlifts are not accessible to the public and where their installation and use are safe. Such manlifts shall comply with the safety requirements set out in this section.

1. The use of manlifts shall be restricted to employees and authorized persons who are trained in their use. New employees shall be individually and properly instructed in the use of manlifts.

2. The area adjoining the floor opening shall be kept clear and adequately lighted at all times.

3. Signs shall be posted at a conspicuous position on each landing, at approximately eye level, indicating "Authorized Personnel Only."

B. Approval. Before final approval, an inspection of each new or relocated manlift shall be made by the Department of Labor and Industry.

C. Types of manlifts. Manlifts may be of the following types:

1. Hand powered platform passenger type manlifts;
2. Special purpose personnel elevators.

8 MCAR § 1.7121 Hand powered platform passenger type manlifts. Hand powered platform passenger type manlifts shall conform to the following requirements:

A. Sill clearance. The clearance between the platform and the landing shall be not more than 1½-inches nor less than ¾-inch.

B. Guarding of access openings. Access openings shall be guarded by semi-automatic vertical sliding gates or by self-closing swing gates. Such gates shall be equipped with a top crossmember not less than 42 inches above the floor, a bottom crossmember not more than ½-inch above the floor, and with at least one intermediate crossmember. The gates shall be placed within 4 inches horizontally from the landing sill.

C. Shaftway enclosures. All unused sides of the shaftway shall be enclosed to a height of at least 8 feet above the floor.

D. Ladders. A fixed ladder shall be installed in the shaftway accessible

from the manlift at any point within its travel to provide a means of exit from the elevator hatchway.

E. Car sides. The car shall be enclosed to a height of at least 42 inches on all sides not used for entrances.

F. Car construction. Car frames and platforms shall be of metal or sound-seasoned wood *designed with a safety factor of not less than four (4) for metal construction and six (6) for wood construction based on the rated load uniformly distributed. Connections between frame members of the car frame and platform shall be riveted, bolted, or welded.*

1. Glass shall not be used on any part of the frame or enclosure.

G. Counterbalancing of cars. Cars counterbalancing each other shall not be permitted.

H. Car safety device. All cars shall be provided with a car safety device attached to the top or bottom of each car frame capable of stopping and sustaining the car and its rated load. The car safety device is not required to be operated by a speed governor and may be of the instantaneous type operated as a result of the breaking or slackening of the suspension members.

I. Compensating cable. Where the travel exceeds 40 feet, compensating cables or chains properly guided shall be provided.

J. Load capacity.

1. The rated load capacity shall not exceed 300 pounds.
2. Only one person shall be permitted to ride elevator at a time.
3. *The movement of freight or materials on elevator is prohibited.*

K. Load tests. A rated load test and a test of the car safety device with rated load in the car shall be made on each new or relocated installation before it is placed in service.

L. Guide rails. Cars and counterweights shall be provided with steel guide rails or straight grained seasoned wood free from knots, shakes, dry rot, or other imperfections.

M. Guide rail fastenings. Guide rails shall be securely fastened with through-bolts or clips of such strength, design, and spacing that:

1. The guide rails and their fastenings shall not deflect more than ¼-inch under normal operation.
2. The guide rails and their fastenings shall withstand the application of the safety when stopping the car with rated load under free-fall conditions.

3. Car and counterweight guide rails shall rest on suitable supports and extend at the top of the hoistway sufficiently to prevent the guide shoes from running off the guide rails in the case of the car on counterweight traveling beyond the terminal landings.

N. Car counterweights. When counterweight sections are used, they shall be secured by at least two tie rods passing through holes in each section. The rods shall have lock nuts at each end secured by cotterpins.

O. Factors of safety. The factor of safety, based on static loads, to be used in the design of driving machines and sheaves shall not be less than eight (8) for wrought iron or rod steel and ten (10) for cast iron or other materials.

P. Car brake. Each car shall be equipped with a manual deadman type brake which operates in either direction of travel and is capable of stopping and holding the car with its rated load at any point in its limit of travel.

Q. Overhead beams. Overhead beams and their supports shall be designated to withstand the static load plus twice the suspended load without deflection exceeding the stress of the materials used.

R. Machine access. Adequate and permanent means of access shall be provided to all equipment for maintenance and inspection.

S. Power driving mechanism. Power driving mechanisms shall not be attached to or made part of any hand powered elevator.

T. Suspension cables. Suspension means shall consist of not less than two wire ropes of not less than ½-inch diameter each.

U. Sheaves. All hoisting and counterweight sheaves shall have a diameter of at least 40 times the diameter of the cable passing over them.

V. Cable fastenings. Car and counterweight cable ends, except such fastenings as are required for compensating cables or chains, shall be fastened by passing through tapered and babbitted sockets with the same requirements of those for power elevators or secured by approved clamp or special fastening devices conforming to the following:

1. Clamps shall not be of the U-bolt type.
2. Both members of the clamps shall be provided with seats conforming with the lay of the rope.
3. Clamps shall be drop forgings.
4. Ropes shall be passed around metal thimbles.

W. Operating rope. The operating rope may pass through the car cross-heads if a guard to prevent entry of the hand is provided.

X. Car locking devices. A separate locking device, independent of the manual brake, that will hold the car and its rated load at each landing shall be provided. This device may be either manual or automatic.

Y. Counterweight guarding. The counterweight shall be fully enclosed for the full length of its travel, except for an inspection section at the lower limit of travel. The inspection section shall be large enough only to inspect the fastenings and be covered with a screen or mesh which will reject a two-inch ball.

Z. Shaftway illumination. Shaftway illumination shall be adequate to enable the operator to have full view of all obstructions and hazards which might possibly cause injury.

AA. Bumper springs. Bumper springs shall be provided either on the top of the car or on the bottom of the sheave supports and shall be of sufficient strength to absorb the impact of the car and its load.

BB. Car counterbalance weights. If weights are to be used to properly counterbalance car, a suitable box or container shall be mounted firmly in the elevator car to contain such weights while in use.

CC. Car gate. A car gate or guardrail 42" from car floor capable of withstanding a lateral pressure of 250 lbs. without causing structural failure shall be provided.

DD. Pit buffers. Spring buffers of such a design and construction as to absorb the energy of the car with a capacity load shall be provided at the lowest limit of travel.

8 MCAR § 1.7122 Special purpose personnel elevators. Special purpose personnel elevators may be installed providing they comply with the requirements included in ANSI A17.1-1978, Part XV, "Special Purpose Personnel Elevators."

8 MCAR §§ 1.7123-1.7129 Reserved for future use.

Chapter Ten: 8 MCAR §§ 1.7130-1.7139
Maintenance and Repair

§ 1.7130 Scope. This section applies to building and in-plant maintenance and repair necessary to maintain buildings and equipment in safe operating condition. It is not intended to cover construction of new buildings or equipment.

§ 1.7131 General.

A. Building maintenance.

1. Buildings shall be maintained so as to assure that no loose parts or equipment including bricks, mortar, glass, wood, or cement parts can fall in passage or work areas occupied by employees.

2. Catwalks, platforms, walkways and stairways shall be maintained in a condition free from the hazards associated with ice, snow, overhanging ice or snow, holes, loose members or badly deteriorated or corroded members.

§ 1.7132 Blocking and cribbing machinery.

A. Heavy machinery, equipment or parts thereof which are suspended or held aloft by slings, cables, chains, jacks or hoists shall be blocked or cribbed to prevent falling or shifting before employees are permitted to work under or between the members of the equipment.

B. Elevated bulldozer and scraper blades, power crane booms, end loader buckets, dump truck boxes and similar equipment shall be fully lowered or adequately blocked or cribbed before being serviced or repaired.

§ 1.7133 Lockout devices.

A. Any main electrical power disconnect means which controls a source of power or material flow shall be locked out with a lockout device whenever employees are maintaining, cleaning, adjusting, or servicing machinery or equipment, if such disconnect is not in clear sight of the employee. A "Do Not Start" tag as described in 29 CFR 1910.145 (f) (3) shall be affixed to any and all operating controls.

B. The pressure shall be eliminated from any pneumatic and hydraulic lines which activate a mechanism or machine and the valve holding back the activating substance shall be locked out before an employee works on that mechanism or machine.

C. Mechanisms under spring tension or compression shall be blocked, clamped, secured in position, or the compression or tension totally relieved before being worked on by an employee.

5114 D. Suspended mechanisms or parts that normally cycle through a lower position shall be lowered to the lowest position, be clamped, blocked, or otherwise secured in position before being worked on by an employee.

E. Where more than one employee is engaged in working on machinery or equipment, each employee shall affix their individual lockout device or lock to the disconnect switch or power supply.

F. Utility companies, when working on lines and equipment, will be exempt from this standard but must comply with the requirements of 29 CFR 1926.950(d).

3114 8 MCAR S 1.7134 Lubrication of moving machinery. Machinery or equipment shall be shut down during manual lubrication unless lubrication fittings are safeguarded.

3114 8 MCAR S 1.7135 Wire rope clips.

A. Wire rope clips attached with U-bolts shall have the U-bolts on the dead or short end of the rope.

B. Clips shall be made of drop forged steel. When a newly installed rope has been in service for one hour, all nuts on the clip bolts shall be retightened.

C. Spacing and number of clips shall be in accordance with the table below:

Rope Diameter Inches	Number of Clips Drop Forged	Minimum Spacing (inches)
1/2	3	3
5/8	3	3-3/4
3/4	4	4-1/2
7/8	4	5-1/4
1	5	6
1-1/8	6	6-1/4
1-1/4	6	7-1/2
1-3/8	7	8-1/4
1-1/2	7	9

**Chapter Eleven: 8 MCAR §§ 1.7140-1.7149
Vehicles**

§ 1.7140 Motorized self-propelled vehicles.

A. Scope.

1. This section applies to:

- a. all motorized, self-propelled vehicles used off the highway including industrial type trucks, crawler equipment and rubber-tired vehicles;
- b. emergency vehicles including trucks, snow plows, road maintenance vehicles and related equipment; and
- c. service trucks including garbage compactors.

2. This section shall not apply to vehicles with less than a 20 HP motor.

B. General requirements for motorized self-propelled vehicles.

1. Motorized, self-propelled vehicles shall meet the requirements of 29 CFR 1926.600, 1926.601, and 1926.602.

C. Transportation of employees.

1. Vehicles being used to transport employees shall be equipped with a seating arrangement securely anchored, a rear end gate, a guardrail and steps or a ladder for mounting and dismounting.

2. Under no circumstances shall any employee be allowed to ride in a standing position or with arms or legs outside of the truck body, or seated on the side fenders, cabs, cabshields, rear of truck or on the load unless such a position is dictated by a job assignment.

3. No explosives, flammable materials (excepting normal fuel supply), or toxic substances shall be transported in the passenger carrying area of vehicles carrying employees.

4. No vehicle transporting employees shall be moved until the driver has ascertained that all employees are seated and required guardrails and end gates are in place and doors closed.

5. No employee shall be allowed to get on or off any vehicle while it is in motion.

D. Vehicle inspection.

1. Section 29 CFR 1926.601 (b) (14) shall apply to all vehicles covered in 29 CFR 1926.602.

§ 1.7141 Powered industrial truck operations.

A. All industrial trucks designed and constructed for use on solid hard level surfaces shall be restricted to such operations.

1. All solid hard level surfaces must be free of cracks, irregularities or holes that could upset the balance of the industrial truck.

2. When a fork truck operator is positioning a load in an area which is not fully visible to the fork truck operator, the operator shall be assisted by a designated person who shall direct the safe placing of the load by using pre-determined signals.

§ 1.7142 Grease racks, hoists and pits.

A. Vehicles shall not be supported on jacks or held suspended by ropes, chains, or cables but shall be supported by adequate blocking or cribbing or set on supports designed for that purpose.

B. Employees shall not be allowed to stand directly in front of self-propelled vehicles while directing the vehicle onto the hoist or pit, or to work in front of a moving vehicle unless a crib or barricade, adequate to stop the vehicle, is between the employee and the moving vehicle. The crib or barricade shall not in itself create any additional hazards to the employees.

C. A space of 2 feet or more shall be provided as working clearance between the sides of a vehicle on a floor hoist and any wall surface.

D. On automotive hoists, an automatic mechanical device having a safety factor of 3 based on the manufacturer's rated load capacity shall be provided to hold the lift in the fully extended position at the manufacturer's rated load capacity.

§ § 1.7143-1.7149 Reserved for future use.

**Chapter Thirteen: 8 MCAR §§ 1.7170-1.7179
Machine Guarding**

§ 1.7170 Pneumatic power tools. All pneumatically driven nailers, staplers, and other fastening equipment provided with automatic fastener feed shall have a safety device on the muzzle which is designed to prevent the tool from ejecting fasteners unless the muzzle is in contact with the work surface.

§ 1.7171 Machines with revolving parts.

A. Scope.

1. The provisions of this section shall apply to extractors, mixers, mullers, and centrifuges.

2. Nothing in this section shall apply to equipment used in research laboratories or equipment with less than 1/4 HP driving motors.

3. Nothing in this section shall apply to any machine which must be hand-fed where the feed opening is protected either by a guarded hopper or automatic feed system which prevents the operator from reaching into the point of operation.

B. Each machine shall be fully guarded with a cover, hatch or gate with an interlocking device that will prevent the cover, hatch, or grate from being opened while the rotating parts are in motion, and will also prevent the power operation of the machine while the cover, hatch, or grating is not fully closed and secured.

C. Each machine shall be effectively secured in position on the floor or foundation so as to eliminate unnecessary vibrations.

D. The manufacturer's recommended speeds shall be stamped on the machine, and located where it is readily visible in letters not less than one-quarter inch in height. The maximum permissible speed shall be given in revolutions per minute (RPM).

§§ 1.7172-1.7179 Reserved for future use.

Chapter Eighteen: 8 MCAR §§ 1.7230-1.7239

Access to Employee Exposure and Medical Records

8 MCAR § 1.7230 Purpose and scope. Federal Occupational Safety and Health Standard 1910.20, "Access to Employee Exposure and Medical Records," 29 Code of Federal Regulations, Section 1910.20 (1980) is adopted by reference.

8 MCAR § 1.7231 Modified definition. The terms "Assistant Secretary of Labor for Occupational Safety and Health" and "assistant secretary" as used in 29 Code of Federal Regulations, Section 1910.20, shall mean the Commissioner of the Department of Labor and Industry for the purpose of 8 MCAR § 1.7230.

8 MCAR § 1.7232 Conforming amendments. Revisions to 29 Code of Federal Regulations, Section 1910, Subpart T (Commercial Diving Operations) and Subpart Z (Toxic and Hazardous Substances) adopted by the Federal Occupational Safety and Health Administration on May 23, 1980 and published at 45 Federal Register, Volume 45, pages 35281-35284, are adopted by reference.

8 MCAR §§ 1.7233-1.7239 Reserved for future use.

Chapter Nineteen: 8 MCAR §§ 1.7240-1.7249**Discrimination Against Employees**

8 MCAR § 1.7240 Authority and background. Minn. Stat. §§ 182.654, subd. 9, and 182.669 prohibit discrimination against an employee because the employee exercised any rights granted under the act on the employee's behalf or on behalf of others. Any employee who believes that he or she has been discharged or discriminated against by any person because the employee exercised any right authorized by the act as described in 8 MCAR § 1.7243, may file a discrimination complaint with the Commissioner of the Department of Labor and Industry.

8 MCAR § 1.7241 Purpose and scope. The rules in this chapter implement Minn. Stat. § 182.669 of the act and set forth general policies for enforcement of the discrimination provisions of Minn. Stat. § 182.669.

8 MCAR § 1.7242 Definition. For the purpose of 8 MCAR §§ 1.7240-1.7247 "act" means the Minnesota Occupational Safety and Health Act of 1973.

8 MCAR § 1.7243 Protected activities.

A. Occupational safety and health complaints. An employee or authorized employee representative may file a complaint about unsafe or unhealthful working conditions with an employer and may request personal protective equipment from the employer. An employee or authorized employee representative may also file a written complaint about unsafe or unhealthful working conditions with the Commissioner of the Department of Labor and Industry. Written complaints may be given to an occupational safety and health investigator prior to or during an inspection of the place of employment.

B. Refusal to work under unsafe conditions.

1. Unless provided by 8 MCAR §§ 1.7240-1.7247 there is no right granted by the act for employees to leave the job because of potentially unsafe conditions at the workplace. Initially an employer should be notified of hazardous conditions. If corrections are not accomplished or if a dispute arises about the existence of a hazard, the employee or authorized employee representative may request an occupational safety and health inspection of the workplace by giving notice to the commissioner of the hazardous condition.

2. If an employee has a choice between not performing assigned tasks or subjecting himself to serious injury or death arising from a hazardous condition in the workplace, an employee acting in good faith may refuse to work if there is no reasonable alternative. The condition must be so hazardous that a reasonable person would conclude that there is a real danger of death or

serious injury and that there is insufficient time to eliminate the danger through enforcement procedures. The employee must, where possible, request the employer to correct the hazardous condition. An employer may not discharge or discipline an employee who refuses to perform assigned tasks under these conditions. However, an employer is not required to pay employees for tasks not performed.

C. *Inspection participation.* The authorized employee representative may participate in the opening conference prior to the inspection and the closing conference following the inspection. The employer shall pay the authorized employee representative regular wages for time spent participating in the inspection and opening and closing conferences.

D. *Testimony.* An employee may not be discriminated against because the employee has testified or is about to testify in proceedings under or related to the act. This protection includes testifying in proceedings instituted by the employee or any statement or testimony given in judicial, quasi-judicial and administrative proceedings.

E. *Contestation.* An employee or authorized employee representative may file a written notice of contest with the Occupational Safety and Health Review Board contesting a citation, proposed assessment of penalty, type of violation, or the time fixed for abatement in a citation issued to an employer.

F. *Informal conferences.* An employee or authorized employee representative may participate in informal conferences held between the employee's employer and the Department of Labor and Industry.

8 MCAR § 1.7244 Unprotected activities.

A. *Permitted discipline.* That certain of an employee's activities are protected by the act does not protect an employee from discipline or discharge for other legitimate reasons.

B. *Protected and unprotected activities combined.* If participation in an activity protected by the act was a substantial reason for discharge or other adverse action by an employer, the employee's rights under the act have been violated. Whether a discharge or other adverse action was because of protected activity will be determined on the facts in each particular case.

8 MCAR § 1.7245 Claim procedures.

A. *Who may file.* A complaint alleging discrimination under Minn. Stat. § 182.669 may be filed by an employee or an authorized employee representative.

B. *Time for filing.* The complaint must be filed, either orally or in writing, with the Commissioner of the Minnesota Department of Labor and Industry within 30 days after the alleged discriminatory act occurred.

C. Form of filing. Verbal complaints must be reduced to written form by the Department of Labor and Industry and sent to the complainant for signature. The form must be signed and returned to the department within 15 days of receipt by the complainant. Upon receipt of the signed complaint, the commissioner will make an investigation as he deems appropriate. If the complainant fails to sign and return the written statement within the 15 days, the case shall be closed.

D. Notice of commissioner's determination. The commissioner shall notify the complainant of the commissioner's determination regarding the complaint within 90 days of receipt of a signed complaint.

8 MCAR § 1.7246 Other proceedings.

A. Deferral. The commissioner may defer action on a complaint filed concurrently with the Department of Labor and Industry and another agency until a determination by the other agency has been made if the rights asserted in other proceedings are substantially the same as rights given under the act and the other proceedings will not violate the rights guaranteed by the act.

B. Accepting other decisions. The commissioner may accept the results of other proceedings as a final determination of a complaint if those proceedings dealt adequately with all factual issues; were fair, impartial and valid; and the outcome of the proceedings is not contradictory to the purpose of the act. If the other action is dismissed without proper hearing, the dismissal is not a final determination of the complaint filed with the commissioner.

8 MCAR § 1.7247 Enforcement proceedings.

A. Court action. Minn. Stat. § 182.669 authorizes the commissioner to bring an action against the employer in the district court in the county where the alleged discrimination occurred or in a county where the employer transacts business if it is determined that a discriminatory act has been committed against an employee.

B. Settlement. Upon completion of an investigation, the commissioner may decide upon a settlement acceptable to all concerned parties rather than proceeding with court action.

C. Complaint withdrawal. An employee may withdraw a discrimination complaint at any point following the initial submission.

D. Independent commissioner action. If an employee voluntarily withdraws a discrimination complaint, the commissioner may decide to proceed with an investigation on his own if he believes a discriminatory act has been committed.

8 MCAR §§ 1.7248-1.7249 Reserved for future use.

CHAPTER TWENTY: MOSHC 250-269

RULES OF PROCEDURE FOR PRACTICE BEFORE THE MINNESOTA
OCCUPATIONAL SAFETY AND HEALTH REVIEW COMMISSIONMOSHC 250 General Provisions *see AR01965T →*

(a) Definitions

(1) "Act" means the Minnesota Occupational Safety and Health Act of 1973, Minn. Laws 1973, Chapter 732.

(2) "Commissioner," "commission," "person," "employer," and "employee," have the meanings set forth in Section 2 of the Act.

(3) "Chairman" means the Chairman of the Commission as designated by the governor.

(4) "Affected employee" means an employee of a cited employer who is exposed to the alleged hazard described in the citation, as a result of his assigned duties.

(5) "Hearing Examiner" means a Hearing Examiner appointed by the Chairman of the Commission pursuant to § 15, Subd. 3 of the Act.

(6) "Authorized employee representative" means a labor organization which has a collective bargaining relationship with the cited employer and which represents affected employees.

(7) "Representative" means any person, including an authorized employee representative, authorized by a party or intervenor to represent him in a proceeding.

(8) "Citation" means a written communication issued by the Commissioner to an employer pursuant to § 11 of the Act.

(9) "Notification of proposed penalty" means a written communication issued by the Commissioner to an employer pursuant to § 12, Subd. 1 or 2 of the Act.

(10) "Day" means a calendar day.

(11) "Working day" means all days except Saturdays, Sundays, or holidays as defined in Minn. Stat., 645.44.

(12) "Proceeding" means any proceeding before the Commission or before a Hearing Examiner.

(b) Scope of Rules

(1) These rules shall govern all proceedings before the Commission and its Hearing Examiners.

(2) In the absence of a specific provision, procedures shall be in accordance with the Minnesota Administrative Procedure Act.

(c) Construction of Terms

Particular words and phrases shall be construed according to the provisions of Minn. Stat., Chapter 645.

(d) Computation of Time

In computing any period of time prescribed or allowed in these rules, the provisions of Minn. Stat., Chapter 645, shall be complied with.

(e) Extensions of Time

Requests for extensions of time for the filing of any pleading or document must be received in advance of the date on which the pleading or document is due to be filed.

(f) Record Address

The initial pleading filed by any person shall contain his name, address, and telephone number. Any change in such information must be communicated promptly in writing to the Hearing Examiner or the Commission, as the case may be, and to all other parties and intervenors. A party or intervenor who fails to furnish such information shall be deemed to have waived his right to notice and service under these rules.

(g) Service and Notice

(1) At the time of filing pleadings or other documents a copy thereof shall be served by the filing party or intervenor on every other party or intervenor.

(2) Service upon a party or intervenor who has appeared through a representative shall be made only upon such representative.

(3) Unless otherwise ordered, service may be accomplished by postage prepaid first class mail or by personal delivery. Service is deemed effected at the time of mailing (if by mail) or at the time of personal delivery (if by personal delivery).

(4) Proof of service shall be accomplished by a written statement of the same which sets forth the date and manner of service. Such statement shall be filed with the pleading or document.

(5) Where service is accomplished by posting, proof of such posting shall be filed not later than the first working day following the posting.

(6) Service and notice to employees represented by an authorized employee representative shall be deemed accomplished by serving the representative in the manner prescribed in paragraph (3) of this section.

(7) In the event that there are any affected employees who are not represented by an authorized employee representative, the employer shall, immediately upon receipt of the notice of contest or petition for modifica-

tion of the abatement period, post, where the citation is required to be posted, a copy of the notice of contest and a notice informing such affected employees of their right to party status and of the availability of all pleadings for inspection and copying at reasonable times. A notice in the following form shall be deemed to comply with this paragraph.

(Name of Employer)

Your employer has been cited by the Commissioner of Labor for violation of the Minnesota Occupational Safety and Health Act of 1973. The citation has been contested and will be the subject of a hearing before the Occupational Safety and Health Review Commission. Affected employees are entitled to participate in this hearing as parties under terms and conditions established by the Occupational Safety and Health Review Commission in its Rules of Procedures. Notice of intent to participate should be sent to:

Occupational Safety and Health Review Commission
444 Lafayette Road
St. Paul, Minnesota 55101

All papers relevant to this matter may be inspected at:

(Place reasonably convenient to employees, preferably at or near workplace.)

Where appropriate, the second sentence of the above notice will be deleted and the following sentence will be substituted:

The reasonableness of the period prescribed by the Commissioner of Labor for abatement of the violation has been contested and will be subject of a hearing before the Occupational Safety and Health Review Commission.

(8) The authorized employee representative, if any, shall be served with the notice set forth in paragraph (7) of this section and with a copy of the notice of contest.

(9) A copy of the notice of the hearing to be held before the Hearing Examiner shall be served by the employer on affected employees who are not represented by an authorized employee representative by posting a copy of the notice of such hearing at or near the place where the citation is required to be posted.

(10) A copy of the notice of the hearing to be held before the Hearing Examiner shall be served by the employer on the authorized employee representative of affected employees in the manner prescribed in paragraph (3) of this section, if the employer has not been informed that the authorized employee representative has entered an appearance as of the date such notice is received by the employer.

(11) Where a notice of contest is filed by an affected employee who is not represented by an authorized employee representative and there are other affected employees who are represented by an authorized employee representative, the unrepresented employee shall, upon receipt of the statement filed in conformance with § 35 of these rules, serve a copy thereof on such authorized employee representative in the manner prescribed in paragraph (3) of this section and shall file proof of such service.

(12) Where a notice of contest is filed by an affected employee or an authorized employee representative, a copy of the notice of contest and response filed in support thereof shall be provided to the employer for posting in the manner prescribed in paragraph (g) of this section.

(13) An authorized employee representative who files a notice of contest shall be responsible for serving any other authorized employee representative whose members are affected employees.

(14) Where posting is required by this section, such posting shall be maintained until the commencement of the hearing or until earlier disposition.

(h) Filing

(1) Prior to the assignment of a case to a Hearing Examiner all papers shall be filed with the Chairman of the Commission at 444 Lafayette Road, St. Paul, Minnesota 55101. Subsequent to the assignment of the case to a Hearing Examiner and before the issuance of his decision all papers shall be filed with the Hearing Examiner at the address given in the notice in forming such assignment. Subsequent to the issuance of the decision to a Hearing Examiner all papers shall be filed with the Chairman of the Commission.

(2) Unless otherwise ordered, all filing may be accomplished by first class mail.

(3) Filing is deemed effected at the time of mailing.

(i) Consolidation

Cases may be consolidated on the motion of any party, on the Hearing Examiner's own motion, or on the Commission's own motion, where there exist common parties, common questions of law or fact, or both, or in such other circumstances as justice and the administration of the Act require.

(j) Severance

Upon its own motion, or upon motion of any party or intervenor, the Commission or the Hearing Examiner may, for good cause, order any proceeding severed with respect to some or all issues or parties.

(k) Protection of Trade Secrets and Other Confidential Information

Upon application by any person in a proceeding where trade secrets or other matters may be divulged, the presiding officer shall issue such orders as may be appropriate to protect the confidentiality of such matters.

MOSHC 251 Parties and Representatives

see also 2019651 →

(a) Party Status

(1) Affected employees may elect to participate as parties at any time before the commencement of the hearing before the Hearing Examiner, unless, for good cause shown, the Commission or the Hearing Examiner allows such election at a later time. See also § 21 of these rules.

(2) Where a notice of contest is filed by an employee or by an authorized employee representative with respect to the reasonableness of the period for abatement of a violation, the employer charged with the responsibility of abating the violation may elect party status at any time before the com-

commencement of the hearing before the Hearing Examiner. See also § 21 of these rules.

(b) Intervention; Appearance by Nonparties

(1) A petition for leave to intervene may be filed at any stage of a proceeding before commencement of the hearing before the Hearing Examiner.

(2) The petition shall set forth the interest of the petitioner in the proceeding and show that the participation of the petitioner will assist in the determination of the issues in question, and that the intervention will not unnecessarily delay the proceeding.

(3) The Commission or the Hearing Examiner may grant a petition for intervention to such an extent and upon such terms as the Commission or the Hearing Examiner shall determine.

(c) Representatives of Parties and Intervenors

(1) Any party or intervenor may appear in person or through a representative.

(2) A representative of a party or intervenor shall be deemed to control all matters respecting the interest of such party or intervenor in the proceeding.

(3) Affected employees who are represented by an authorized employee representative may appear only through such authorized employee representative.

(4) Nothing contained herein shall be construed to require any representative to be an attorney at law.

(5) Withdrawal of appearance of any representative may be effected by filing a written notice of withdrawal and by serving a copy thereof on all parties and intervenors.

MOSHC 252 Pleadings and Motions

see AR01965T →

(a) Form

(1) Except as provided herein, there are no specific requirements as to the form of any pleading. A pleading is simply required to contain a caption sufficient to identify the parties in accordance with § 31, which shall include the Commission's docket number, if any, and a clear and plain statement of the relief that is sought, together with the ground therefor.

(2) Pleadings and other documents (other than exhibits) shall be type-written, double spaced, on letter size opaque paper (approximately 8½ inches by 11 inches). The left margin shall be 1½ inches and the right margin 1 inch. Pleadings and other documents shall be fastened at the upper left corner.

(3) Pleadings shall be signed by the party filing or by his representative. Such signing constitutes a representation by the signer that he has read the document or pleading, that to the best of his knowledge, information and belief the statements made therein are true, and that it is not interposed for delay.

(4) The Commission may refuse for filing any pleading or document which does not comply with the requirements of paragraphs (1), (2), and (3) of this section.

(b) Caption; Titles of Cases

(1) Cases initiated by a notice of contest shall be titled:

Commissioner of Labor,
v.
(Name of Contestant),
Complainant
Respondent

(2) Cases initiated by a petition for modification of the abatement period shall be titled:

(Name of employer),
v.
Commissioner of Labor,
Petitioner
Respondent

(3) The titles listed in paragraphs (1) and (2) of this section shall appear at the left upper portion of the initial page of any pleading or document (other than exhibits) filed.

(4) The initial page of any pleading or document (other than exhibits) shall show, at the upper right of the page, opposite the title, the docket number, if known, assigned by the Commissioner.

(c) Notices of Contest

The Commissioner shall, within 30 days of receipt of a notice of contest, transmit the original to the Commission, together with copies of all relevant documents.

(d) Employer Contests

(1) Complaint

(aa) The Commissioner shall file a complaint with the Commission no later than 40 days after his receipt of the notice of contest.

(bb) The complaint shall set forth all alleged violations and proposed penalties which are contested, stating with particularity:

- (i) The basis for jurisdiction;
- (ii) The time, location, place, and circumstances of each such alleged violation; and
- (iii) The considerations upon which the period for abatement and the proposed penalty on each such alleged violation is based.

(cc) Where the Commissioner seeks in his complaint to amend his citation or proposed penalty, he shall set forth the reasons for amendment and shall state with particularity the change sought.

(2) Answer

(aa) Within 15 days after service of the complaint, the party against whom the complaint was issued shall file an answer with the Commission.

(bb) The answer shall contain a short and plain statement denying those allegations in the complaint which the party intends to contest. Any allegation not denied shall be deemed admitted.

(3) Petitions for Modification of Abatement Period

(aa) An employer may file with the Commissioner a petition for modification of an abatement period no later than the close of the next working day following the date on which abatement is required.

(bb) The Commissioner shall transmit such petition to the Commission within 3 days after its receipt.

(cc) The Commissioner shall file a response within 10 days of receipt of the petition.

(dd) The burden of proving the need for modification of the abatement period shall rest with the petitioner.

(4) Employee Contests

(aa) Where an affected employee or authorized employee representative files a notice of contest with respect to the abatement period, the Commissioner shall, within 10 days from his receipt of the notice of contest, file a clear and concise statement of the reasons the abatement period prescribed by him is not unreasonable.

(bb) No later than 10 days after receipt of the statement referred to in paragraph (1) of this section, the contestant shall file a response.

(5) Statement of Position

At any time prior to the commencement of the hearing before the Hearing Examiner, any person entitled to appear as a party, or any person who has been granted leave to intervene, may file statement of position with respect to any or all issues to be heard.

(6) Response to Motions

Any party or intervenor upon whom a motion is served shall have 10 days from service of the motion to file a response.

(7) Failure to File

Failure to file any pleading pursuant to these rules when due, may, in the discretion of the Commission or the Hearing Examiner, constitute a waiver of the right to further participation in the proceedings.

MOSHC 253 Prehearing Procedures and Discovery

(a) Withdrawal of Notice of Contest

At any stage of a proceeding, a party may withdraw his notice of contest.

(b) Prehearing Conference

(1) At any time before a hearing, the Commission or the Hearing Examiner, on their own motion or on motion of a party, may direct the parties or their representatives to exchange information or to participate in a prehearing conference for the purpose of considering matters which will tend to simplify the issues or expedite the proceedings.

(2) The Commission or the Hearing Examiner may issue a prehearing order which includes the agreements reached by the parties. Such order shall be served on all parties and shall be a part of the record.

(c) Requests for Admissions

(1) At any time after the filing of responsive pleadings, any party may request of any other party admissions of facts to be made under oath. Each admission requested shall be set forth separately. The matter shall be deemed admitted unless, within 15 days after service of the request, or within such shorter or longer time as the Commission or the Hearing Examiner may prescribe, the party to whom the request is directed serves upon the party requesting the admission a specific written response.

(2) Copies of all requests and responses shall be served on all parties in accordance with the provisions of § 7(a) and filed with the Commission within the time allotted and shall be a part of the record.

(d) Discovery Depositions and Interrogatories

(1) Except by special order of the Commission or the Hearing Examiner, discovery depositions of parties, intervenors, or witnesses, and interrogatories directed to parties, intervenors, or witnesses shall not be allowed.

(2) In the event the Commission or the Hearing Examiner grants an application for the conduct of such discovery proceedings, the order granting the same shall set forth appropriate time limits governing the discovery.

(e) Failure to Comply with Orders for Discovery

If any party or intervenor fails to comply with an order of the Commission or the Hearing Examiner to permit discovery in accordance with the provisions of these rules, the Commission or the Hearing Examiner may issue appropriate orders.

(f) Issuance of Subpoenas; Petitions to Revoke or Modify Subpoenas; Right to Inspect or Copy Data

(1) Any member of the Commission shall, on the application of any party directed to the Commission, forthwith issue subpoenas requiring the attendance and testimony of witnesses and the production of any evidence, including relevant books, records, correspondence, or documents, in his possession or under his control. Applications for subpoenas, if filed subsequent to the assignment of the case to a Hearing Examiner, shall be filed with the Hearing Examiner. A Hearing Examiner shall grant the application on behalf of any member of the Commission. Applications for subpoenas may be made ex parte. The subpoena shall show on its face the name and address of the party at whose request the subpoena was issued.

(2) Any person served with a subpoena, whether ad testificandum or duces tecum, shall, within 5 days after the date of service of the subpoena upon him, move in writing to revoke or modify the subpoena if he does not intend to comply. All motions to revoke or modify shall be served on the party at whose request the subpoena was issued. The Hearing Examiner or the Commission, as the case may be, shall revoke or modify the subpoena if in its opinion the evidence whose production is required does not relate to any matter under investigation or in question in the proceedings or the subpoena does not describe with sufficient particularity the evidence whose production is required, or if for any other reason sufficient in law the subpoena

is otherwise invalid. The Hearing Examiner or the Commission, as the case may be, shall make a simple statement of procedural or other grounds for the ruling on the motion to revoke or modify. The motion to revoke or modify, any answer filed thereto, and any ruling thereon shall become a part of the record.

(3) Persons compelled to submit data or evidence at a public proceeding are entitled to retain, or on payment of lawfully prescribed costs, to procure copies of transcripts of the data or evidence submitted by them.

(4) Upon the failure of any person to comply with a subpoena issued upon the request of a party, the Commission through the office of the Commissioner may have proceedings initiated in the appropriate district court for the enforcement thereof, if in its judgment the enforcement of such subpoena would be consistent with the law and with policies of the Act. Neither the Commission nor the office of the Commissioner shall be deemed thereby to have assumed responsibility for the effective prosecution of the same before the court.

Repealed 8 5R 1482 12-19-83
MOSHC 254 Hearings

(a) Notice of Hearing

Notice of the time, place, and nature of a hearing shall be given to the parties and intervenors at least 10 days in advance of such hearing, except as otherwise provided in § 101.

(b) Postponement of Hearing

(1) Postponement of a hearing ordinarily will not be allowed.

(2) Except in the case of an extreme emergency or in unusual circumstances, no such request will be considered unless received in writing at least 3 days in advance of the time set for the hearing.

(3) No postponement in excess of 30 days shall be allowed without Commission approval.

(c) Failure to Appear

(1) Subject to the provisions of paragraph (3) of this section, the failure of a party to appear at a hearing shall be deemed to be a waiver of all rights except the rights to be served with a copy of the decision of the Hearing Examiner and to request Commission review pursuant to § 91.

(2) Requests for reinstatement must be made, in the absence of extraordinary circumstances, within 5 days after the scheduled hearing date.

(3) The Commission or the Hearing Examiner, upon a showing of good cause, may excuse such failure to appear. In such event, the hearing will be scheduled.

(d) Payment of Witness Fees and Mileage; Fees of Persons Taking Depositions

Witnesses summoned before the Commission or the Hearing Examiner shall be paid for the same fees and the mileage that are paid witnesses in the state courts of the United States, and witnesses whose depositions are taken and the persons taking the same shall severally be entitled to the same fees

as are paid for like services in the state courts of the United States. Witness fees and mileage shall be paid by the party at whose instance the witness appears, and the person taking a deposition shall be paid by the party at whose instance the deposition is taken.

(e) Reporter's Fees

Reporter's fees shall be provided for according to the provisions of Minn. Stat., Section 15.0418.

(f) Transcript of Testimony

Hearings shall be transcribed verbatim. Transcripts shall be provided according to the provisions of Minn. Stat., Section 15.0418.

(g) Duties and Powers of Hearing Examiners

(1) It shall be the duty of the Hearing Examiner to conduct a fair and impartial hearing, to assure that the facts are fully elicited to adjudicate all issues and avoid delay. The Hearing Examiner shall have authority with respect to cases assigned to him, between the time he is designated and the time he issues his decision, subject to the rules and regulations of the Commission, to:

(aa) Administer oaths and affirmations;

(bb) Issue authorized subpoenas;

(cc) Rule upon petitions to revoke subpoenas;

(dd) Rule upon offers of proof and receive relevant evidence;

(ee) Take or cause depositions to be taken whenever the needs of justice would be served;

(ff) Regulate the course of the hearing and, if appropriate or necessary, exclude persons or counsel from the hearing for contemptuous conduct and strike all related testimony of witnesses refusing to answer any proper questions;

(gg) Hold conferences for the settlement or simplification of the issues;

(hh) Dispose of procedural requests or similar matters, including motions referred to the Hearing Examiner by the Commission and motions to amend pleadings, also to dismiss complaints or portions thereof, and to order hearings reopened or, upon motion, consolidated prior to issuance of his decision;

(ii) Call and examine witnesses and to introduce into the record documentary or other evidence;

(jj) Request the parties at any time during the hearing to state their respective positions concerning any issue in the case or theory in support thereof;

(kk) Adjourn the hearing as the needs of justice and good administration require;

(ll) Take any other action necessary under the foregoing and authorized by the published rules and regulations of the Commission.

(h) Disqualification of Hearing Examiner

(1) A Hearing Examiner may withdraw from a proceeding whenever he deems himself disqualified.

(2) Any party may request the Hearing Examiner, at any time following his designation and before the filing of his decision, to withdraw on ground of personal bias or disqualification, by filing with him promptly upon the discovery of the alleged facts on affidavit setting forth in detail the matters alleged to constitute grounds for disqualification.

(3) If, in the opinion of the Hearing Examiner, the affidavit referred to in paragraph (2) of this section is filed with due diligence and is sufficient on its face, the Hearing Examiner shall forthwith disqualify himself and withdraw from the proceeding.

(4) If the Hearing Examiner does not disqualify himself and withdraw from the proceeding, he shall so rule upon the record, stating the grounds for his ruling and shall proceed with the hearing, or, if the hearing has closed, he shall proceed with the issuance of his decision, and the provisions of § 90 shall thereupon apply.

(i) Examination of Witnesses

Witnesses shall be examined orally under oath. Opposing parties shall have the right to cross-examine any witness whose testimony is introduced by an adverse party.

(j) Affidavits

An affidavit may be admitted as evidence in lieu of oral testimony if the matters therein contained are otherwise admissible and the parties agree to its admission.

(k) Deposition in Lieu of Oral Testimony; Application; Procedures; Form; Rulings

(1) An application to take the deposition of a witness in lieu of oral testimony shall be in writing and shall set forth the reasons such deposition should be taken, the name and address of the witness, the matters concerning which it is expected he will testify and the time and place proposed for the taking of the deposition, together with the name and address of the person before whom it is desired that the deposition be taken (for purposes of this section, hereinafter referred to as "the officer"). Such application shall be filed with the Commission or the Hearing Examiner, as the case may be, and shall be served on all other parties and intervenors not less than 7 days prior to the time when it is desired that the deposition be taken. Where good cause has been shown, the Commission or the Hearing Examiner shall make and serve on the parties and intervenors an order which specifies the name of the witness whose deposition is to be taken and the time, place, and designation of the officer before whom the witness is to testify. Such officer may or may not be the officer specified in the application.

(2) Such deposition may be taken before any officer authorized to administer oaths.

(3) At the time and place specified in the order, the officer designated to take such deposition shall permit the witness to be examined and cross-examined under oath by all parties appearing, and the testimony of the

witness shall be reduced to typewriting by the officer or under his direction. All objections to questions or evidence shall be deemed waived unless made at the examination. The officer shall not have power to rule upon any objection, but he shall note them upon the deposition. The testimony shall be subscribed by the witness in the presence of the officer who shall attach his certificate stating that the witness was duly sworn by him, that the deposition is a true record of the testimony and exhibits given by the witness, and that the officer is not of counsel or attorney to any of the parties not interested in the proceeding. If the deposition is not signed by the witness because he is ill, dead, cannot be found, or refuses to sign it, such fact shall be included in the certificate of the officer and the deposition may be used as fully as though signed. The officer shall immediately deliver an original and two copies of the transcript, together with his certificate, in person or by registered mail to the Chairman at 444 Lafayette Road, St. Paul, Minnesota 55101.

(4) The Hearing Examiner shall rule upon the admissibility of the deposition or any part thereof.

(5) All errors or irregularities in compliance with the provision of this section shall be deemed waived unless a motion to suppress the deposition or some part thereof is made with reasonable promptness after such defect is, or with due diligence might have been, discovered.

(6) If the parties so stipulate in writing, depositions may be taken before any person at any time or place, upon any notice and in any manner, and when so taken may be used as other depositions.

(l) Exhibits

(1) All exhibits offered in evidence shall be numbered and marked with a designation identifying the party or intervenor by whom the exhibit is offered.

(2) In the absence of objection by another party or intervenor, exhibits shall be admitted into evidence as a part of the record, unless excluded by the Hearing Examiner pursuant to § 72.

(3) Unless the Hearing Examiner finds it impractical, a copy of each such exhibit shall be given to the other parties and intervenors.

(4) All exhibits offered, but denied admission into evidence, shall be identified as in paragraph (1) of this section and shall be placed in a separate file designated for rejected exhibits.

(m) Rules of Evidence

Hearings before the Commission and its Hearing Examiners shall be in accordance with Minnesota Administrative Procedure Act.

(n) Burden of Proof

(1) In all proceedings commenced by the filing of a notice of contest, the burden of proof shall rest with the Commissioner.

(2) In proceedings commenced by a petition for modification of the abatement period, the burden of establishing the necessity for such modification shall rest with the petitioner.

(c) Objections

(1) Any objection with respect to the conduct of the hearing, including any objection to the introduction of evidence or a ruling by the Hearing Examiner, may be stated orally or in writing, accompanied by a short statement of the grounds for the objection, and shall be included in the record. No such objection shall be deemed waived by further participation in the hearing.

(2) Whenever evidence is excluded from the record, the party offering such evidence may make an offer of proof, which shall be included in the record of the proceeding.

(p) Interlocutory Appeals; Special; As of Right

(1) Unless expressly authorized by these rules, rulings by the Hearing Examiner may not be appealed directly to the Commission except by its special permission. Unless otherwise provided by these rules, all such rulings shall become part of the record.

(2) Request to the Commission for special permission to appeal from such ruling shall be filed in writing within 5 days following receipt of the ruling and shall state briefly the grounds relied on.

(3) Interlocutory appeal from a ruling of the Hearing Examiner shall be allowed as of right where the Hearing Examiner certifies that: (1) the ruling involves an important question of law concerning which there is substantial ground for difference of opinion; and (2) an immediate appeal from the ruling will materially expedite the proceedings. Such appeal shall also be allowed in the circumstances set forth in § 11.

(4) Neither the filing of a petition for interlocutory appeal, nor the granting thereof as provided in paragraphs (2) and (3) of this section, shall stay the proceedings before the Hearing Examiner unless such stay is specifically ordered by the Commission.

(q) Filing of Briefs and Proposed Findings with the Judge; Oral Argument at the Hearing

Any party shall be entitled, upon request, to a reasonable period at the close of the hearing for oral argument, which shall be included in the stenographic report of the hearing. Any party shall be entitled, upon request made before the close of the hearing, to file a brief, proposed findings of fact and conclusions of law, or both, with the Hearing Examiner. The Hearing Examiner may fix a reasonable period of time for such filing, but such initial period may not exceed 20 days from the receipt by the party of the transcript of the hearing.

MOSHC 255 Post Hearing Procedures *see ARO1965T →*

(a) Decisions of Judges

(1) The decision of the Hearing Examiner shall include findings of fact, conclusions of law, and an order.

(2) The Hearing Examiner shall sign and date the decision. Upon issuance of the decision, jurisdiction shall rest solely in the Commission, and all motions, petitions and other pleadings filed subsequent to such issuance shall be addressed to the Commission.

(b) Discretionary Review; Petition

(1) A party aggrieved by the decision of a Hearing Examiner may submit a petition for discretionary review.

(2) The petition must be received by the Commission at its offices in St. Paul, Minnesota on or before the 25th day following receipt by the Commission of the Hearing Examiner's decision.

(3) A petition should contain a concise statement of each portion of the decision and order to which exception is taken and may be accompanied by a brief of points and authorities relied upon. The original and three (3) copies shall be filed with the Commission.

(4) Failure to act on such petition within the review period shall be deemed a denial thereof.

(c) Stay of Final Order

(1) Any party aggrieved by a final order of the Commission may, while the matter is within the jurisdiction of the Commission, file a motion for a stay.

(2) Such motion shall set forth the reasons a stay is sought and the length of the stay requested.

(3) The Commission may order such stay for the period requested or for such longer or shorter period as it deems appropriate.

(d) Oral Argument Before the Commission

(1) Oral argument before the Commission ordinarily will not be allowed.

(2) In the event the Commission desires to hear oral argument with respect to any matter it will advise all parties to the proceeding of the date, hour, place, time allotted, and scope of such argument at least 10 days prior to the date set.

MOSHC 256 Miscellaneous Provisions *see AR01965T***(a) Settlement**

(1) Settlement is encouraged at any stage of the proceedings where such settlement is consistent with the provisions and objectives of the Act.

(2) Settlement agreements submitted by the parties shall be accompanied by an appropriate proposed order.

(3) Where parties to settlement agree upon a proposal, it shall be served upon represented and unrepresented affected employees in the manner set forth in § 7. Proof of such service shall accompany the proposed settlement when submitted to the Commission or the Hearing Examiner.

(b) Expedited Proceeding

(1) Upon application of any party or intervenor, or upon his own motion, any Commissioner may order an expedited proceeding.

(2) When such proceeding is ordered, the Executive Commissioner shall notify all parties and intervenors.

(3) The Hearing Examiner assigned in an expedited proceeding shall make necessary rulings with respect to time for filing of pleadings and with respect to all other matters, without reference to times set forth in these rules, shall order daily transcripts of the hearing, and shall do all other things necessary to complete the proceeding in the minimum time consistent with fairness.

(c) Standards of Conduct

All persons appearing in any proceeding shall conform to the standards of ethical conduct required in the courts of the State of Minnesota.

(d) Ex Parte Communication

(1) There shall be no ex parte communication, with respect to the merits of any case not concluded, between the Commission, including any member, officer, employee, or agent of the Commission who is employed in the decisional process, and any of the parties of the intervenors.

(2) In the event such ex parte communication occurs, the Commission or the Hearing Examiner may make such orders to take such action as fairness requires. Upon notice and hearing, the Commission may take such disciplinary action as is appropriate in the circumstances against any person who knowingly and willfully makes or solicits the making of a prohibited ex parte communication.

(e) Restrictions as to Participation by Investigative or Prosecuting Officers

In any proceeding noticed pursuant to the rules in this part, the Commissioner shall not participate or advise with respect to the report of the Hearing Examiner or the Commission decision.

(f) Inspection and Reproduction of Documents

(1) Subject to the provisions of law restricting public disclosure of information, any person may, at the offices of the Commission, inspect and copy any document filed in any proceeding.

(2) Costs shall be borne by such person.

(g) Restrictions with Respect to Former Employees

(1) No former employee of the Commission or the Hearing Examiner (including a member of the Commission or the Hearing Examiner) shall appear before the Commission as an attorney or other representative for any party in any proceeding or other matter, formal or informal, in which he participated personally and substantially during the period of his employment.

(2) No former employee of the Commission or the Hearing Examiner (including a member of the Commission or the Hearing Examiner) shall appear before the Commission as an attorney or other representative for any party in any proceeding or other matter, formal or informal, for which he was personally responsible during the period of his employment, unless one year has elapsed since the termination of such employment.

(h) Special Circumstances; Waiver of Rules

In special circumstances not contemplated by the provisions of these rules, or for good cause shown, the Commission may, upon application by any

party or intervenor, or on its own motion, after 3 days notice to all parties and intervenors, waive any rule or make such orders as justice or the administration of the Act requires.

(i) Penalties

(1) All penalties assessed by the Commission are Civil.

(2) The Commission has no jurisdiction under § 18 of the Act and will conduct no proceeding thereunder.

MOSHC 257-269 Reserved for Future Use

Chapter Twenty-One: 8 MCAR §§ 1.7270-1.7289
Inspection, Citations and Proposed Penalties

§ 1.7270 The Minnesota Occupational Safety and Health Act of 1973 requires in part that every employer covered under the Act furnish to his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees. The Act also requires that employers comply with occupational safety and health standards promulgated under the Act and that employees comply with standards, rules, regulations and orders which are applicable to their own actions and conduct. The Act authorizes the Department of Labor and Industry to conduct inspections and to issue citations and propose penalties for alleged violations. The Act, under Minn. Stat. § 182.659, authorizes the commissioner to conduct inspections and question employers and employees in connection with research and other related activities. The Act contains provisions for adjudication of violations, periods prescribed for the abatement of violations and proposed penalties by the Occupational Safety and Health Review Board if contested by an employer or by an employee or authorized representative of employees and for judicial review. The purpose of this chapter is to prescribe rules and set forth general policies for enforcement of the inspection, citation and proposed penalty provisions of the Act.

§ 1.7271 Posting of notice; availability of the Act, regulations and applicable standards.

A. Each employer shall post and keep posted a notice or notices, informing employees of the protections and obligations provided for in the Act, and that for assistance and information, including copies of the Act and of specific safety and health standards, employees should contact the employer or the Department of Labor and Industry. Such notice or notices shall be posted by the employer in each establishment in a conspicuous place or places where notices to employees are customarily posted. Each employer shall take steps to insure that such notices are not altered, defaced, or covered by other material.

B. All regulations published in this chapter and the Minnesota Compliance Manual for Occupational Safety and Health will be available at the Documents Section, Room 140, Centennial Office Building, St. Paul, Minnesota. If an employer has obtained copies of these he shall make them available upon request to any employee or employee representative for review at the place of employment where the employee is employed on the same day the request is made or at the earliest time mutually convenient to the employee, employee representative and the employer.

C. Any employer failing to comply with the provisions of this section shall be subject to citation and penalty in accordance with the provisions of Minn. Stat. § 182.666.

§ 1.7272 Objection to inspection. Upon a refusal to permit an Occupational Safety and Health Investigator, in his exercise of his official duties, to enter without delay and at reasonable times any place of employment or any place therein, to inspect, to review records, or to question any employer, owner, operator, agent, or employee, or to permit a representative of employees to accompany the OSHI during the physical inspection of any workplace, the OSHI shall terminate the inspection or confine the inspection to other areas, conditions, structures, machines, apparatus, devices, equipment, materials, records, or interviews concerning which no objection is raised. The OSHI shall endeavor to ascertain the reason for such refusal, and he shall immediately report the refusal and the reason therefor to the Commissioner.

§ 1.7273 Entry not a waiver. Any permission to enter, inspect, review records, or question any person, shall not imply or be conditioned upon a waiver of any cause of action, citation, or penalty under the Act. OSHI are not authorized to grant any such waiver.

§ 1.7274 Conduct of inspections.

A. Inspections shall take place at such times and in such places of employment as the commissioner or the OSHI may direct. At the beginning of an inspection, OSHI shall present their credentials to the owner, operator, or agent in charge at the establishment; explain the nature and purpose of the inspection; and indicate generally the scope of the inspection and the records which they wish to review. However, such designation of records shall not preclude access to additional records.

B. OSHI shall have authority to take environmental samples and to take or obtain photographs related to the purpose of the inspection, employ other reasonable investigative techniques, and question privately any employer, owner, operator, agent or employee of an establishment.

C. In taking photographs and samples, OSHI shall take reasonable precautions to insure that such actions with flash, spark-producing, or other equipment would not be hazardous. OSHI shall comply with all employer safety and health rules and practices at the establishment being inspected, and they shall wear and use appropriate protective clothing and equipment.

D. The conduct of inspections shall be such as to preclude unreasonable disruption of the operations of the employer's establishment.

E. At the conclusion of an inspection, the OSHI shall confer with the employer or his representative and informally advise him of any apparent safety or health violations disclosed by the inspection. During such conference, the employer shall be afforded an opportunity to bring to the attention of the OSHI any pertinent information regarding conditions in the workplace.

F. Inspections shall be conducted in accordance with the requirements of this chapter.

§ 1.7275 Representatives of employers and employees.

A. OSHI shall be in charge of inspections and questioning of persons. A representative of the employer and a representative authorized by his employees shall be given an opportunity to accompany the OSHI during the physical inspection of any workplace for the purpose of aiding such inspection. An OSHI may permit additional employer representatives and additional representatives authorized by employees to accompany him where he determines that such additional representatives will further aid the inspection. A different employer and employee representative may accompany the OSHI during each different phase of an inspection if this will not interfere with the conduct of the inspection.

B. OSHI shall have authority to resolve all disputes as to who is the representative authorized by the employer and employee for the purpose of this section. If there is no authorized representative of employees, or if the OSHI is unable to determine with reasonable certainty who is such representative, he shall consult with a reasonable number of employees concerning matters of safety and health in the workplace. Any employee taking part in the inspection is entitled to his regular pay for the time spent in such inspection.

C. The representative authorized by employees shall be an employee of the employer.

D. OSHI are authorized to deny the right of accompaniment under this section to any person whose conduct interferes with fair and orderly inspection. The right of accompaniment in areas containing trade secrets shall be subject to the provisions of Minn. Stat. § 182.668.

§ 1.7276 Trade secrets.

A. At the commencement of an inspection, the employer may identify areas in the establishment which contain or which might reveal a trade secret. If the OSHI has no clear reason to question such identification, information obtained in such areas, including all negatives and prints of photographs, and environmental samples, shall be labeled "Confidential-Trade Secret" and shall not be disclosed except in accordance with the provisions of Minn. Stat. § 182.668.

B. Upon the request of an employer, any authorized representative of employees in an area containing trade secrets shall be an employee in that area or an employee authorized by the employer to enter that area. Where there is no such representative or employee, the OSHI shall consult with a reasonable number of employees who work in that area concerning matters of safety and health.

§ 1.7277 Consultation with employers and employees.

A. OSHI may consult with employees concerning matters of occupational safety and health to the extent he deems necessary for the conduct of an

effective and thorough inspection. During the course of an inspection, any employee shall be afforded an opportunity to bring any violation of the Act which he has reason to believe exists in the workplace to the attention of the OSHI.

B. A representative of the employer and a representative authorized by his employees shall be given an opportunity to accompany the OSHI during the physical inspection of any workplace under Minn. Stat. § 182.659 for the purpose of aiding such inspection.

C. The authorized representative of employees shall also be given the opportunity to participate in any conference or discussion held prior to or during any such inspection. The investigator will, however, hold a private conference with either the employee representative or the employer at either's request.

D. Where there are no authorized employee representatives, the OSHI shall consult with a reasonable number of employees concerning matters of health and safety in the workplace.

E. No employee as a consequence of aiding such inspection under this section shall lose any privilege or payment that he would otherwise earn, such loss being a discriminatory act subject to sanctions.

§ 1.7278 Inspection not warranted; informal review. If the commissioner determines that an inspection is not warranted because there are no reasonable grounds to believe that a violation or danger exists with respect to a complaint under 8 MCAR § 1.7278, he shall notify the complaining party in writing of such determination. The complaining party may obtain review of such determination by submitting a written statement of position with the commissioner and, at the same time, providing the employer with a copy of such statement by certified mail. The employer may submit an opposing written statement of position with the commissioner and, at the same time, provide the complaining party with a copy of such statement by certified mail. Upon the request of the employee or the employer, the commissioner, at his discretion, may hold an informal conference in which the complaining party and the employer may orally present their views. After considering all written and oral views presented, the commissioner shall affirm, modify, or reverse the determination and furnish the complaining party and the employer a written notification of his decision and the reasons therefor.

§ 1.7279 Citations; notices of de minimis violations.

A. The commissioner shall review the inspection report of the OSHI. If on the basis of the report the commissioner believes that the employer has violated a requirement of Minn. Stat. § 182.653, subd. 2, 3 or 4, or any standard, rule or regulation promulgated pursuant to the Act he shall issue to the employer either a citation or a notice of de minimis violations which have no direct or immediate relationship to safety or health. A copy of the citation and the proposed assessment of penalty shall also be issued by certified mail

to the authorized representative of affected employees and, in the case of the death of an employee, to the next of kin if requested. An appropriate citation or notice of de minimis violations shall be issued even though, after being informed of alleged violation by the OSHI, the employer immediately abates or initiates steps to abate each such alleged violation. Any citation or notice of de minimis violations shall be issued with reasonable promptness after termination of the inspection. No citation may be issued under this section after the expiration of six months following the occurrence of any alleged violation.

B. Any citation shall describe with particularity the nature of the alleged violation, including a reference to the provision(s) of the Act, standard, rule, regulation, or order alleged to have been violated. Any citation shall also fix a reasonable time or times for the abatement of the alleged violation.

C. Every citation shall state that the issuance of a citation does not constitute a finding that a violation of the Act has occurred unless there is a failure to contest as provided for in the Act or, if contested, unless the citation is affirmed by the Review Board.

§ 1.7280 Petitions for modification of abatement date.

A. An employer may file a petition for modification of abatement date when he has made a good faith effort to comply with the abatement requirements of a citation, but such abatement has not been completed because of factors beyond his reasonable control.

B. A petition for modification of abatement date shall be in writing and shall include the following information:

1. All steps taken by the employer, and the dates of such action, in an effort to achieve compliance during the prescribed abatement period.

2. The specific additional abatement time necessary in order to achieve compliance.

3. The reasons such additional time is necessary, including the unavailability of professional or technical personnel or of materials and equipment, or because necessary construction or alteration of facilities cannot be completed by the original abatement date.

4. All available interim steps being taken to safeguard the employees against the cited hazard during the abatement period.

5. A certification that a copy of the petition has been posted and, if appropriate, served on the authorized representative of affected employees, in accordance with subsection (c) (1) of this section and a certification of the date upon which such posting and service was made.

C. A petition for modification of abatement date shall be filed with the

Commissioner of the Department of Labor and Industry no later than the close of the next working day following the date on which abatement was originally required. A later-filed petition shall be accompanied by the employer's statement of exceptional circumstances explaining the delay.

1. A copy of such petition shall be posted in a conspicuous place where all affected employees will have notice thereof or near such location where the violation occurred. The petition shall remain posted for a period of ten (10) days. Where affected employees are represented by an authorized representative, said representative shall be served with a copy of such petition.

2. Affected employees or their representatives may file an objection in writing to such petition with the commissioner. Failure to file such objection within ten (10) days of the date of posting of such petition or of service upon an authorized representative shall constitute a waiver of any further right to object to said petition.

3. The commissioner or his duly authorized agent shall have the authority to approve any petition for modification of abatement date filed pursuant to paragraphs B. and C. of this section. Such uncontested petitions shall become final orders.

4. The commissioner or his authorized representative shall not exercise his approval power until the expiration of fifteen (15) days from the date the petition was served pursuant to paragraph C. 1. and 2. of this section by the employer.

D. Where any petition is objected to by the commissioner or affected employees, such petition shall be processed as follows:

1. The petition, citation and any objections shall be forwarded to the Board within three (3) days after the expiration of the fifteen (15) day period set out in paragraph C. 4.

2. The Board shall docket and process such petition in the same manner as any other contested case, except that all hearings on such petitions shall be handled in an expeditious fashion.

3. An employer petitioning for a modification of abatement period shall have the burden of proving that such employer has made a good faith effort to comply with the abatement requirements of the citation and that abatement has not been completed because of factors beyond the employer's control.

4. Within ten (10) days after the receipt of notice of the docketing by the Board of any petition for modification of abatement date, each objecting party shall file a response setting forth the reasons for opposing the granting of a modification date different from that requested in the petition.

§ 1.7281 Posting of citations.

A. Upon receipt of any citation and proposed penalty under the Act, the employer shall immediately post such citation and proposed penalty, or a copy thereof, unedited, at or near each place an alleged violation referred to in the citation occurred, except as provided below. Where, because of the nature of the employer's operations, it is not practicable to post the citation and proposed penalty at or near each place of alleged violation, such citation and proposed penalty shall be posted, unedited, in a prominent place where it will be readily observable by all affected employees. For example, where employers are engaged in activities which are physically dispersed, the citation and proposed penalty may be posted at the location to which employees report each day. Where employees do not primarily work at or report to a single location, the citation and proposed penalty may be posted at the location from which the employees operate to carry out their activities. The employer shall take steps to ensure that the citation and proposed penalty are not altered, defaced, or covered by other material. Notices of de minimis violations need not be posted.

B. Each citation and proposed penalty, or a copy thereof, shall remain posted until the violation has been abated, or for 15 days, whichever is later. The filing by the employer of a notice of intention to contest shall not affect his posting responsibility under this section unless and until the Review Board issues a final order vacating the citation and proposed penalty.

C. An employer to whom a citation has been issued may post a notice in the same location where such citation is posted indicating that the citation is being contested before the Review Board, and such notice may explain the reasons for such contest. The employer may also indicate that specified steps have been taken to abate the violation.

D. Any employer failing to comply with the provisions of paragraphs A. and B. of this section shall be subject to citation and penalty in accordance with the provisions of Minn. Stat. § 182.666.

§ 1.7282 Informal conference. At the request of an affected employer, employee or representative of employees, the commissioner may hold an informal conference for the purpose of discussing any issues raised by an inspection, citation, notice of proposed penalty or notice of intention to contest. Any affected party may be represented by counsel at such conference. No such conference or request for conference shall operate as a stay of any fifteen working day period for filing a notice of intention to contest.

§ § 1.7283-1.7289 Reserved for future use.

Chapter Twenty-Two: 8 MCAR §§ 1.7290-1.7309**Recording and Reporting Occupational Injuries and Illnesses**

8 MCAR § 1.7290 Purpose and scope. The regulations in this chapter implement Minn. Stat. § 182.663 of the Minnesota Occupational Safety and Health Act of 1973. These sections provide for recordkeeping and reporting by employers covered under the Act as necessary or appropriate for enforcement of the Act, for developing information regarding the cause and prevention of occupational accidents and illnesses, and for maintaining a program of collection, compilation and analysis of occupational safety and health statistics.

8 MCAR § 1.7291 Definitions.

A. "Act" means the Minnesota Occupational Safety and Health Act of 1973.

B. The definitions and interpretations contained in Minn. Stat. § 182.651 shall be applicable to such terms when used in this chapter.

C. "Recordable occupational injuries or illnesses" are any occupational injuries or illnesses which result in:

1. Fatalities, regardless of the time between the injury and death, or the length of the illness; or

2. Lost workday cases, other than fatalities, that result in lost workdays; or

3. Nonfatal cases without lost workdays which result in transfer to another job or termination of employment, or require medical treatment (other than first aid) or involve loss of consciousness or restriction of work or motion. This category also includes any diagnosed occupational illnesses which are reported to the employer but are not classified as fatalities or lost workday cases.

D. "Medical treatment" includes treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even though provided by a physician or registered professional personnel.

E. "First aid" is any one-time treatment, and any followup visit for the purpose of observation, of minor scratches, cuts, burns, splinters, and so forth, which do not ordinarily require medical care. Such one-time treatment, and any followup visit for the purpose of observation, is considered first aid even though provided by a physician or registered professional personnel.

F. "Lost workdays" is the number of days (consecutive or not) after, but

not including, the day of injury or illness during which the employee would have worked but could not do so; that is, could not perform all or any part of his normal assignment during all or any part of the workday or shift, because of the occupational injury or illness.

G. 1. "Establishment" is a single physical location where business is conducted or where services or industrial operations are performed. (For example: a factory, mill, store, hotel, restaurant, movie theater, farm, ranch, bank, sales office, warehouse, or central administrative office.) Where distinctly separate activities are performed at a single physical location (such as contract construction activities operated from the same physical location as a lumber yard), each activity shall be treated as a separate establishment.

2. For firms engaged in activities such as agriculture, construction, transportation, communications, and electric, gas and sanitary services, which may be physically dispersed, records may be maintained at a place to which employees report each day.

3. Records for personnel who do not primarily report or work at a single establishment, and who are generally not supervised in their daily work, such as traveling salesmen, technicians, engineers, etc., shall be maintained at the location from which they are paid or the base from which personnel operate to carry out their activities.

4. For political subdivisions, an establishment shall be defined as an activity or department within a political subdivision (for example: a police department, fire department, hospital, maintenance activity, or administrative units).

8 MCAR § 1.7292 Log and summary of occupational injuries and illnesses.

A. Each employer shall maintain in each establishment a log and summary of all recordable occupational injuries and illnesses for that establishment, except that under the circumstances described in paragraph B. of this section an employer may maintain the log and summary of occupational injuries and illnesses at a place other than the establishment. Each employer shall enter each recordable occupational injury and illness on the log as early as practicable but no later than 6 working days after receiving information that a recordable case has occurred. For this purpose OSHA Form No. 200 or any private equivalent may be used. OSHA Form No. 200 or its equivalent shall be completed in the detail provided in the form and the instructions contained in OSHA Form No. 200. If an equivalent to OSHA Form No. 200 is used, such as a printout from data-processing equipment, the information shall be as readable and comprehensible to a person not familiar with the data processing equipment as the OSHA Form 200 itself.

B. Any employer may maintain the log of occupational injuries and illnesses at a place other than the establishment or by means of data-processing equipment, or both, under the following circumstances:

1. there is available at the place where the log is maintained sufficient information to complete the log to a date within 6 working days after receiving information that a recordable case has occurred, as required by paragraph A. of this section;

2. at each of the employer's establishments, there is available a copy of the log which reflects separately the injury and illness experience of that establishment complete and current to a date within 45 calendar days.

8 MCAR § 1.7293 Period covered. Logs shall be established on a calendar year basis. The initial log shall include recordable occupational injuries and illnesses occurring on or after January 1, 1974.

8 MCAR § 1.7294 Supplementary record. In addition to the log of occupational injuries and illnesses provided for under 8 MCAR § 1.7292, each employer shall have available for inspection at each establishment within 6 working days after receiving information that a recordable case has occurred, a supplementary record for each occupational injury or illness for the establishment. The record shall be completed in the detail prescribed in the instructions accompanying OSHA Form No. 101. Worker's compensation, insurance, or other reports are acceptable alternative records if they contain the information required by OSHA Form No. 101. If no acceptable alternative record is maintained for other purposes, OSHA Form No. 101 shall be used or the necessary information shall be otherwise maintained.

8 MCAR § 1.7295 Annual summary.

A. Each employer shall post an annual summary of occupational injuries and illnesses for each establishment. Each annual summary shall consist of a copy of the year's totals contained in the log and summary of occupational injuries and illnesses for the particular establishment. OSHA Form No. 200 shall be used for this purpose, and shall be completed in the form and detail as provided in the instructions contained therein.

B. The summary shall be completed no later than one month after the close of each calendar year.

C. Each employer, or the officer or employee of the employer who supervises the preparation of the log and summary of occupational injuries and illnesses, shall certify that the annual summary of occupational injuries and illnesses is true and complete. The certification shall be accomplished by affixing the signature of the employer, or the officer or employee of the employer, who supervises the preparation of the annual summary of occupational injuries and illnesses, at the bottom of the last page of the log and summary or by appending a separate statement to the log and summary certifying that the annual summary is true and complete.

D. 1. Each employer shall post a copy of the establishment's summary in each establishment in the same manner that notices are required to be posted under 8 MCAR § 1.7271 A. of Chapter Twenty-One. The summary covering

the previous calendar year shall be posted no later than February 1, and shall remain in place until March 1. For employees who do not primarily report or work at a single establishment, or who do not report to any fixed establishment on a regular basis, employers shall satisfy this posting requirement by presenting or mailing a copy of the summary during the month of February of the following year to each such employee who receives pay during that month. For multi-establishment employers where operations have closed down in some establishments during the calendar year, it will not be necessary to post summaries for those establishments.

2. A failure to post a copy of the establishment's annual summary may result in the issuance of citations and assessment of penalties pursuant to Minn. Stat. § 182.666, subd. 5.

8 MCAR § 1.7296 Retention of records. Records provided for in 8 MCAR § 1.7292, 8 MCAR § 1.7294, and 8 MCAR § 1.7295, shall be retained in each establishment for five years following the end of the year to which they relate.

8 MCAR § 1.7297 Access to records.

A. Access by departments. Records provided for in 8 MCAR § 1.7292, 8 MCAR § 1.7294, and 8 MCAR § 1.7295 shall be available for inspection and copying by authorized representatives of the Department of Labor and Industry and the Department of Health.

B. Access by employees. The log and summary of recordable occupational injuries and illnesses (OSHA Form No. 200) for any establishment in which the employee is or was employed provided for in 8 MCAR § 1.7292 shall, upon request, be made available by the employer to any employee, former employee, and their representatives for examination and copying in a reasonable manner and at reasonable times.

C. Bargaining for additional access. Nothing in this rule shall preclude employees and employee representatives from collectively bargaining for access to information relating to occupational injuries and illnesses in addition to the information made available under this rule.

D. Extent of access. Access to the log and summary provided under this rule shall pertain to all logs and summaries retained under the requirements of 8 MCAR § 1.7296.

8 MCAR § 1.7298 Reporting of fatality or multiple hospitalization accidents. Within 48 hours after the occurrence of an employment accident which is fatal to one or more employees or which results in hospitalization of five or more employees, the employer of any employees so injured or killed shall report the accident either orally or in writing to the Minnesota Department of Labor and Industry. The reporting may be by telephone or telegraph. The report shall relate the circumstances of the accident, the number of fatalities,

and the extent of any injuries. The Commissioner of Labor and Industry may require such additional reports, in writing or otherwise, as he deems necessary, concerning the accident.

8 MCAR § 1.7299 Falsification, or failure to keep records or reports.

A. Minn. Stat. § 182.667 provides that "Whoever knowingly makes any false statement, representation, or certification in any application, record, report plan or other document filed or required to be maintained pursuant to this Act shall, upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment, for not more than 6 months or both."

B. Failure to maintain records or file reports required by this part, or in the details required by forms and instructions issued under this part, may result in the issuance of citations and assessment of penalties as provided for in Minn. Stat. § 182.667.

8 MCAR § 1.7300 Change of ownership. Where an establishment has changed ownership, the employer shall be responsible for maintaining records and filing reports only for the period of the year during which he owned such establishment. However, in the case of any change of ownership, the employer shall preserve those records, if any, of the prior ownership which are required to be kept under this chapter. These records shall be retained at each establishment to which they relate, for the period, or remainder thereof, required under 8 MCAR § 1.7296.

8 MCAR § 1.7301 Petitions for recordkeeping exceptions-public employment sector.

A. Submission of petition. Any public employer who wishes to maintain records in a manner different from that required by this chapter may submit a petition containing the information specified in paragraph C. of this section to the Commissioner of Labor and Industry.

B. Opportunity for comment. Affected employees or their representative shall have an opportunity to submit written data, views, or arguments concerning the petition to the commissioner within ten working days following the receipt of notice under paragraph C.5. of this section.

C. Contents of petition. A petition filed under paragraph A. of this section shall include:

1. The name and address of the applicant;
2. The address of the place or places of employment involved;
3. Specifications of the reasons for seeking relief;
4. A description of the different recordkeeping procedures which are proposed by the applicant;

5. A statement that the applicant has informed his affected employees of the petition by giving a copy thereof to them or to their authorized representative and by posting a statement giving a summary of the petition and by other appropriate means. A statement posted pursuant to this sub-paragraph shall be posted in each establishment in the same manner that notices are required to be posted under 8 MCAR § 1.7271 A. The applicant shall also state that he has informed his employees of their rights under paragraph B of this section;

6. In the event an employer has more than one establishment he shall submit a list of the addresses of such establishments. In the further event that certain of the employer's establishments would not be affected by the petition, the employer shall identify every establishment which would be affected by the petition.

D. Additional notice, conferences.

1. In addition to the actual notice provided for in paragraph C. of this section, the commissioner may provide, or cause to be provided, such additional notice of the petition as he may deem appropriate.

2. The commissioner may also afford an opportunity to interested parties for informal conference or hearing concerning the petition.

E. Action. After review of the petition, and of any comments submitted in regard thereto, and upon completion of any necessary appropriate investigation concerning the petition, if the commissioner finds that the alternative procedure proposed will not hamper or interfere with the purposes of the Act and will provide equivalent information, he may grant the petition subject to such conditions as he may determine appropriate, and subject to revocation for cause.

F. Publication. Whenever any relief is granted to an applicant under this Act, notice of such relief, and the reasons therefor, shall be published according to Departmental procedures.

G. Revocation. Whenever any relief under this section is sought to be revoked for any failure to comply with the conditions thereof, an opportunity for informal hearing or conference shall be afforded to the employers and affected employees, or their representatives. Except in cases of willfulness or where public safety or health requires otherwise, before the commencement of any such informal proceeding, the employer shall: (1) be notified in writing of the facts or conduct which may warrant the action; and (2) be given an opportunity to demonstrate or achieve compliance.

H. Compliance after submission of petitions. The submission of a petition or any delay by the commissioner in acting upon a petition shall not relieve any employer from any obligation to comply with this part. However, the commissioner shall give notice of the denial of any petition within a reasonable time.

I. Consultation. There shall be consultation between the appropriate representatives of the Minnesota Department of Labor and Industry, the Occupational Safety and Health Administration, and the Bureau of Labor Statistics in order to insure the effective implementation of this section.

8 MCAR § 1.7302 Petitions for recordkeeping exceptions-private employment sector.

A. Submission of petition. Private employment sector employers who wish to maintain records in a manner different from that required by this chapter may submit a petition to the Regional Director of the Bureau of Labor Statistics, OSH Statistics Program, U.S. Department of Labor, 9th Floor, 230 South Dearborn Street, Chicago, Illinois 60604.

8 MCAR § 1.7303 Employees not in fixed establishments. Employers of employees engaged in physically dispersed operations such as occur in construction, installation, repair or service activities who do not report to any fixed establishment on a regular basis but are subject to common supervision may satisfy the provisions of 8 MCAR § 1.7292, 8 MCAR § 1.7294, and 8 MCAR § 1.7296 with respect to such employees by:

A. Maintaining the required records for each operation or group of operations which is subject to common supervision (field superintendent, field supervisor, etc.) in an established central place;

B. Having the address and telephone number of the central place available at each worksite; and

C. Having personnel available at the central place during normal business hours to provide information from the records maintained there by telephone and by mail.

8 MCAR § 1.7304 Small employers.

A. Exemption. An employer who had no more than ten (10) employees at any one time during the calendar year immediately preceding the current calendar year need not comply with any of the requirements of this chapter except 8 MCAR § 1.7298 concerning fatalities or multiple hospitalization accidents (i.e., he need not prepare the log, OSHA Form No. 200; the Supplementary Record, OSHA Form No. 101; nor prepare or post the summary, OSHA Form No. 200).

B. Limitation of exemption. Paragraph A. shall not apply when an employer has been notified in writing by the Bureau of Labor Statistics that he has been selected to participate in a statistical survey of occupational injuries and illnesses. If selected, an employer will be required to maintain a log of occupational injuries and illnesses (OSHA Form No. 200) in accordance with 8 MCAR § 1.7292 and to make reports in accordance with 8 MCAR § 1.7306 for the period of time which is specified in the notice.

8 MCAR § 1.7305 Statistical program. The Department of Labor and Industry with the U.S. Bureau of Labor Statistics shall develop and maintain a program of collection, compilation and analysis of occupational injuries and illnesses.

8 MCAR § 1.7306 Duties of employers. Upon receipt of an Occupational Injuries and Illnesses Survey Form, OSHA No. 103, the employer shall promptly complete the form in accordance with the instructions contained therein, and return it in accordance with the aforesaid instructions.

8 MCAR §§ 1.7307-1.7309 Reserved for future use.

Chapter Twenty-Three: 8 MCAR §§ 1.7310-1.7319
Variances

§ 1.7310 Purpose and scope. This chapter contains rules of practice for administrative proceedings to grant variances and other reliefs under Minn. Stat. § 182.655.

§ 1.7311 Effect on variances. All variances granted pursuant to this part shall have only future effect. In his discretion, the commissioner may decline to entertain an application for a variance on a subject or issue concerning which a citation has been issued to the employer involved and a proceeding on the citation or a related issue concerning a proposed penalty or period of abatement is pending before the Occupational Safety and Health Review Board until the completion of such proceeding.

§ 1.7312 Temporary variances.

A. Application for variance. Any employer, or class of employers, desiring a temporary variance from a standard or provision thereof, authorized by Minn. Stat. § 182.655, subd. 5, 6 and 7 may file a written application containing the information specified in paragraph B. of this section with the commissioner.

B. Contents. An application filed pursuant to paragraph A. of this section shall include:

1. The name and address of the employer;
2. The address of the place or places of employment involved;
3. A specification of the standard or portion thereof from which the employer seeks a variance;
4. A representation by the employer, supported by representations from qualified persons having first-hand knowledge of the facts represented, that he is unable to comply with the standard or portion thereof and a detailed statement of the reasons therefor;
5. A statement of the steps being taken and which will be taken, with specific dates, to protect employees against the hazards covered by the standard;
6. A statement of when he expects to be able to comply with the standard and what steps he has taken and what steps he will take, with specific dates, to come into compliance with the standard; and
7. A certification that he has informed his employees of the application by giving a copy thereof to their authorized representative, posting a statement giving a summary of the application and specifying where a copy may

be examined at the place or places where notices to employees are normally posted, and by other appropriate means, and that he has informed his employees of their right to petition the commissioner for a hearing.

8. In addition the application should set out sufficient facts to establish that:

a. The employer is unable to comply with a standard by its effective date because of unavailability of professional or technical personnel or of materials and equipment needed to come into compliance with the standard or because necessary construction or alteration of facilities cannot be completed by effective date;

b. The employer is taking all available steps to safeguard his employees against the hazards covered by the standards; and

c. The employer has an effective program for coming into compliance with the standard as quickly as practicable.

C. Hearing.

1. The commissioner may at his discretion provide for a hearing on the variance.

2. Affected employees shall be given notice of any such hearing and allowed to participate.

D. Interim order.

1. Application. An application may also be made for an interim order to be effective until a decision is rendered on the application for the variance filed previously or concurrently. An application for an interim order may include statements of facts and arguments as to why the order should be granted.

2. Notice of denial of application. If an application filed pursuant to subparagraph 1. of this paragraph is denied, the application shall be given prompt notice of the denial, which shall include, or be accompanied by, a brief statement of the grounds therefor.

3. Notice of the grant of an interim order. If an interim order is granted, a copy of the order shall be served upon the applicant for the order and other parties. It shall be a condition of the order that the affected employer shall give notice thereof to affected employees by the same means to be used to inform them of an application for a variance.

E. Variance order.

1. The commissioner shall, by rule or order, grant a temporary variance from a promulgated standard when he finds by a preponderance of the evi-

dence that the conditions, practices, means, methods, operations or processes used or proposed to be used by an employer will provide employment and places of employment which are as safe and healthful as those provided for by the standard.

2. The rule or order granting the variance shall prescribe the conditions the employer must maintain, the practices, means, methods, operations and processes which he must adopt and utilize.

§ 1.7313 Permanent variances.

A. Application for variance. Any employer, or class of employers, desiring a permanent variance authorized by Minn. Stat. § 182.655, subd. 8 or 9 may file a written application containing the information specified in paragraph B. of this section, with the Commissioner of Labor and Industry.

B. Contents. An application filed pursuant to paragraph C. of this section shall include:

1. The name and address of the employer;
2. The address of the place or places of employment involved;
3. A description of the conditions, practices, means, methods, operations, or processes used or proposed to be used by the applicant;
4. A statement showing how the conditions, practices, means, methods, operations, or processes used or proposed to be used would provide employment and places of employment to employees which are as safe and healthful as those required by the standard from which variance is sought;
5. A certification that the applicant has informed his employees of the application by:
 - a. Giving a copy thereof to their authorized representative;
 - b. Posting a statement giving a summary of the application and specifying where a copy may be examined, at the place or places where notices to employees are normally posted (or in lieu of such summary, the posting of the application itself);
 - c. By other appropriate means.
6. A description of how affected employees have been informed of their right to petition the commissioner for a hearing.

C. Hearing.

1. The commissioner may at his discretion provide for a hearing on the variance.

2. Affected employees shall be given notice of any such hearing and allowed to participate.

D. Interim order.

1. Application. An application may also be made for an interim order to be effective until a decision is rendered on the application for the variance filed previously or concurrently. An application for an interim order may include statements of facts and arguments as to why the order should be granted.

2. Notice of denial of application. If an application filed pursuant to subparagraph 1. of this paragraph is denied, the applicant shall be given prompt notice of the denial, which shall include, or be accompanied by, a brief statement of the grounds therefor.

3. Notice of the grant of an interim order. If an interim order is granted, a copy of the order shall be served upon the applicant for the order and other parties. It shall be a condition of the order that the employer shall give notice thereof to affected employees by the same means to be used to inform.

E. Variance order.

1. The commissioner shall, by rule or order, grant a permanent variance from a promulgated standard when he finds by a preponderance of the evidence that the conditions, practices, means, methods, operations or processes used or proposed to be used by an employer will provide employment and places of employment which are as safe and healthful as those provided for by the standard.

2. The rule or order granting variance shall prescribe the conditions the employer must maintain, and the practices, means, methods, operations and processes which he must adopt and utilize.

§ 1.7314 Modification, revocation and renewal of rules or orders.

A. Modification or revocation. A rule or order may be modified or revoked upon application by an employer, employees, or by the commissioner on his own motion, in the manner prescribed for its issuance at any time after six months from its issuance.

B. Temporary orders may be in effect only for the period needed to achieve compliance with the standard or one year, whichever is shorter, except that such an order may be renewed not more than twice. Orders will be renewed only if the requirements for issuance are met and an application for renewal is filed at least 90 days prior to the expiration date of the order. No interim order shall remain in effect for longer than 180 days.

§ 1.7315 Order denying variance.

A. In the event the commissioner denies an application for variance, he shall prepare an order setting forth:

1. The name and address of the person or organization requesting the variance;
2. The rule or regulation, or particular provisions thereof, from which the application requested a variance;
3. The extent and duration of the variance requested; and
4. A concise statement of the reasons for denial of the application for variance.

§ 1.7316 Contest of variance denial before review board.

A. Any employer who has been denied a variance may under Minn. Stat. § 182.664, subd. 2, notify the commissioner in writing that he intends to contest such a variance denial before the Review Board. Such notice of intention to contest shall be postmarked within 15 days of receipt by the employer of the variance denial. The commissioner shall, within 7 days of receipt of notice of contest, transmit the original notice to the Review Board together with copies of all relevant documents in accordance with the rules of procedure prescribed by the Board.

B. Any affected employee shall be given notice of such application and an opportunity to participate in such a hearing as required under Minn. Stat. § 182.654, subd. 5.

§ 1.7317 Multi-state variances.

A. Where a Federal variance has been granted with multi-state applicability, including the State of Minnesota, from a standard or portion thereof, identical to a Minnesota Occupational Safety and Health Standard or a portion thereof, without filing the information required in 8 MCAR § 1.7312 or 8 MCAR § 1.7313 of this chapter, such variance shall likewise be deemed an authoritative interpretation of the employer's compliance obligations with regard to a Minnesota Department of Labor and Industry Standard or portion thereof, provided no objections of substance are found to be imposed by the Minnesota Department of Labor and Industry.

§§ 1.7318-1.7319 Reserved for future use.

Chapter Twenty-Four: 8 MCAR §§ 1.7320-1.7329
Standards Promulgation

§ 1.7320 Purpose and scope. This chapter sets forth procedures for promulgating, modifying or revoking occupational safety and health standards under Minn. Stat. § 182.655. The purpose of this chapter is to provide a procedure for standards promulgation.

§ 1.7321 Definitions. "Standard" means an occupational safety and health standard which requires conditions, or the adoption or use of one or more practices, means, methods, operations, or processes, reasonably necessary or appropriate to provide safe or healthful employment and places of employment, and which is to be promulgated under Minn. Stat. § 182.655 establishing, modifying or revoking an occupational safety and health standard.

§ 1.7322 Petition for the promulgation, modification or revocation of a standard. Any interested person may file with the commissioner of the Department of Labor and Industry, a written petition for the promulgation, modification, or revocation of a standard. The petition should include, or be accompanied by, the proposed standard, a statement of the intended effect, and the reasons for the standard.

§ 1.7323 Initiation.

A. The commissioner shall initiate promulgation of a standard in the following manner:

1. The commissioner may request the recommendations of the Governor's Occupational Safety and Health Advisory Council appointed under Minn. Stat. § 182.656. In such event, the commissioner shall submit to the Council any proposal of his own or of the State Board of Health, together with all pertinent factual information available to him, including the results of research, demonstration, and experiments. The Council shall submit to the commissioner a report with its recommendations regarding the rule to be promulgated within the period prescribed by the commissioner; or

2. The commissioner may publish in the State Register a notice of proposed rulemaking. The notice shall include:

a. The terms of the proposed rule;

b. A reference to the Act and to the appropriate section of any particular statute applicable to the employments affected by the rule;

c. Notification to interested persons of their right to submit, within 30 days after publication of the notice, written data, comments or objections, which shall be available for public inspection and copying, except as to matters the disclosure of which is prohibited by law;

d. Notification to interested persons that they may request a public hearing on their objections within 30 days after publication of the notice;

e. Any other appropriate provisions with regard to the proceeding.

B. Initiation of standards promulgation under A. 2. above may occur whether or not the Governor's Occupational Safety and Health Advisory Council recommends proposals submitted by the commissioner and shall be followed by the commissioner if promulgation is desired after receipt of the Advisory Council's report.

§ 1.7324 Objections.

A. Objections submitted pursuant to 8 MCAR § 1.7323 A. 2. c. shall comply with the following conditions:

1. The objections must include the name and address of the objector;
2. The objections must be postmarked on or before the 30th day after the publication of the notice of proposed rulemaking;
3. The objections must specify with particularity the provision of the proposed rule to which objection is taken, and must state the grounds therefor;
4. Each objection must be separately stated and numbered.

B. Within 30 days after the last day for filing objections, if objections are filed in substantial compliance with paragraph A. above and the objecting party requests a public hearing, the commissioner shall, and in any other case may, publish in the State Register a notice of a public hearing. The notice shall contain:

1. A statement of the time, place and nature of the hearing;
2. A reference to the authority under which the hearing is to be held;
3. A specification of the provisions of the proposed rule which have been objected to, and on which a hearing has been requested;
4. A specification of the issues on which the hearing is to be had, which shall include at least all the issues raised by any objections properly filed, on which a hearing has been requested;
5. The requirement for the filing of an intention to appear at the hearing together with a statement of the position to be taken with regard to the issues specified and of the evidence to be adduced in support of the position;
6. The designation of a presiding officer to conduct the hearing; and

7. Any other appropriate provisions with regard to the proceeding.

C. Any objecting party requesting a hearing on a proposed standard, and any interested person who files a proper intention to appear shall be entitled to participate at a hearing.

§ 1.7325 Conduct of hearing.

A. The hearing shall be legislative in type. However, fairness may require an opportunity for cross-examination on crucial issues. The presiding officer is empowered to permit cross-examination under such circumstances. The essential intent is to provide an opportunity for effective oral presentation by interested persons which can be carried out with expedition and in the absence of rigid procedures which might unduly impede or protract the rule-making process.

B. The presiding officer shall be a hearing examiner from the Office of Hearing Examiners.

C. The hearing shall be reported verbatim, and a transcript shall be available to any interested person on such terms as the presiding officer may provide.

§ 1.7326 Powers of presiding officer.

A. The officer presiding at a hearing shall have all the powers necessary or appropriate to conduct a fair and full hearing, including the powers:

1. To regulate the course of the proceedings;
2. To dispose of procedural requests, objections, and comparable matters;
3. To confine the presentations to the issues specified in the notice of hearing, or, where no issues are specified, to matters pertinent to the proposed rule;
4. To regulate the conduct of those present at the hearing by appropriate means;
5. In his discretion, to permit cross-examination of any witness;
6. To take official notice of material facts not appearing in the evidence in the record, so long as parties are entitled, on timely request, to an opportunity to show the contrary; and
7. In his discretion, to keep the record open for a reasonable stated time, to receive written recommendations, and supporting reasons, and additional data, views and arguments from any person who has participated in the oral proceeding.

§ 1.7327 Certification of the record of a hearing. Upon completion of the oral presentations, the transcript thereof, together with written submissions on the proposed rule, exhibits filed during the hearing, and all posthearing comments, recommendations, and supporting reasons shall be certified by the presiding officer to the commissioner.

§ 1.7328 Decision.

A. Determination on rule.

1. Within 60 days after the expiration of the period provided for the submission of written data, views, and arguments on a proposed rule on which no hearing is held, or within 60 days after the certification of the record of a hearing, the commissioner shall publish in the STATE REGISTER either an appropriate rule promulgating, modifying, or revoking a standard, or a determination that such a rule should not be issued. The action of the commissioner shall be taken after consideration of all relevant matter presented in written submissions and in any hearings held under this chapter.

2. A determination that a rule should not be issued on the basis of existing relevant matter may be accompanied by an invitation for the submission of additional data, views, or arguments from interested persons on the issue or issues involved. In which event, an appropriate rule or other determination shall be made within 60 days following the end of the period allowed for the submission of the additional comments.

B. Any rule or standard adopted under paragraph A. of this section shall incorporate a concise general statement of its basis and purpose. Although the statement is not required to include specific and detailed findings and conclusions, it shall show the significant issues which have been faced, and shall articulate the rationale for their solution.

C. Where the Advisory Council has been consulted in the formulation of a proposed rule, the commissioner may seek the advice of the Advisory Council as to the disposition of the proceeding. In giving advice to the commissioner, the Advisory Council shall consider all matter presented to the commissioner. The advice of the Advisory Council shall take the form of written recommendations to be submitted to the commissioner within a period to be prescribed by the commissioner. When the recommendations are contained in the transcript of the meeting of the Advisory Council, they shall be summary in form.

§ 1.7329 Reserved for future use.

Department of Labor and Industry

Division of Labor Standards

Rules Governing Prevailing Wage Determinations

8 MCAR § 1.8001 Authority, scope and purpose. These rules are promulgated pursuant to the authority provided to the Minnesota Department of Labor and Industry by the provisions of Minn. Stat. § 175.171, subd. 2 and the requisites of Minn. Stat. § 15.0412, subd. 3. Their purpose is to provide procedures for prevailing wage determinations.

8 MCAR § 1.8002 Definitions. For purposes of all wage rate determinations, the following definitions shall apply;

A. Highway and heavy construction. All construction projects which are similar in nature to those projects based upon bids as provided under Minn. Stat. § 161.32 for the construction or maintenance of highways or other public works and includes roads, highways, streets, airport runways, bridges, power plants, dams and utilities.

B. Commercial construction. All building construction projects exclusive of residential construction.

C. Residential construction/agricultural construction. All construction, remodeling or repairing of single or two family homes and structures appurtenant thereto including agricultural or farming buildings appurtenant to private farm residences when utilized to carry on primary farming operations.

D. As utilized in these rules the term "project" means the erection, construction, remodeling or repairing of commercial, residential or public buildings or any highway and heavy construction.

E. State Project. Those projects which are subject to the requirements of Minn. Stat. § 177.41-44.

8 MCAR § 1.8003 Prevailing wage determinations.

A. The department shall, at least once each calendar year, determine and certify prevailing wage rates applicable to state projects which are similar in nature to highway and heavy construction projects.

B. The department shall, upon the request of any state agency that is contemplating the advertisement for bids on a state project which is similar in nature to commercial construction projects, determine and certify prevailing wage rates applicable to said state project if a certification has not been made within the twelve-month period prior to the request.

C. Prevailing wage rates applicable to state projects which are similar in

nature to residential construction projects will be made upon request of a governmental official involved in the bidding process for a state project who desires such rates for insertion in a specific contract proposal.

D. Each wage survey shall be based upon work performed in the preceding calendar year and the resulting wage determinations will be certified following the close of the survey.

E. Except as provided in subpart F. herein, all prevailing wage determinations shall be based upon the survey procedures contained in these rules.

F. The department shall, pursuant to Minn. Stat. §§ 177.43, subd. 4, and 177.44, subd. 3, conduct public hearings when necessary to determine county wage rate determinations. Such hearings shall be conducted within the county for which wage rates are being determined and shall be conducted as contested cases by a hearing examiner from the State Office of Hearing Examiners.

8 MCAR § 1.8004 Basis for each determination.

A. Individual prevailing wage rates shall be made on a county by county basis and each prevailing wage rate shall be based upon work performed solely within the applicable class of labor.

B. For each county survey, the department shall issue wage determinations for all classes of labor commonly or customarily used in similar construction projects.

1. Where work has been performed in a class of labor in the county during the time period of the survey, the wage determination for that class of labor shall be based solely upon that work.

2. Where work was performed in any other classes of labor in two or more of the Minnesota counties physically adjacent to the county being surveyed, the department shall consider those classes of labor as ones which are customarily or commonly used in construction projects and determine wage rates for those classes in accordance with paragraphs 4. and 5. herein.

3. Where no work was performed in a class of labor either in the county being surveyed or in two or more of the adjacent Minnesota counties, no wage rate will be determined for that class of labor.

4. In looking to adjacent counties for determining additional classes of labor for which prevailing wage rates should be made, only those adjacent Minnesota counties for which surveys are either in progress or for which wage rates have been determined by survey within the preceding 12 months shall be utilized.

5. In determining a wage rate for a class of labor based upon work performed in adjacent counties, all workers in the class of labor in all the adja-

cent counties shall be totaled and the wage rate shall be based upon the wage rate paid to the largest number as determined in accordance with these rules.

C. Following certification of wage rates for a county, no wage rates for additional classifications of labor shall be made for that county until such time that a subsequent survey of the county demonstrates utilization of those additional classes of labor.

8 MCAR § 1.8005 Classes of labor. Each class of labor shall be based upon the particular nature of the work performed with consideration given to those trades, occupations, skills or work generally considered within the construction industry as constituting distinct classes of labor. Wage determinations will be issued for those separate classes of labor which fall under the following general classes.

A. Laborers.

B. Power equipment operators.

C. Truck drivers.

D. Special crafts. The following crafts shall constitute separate classes of labor: bricklayers, carpenters, cement masons, linemen, electricians, iron workers, painters, pipefitters, plumbers, plasterers, roofers, and sheet metal workers, and other labor or work which is customarily considered as an individual trade or craft based upon its character and skills required. Workers reported as helpers shall be considered to be skilled laborers when making determinations.

E. In determining particular classes of labor, the department shall consider work classifications contained in collective bargaining agreements, apprenticeship agreements on file with the department and customs and usage applicable to the construction industry.

F. Primary responsibility for classifying individual workers shall be upon the contractor.

G. Where a worker performs work in more than one class of labor, he shall be counted only once and placed in the class in which he worked the greatest number of hours.

H. The contractor reporting shall have the responsibility to determine the class in which the worker has worked the greatest number of hours on each project reported.

I. Workers employed within a class of labor as apprentices or trainees at reduced wage rates will not be included or counted within that class of labor.

8 MCAR § 1.8006 Survey procedures. The purpose of each county survey is to develop a data base upon which to determine prevailing wage rates which

are reasonably comparable to those wage rates paid on similar projects in the area. The following procedural steps shall be taken in each wage survey:

A. For each survey, the department shall identify contractors who performed projects during the previous calendar year.

B. For the purpose of identifying contractors who performed work on projects in each county, the department shall keep and maintain a mailing list of governmental officials, district, county and city engineers, city clerks, administrators and zoning officials and those contractor associations and labor organizations who have requested to be on the mailing list.

C. The department shall also keep and maintain lists of contractors for each county which lists shall be kept updated through applicable telephone directories, trade publications and through previous wage survey contacts. Any contractor may request that its name be added to any county list.

D. Upon initiation of a wage survey the department will issue a form request for project identification to those entities referred to in paragraph 2. above. The request shall indicate the nature of the projects and the time period for which information is requested, and shall request the government official to identify contractors and their addresses who performed work during the survey time period. Such forms shall be completed and returned to the department within 33 days.

E. The department shall send to all those contractors identified as having performed work in the county through the forms returned from those entities referred to in paragraph 2, above, and to all those contractors whose names appear on the applicable county lists compiled under paragraph 3, above, a request for project information and a request for the identification of sub-contractors who worked on those projects. Enclosed with the request shall be copies of the department's Contractor Reporting Form.

1. For each project upon which the contractor performed work within the county during the time period of the survey, the contractor shall complete a separate Contractor Reporting Form and provide the following information:

- a. description of project;
- b. dollar cost of the project;
- c. list of the employees who worked on the project;
- d. class of labor for each employee;
- e. wage rate paid each employee on the project and the hourly cost of fringe benefit for H & W, Pension, Vacation, Training for each employee.

2. All Contractor Reporting Forms and forms identifying sub-contractors

tors who worked on the projects shall be signed and dated by the contractor or its representative attesting that the information provided is a true and correct summary of the information contained in the contractor's payroll and business records.

3. The Contractor Reporting Forms and forms identifying sub-contractors shall be returned to the department within 30 days following the receipt of the request for information.

4. Information which is not received by the department within 33 days following the date upon which the request was mailed by the department shall not be used in making determinations.

5. Contractor Reporting Forms which do not report the names of workers, classes of labor, wage rates paid, description of project, type of construction and location of project will not be utilized in making wage determinations. Any unsigned or incomplete forms which are received within the 33-day time period shall be returned to the contractor with a request that the form be properly completed. If that form is not returned to the department within 15 days from the date of mailing it shall be excluded from the survey. In no event shall information on unsigned Contractor Reporting Forms be utilized in making determinations.

F. Upon learning the identification of sub-contractors who performed work on projects within the county, the department shall proceed with the procedures provided in paragraph 5, above, and the sub-contractors so contacted shall be subject to the same requirements provided under paragraph 5.

G. In addition to the mail procedures described in paragraph 5, above, the department shall make on-site visits to the offices of contractors or governmental representatives for the purposes of collecting project data and for auditing payrolls when necessary for the determination of prevailing wage rates.

1. Information so collected, either through a review of the contractor's payrolls or copies of payrolls provided by contractors to government offices, will be utilized in making determinations provided that such information is compiled on an Investigator's Project Worksheet and is signed by the investigator who compiled the information.

H. The number of workers in each class of labor and their respective wage rates shall be determined and reflected on a "County Abstract."

8 MCAR § 1.8007 Determining the largest number of workers and Prevailing Wage Rate.

A. Each wage rate determination shall be based upon the actual wage rates paid to the largest number of workers within each labor classification reported in the survey.

B. For purposes of determining the largest number of workers, each worker within a class of labor and his total hourly rate paid shall be tabulated.

1. Total hourly rate includes the hourly rate plus the hourly contribution for all wage and fringe benefits.

2. The largest number of workers with identical rates of pay within each classification shall determine the specific prevailing wage rate.

3. When determining the prevailing wage rate and there is an equal number of workers (which represent the greatest number of workers) with differing hourly wage rates, the prevailing wage rate shall be the highest wage rate paid to those workers.

Example:

4 workers @ \$7.00 per hour

4 workers @ \$8.00 per hour

2 workers @ \$8.50 per hour

The prevailing wage rate will be determined as \$8.00 per hour.

4. Where a worker performs work on more than one project within the county, he shall be counted only once in the class of labor and at the wage rate paid on the most recent project within the time period of the survey.

8 MCAR § 1.8008 Apprentices.

A. Apprentices working on state projects are not subject to the prevailing wage rate determinations, except as they may be affected by registered apprenticeship agreements. The hourly rates of pay for such workers are established by the particular program to which the apprentice or trainee is subject.

B. The term apprentice means (a) a person employed and registered in a bona fide apprenticeship program registered with the U.S. Department of Labor or with a state apprenticeship agency and (b) a person in his first 90 days of probationary employment as an apprentice who is not registered in the program but who has been certified by the U.S. Bureau of Apprenticeship and Training or a State Apprenticeship agency or council to be eligible for probationary employment as an apprentice.

C. Any employee listed on a payroll for a state project who does not fall within the term "apprentice" contained in subpart (B) shall be paid the prevailing wage rate for the classification of work performed.

8 MCAR § 1.8009 Reserved for future use.

8 MCAR § 1.8010 Notice of wage determinations.

A. Upon certification of wage rates for a given county, the department

shall publish notice of such certification in the *State Register* but need not publish the individual rates so certified. The certification date shall coincide with the date published in the *State Register*.

B. The notice published in the *State Register* shall indicate where copies of the determined rates may be obtained upon request.

C. The department shall maintain a list of all persons who request that copies of wage rate determinations be sent to them.

D. Copies of wage rate determinations shall be mailed within 5 days of their certification to those persons who have requested such notice and whose names appear on the list maintained by the department. The department may charge a reasonable fee for the copying and mailing of these notices as allowed under Minn. Stat. § 15.17, subd. 4 (1974).

8 MCAR § § 1.8011-1.8012 Reserved for future use.

8 MCAR § 1.8013 Petition for reconsideration of prevailing wage rates.

A. Any person including contractor associations or labor organizations aggrieved by a final determination of a prevailing wage rate may petition the Commissioner for reconsideration of that wage rate within 30 days following its certification. The petitioner shall indicate the county and class(es) of labor contested, the reason the petitioner believes the rate to be inaccurate, and the rates the petitioner believes to be correct.

B. Within 10 days following receipt of a Petition for Reconsideration, the Department shall informally meet with the Petitioner and any other interested person, associations or labor organizations to review the contested wage determination(s).

1. The petitioner shall be prepared to support his contentions with any documents or data he deems necessary.

2. The department shall be prepared to produce and review the data, summary sheets and other documents upon which its determinations were based, and shall produce for the petitioner's inspection, all such documents.

C. Following the informal conference, the department shall, within 10 days, notify the petitioner of any decision modifying, changing, or reaffirming the contested wage rate or indicate to the petitioner that a survey will be necessary to resolve the contested wage rate(s).

1. Where the department determines that a new survey is necessary, such survey shall be conducted within 30 days. Thereafter, the department shall inform the petitioner by certified mail of its final decision based on that survey.

D. No prevailing wage rate will be deemed to be vacated or suspended

pending the resolution of a Petition for Reconsideration nor will the department request any state agency contemplating a state project to suspend, delay or otherwise change its contract and bidding schedules due to any pending procedures resulting from a Petition for Reconsideration.

E. Any person aggrieved by a final decision following reconsideration of a prevailing wage rate may, within 20 days after the decision, petition the Commissioner for a public hearing in the manner of a contested case under the administrative procedures act, Minn. Stat. §§ 15.0418 to 15.0421.

1. Upon receipt of a petition for a public hearing the commissioner shall order the initiation of a contested case in accordance with Minn. Stat. § 15.052.

2. All contested case hearings initiated herein shall be conducted in accordance with the rules of Operation of the Office of Hearing Examiners.

8 MCAR § 1.8014 Reserved for future use.

8 MCAR § 1.8015 Master job classifications. For purposes of these rules, contractors must use the following codes and classifications in documenting classes of labor.

Laborers

CODE NO.	POSITION TITLE
101	Laborer, common (general labor work)
102	Laborer, skilled (assisting skilled craft journeyman)
103	Laborer, Landscaping (gardener, sod layer and nurseryman)
104	Flagperson
105	Watchperson
106	Powderman
107	Pipelayer (water, sewer & gas)
108	Tunnel miner
109	Underground and open ditch laborer (8 feet below starting grade level)

Power Equipment Operators

CODE NO.	POSITION TITLE
201	Air compressor operator
202	Asphalt, bituminous stabilizer plant operator
203	Dragline and/or other similar equipment with shovel type controls
204	Bituminous spreader and finishing operator
205	Bituminous spreader and bituminous finishing machine operator (helper)
206	Conveyor operator

207	Concrete distributor and spreader operator, finishing machine, longitudinal float operator, joint machine or spray operator
208	Concrete saw operator (multiple blade) (power operated)
209	Crushing plant operator (gravel and stone) or gravel washing, Crushing and screening plant operators
210	Curb machine
211	Front end loader operator up to and including 1 cu. yd.
212	Fine grade operator
213	Fork lift operator
214	Front end loader operator
215	Helicopter pilot
216	Fireman or tank car heater operator
217	Grader or motor patrol, finishing, earthwork and bituminous
218	Grader operator (motor patrol)
219	Greaser (truck and tractor)
220	Hoist engineer
221	Self propelled chip spreader
222	Mechanic or welder
223	Oilers (power shovel, crane, dragline)
224	Pick up sweeper
225	Pugmill operator
226	Roller operator, self propelled roller for compaction
227	Roller operator, up to and including 6 tons for bituminous finishing and/or wearing courses
228	Roller operator, over 6 tons for bituminous finishing and/or wearing courses
229	Scraper, 32 cu. yds. and over
230	Self propelled vibrating packing operator (pad type)
231	Rubber tired tractor, back hoe attachment
232	Shouldering machine operator (power) (apsco or similar type)
233	Slip form (power-driven) (paving)
234	Turnapull operator (or similar type)
235	Tractor operator, D2, TD6 or similar h.p. with power take-off
236	Tractor operator, over D2, TD6 or similar h.p. with power take-off
237	Power actuated augers and boring machine
238	Truck crane oiler

Truck Drivers

CODE NO.	POSITION TITLE
301	Bituminous Distributor driver
302	Dumpman
303	Greaser and truck serviceman
304	Self propelled packer operator
305	Truck driver (hauling machinery for contractors own use including operation of hand or power operator winches)

306	Single axle or 2 axle unit
307	Tandem axle or 3 axle unit
308	Four axle unit
309	Five axle unit

Special Crafts

CODE NO.	POSITION TITLE
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401	Asbestos workers
402	Boilermakers
403	Bricklayers
404	Carpenters
405	Carpet Layers (linoleum)
406	Cement Masons
407	Electricians
408	Elevator Constructors
409	Glaziers
410	Lathers
411	Groundman
412	Ironworkers
413	Lineman
414	Millwright
415	Painters
416	Piledriverman
417	Pipefitters—Steamfitters
418	Plasterers
419	Plumbers
420	Roofer
421	Sheet metal workers
422	Sprinkler fitters
423	Terrazzo workers
424	Tile setters

Wage determinations shall be made for other classifications not listed if such other classifications are in general use in the area being surveyed.

8 MCAR § 1.8016 Posting of wage rates. Each contractor and subcontractor performing work on a public project shall post on the project the applicable prevailing wage rates and hourly basic rates of pay for the county or area within which the project is being performed, including the effective date of any changes thereof, in at least one conspicuous place for the information of the employees working on the project. (Minn. Stat. § 177.43, subd. 4 and Minn. Stat. § 177.44, subd. 5 (1974)). The information so posted shall include a breakdown of contributions for health and welfare benefits, vacation benefits, pension benefits and any other economic benefit required to be paid.

8 MCAR § 1.8017 Wage rate determinations effective date. Wage rate determinations previously certified by the department shall, subject to the review

procedures contained in § 1.8013, remain in effect until such time that new wage rates are determined in accordance with the provisions of these rules as amended.

LICA 1 Authority, Scope and Purpose

a) These rules are promulgated pursuant to authority granted to the Minnesota Department of Labor and Industry by the provisions of Minn. Laws 1975, Chapter 211, sec. 4, and may be cited as Labor and Industry Regulation, LICA 1 through 5.

b) These rules apply to "factories, warehouses and similar places of work" not usually frequented by the general public.

c) These rules apply where the close proximity of workers or the inadequacy of ventilation causes smoke pollution detrimental to the health or comfort of non-smoking employees.

d) Nothing in these rules shall be construed to affect, in any way, smoking prohibitions imposed by the fire marshall or other laws, ordinances or regulations.

e) Minn. Laws 1975, Chapter 211, sec. 4, relating to smoking in public places and at public meetings, excludes from its provisions, factories, warehouses and similar places of work not usually frequented by the general public. At the same time, section 4 directs the Department of Labor and Industry to establish rules to restrict or prohibit smoking in those places where the close proximity of workers or the inadequacy of ventilation causes smoke pollution detrimental to the health and comfort of non-smoking employees. The purpose of these rules is to implement that provision and provide clarification of the scope and extent of employers' obligations relating thereto and to safeguard the non-smoking employee's health and comfort within reasonable regulation of his working environment without serious disruption of the work activities at his place of work.

f) These rules are intended to implement the provision in Minn. Laws 1975, Chapter 211, sec. 4, which pertains to factories, warehouses and similar places of work.

LICA 2 Factories, Warehouses and Similar Places of Work

For the purposes of M.S. § 144.414, "factories, warehouses and similar places of work" shall mean the indoor area of any facility of an enterprise used principally to manufacture or assemble goods, products or merchandise for sale, or to store goods, products or merchandise not for the purpose of direct retail sale, and shall include those areas incidental but related to the primary operation covered by these regulations.

LICA 3 Smoke Pollution

As used in these regulations, smoke pollution shall mean that smoke caused by a lighted cigar, cigarette, pipe or any other lighted smoking substance or equipment.

LICA 4 Responsibilities of Employer or Person in Charge

An employer who prohibits smoking in areas utilized by non-smoking employees shall be considered to have complied with these rules. Lacking that, the following shall apply:

a) Lunchrooms, cafeterias, lounge or rest areas provided for employees. In a lunchroom, cafeteria, lounge or rest area provided for the employees and not open to the general public, the employer or person in charge shall reserve one side or area of the room for the sole use of non-smokers and shall minimize the toxic effects of smoke pollution in that area. The size of such non-smoking area shall be proportional to employee preference. The employer or person in charge shall maintain records which document employee preference.

b) General work area.

1) Upon complaint of an employee that the close proximity of workers or inadequate ventilation is causing smoke pollution detrimental to his or other non-smoking employees' health and comfort, the employer or person in charge shall determine the causative factors of the smoke pollution.

2) If the employer or person in charge finds that the smoke pollution is due to the close proximity of workers or the inadequacy of ventilation, he shall minimize the toxic effects of the smoke pollution on non-smokers. The employer or person in charge shall maintain records which document the actions taken on complaints received.

LICA 5 Minimizing Toxic Effects of Smoke Pollution

To the extent possible without unreasonable interference with the business operation, efforts to minimize the toxic effects of the smoke pollution on non-smokers shall include, but need not be limited to, the following:

a) utilization of existing physical barriers;

b) utilization of the flow of air movement, so that insofar as possible, smoke shall move away from non-smokers;

c) arrangement of seating or work patterns for separation of smokers and non-smokers.

Filed April 2, 1976

See new AR03765T →

RS 1 Definitions. For the purposes of RS 1.-17., the following terms have the meanings given them.

A. Commissioner. "Commissioner" means commissioner of the Department of Labor and Industry.

B. Employer. "Employer" means the employer of qualified employees and includes the insurer providing workers' compensation insurance required by Minnesota Statutes, chapter 176 to this employer.

C. Suitable gainful employment. "Suitable gainful employment" means employment which is reasonably attainable and which offers an opportunity to restore the injured employee as soon as possible and as nearly as possible to employment which produces an economic status as close as possible to that the employee would have enjoyed without disability. Consideration shall be given to the employee's former employment and the employee's qualifications, including, but not limited to, the employee's age, education, previous work history, interests and skills.

D. Qualified employee. "Qualified employee" means an employee who because of the effects of a work-related injury or disease, whether or not combined with the effects of a prior injury or disability:

1. Is permanently precluded or is likely to be precluded from engaging in the usual and customary occupation or position in which the individual was engaged at the time of injury; and

2. Can reasonably be expected to benefit from rehabilitation services which could significantly reduce or eliminate the decrease in employability.

E. Qualified rehabilitation consultant. "Qualified rehabilitation consultant" means a person who is professionally trained and experienced and who is approved by the commissioner to develop and monitor an appropriate plan for evaluation and provision of physical and vocational rehabilitation services for an employee entitled to rehabilitation benefits under Minnesota Statutes, section 176.102.

F. Qualified rehabilitation consultant/independent. "Qualified rehabilitation consultant/independent" means a consultant neither affiliated with an employer, insurer, or adjusting company, nor with a facility or agency engaged in the provision of comprehensive rehabilitation services to qualified employees, and who is approved by the commissioner to develop and monitor rehabilitation plans.

G. Qualified rehabilitation consultant/affiliated. "Qualified rehabilitation consultant/affiliated" means a consultant who is affiliated with an employer, insurer, or adjusting company, and who is approved by the commissioner to

develop and monitor rehabilitation plans.

H. Registered rehabilitation vendor. "Registered rehabilitation vendor" means a public or private entity existing wholly or in part for the provision of rehabilitation services to the qualified employee and which has been registered to provide specific rehabilitation services in accord with a rehabilitation plan authorized by the commissioner.

I. Rehabilitation consultation. "Rehabilitation consultation" means an evaluation by a qualified rehabilitation consultant of the likelihood that rehabilitation services will significantly reduce or eliminate the decrease in employability.

J. Rehabilitation plan. "Rehabilitation plan" means a written document completed by a qualified rehabilitation consultant and which describes the manner and means by which it is proposed that a qualified employee may be returned to suitable, gainful employment through the use of rehabilitation service. The plan shall take into consideration the qualified employee's unique disabilities and assets.

K. Rehabilitation service. "Rehabilitation service" means service required to determine an employee's eligibility as a qualified employee, and service designed to return an individual to suitable gainful employment by returning the individual to a job with the former employer or to a job related to the individual's former employment, or by placing the individual in a job in another work field, or by placing the individual in a job with higher economic status than would have occurred without the disability if it can be demonstrated that this is necessary to increase the likelihood of reemployment. The service may include, but is not limited to, medical evaluation, medically prescribed physical rehabilitation, work evaluation, counseling, job analysis, job modification, job placement, on-the-job training, or retraining.

L. Review panel. "Review panel" means the panel created by Minnesota Statutes, section 176.102, subdivision 3.

RS 1-174
RS 2 Work status report. The employer shall report the work status of an employee to the commissioner on forms prescribed for that purpose (1) within 30 days of receiving knowledge that the employee is permanently precluded or likely to be permanently precluded from returning to his pre-injury occupation, or (2) within 90 days after the date of the injury if the employee has not yet returned to work and the likelihood of return to work cannot yet be ascertained.

A work status report shall specify what is being done to determine the employee's eligibility as a qualified employee and the date when the commissioner will be notified of this determination. If the employee's condition does not then permit determination of the employee's qualification status, the report shall indicate this and the employer shall be required to submit

a supplemental report every 60 days following submission of the initial report until such determination can be made.

If the employer believes that the employee is not a qualified employee, the work status report shall include documentation supporting the employer's determination. In this instance, the report also shall include a copy of the employer's advice to the employee that in the opinion of the employer, the provision of rehabilitation services is not necessary, the reasons therefor, and the following mandatory language:

"If you have any questions regarding this explanation, you may contact the workers' compensation division at (address). There is no charge for this service. If you have an attorney representing you in this matter, you should consult with that attorney."

If the employee's work status changes at any time subsequent to submission of a previous work status report, the employer shall file a supplemental report.

51-17
RS 3 Initiation of rehabilitation service. For the purpose of Minnesota Statutes, section 176.102, subdivision 4, the employer shall, in consultation with the employee, refer the employee to a qualified rehabilitation consultant. This shall be done within 30 days after an employer has medical information that an employee is unable, due to personal injury or occupational disease, to return to his pre-injury occupation.

If the employer has made a selection, the employee may object to the employer's selection and shall make his own selection and notify the commissioner and the employer in writing. The employee has the final decision on which rehabilitation consultant is to be utilized.

When the commissioner receives information that the employee is qualified for rehabilitation benefits and the employer has not provided rehabilitation consultation within thirty (30) days after receipt of similar information, the commissioner shall notify the employer that rehabilitation consultation shall be provided by the employer within fifteen (15) days of the notice or a qualified rehabilitation consultant within the division of vocational rehabilitation shall be authorized to provide that consultation.

RS 4 Plan submission. If the qualified rehabilitation consultant determines that rehabilitation would significantly reduce or eliminate the decrease in employability, the rehabilitation consultant shall develop and the employer shall submit a specific rehabilitation plan together with all related medical and vocational reports to the commissioner on forms prescribed for that purpose. The plan shall be signed by all interested parties. A labor market analysis is required in all plans which propose a change in the employee's occupation unless

the requirement for such a plan is waived by the commissioner.

Within 30 days of submission of a properly documented plan, the commissioner shall approve or reject the plan. The commissioner may request additional information, confer with the parties, recommend modifications, and otherwise seek agreement concerning terms and conditions of the plan. If the vocational objective has not been determined, approval or rejection of the vocational objective may be deferred until 30 days following receipt by the commissioner of a plan progress report containing that objective and supporting rationale. Such a progress report shall be served on all interested parties and if no formal objection is received within ten days from the date of service, it shall be assumed that all parties are in agreement with the vocational objective and rationale.

If the commissioner does not approve or reject the plan within 30 days following its submission, a properly documented plan shall be deemed approved; provided, however, that the commissioner may extend the review period for an additional 30 days for good cause.

Implementation of the plan shall begin as soon as the qualified employee is capable of participating. Implementation may begin upon approval by the commissioner or on the date specified in the plan, whichever date is earlier. A plan shall be submitted to the commissioner before the implementation date. Commencement of a plan without objection from the commissioner shall not be deemed approval of the plan, nor shall it operate as a waiver or an estoppel of the commissioner's power over the plan.

RS 5-17
RS 5 Plan modification. Upon request of the employer or employee, the commissioner may suspend, terminate or alter a rehabilitation plan for good cause, including, but not limited to:

- A. A new or continuing physical limitation that significantly interferes with the implementation of the plan;
- B. The employee's performance indicates that he is unlikely to complete the plan successfully; or
- C. The employee is not cooperating with the plan.

The commissioner may alter a plan on the request of an employee if the employee believes that the occupation for which he is being trained is not suited to him, provided that the employee's request shall be made within 90 days from the plan's implementation date and that no more than one change shall be permitted for this reason. Any decision of the commissioner regarding a change in a plan may be appealed to the review panel within 15 days of the filing of and service of the decision on the interested parties.

21-17
RS 6 Completion of plan. The employer and qualified rehabilitation consultant shall report to the commissioner immediately upon the employee's completion of the rehabilitation plan, indicating the results and other pertinent information which the commissioner may require.

RS 7 Change of consultant/vendor. Any requests for change of a consultant or vendor shall be directed to the commissioner. The commissioner may schedule an administrative conference and may order a change of consultation/service if such is in the best interests of the parties. If the commissioner determines the consultant's work to be unsatisfactory or the consultant withdraws from the case, the commissioner shall make a referral to another consultant.

RS 8 Disputes. Where questions exist concerning an employee's entitlement to rehabilitation services, or where a rehabilitation plan is not acceptable to the employee or to the employer, or in case of any other dispute involving rehabilitation, the commissioner, either on his own motion or upon request of the employer or employee, may schedule a conference to resolve the issues in dispute. The commissioner may require the parties to meet and confer informally prior to such a conference. The commissioner may order necessary and reasonable medical examinations and rehabilitation evaluations at the expense of the employer in preparation for such a conference. After allowing the parties an opportunity to be heard, the commissioner shall make a determination on the issues and serve copies on the parties. No determinations will be made with respect to rehabilitation entitlement until primary liability for the claim has been admitted or established.

RS 9 Appeal to rehabilitation review panel. Any person aggrieved by a decision of the commissioner may appeal the decision to the review panel within 30 days of the filing of and service of the decision on the interested parties. The appeal shall specify the grounds upon which the appeal is taken. The panel may approve or reject the commissioner's decision and may formulate its own rehabilitation plan.

RS 10 Compensation during rehabilitation. Payment of rehabilitation compensation pursuant to Minnesota Statutes, section 176.102, subdivision 11, or, if the rehabilitation involves on-the-job training, pursuant to Minnesota Statutes, section 176.102, subdivision 5, shall commence on the day the employee begins the vocational rehabilitation phase of the rehabilitation plan designed to prepare the employee for suitable, gainful employment.

RS 11 Representation. When an employee or employer is

represented by an attorney in rehabilitation matters before the commissioner, the commissioner shall, at the earliest possible date, be notified in writing of the name, address and telephone number of said representative. Any representative who has so advised the commissioner will be notified of any meetings, and will receive any reports.

RS 12 Rehabilitation mandatory: restrictions on settlements. Rehabilitation services pursuant to an approved rehabilitation plan are mandatory for qualified employees. A qualified employee's right to rehabilitation services shall not be subject to compromise and shall not be convertible into cash or other benefits by settlement and release agreement or otherwise. When a good faith dispute exists as to qualified employee status, however, the possible right to rehabilitation services may be converted into cash by settlement agreement. Any settlement agreement purporting to limit or compromise access to rehabilitation services must be approved by the commissioner. The value of rehabilitation services shall not be used in calculation of attorneys' fees. The legal fees shall be calculated in the same manner as in other types of cases.

RS 13 Qualified rehabilitation consultant and registered rehabilitation vendor. Rehabilitation services shall be provided each injured employee to the extent appropriate and which in the judgement of the commissioner will return the employee to suitable, gainful employment.

Policies and procedures as developed by the commissioner are the basic references for the delivery of rehabilitation services under the law. Adherence thereto shall be criteria for continued registration as a qualified rehabilitation consultant or rehabilitation vendor.

An entity may be approved either to provide rehabilitation services as a vendor or to develop and monitor rehabilitation plans as a qualified rehabilitation consultant. These roles are distinct therefore a single entity shall not qualify for both functions. There shall be no ownership or financial relationships of any kind whatsoever between any vendor and consultant or organization approved for the employment of consultants. The rehabilitation vendor shall provide all physical rehabilitation and work evaluation and work adjustment services if they are included in a rehabilitation plan. Any number of vendors may provide services for a single rehabilitation plan.

With the written approval of the commissioner, an employer who would qualify as a vendor may hire a qualified rehabilitation consultant/affiliated to develop and monitor rehabilitation plans for their own employees. In such cases, the consultant shall certify that the employee has been advised of his right to object to the affiliated rehabilitation consultant. It is expected that the rehabilitation

consultant/affiliated shall use outside vendor services if the employer cannot provide them.

If a dispute arises with respect to charges for services performed by rehabilitation consultants or vendors, the commissioner shall make determinations as to the reasonable value of charges and the necessity for the services. All qualified rehabilitation consultants and registered rehabilitation vendors shall be bound by any such determination or shall seek recourse through the appellate procedure provided by Minnesota Statutes, chapter 176.

The qualified rehabilitation consultant shall file all required reports with the commissioner and employer as they are received or created by the consultant. Reports shall also be furnished to the employee's attorney, if any, if he so requests.

The services provided by the registered rehabilitation vendor shall be in accordance with the rehabilitation plan developed for the qualified employee by the qualified rehabilitation consultant. All services provided shall be in accord with the approved plan and no deviation shall be made from the plan without approval by the commissioner of an amendment to the plan. Time and cost estimates shall be adhered to.

Vendor performance shall be monitored by the qualified rehabilitation consultant.

The vendor shall make the required reports on a regular basis to the qualified rehabilitation consultant.

Minnesota qualified employees who move to another state shall be serviced by that state's workers' compensation rehabilitation mechanism in coordination with a Minnesota qualified rehabilitation consultant.

5-17 See new ARO3765T →
RS 14 Qualifying eligibility criteria for rehabilitation consultant. The following eligibility criteria and procedures shall be used by the commissioner in determining who is qualified for registration as a qualified rehabilitation consultant.

a. Qualified rehabilitation consultant/affiliated/independent.

i. Holder of a master's or doctorate degree in vocational rehabilitation or physical rehabilitation (occupational therapy, physical therapy, nursing) from an accredited institution, plus a current license as appropriate, plus one year of experience in vocational rehabilitation or physical rehabilitation. At least one year shall have been spent in rehabilitation of work related injuries and diseases.

or

ii. Holder of a baccalaureate degree in vocational rehabilitation or physical rehabilitation (occupational therapy, physical therapy, nursing), from an accredited institution, plus a current license as appropriate, plus two years of experience in vocational rehabilitation or physical rehabilitation. At least one year shall have been spent in rehabilitation of work related injuries and diseases.

or

iii. Diploma in nursing from an accredited institution, plus a current Minnesota R.N. license, plus three years of experience in physical rehabilitation or vocational rehabilitation. At least one year shall have been spent in rehabilitation of work related injuries and diseases.

or

iv. Holder of any baccalaureate degree other than listed in ii above from an accredited institution, plus three years of experience in vocational rehabilitation. At least one year shall have been spent in rehabilitation of work related injuries and diseases.

or

v. High school diploma, plus continuing education in and five years experience in vocational rehabilitation, including counseling, evaluation and direct case services. Two of the five years shall have been spent in rehabilitation of work related injuries and diseases.

b. Rehabilitation consultant intern: An individual who meets the minimum educational requirements but does not meet the minimum experience requirements may be registered as a consultant intern. When the intern is registered, the intern's employer shall provide the commissioner with the name of the qualified rehabilitation consultant under whose direct supervision the intern will work. The supervisor shall be considered to be directly responsible for the rehabilitation work on any case. The supervisor shall co-sign all work being done by the intern. So that all parties are aware of the intern's status, he shall be designated as an "intern." The intern may make application for "qualified" status when the minimum requirements have been met.

In cases where an intern has been supervised by a qualified rehabilitation consultant/affiliated who leaves the organization with which he has been affiliated and no other qualified rehabilitation consultant is available to supervise the intern, the intern may, with the approval of the commissioner, temporarily sign all required documents in the capacity of a qualified rehabilitation consultant. Past performance and overall experience will be taken into consideration for this approval.

c. Experience criteria. The burden of proof of experience shall be on the applicant. This shall include documentation of a history of employment in a position of physical rehabilitation or vocational rehabilitation of work related injuries and diseases. One year of experience in rehabilitation of work related injuries and diseases means one year of full time experience, two years of 50 percent of time experience, three years of 33-1/3 percent of time experience, or four years of 25 percent of time experience or any combination equal to 100 percent of one year's experience. The experience shall have been attained in not more than four consecutive years.

Supporting documents shall consist of signed statements by present and previous employers and insurers specifying the services, caseload, and amount of time spent in rehabilitation of work related injuries and diseases.

d. General criteria. All persons who are qualified rehabilitation consultants shall be exclusively self-employed or exclusively employed by a single organization that is approved for the employment of qualified rehabilitation consultants or an employer/insurer.

All persons who are qualified rehabilitation consultants shall be residents of the state of Minnesota. An organization authorized for the employment of qualified rehabilitation consultants may request an exception for a consultant who lives contiguous to a Minnesota catchment area if the organization and any such consultant agrees, as a condition to approval, to appear at any hearing when requested, in the same manner as if they had been subpoenaed. Failure to do so shall result in automatic revocation of the individual consultant's approval.

57-17
see new AR037657 →
RS 15 Procedure for qualifying as rehabilitation consultant.

a. Application. An individual desiring to receive approval and registration as a qualified rehabilitation consultant shall submit to the commissioner, a complete application consisting of the following:

- i. completed and signed application form (notarized); and
- ii. copy of current license or certification; and
- iii. supporting experience documentation; and
- iv. transcripts of all schools attended beyond high school; and
- v. list of pertinent continuing education by title, location and date; and
- vi. list of services and fees. This filing shall not constitute an approval or disapproval of the services or fees.

The commissioner shall issue a notice of acceptance or rejection to the applicant within 45 days of receipt of the completed application.

b. Appeal process. The appeal process provides a mechanism for applicants to request reconsideration of a rejected application for registration, renewal and reinstatement.

A written notice of appeal shall be filed with the commissioner within 15 days of mailing of notice of disapproval.

The decision shall be reviewed by the review panel. The applicant shall be advised of the date, time and place of the review at least ten (10) days prior to the hearing date, and is encouraged to be present.

c. Registration. The commissioner shall assign a registration number to each qualified rehabilitation consultant. The registration number shall be on all reports submitted by the consultant.

To retain registration, the consultant must submit satisfactory evidence of approved continuing education pertinent to the workers' compensation rehabilitation field equivalent to 15 contact hours each year at the time registration is renewed.

d. Renewal. Registration shall be renewed every two years.

Services and fee schedules shall be submitted to the commissioner whenever there is a change or no less than once each calendar year. This filing shall not constitute an approval or disapproval of the services or fees.

No later than 60 days prior to expiration of registration, the consultant shall request registration renewal on a form prescribed by the commissioner.

e. Revocation. Qualified rehabilitation consultant approval and registration may be revoked by the commissioner for failure to comply with the rules or policies or for good cause. Notice of and reason for revocation shall be mailed to the consultant by the commissioner.

The consultant may appeal the revocation as provided in section 15, b.

A consultant whose registration has been revoked shall wait at least 180 days from the date of mailing of revocation to re-apply for approval.

RS 16 Procedure for approval as an organization registered for the employment of qualified rehabilitation consultants/independent.

a. Criteria. The organization shall be licensed to do

business in the state of Minnesota and shall maintain an administrative office within the state.

The management staff shall consist of at least one member who meets the qualifications of a rehabilitation consultant.

Eighty percent of the non-clerical staff shall be eligible, qualified rehabilitation consultants or consultant interns.

Management shall provide ongoing continuing education opportunities in workers' compensation rehabilitation for approval by the commissioner and to meet the criteria for registration renewal of rehabilitation consultants.

The organization shall not provide the services designated only as rehabilitation vendor services.

b. Application. A private or public entity desiring to be approved as an organization registered for the employment of qualified rehabilitation consultants shall submit to the commissioner a complete application consisting of the following:

- i. a completed and signed application (notarized); and
- ii. any data or information attached to support application; and
- iii. documentation of intent to provide opportunities for continuing education to meet requirements for registration renewal of rehabilitation consultants; and
- iv. list of services and fees. This filing shall not constitute an approval or disapproval of the services or fees.

c. Appeal process. The appeal process herein shall be conducted the same as that provided in section 15, b.

d. Renewal. The renewal process herein shall be conducted the same as that provided in section 15, d.

e. Revocation. The revocation process herein shall be conducted the same as that provided in section 15, e.

RS-17 *See new ARO376ST →*
RS 17 Procedure for approval as a registered rehabilitation vendor.

a. Application. A private or public entity desiring to be approved as a registered rehabilitation vendor shall submit to the commissioner a complete application consisting of the following:

- i. a completed and signed application; and
- ii. any data or information attached to support application; and

See new RS18, RS19 (ARO376ST) →

iii. list of services and fees. This filing shall not constitute an approval or disapproval of the services or fees.

b. Appeal process. The appeal process herein shall be conducted the same as that provided in section 15, b.

c. Renewal. The renewal process herein shall be conducted the same as that provided in section 15, d.

d. Revocation. The revocation process herein shall be conducted the same as that provided in section 15, e.

WC 1-35

WC 1 Payment of compensation. Payment of compensation and reimbursement of reasonable medical or treatment expenses shall be made directly to the employee or dependent at his home address unless the employee or dependent, in writing, authorizes payment to be sent elsewhere. If the employee or dependent desires payments to be sent to a bank, savings and loan association, or other financial institution, the employee shall provide the employer or insurer with the name and address of such institution and any pertinent account number. The employer and insurer shall comply with such request upon receipt, without any necessity of a specific order from the workers' compensation division; however, the employer and insurer shall file a copy of such request with the division. Upon request, the employer and insurer shall furnish proof of payment of past-due benefits and treatment expenses awarded pursuant to any determination or decision of the workers' compensation division or court of appeals to the attorney representing the employee or dependent therein.

WC 2 Discontinuance of compensation payments. In any case arising under Minnesota Statutes, section 176.241, notice of proposed discontinuance of compensation shall be given to the division on a form prescribed by the division. Such notice shall specifically set forth the periods and amounts of payments of temporary total, temporary partial, retraining, rehabilitation, permanent partial, permanent total, supplementary, or dependency benefits, and attorney fees paid or withheld, together with the applicable compensation rate or rates. The notice shall be accompanied by a statement of facts and medical reports in support of the discontinuance of compensation payments. If the basis for the discontinuance of compensation is not medical, the specific basis shall be stated. If the notice of discontinuance is filed without the appropriate and necessary information the division shall request the employer or insurer to file such required information within ten days of notice of the defect. Sufficient copies of the notice of discontinuance; the statement of facts; and the medical report, if applicable; shall be filed with the division so that service can be made upon the employee or dependent and his attorney, if any.

Whenever an employee or dependent files an objection to discontinuance of compensation, or a claim petition designated as an objection to discontinuance, because the employer or insurer have discontinued compensation payments without complying with the division's requirements, and a hearing is held thereon, the burden of establishing the right to discontinue payments on the date of last payment shall be on the party discontinuing, and proof shall be offered in the usual order by the one charged with sustaining the burden of proof.

WC 3 Notice of payments to division. The employer and insurer shall keep the division advised of all payments of compensation

by the filing of interim status reports or the annual claim for reimbursement for supplementary benefits as required by the division. Where payments have been discontinued pursuant to the filing of a final receipt or notice of discontinuance of compensation, the employer or insurer shall immediately notify the division of any reinstatement of payments, and the date upon which additional payments commenced.

In all cases of payment of permanent partial disability, the employer and insurer shall immediately notify the workers' compensation division and the employee of the amount of money being paid, the date of payment, and the rating of disability upon which such payment is based, and shall furnish the division with a copy of the medical report or reports upon which such payment is based.

Employers and insurers shall use forms which conform in wording, size, design and color to those prescribed by the workers' compensation division for all purposes for which the division has prescribed forms. Such forms must be fully filled out, and the details required thereon must be furnished.

WC 4 Denial of liability. A denial of liability shall be set forth on a form prescribed by the division, and shall specifically state the factual basis upon which the denial is made.

WC 5 Claim for refunds from employees or dependents. All requests for refunds or reimbursements by an employer or insurer for payments made under a mistake of fact, which were allegedly not received by an employee or dependent in good faith, shall be made in writing to the employee with a copy immediately mailed to the attorney representing the employee or dependent, if any, and to the workers' compensation division. All such requests shall clearly indicate the basis for believing said payments were not received in good faith, and shall set forth the following information:

- (a) Amount of alleged overpayment;
- (b) What the original payment was made for;
- (c) The date on which the payment was made;
- (d) The mistake of fact or law which forms the basis for the claimed overpayment;
- (e) A statement informing the employee that, if he has any questions regarding his legal obligations to repay any such claims for overpayment, he should contact either his private attorney or an attorney at the workers' compensation division.

WC 6 Medical reports to be filed with the division. Employees,

employers or their insurers shall promptly file or cause to be filed in the St. Paul office of the workers' compensation division all reports of doctors attending or examining injured employees that facilitate the statutory obligation of the division to keep itself fully informed as to the nature and extent of any injury to any employee arising under the workers' compensation act.

WC 7 Medical authorizations. The employee shall provide the employer and insurer with appropriate signed medical authorizations within 15 days from receipt of written request for such authorizations. Failure to comply with a request for appropriate medical authorizations may result in the case being stricken from the active trial calendar until the authorizations are furnished.

WC 8 Change of doctors. When an injured employee or his employer or insurer desires a change of doctors for the treatment of employee's injuries, the proponent may make application to the division for an order for a change of doctors. Such application shall be made on forms prescribed by the division, and shall state the reasons for the change, and shall name a doctor by whom the treatment is desired. Sufficient copies of the application shall be filed with the division at the St. Paul office so that service can be made by the division upon the other parties. The division may grant such request ex parte, or may set the matter for hearing.

WC 9 Notice of representation. Written notice of representation by an attorney shall be filed with the workers' compensation division and the employer or insurer. Such notice shall be signed by the client, and shall include the address and phone number of the attorney. Failure to file such notice may affect the determination of attorney fees. Thereafter all notices shall be served on the attorney.

When a party appears without attorney at a legal proceeding, the records shall show, before proceeding with the hearing, by interrogations by the presiding official, that the party has knowledge of his right to representation by an attorney and his wish to present his case without an attorney. In such case, the presiding official shall assist in the interrogation of witnesses in an endeavor to bring out all the material facts.

WC 10 Examinations of files by attorneys. Attorneys desiring to examine a file in a compensation case shall present to designated personnel of the division a written authorization to inspect such file, signed by the employer, insurer, employee or dependent. Such authorization shall be placed in and become part of the division's file.

WC 11 Third-party recovery. Any employer or insurer, learning of a third-party recovery or settlement arising out of a personal injury for which such employer or insurer is or may be liable, shall inform the division of such possible, pending or completed third-party action, indicating:

- (a) Name of the employee,
- (b) Employee's social security number, or division file number (if known),
- (c) Name of employer,
- (d) Date of injury,
- (e) Name and address of the attorney, if any, representing the employee in the third-party action,
- (f) If the employee is not represented by an attorney in the third-party action, or if the name of the attorney is not known, the name and address of the insurer for the third party, together with the name of their insured and any identifying file or claim numbers.

The parties shall furnish the division with the information necessary to issue its order determining the subrogation rights of the employer and insurer, and any credit to which the employer and insurer may be entitled against compensation liability.

WC 12 Legal documents. Pleadings, briefs and other legal documents shall be printed or typewritten. Where a printed form prescribed by the division is used, it may be completed either in typewriting or with pen and ink. Typewritten documents shall use only one side of the paper.

WC 13 Docket procedure. All petitions in compensation matters and every instrument which is required to be served therein shall be promptly stamped to show the date of receipt, and shall be filed and docketed, together with any notice or order and proof of service thereof with record or docket number thereon in addition to the regular file number. All papers relating to the case shall be kept in the file jacket with the docketed papers, and all docketed papers shall be securely bound together with the report of injury, consecutively arranged according to the subject matter and the date of docketing.

Notices of hearings, postponements, continuances and other proceedings before the division or court of appeals, as well as orders or awards by the division, shall be served as directed by the division or the court of appeals on matters before it.

WC 14 Commencement of proceedings. All proceedings before the workers' compensation division on claims for personal injuries or occupational diseases shall be instituted by petition addressed to the workers' compensation division, and shall be on forms prescribed by the division. The petition shall certify that prior notice of intention to initiate proceedings has been sent to the adverse party, pursuant to Minnesota Statutes, section 176.271, subdivision 2, and the date of such notice. Supporting medical reports shall be attached to the petition. Sufficient copies of forms for filing a claim for compensation will be furnished by the division, upon request, and without charge, to employees or their attorneys. If the action is brought against one employer and insurer, the original and two copies shall be filed with the division at its St. Paul office. If more than one employer and insurer, or the state treasurer, as custodian of the special compensation fund, are named as parties, the original petition and enough copies to serve all parties named must be filed.

WC 15 Answer. The answer shall be set forth on a form prescribed by the division, and contain the following:

(a) Specific responses to allegations regarding the date and nature of the injury, the employment status, notice, wage, relationship of the injury to employment, insurance, benefits paid, matters in dispute, affirmative defenses, and any other necessary information;

(b) Any medical report upon which the answer is based, if available;

(c) The date, time, and place for a medical examination by the employer or insurer's doctor. Any such medical examination shall be scheduled to take place within 75 days from the date of service of the claim petition. Any request for an extension in time for scheduling such an examination shall be subject to the approval of the assignment judge upon a showing of good cause.

The answer shall be verified and filed with the division within ten days after service of the petition. The party filing the answer shall serve a copy of the answer on the petitioner and his attorney.

Requests for an extension of time within which to answer shall be made to the assignment judge or, in his absence, the chief attorney within the ten day period provided by law for answering.

WC 16 Joinder of parties. Any party requesting joinder of additional parties must petition for such joinder, serve a copy of the petition on all interested parties, and file the original with proof of service with the division no later than 30 days prior to the pre-trial conference, unless the division, for cause, extends such time by order. When this petition is served

on the parties to be joined, it shall be accompanied by copies of all pleadings including any notice of pre-trial conference.

Any request for extension of time in which to petition for joinder of additional parties must be in writing, filed with the division at least 30 days prior to the pre-trial conference, and supported by an affidavit setting forth the reason for such request. Copies of this request shall be served upon the other parties by the party making the request.

In cases where no extension of time to petition for joinder has been granted by the division, no case set for pre-trial or hearing shall be stricken, continued, or otherwise delayed for the purposes of joinder, unless the attorney for the employee or dependent consents thereto, or unless the assignment judge orders otherwise.

All petitions for joinder shall contain, but not be limited to the following:

- (a) The party to be joined and its insurer, if any;
- (b) The date and nature of claimed personal injury or impairment;
- (c) The detailed circumstances, in affidavit form, showing that the party to be joined is a necessary party;
- (d) The supporting medical opinions relied upon;
- (e) If the party to be joined is the special compensation fund, the detailed circumstances, in affidavit form, showing the specific basis claimed for joinder, including the date of registration of prior impairment where applicable.

A party contesting joinder under these rules may do so by objection filed with the division within ten days of service, requesting a hearing thereon; otherwise, an ex parte order may be issued granting or denying this joinder.

WC 17 Temporary orders.

(1) Any insurer or self-insurer voluntarily agreeing to pay benefits pursuant to Minnesota Statutes, section 176.191, subdivision 1, shall comply with the following procedure:

(a) File a formal petition for temporary order containing the following:

(1) Name of the employer and its insurer (or self-insured) consenting to payment of compensation benefits and medical expenses;

(2) The dispute involved, including the name and address of other employer and its workers' compensation insurer,

if known, that may be liable for workers' compensation benefits and the date of the alleged injury while working for such employer;

(3) The beginning date of the employee's present disability, and the compensation rate that said insurer, self-insurer will voluntarily pay.

(b) The original petition for temporary order, with proof of service on all necessary parties, shall be filed with the division.

(c) The petition for temporary order shall be accompanied by a prepared formal order that should be substantially in the following form:

"The undersigned having examined the foregoing petition for temporary order and the compensation files and records herein, and it appearing that a temporary order for payment of compensation benefits should be issued pending a final determination, as provided by Minnesota Statutes, section 176.191, subdivision 1; NOW, THEREFORE, IT IS HEREBY ORDERED, that (name of insurer or self-insured) having consented to payment of compensation benefits pursuant to Minnesota Statutes, section 176.191 shall pay to (name), employee, compensation at the weekly rate of \$(amount), during the period of employee's disability, beginning (date), and shall also pay reasonable medical expenses related to employee's said disability.

IT IS FURTHER ORDERED, that following a final determination of liability and if it has been determined that some other employer(s) and/or insurer(s) are liable for all or part of the compensation paid pursuant to this temporary order, then the division or court of appeals shall order the party(ies) held liable to reimburse (name of paying party) for all or part of the compensation paid pursuant to this temporary order, for which such other party(ies) is (are) held liable, including interest at the rate of five percent per annum.

Dated at St. Paul, Minnesota
this ____ day of _____

WORKERS' COMPENSATION DIVISION
or COURT OF APPEALS

By _____"

The original and sufficient copies of said order to make service upon all necessary parties, and any attorneys representing them, shall be filed.

(2) An employee seeking payment of benefits by the special compensation fund pursuant to Minnesota Statutes, section 176.191, subdivision 2, shall comply with the following procedures:

(a) File a formal petition for temporary order containing the following:

(1) A statement that written demand for payment pursuant to Minnesota Statutes, section 176.191, subdivision 1 has been made against all employers and insurer party to the claim and that payments demanded have been refused;

(2) The names and addresses of all employers and insurers (or self-insurers) who are parties to the claim;

(3) A statement as to the dispute involved and the dates of all alleged injuries while working for each employer;

(4) The beginning date of the employee's present disability, the compensation rate applicable for each injury date, the proposed compensation rate to be paid by the special compensation fund, and an itemization of all medical expenses requested to be paid pursuant to the temporary order.

(b) The original of the petition for temporary order, with proof of service on all necessary parties, shall be filed with the division.

(c) The petition for temporary order shall be accompanied by a prepared formal order that should be substantially in the following form:

"The undersigned having examined the foregoing petition for temporary order and the compensation files and records herein, and it appearing that a temporary order for payment of compensation benefits should be issued pending a final determination, as provided by Minnesota Statutes, section 176.191, subdivision 2; NOW, THEREFORE, IT IS HEREBY ORDERED that the state treasurer, as custodian of the special compensation fund, shall, pursuant to Minnesota Statutes, section 176.191, subdivision 2 pay to (name), employee, compensation at the weekly rate of \$(amount), during the period of employee's disability, beginning (date), and shall also pay reasonable medical expenses related to the employee's said disability.

IT IS FURTHER ORDERED, that following a final determination of liability and if it has been determined that one or more employer(s) and/or insurer(s) are liable for all or part of the compensation paid pursuant to this temporary order, then the division or court of appeals shall order the party(ies) held liable to reimburse the state treasurer, as custodian of the special compensation fund, for all or part of the compensation paid pursuant to this temporary order, for which such other party(ies) is (are) held liable, including interest at the rate of 12 percent per annum.

Dated at St. Paul, Minnesota
this ____ day of _____

WORKERS' COMPENSATION DIVISION
or COURT OF APPEALS

By _____

The original and sufficient copies of said order to make service upon all necessary parties, and any attorneys representing them, shall be filed.

(3) For the purpose of this rule, the following shall be deemed necessary parties:

(a) The employee or dependents;

(b) All insurers or self-insured named in the petition for temporary order;

(c) Any employer who is uninsured or whose insurer for the date of the alleged injury in that employment is unknown;

(d) State treasurer, as custodian of the special compensation fund, if petition is made pursuant to Minnesota Statutes, section 176.191, subdivision 2.

(4) Within ten days after being served with a copy of the petition for temporary order and order, employers or their insurers (other than paying party) or the state treasurer, as custodian of the special compensation fund, may file a verified answer to the petition in accordance with the provisions of Minnesota Statutes, section 176.321.

(5) Temporary orders, as a general rule, shall not be approved if made contingent upon the waiver by the employee of his rights to claim an additional award pursuant to Minnesota Statutes, section 176.225, or to have fees for his attorney assessed against the employer and insurer in addition to compensation pursuant to Minnesota Statutes, section 176.191 or Minnesota Statutes, section 176.081, subdivision 8.

(6) The filing of a petition for temporary order shall not cause the matter to be placed on the calendar, unless accompanied by a petition for contribution or reimbursement.

WC 18 Petitions for contribution or reimbursement. Petitions for contribution or reimbursement shall set forth in detail the allegations showing the basis of the claim for contribution or reimbursement against the additional employer or insurer named therein, shall be supported by medical evidence, and shall be signed and verified. The original petition shall be filed with the division together with proof of service upon the employee or his attorney and all additional employers or insurers named therein.

In all cases where a claim petition or other form of action is pending before the division, said petitions shall be filed no

later than 30 days prior to the pre-trial conference, and copies of all pleadings, including any notice of pre-trial conference shall be served upon the additional employers or insurers by the party bringing said petition. In cases where no action is pending before the division, the filing of the petition for contribution or reimbursement shall initiate proceedings.

Within ten days after being served with a copy of the petition for reimbursement or contribution, employers or their insurers, other than the paying party, may file a verified answer to the petition in accordance with the provisions of Minnesota Statutes, section 176.321 and the matter shall be set for pre-trial conference or hearing in accordance with the practice of the division.

The employee shall be deemed a necessary party to all of the proceedings and should be represented by an attorney of his choice and a copy of all petitions or answers shall be duly served upon the employee and his attorney in accordance with Minnesota Statutes, section 176.321. Attorney fees for representation of the employee, and necessary costs and disbursements incurred by or on behalf of the employee may be awarded against the party held liable for payment of benefits pursuant to Minnesota Statutes, section 176.191 or Minnesota Statutes, section 176.081, subdivision 8.

WC 1-35
WC 19 Intervention. Any application or petition to intervene shall be timely, verified, and specifically allege the grounds upon which the right of intervention is claimed.

It shall be accompanied by the following information if applicable:

- (1) Itemization of disability payments showing the period during which such payments were or are being made, the weekly or monthly rate of such payments and the amount of reimbursement claimed;
- (2) A summary of the medical or treatment payments, broken down by medical or treatment creditor, showing the total bill submitted, the period of treatment covered by that bill, the amount of payment on that bill, and to whom the payment was made;
- (3) Copies of all medical or treatment bills on which some payment was made;
- (4) Copies of the worksheets or other information setting forth how the payments on medical or treatment bills were calculated;
- (5) A copy of the relevant policy or contract provisions upon which the claim for reimbursement is based.

Copies of the application or petition, plus accompanying information, must be served on all of the original parties to

the proceedings and any other parties subsequently joined therein. The original with proof of service shall be filed with the workers' compensation division.

The attorney for the intervenor shall attend the pre-trial, settlement conference, and the hearing unless a written stipulation, signed by all parties, is filed stating that all of the payments for which reimbursement is claimed are related to the injury or condition in dispute in this proceeding, and that, if the petitioner is successful in proving the compensability of the claim, it is agreed that such sums shall be reimbursed to the intervenor.

At the hearing on the claim petition, the intervenor shall present his evidence in support of his claim after the petitioner has rested, unless otherwise ordered by the division, in order that the issue of intervention may be promptly determined with no undue delay that may prejudice the rights of the original parties.

Failure to comply with any provision of this rule may result in a denial of the claim for reimbursement.

WC 20 Second injury law. -

(1) Application for registration of physically impaired employees shall be on forms prescribed by the workers' compensation division and submitted in duplicate. In addition to those impairments set forth in Minnesota Statutes, section 176.131, subdivision 8, the following additional impairments shall be registerable:

- A. Brain tumors
- B. Pott's disease
- C. Seizures
- D. Cancer of the bone
- E. Leukemia

(2) Medical evidence of the physical impairment shall be contained on the application or attached to the application. Such evidence shall show the date of the last examination, the nature of the impairment, the doctor's signature and the date of his signature. If not contained on the application, it shall be legible and suitable for microfilming.

(3) The application for registration with satisfactory medical evidence when accepted by the division shall be prima facie evidence of the existence of the named "physical impairment" shown on the application, but shall not be determinative thereof, and the burden of proof upon this issue, if contested at any time prior to the subsequent injury, shall

be upon the party asserting its existence.

(4) Should the division deem the application unacceptable prior to the subsequent injury, the applicant may, within 60 days following the receipt of notice of rejection, petition the division in writing for a hearing upon said application. A copy of said petition shall be served by the applicant upon the state treasurer, custodian of the special compensation fund, and upon the attorney general. Upon receipt of said petition, the division shall set the matter for hearing, which shall be conducted as provided by Minnesota Statutes, section 176.411, with right of appeal.

(5) Notice of intention to claim reimbursement under Minnesota Statutes, section 176.131, subdivision 6, shall be on forms prescribed by the workers' compensation division. In a claim under Minnesota Statutes, section 176.131, subdivision 1, such forms shall be filed within one year after the payment of sufficient weekly benefits and/or medical expenses to make claim against the special compensation fund. In a claim under Minnesota Statutes, section 176.131, subdivision 2, such forms shall be filed within one year from the first payment of weekly benefits or medical expense.

Reimbursement shall be made by an order of the division or court of appeals from the special compensation fund on a yearly basis upon application for reimbursement on forms prescribed by the division. The employer shall file the original and one copy with the division. Such application shall be verified, set out in detail expenditures made and expenditures for which reimbursement is claimed, and shall be supported by medical reports, showing the nature and extent of disability and relationship to the injury and physical impairment for which reimbursement is claimed. The employer shall file the original and one copy of notice of intention to claim reimbursement and claim for reimbursement with the workers' compensation division.

WC 21 Pre-trials. All cases shall be pre-tried whenever possible, and all parties shall attend, unless the division orders otherwise. The attorneys who will actually appear at the hearing should attend the pre-trial conference, and bring their appointment calendars with them.

Prior to pre-trial, the parties shall discuss the possibility of settlement if they deem reasonable basis for settlement exists. The attorneys appearing at the pre-trial shall be prepared to participate in a settlement conference at the time of the scheduled pre-trial.

At the pre-trial conference:

- (1) All parties shall be prepared to state the issues;
- (2) All parties shall state the names, and addresses if known, of all witnesses they intend to call;

(3) All parties shall give notice of any amendments to pleadings that may still be necessary;

(4) All parties shall file copies of all medical reports not already on file. Up-to-date medical reports are most important when the employee's present medical status is in dispute; reports of medical examinations made after pre-trial shall be filed as available prior to hearing;

(5) Each party shall state what exhibits, including but not limited to photographs, motion picture films and documentary evidence intended to be used at the hearing, and copies of such exhibits shall be made available to opposing counsel no later than ten days prior to the date of the hearing; if any party requests showing of motion picture films before the hearing, they shall pay the expense for such showing and may tax this expense in the same manner as other costs and disbursements;

(6) If the employee plans to introduce into evidence his hospital records, the attorney for the employee shall bring to the pre-trial conference written authorizations for opposing counsel to examine those records;

(7) If the employee is claiming medical or other treatment expenses, his attorney shall state those expenses at the time of pre-trial, and shall furnish opposing counsel with copies of itemized bills for such expenses at least ten days prior to the hearing;

(8) If the employee is claiming temporary total disability, his attorney shall state at pre-trial the dates of time lost from work;

(9) If the employee is claiming temporary partial disability, his attorney shall state the dates of such claim, the approximate amount of such claim, and the names and addresses of the employers for whom the employee worked during the period of such claim; authorizations to permit opposing counsel to confirm wages earned in those employments shall be furnished at pre-trial; an itemized breakdown of the claim for temporary partial disability shall be submitted to the compensation judge and opposing counsel at the time of the hearing;

(10) The attorney for the petitioner shall state whether payment has been made by any party other than the workers' compensation carrier for disability benefits, on medical or treatment expenses, or on funeral expenses. If payment has been made, the name and address of the party making payment shall be furnished to the compensation judge at pre-trial, together with any identifying policy or claim numbers;

(11) If a dispute exists on the wage rate at the time of the injury, the attorney for the employer and insurer shall furnish to opposing counsel at pre-trial copies of the relevant wage records of the employee;

(12) Petitioner's attorney shall furnish to the compensation judge at pre-trial a copy of his retainer agreement with the employee or dependents and shall state the amount of retainer fee paid. He shall be prepared at the time of hearing or settlement to show the reasonableness of any attorney fees or costs, in accordance with Minnesota Statutes, section 176.081.

The assignment judge may refer appropriate cases to a compensation judge for a settlement conference;

The above rules shall control the subsequent course of action, unless modified in the interest of justice.

WC 22 Calendar procedures.

WC 21-35
(1) A date and time certain will be assigned to each case. A notice of hearing will be sent as soon as the calendar date is known, usually at least ten days in advance of the hearing. The notice will state the place of hearing and the amount of time allowed for the hearing. Usually cases will be set for one city only, the city most convenient for the petitioner, and adequate time will be allowed so that the case may be completely heard in one setting.

(2) Parties will secure permission in advance from the division to take depositions. The testimony of witnesses that cannot be taken at the hearing shall be taken by deposition prior to the hearing unless, for good cause shown, the party taking such deposition has obtained the permission of the division to take such deposition subsequent to the hearing. Depositions shall be taken in accordance with the rules of civil procedure for Minnesota district courts. The original copy of any deposition taken in any case, including discovery depositions, shall be filed with the workers' compensation division and shall be evidence in the case and a part of the record of the case.

(3) As soon as the attorney knows the date scheduled for hearing, he shall immediately notify his medical witnesses in writing and arrange for their presence. Submission of medical reports, by stipulation of the parties, in lieu of medical testimony is encouraged.

(4) Subpoenas may be obtained without charge from the workers' compensation division. The name and address and telephone number of the party or attorney requesting service of the subpoena shall be included on the subpoena before service is made. When service is made, service and witness fees shall be tendered in accordance with Minnesota Statutes, section 357.22.

(5) Where just cause for continuance exists, request for continuance must be made immediately. Any request for continuance prior to date of hearing shall be made directly to the assignment judge, chief attorney, or other designated person. Continuances shall be granted only for the most urgent

cause. The following are not considered cause for continuance:

(a) Where an insurer retains counsel on its own payroll, unavailability of that counsel because of engagement in another court or otherwise;

(b) Where a law firm consists of more than one member, unavailability of the counsel assigned to the case because of engagement in another court or otherwise;

(c) Unavailability of an individual law practitioner because of engagement in another court, if he has failed to notify the judge in charge of the trial court calendar of that court that he has been assigned to a date and time certain in a workers' compensation case;

(d) Unavailability of a medical or other witness if his deposition could have been taken between the time the notice of hearing was sent and the time of the hearing;

(e) Agreement of parties.

(6) Failure of a petitioner to try a case will be cause for dismissing or striking from the docket, at the discretion of the compensation judge. When a case is stricken from the calendar, it can be reinstated only by petition to the division showing just cause for reinstatement. Failure of the employer and insurer to appear at trial is cause for hearing the matter as a default, at the discretion of the compensation judge.

(7) When a case on the calendar is settled before trial, the attorneys shall immediately notify the assignment judge or, in his absence, the docket clerk.

WC 23 Findings of compensation judges. In determining cases, compensation judges shall make findings of fact on all material issues, whether the compensation is allowed or disallowed, and obviate, as far as possible, the necessity of the court of appeals making original findings. In each case the compensation judge shall file a memorandum stating the rationale in support of the findings and determinations on each issue in dispute.

When a compensation judge has filed his findings and award or disallowance, his jurisdiction over the case shall end after the time in which to appeal to the workers' compensation court of appeals has expired, except for taxation of disbursements, unless the matter is re-referred to him by the court of appeals for supplemental findings, taking of additional testimony, rehearing, the correction of a clerical error or other action.

WC 24 Stipulations for settlement.

(1) Compensation judges shall approve or disapprove stipulations for settlement of cases assigned to them except

those involving death claims, the issue of permanent total disability, or full, final, and complete settlements, which settlements together with documents or exhibits shall be referred to the commissioner of the Department of Labor and Industry, or his designee, by the compensation judge, with a detailed memorandum of the facts and his recommendations.

(2) Stipulations for settlement should be filed within 30 days of the date settlement was negotiated, and shall contain the following information:

(a) A brief statement of all the admitted material facts;

(b) A detailed statement of the matters in dispute, setting forth the contentions of the parties, supported by all medical reports or other documents in the possession of each party pertaining to each issue;

(c) The weekly wage and compensation rate of the employee;

(d) An itemization of the sums, if any, previously paid by the employer and insurer;

(e) A statement that all medical or treatment expenses have been paid by the employer and insurer, or an itemization of such expenses which have not been paid by the employer and insurer, indicating what payments, if any, have been made by the employee. The stipulation shall specifically state whether any third party has paid any such expenses and, if such payments have been made, shall include the name and address of such third party together with any identifying claim or policy number;

(f) The number of weeks and rate of compensation and, in cases of permanent partial disability, the percentage loss or loss of use upon which the compromise agreement is based;

(g) Where applicable, the amount payable by the employer and insurer to the workers' compensation division for the benefit of the special compensation fund;

(h) Where applicable, a statement that the employee has been fully advised of the provisions of Minnesota Statutes, section 176.132 and Minnesota Statutes, section 176.645, and the effect of the settlement upon any future claims for supplementary benefits or adjustment of benefits;

(i) Where applicable, a statement that the employee is claiming or waiving his right to make application for an award of attorney fees against the employer or insurer pursuant to Minnesota Statutes, section 176.081, subdivision 7 or 8, or Minnesota Statutes, section 176.191;

(3) Stipulations for settlement of cases in which the employee or dependents have engaged the services of an attorney shall contain a statement of the amount of attorney fees and an itemization of the costs incurred, specifying who will be

responsible for payment of each cost. It shall be accompanied by a written petition for attorney fees and costs providing sufficient information to show the reasonableness of the requested fees and costs in accordance with Minnesota Statutes, section 176.081. If no fees are requested, the stipulation shall so state.

(4) Stipulations for settlement shall be accompanied by copies of all medical reports in the possession of the parties which have not previously been filed with the division.

(5) The person or persons having jurisdiction over a case on which a settlement has been submitted may, at their discretion, require the parties involved in the settlement to draw the order approving stipulation and submit it to them in the number of copies they request.

(6) The attorney representing the employee or dependents shall furnish a copy of the stipulation for settlement to his client at the time the client signs the stipulation.

(7) Stipulations for settlement shall be signed by all parties as required by statute.

(8) The employer and insurer shall make payments pursuant to an award on stipulation within 30 days from the date the award on stipulation is served.

WC 25 Attorney fees. Whenever an employer or insurer receives notice that an attorney is representing an employee or dependent, 25 percent of the compensation, not including medical expense, shall be withheld pending an order determining the reasonable value of any claim for legal services or disbursements pursuant to Minnesota Statutes, section 176.081. Written notice that such compensation is being withheld shall immediately be mailed to the employee or dependents, the attorney and the division at its St. Paul office.

In applicable cases, the filing of a claim petition or an objection to discontinuance of compensation shall constitute an application for the award of attorney fees against the employer and insurer pursuant to Minnesota Statutes, section 176.081, subdivision 7.

Application for determination and approval of any claim for legal services or disbursements may be filed with the division by the employer or insurer, the employee or dependents, or the attorney. Application for attorney fees shall be by petition and when requested by the division, shall be on a form prescribed by the division. Any such application shall disclose the amount of compensation withheld, the total fees or disbursements previously paid to said attorney or his associates and, if filed by the attorney or the employee or dependents, the amount of any retainer fee paid. Applications filed by attorneys shall contain sufficient information to show the

reasonableness of the requested fees in accordance with Minnesota Statutes, section 176.081, subdivision 5, clause (d) and shall be served by the attorney on all parties.

Any request for the review of the commissioner of the Department of Labor and Industry of an order or award pertaining to attorney fees shall be on forms prescribed by the division, and shall be filed with the division within 30 days of the date of service of the award or order upon which the appeal is taken.

WC 26 Taxation of disbursements. Service of the requests for taxation of disbursements shall be made upon the other parties, or their attorneys, by the taxing party.

The opposing party has five days from the date of service upon him in which to serve and file a formal objection to said taxation or allowance, with admission or proof of service upon the other parties.

If requested, a time for hearing before the compensation judge or court of appeals may be fixed by the division or court of appeals and notice thereof shall be given to the parties by the division.

WC 27 Removal from files of documents or exhibits. All applications for permission to remove any exhibit or document from the compensation files must be made to authorized personnel.

Upon the expiration of the time in which to appeal, all exhibits or other documents may be returned to their source of origin without the consent of the parties or notice thereto. Said return shall be accompanied by a letter of transmittal, a copy of which shall remain in the file.

WORKERS' COMPENSATION COURT OF APPEALS

WC 28 Additional evidence. Applications to take additional evidence made on appeal to the workers' compensation court of appeals shall be accompanied by a sworn statement giving the names of the witnesses and the matters to which they will testify or, if such evidence is of a documentary nature, the original document or a verified copy thereof shall be attached to such application. The applicant shall, at least ten days prior to the hearing, furnish to the court of appeals sufficient copies for service on the adverse parties. Hearings on such applications may be set simultaneously with the hearing on appeal and as a part thereof. If the application for additional evidence is granted, and consists of testimony of witnesses, such testimony shall be taken before a compensation judge, or as ordered by the court of appeals. The fee for such transcript shall be paid by the party making the application, unless otherwise ordered by the court of appeals.

Application to take additional evidence, made to compensation judges while the case is still within their jurisdiction, shall be made in the same manner as to the court of appeals on appeal. If the application is granted, the compensation judge shall designate the time and place for taking the evidence, and due notice thereof shall be given to the parties or their attorneys by the division.

WC 29 Appeals from orders or decisions of the assistant commissioner or chief attorney. With the exception of matters relating to attorney fees, where a matter has been acted upon by the assistant commissioner, the chief attorney, or any other person designated by the commissioner of the Department of Labor and Industry to act thereon, any party in interest may appeal such matters to the workers' compensation court of appeals within 30 days after he has been served with the written order or decision affecting his interest on the grounds set forth in Minnesota Statutes, section 176.421, and in accordance therewith.

WC 30 Quorum for acts of the court of appeals. A majority of the court of appeals shall constitute a quorum for the exercise of powers conferred and duties imposed on the court of appeals as provided by Minnesota Statutes, section 175.09.

Whenever any judge of the court of appeals is not present at the oral argument of the case, such case shall be deemed submitted to such judge of the court of appeals on the record and briefs therein, and when during the consideration of a case there is a change in the personnel of the court of appeals, the case shall be deemed submitted to the new judge or judges on the record and briefs.

WC 31 Hearings on appeal. Arguments before the court of appeals in hearings on appeal shall be limited to the transcript of testimony taken before the compensation judge or other presiding official, the exhibits introduced into evidence, and the law.

Partial transcripts of the testimony adduced at a hearing before such presiding officials may be used on appeal to the court of appeals only when the parties to the hearing stipulate in writing as to what portions are necessary for determining the rights of the parties. Such stipulation shall be made a part of the judgment roll in said case. In all such cases, the reporter shall note on the certification page that such transcript contains only a portion of the testimony adduced at the hearing before the compensation judge or other presiding official, and on the index page of said transcript he shall indicate the names of the witnesses whose testimony is transcribed and of those whose testimony has been omitted.

The appellant, within 30 days from the date of notice of filing of the transcript by the reporter with the docket clerk, shall file a written brief, in five copies, with the court of

appeals, together with an affidavit stating that service has been made by the appellant of the copy of his brief upon each adverse party. If a brief has been submitted to the compensation judge or other presiding official, the party submitting said brief may request that it be used on appeal to the court of appeals. The appellant's brief shall contain an accurate, concise statement of the facts and the issues, the proposed findings, his argument, and a statement or reference to any applicable law.

Any answering brief shall be filed with the court of appeals within 20 days of the date of service of the brief upon the adverse party or parties, together with affidavit of service showing service upon the opposing parties.

If a party desires to waive oral argument before the court of appeals, said party shall notify the court of appeals of this fact. All arguments on appeal before the workers' compensation court of appeals shall be limited to 15 minutes by the appellant and 15 minutes by the respondent, unless otherwise authorized by the court.

WC 32 Reargument on appeal. Any petition for reargument on appeal before the workers' compensation court of appeals shall be filed with the court of appeals within 15 days from the date of service of the decision of the court of appeals on appeal, and shall be accompanied by a proof of service upon the adverse parties. Such petitions shall state the grounds for the requested reargument, and no oral argument on said petitions will be allowed. Any objection to said petition shall be filed with the court of appeals within ten days from date of service of the petition upon the adverse party or parties, together with affidavit of service showing service upon the opposing parties.

WC 33 Petitions to vacate awards or orders, and for rehearings. Petitions to vacate awards or orders, and for rehearings, shall be verified and accompanied by supporting affidavits and/or medical reports. Sufficient copies shall be filed with the court of appeals for service upon the other parties.

Such petitions shall set forth in detail the grounds upon which they are based, and shall show:

- (a) That certain material evidence not available at the time of the hearing or settlement is now available; or
- (b) Proof of a change in condition material to the issue involved; or
- (c) Any other showing that a rehearing is in the best interest of justice.

A transcript of the testimony taken before the compensation judge or other presiding official, or so much thereof as may be

necessary to present the question involved in such petition, shall accompany the petition.

Counter-affidavits to be presented shall be served upon opposing counsel and filed with the court of appeals at least two days before the date of hearing on the petition. Rebuttal affidavits may be served upon opposing counsel and filed at any time before the hearing.

The court of appeals may, in its discretion, deny such petitions without hearing thereon, or may require the petitioner to submit further proof before acting upon them.

Petitions to vacate awards or orders, and for rehearings, must be filed with the court of appeals within a reasonable time after the petitioner has obtained knowledge of the facts constituting the grounds upon which they are based.

WC 34
 WC 34 Dilatory prosecutions of appeals. In cases where litigants fail to prosecute with reasonable diligence appeals from the decisions of the compensation judges or other presiding officials, or any other matter pending before it, the court of appeals may on its own motion, or on motion of either party, on proper showing, order the matter to be stricken from the calendar of cases pending before it. Said matter may thereafter be reinstated on the active calendar of the court of appeals for hearing upon proper showing that the matter is ready for hearing.

WC 35
 WC 35 Writ of certiorari. The party filing a writ of certiorari pursuant to Minnesota Statutes, section 176.471 and rules 103.01 and 111.04 of civil appellate procedure, shall immediately provide the division with an additional copy of any transcripts of hearing pertaining to the matter on appeal.

These rules are effective May 15, 1980.

*see new (AR04515T) →
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