

1 Pollution Control Agency

2 Hazardous Waste Division

3

4 Adopted Permanent Rules Relating to Underground Storage Tank

5 Training and Certification

6

7 Rules as Adopted

8 7105.0010 DEFINITIONS.

9 Subpart 1. Scope. For the purposes of this chapter, the
10 following terms and abbreviations have the meanings given them.
11 Terms that are not specifically defined have the meanings given
12 them in Minnesota Statutes, sections 115.01, 115C.02, and 116.46.

13 Subp. 2. Agency. "Agency" means the Minnesota Pollution
14 Control Agency.

15 Subp. 3. Approved training provider. "Approved training
16 provider" means a person approved by the commissioner to provide
17 the installer training course or the final examination.

18 Subp. 4. Certificate. "Certificate" means a document
19 issued by the agency to a person who has met the certification
20 requirements of this chapter.

21 Subp. 5. Certified contractor. "Certified contractor"
22 means a contractor that has been certified by the agency under
23 the requirements of this chapter to engage in the business of
24 installing, repairing, or closing underground storage tank
25 systems.

26 Subp. 6. Certified supervisor or supervisor. "Certified
27 supervisor" or "supervisor" means an individual certified by the
28 agency under the requirements of this chapter to perform one or
29 more storage tank projects. This individual provides
30 supervision and direction to workers engaged in a storage tank
31 project.

32 Subp. 7. Closure or removal. "Closure" or "removal" means
33 permanently taking an underground storage tank out of service by
34 either closing it in place, removing it from the ground, or
35 converting it to store a nonregulated substance, as required by

1 Code of Federal Regulations, title 40, part 280, or its
2 counterpart in Minnesota rules when adopted.

3 Subp. 8. Commissioner. "Commissioner" means the
4 commissioner of the agency.

5 Subp. 9. Contractor. "Contractor" means a corporation,
6 partnership, or duly constituted individual proprietorship that
7 holds itself as being qualified to engage in storage tank
8 projects.

9 Subp. 10. Critical junctures.

10 A. "Critical junctures" in the case of an
11 installation means the steps in the installation of an
12 underground storage tank system that are important to the
13 prevention of releases, including but not limited to:

14 (1) preparation of the excavation immediately
15 before receiving backfill and the tank;

16 (2) setting of the tank and the piping, including
17 placement of anchoring devices, backfill to the level of the
18 tank, and strapping, if any;

19 (3) any time during the installation in which
20 components of the piping are connected, field coated, or
21 cathodically protected;

22 (4) all pressure testing of the tank system,
23 including associated piping, performed during the installation;
24 and

25 (5) completion of backfill and filling of the
26 excavation.

27 B. "Critical junctures" in the case of a tank removal
28 means the steps in the removal project that are important to the
29 prevention of releases, including but not limited to:

30 (1) the cleaning and purging of the tank system;

31 (2) the actual excavation and removal of the tank
32 system;

33 (3) all testing associated with the cleaning and
34 purging processes; and

35 (4) any time during the removal in which
36 components of the tank are disconnected or capped.

1 C. "Critical junctures" in the case of a repair means
2 the steps in the repair project that are comparable to the steps
3 listed for item A in terms of their importance in the prevention
4 of releases, including but not limited to:

5 (1) the actual excavation of existing tanks or
6 piping;

7 (2) the actual performance of the repairs to the
8 tank system;

9 (3) any time during the repair project in which
10 components of the piping are connected; and

11 (4) any time during the repair project in which
12 the tank or its associated piping is tested.

13 Subp. 11. Day. "Day," when used to describe a day of
14 training, equals eight hours including breaks and lunch.

15 Subp. 12. Diploma. "Diploma" means a document verifying
16 the successful completion of the required training course.

17 Subp. 13. Disciplines of certification or disciplines.
18 "Disciplines of certification" or "disciplines" means the
19 categories of tank projects within which a person may be
20 certified under the requirements of this chapter. Each
21 discipline includes the storage tank projects listed in items A
22 to C.

23 A. The discipline of "installation" includes
24 installations as defined in subpart 15, as well as the
25 correction, restoration, modification, or upgrading of tank
26 system piping or appurtenances.

27 B. The discipline of "repair" includes the correction
28 restoration, modification, or upgrading of the tank vessel
29 itself, for example, repairing a hole in a tank or relining a
30 tank. The discipline of repair does not include other storage
31 tank projects defined as "repair" in subpart 21 which do not
32 involve the tank vessel itself.

33 C. The discipline of "closure" includes the storage
34 tank projects defined in subpart 7.

35 Subp. 14. EPA. "EPA" means the United States
36 Environmental Protection Agency.

1 Subp. 15. Installation. "Installation" means the work
2 involved in placing an underground storage tank in position and
3 preparing it to be placed in service or the movement of an
4 underground storage tank to a new position and preparing it to
5 be placed in service.

6 Subp. 16. Installer. "Installer" means a person who
7 installs, repairs, or closes an underground storage tank.

8 Subp. 17. Operator. "Operator" means a person in control
9 of, or having responsibility for, the daily operation of a tank,
10 and who was in control of, or had responsibility for, the daily
11 operation of the tank immediately before discontinuation of its
12 use.

13 Subp. 18. Owner. "Owner" means a person who holds title
14 to, controls, or possesses an interest in a tank and who held
15 title to, controlled, or possessed an interest in a tank
16 immediately before discontinuation of its use. Owner does not
17 include a person who holds an interest in a tank solely for
18 financial security, unless through foreclosure or other related
19 actions the holder of a security interest has taken possession
20 of the tank.

21 Subp. 19. Person. "Person" means an individual,
22 partnership, association, public or private corporation, or
23 other legal entity, including the United States government, an
24 interstate commission or other body, the state, or any agency,
25 board, bureau, office, department, or political subdivision of
26 the state, but does not include the Pollution Control Agency.

27 Subp. 20. Regulated substance. "Regulated substance"
28 means:

29 A. a hazardous material listed in Code of Federal
30 Regulations, title 49, section 172.101; or

31 B. petroleum, including:

32 (1) gasoline and fuel oil as defined in Minnesota
33 Statutes, section 296.01, subdivisions 3 and 4;

34 (2) crude oil or a fraction of crude oil that is
35 liquid at a temperature of 60 degrees Fahrenheit and a pressure
36 of 14.7 pounds per square inch absolute;

1 (3) constituents of gasoline and fuel oil under
2 subitem (1) and constituents of crude oil under subitem (2); and
3 (4) petroleum-based substances that are comprised
4 of a complex blend of hydrocarbons derived from crude oil
5 through processes of separation, conversion, upgrading, and
6 finishing, such as motor fuels, jet fuels, distillate fuel oils,
7 residual fuel oils, lubricants, and used oils.

8 Subp. 21. Repair. "Repair" means the correction,
9 restoration, modification, or upgrading of a tank system,
10 including but not limited to the addition of cathodic protection
11 systems; the replacement of piping, valves, fill pipes, or
12 vents; the lining of a tank through the application of materials
13 such as epoxy resins; and other similar activities that may
14 affect the integrity of the tank system.

15 Subp. 22. State. "State" means the state of Minnesota.

16 Subp. 23. Storage tank project. "Storage tank project"
17 means the installation, repair, or closure of an underground
18 storage tank.

19 Subp. 24. Tank or tank system. "Tank" or "tank system"
20 has the same meaning as underground storage tank.

21 Subp. 25. Underground storage tank. "Underground storage
22 tank" means any one or a combination of containers including
23 tanks, vessels, enclosures, or structures and underground
24 appurtenances connected to them, that is used to contain or
25 dispense an accumulation of regulated substances and the volume
26 of which, including the volume of the underground pipes
27 connected to them, is ten percent or more beneath the surface of
28 the ground.

29 7105.0020 PURPOSE.

30 This chapter implements the requirement of Minnesota
31 Statutes, section 116.491, that the agency require a person who
32 installs, repairs, or takes an underground storage tank
33 permanently out of service to first obtain a certificate of
34 competency from the agency.

35 7105.0030 GENERAL PROVISIONS.

1 Subpart 1. Certification requirements and deadlines. No
2 person may install, repair, or close a tank system after [insert
3 date six months after the effective date of this chapter] unless:

4 A. a supervisor certified in the appropriate
5 discipline is physically present on site at all critical
6 junctures during the storage tank project; and

7 B. the certified supervisor in item A is also a
8 certified contractor or is in the employ of a certified
9 contractor.

10 Subp. 2. Certificate availability. A copy of the
11 contractor's current certificate must be at the work location
12 and posted in a conspicuous place. Certified supervisors must
13 have copies of current certificates issued by the agency at the
14 location where they are supervising work.

15 Subp. 3. Tank owner or operator requirements. Owners or
16 operators of an underground storage tank must not allow a
17 storage tank project to be performed on their tank system,
18 except in compliance with subpart 1.

19 7105.0040 EXCLUSIONS.

20 The following underground storage tanks are excluded from
21 the requirements of this chapter:

22 A. a wastewater treatment tank system that is part of
23 a wastewater treatment facility regulated under United States
24 Code, title 33, section 1317 or 1342;

25 B. equipment or machinery that contains regulated
26 substances for operational purposes such as hydraulic lift tank
27 systems and electrical equipment tank systems;

28 C. tank systems with a capacity of 110 gallons or
29 less;

30 D. tank systems that contain a de minimus
31 concentration of regulated substances;

32 E. an emergency spill or overfill containment tank
33 system that is expeditiously emptied after use;

34 F. farm or residential tank systems of 1,100 gallons
35 or less capacity used for storing motor fuel for noncommercial

1 purposes;

2 G. tank systems of 1,100 gallons or less capacity
3 used for storing heating oil for consumptive use on the premises
4 where stored;

5 H. septic tanks;

6 I. pipeline facilities, including gathering lines,
7 regulated under United States Code, title 49, chapter 24 or 29;

8 J. surface impoundments, pits, ponds, or lagoons;

9 K. storm water or waste water collection systems;

10 L. flow-through process tank systems;

11 M. tank systems located in an underground area such
12 as a basement, cellar, mine working, drift, shaft, or tunnel if
13 the tank is located on or above the surface of the floor;

14 N. wastewater treatment tank systems;

15 O. tank systems containing radioactive material that
16 is regulated under the Atomic Energy Act of 1954, United States
17 Code, title 42, sections 2011 to 2296;

18 P. a tank system that is part of an emergency
19 generator system at nuclear power generator facilities regulated
20 by the Nuclear Regulatory Commission under Code of Federal
21 Regulations, title 10, section 50, Appendix A;

22 Q. airport hydrant fuel distribution systems; and

23 R. underground storage tank systems with field
24 constructed tanks.

25 7105.0050 CONTRACTOR CERTIFICATION.

26 Subpart 1. Contractor certification requirements. To
27 obtain certification from the commissioner, an applicant for a
28 contractor's certificate shall:

29 A. be, or have in its employ, a certified supervisor
30 who will exercise responsible supervisory control over a given
31 storage tank project and who will be physically present on site
32 at the critical junctures in the tank project;

33 B. submit documentation showing that it has
34 comprehensive general liability insurance, surety bonds, or
35 liquid company assets that, in combination, represent a value of

1 not less than five times the value of the largest storage tank
2 project contract performed by the contractor during the previous
3 two years; and

4 C. complete the application procedures in subpart 3
5 or 4.

6 Subp. 2. Disciplines of contractor certification. A
7 contractor may be certified in one or more of the following
8 disciplines providing it employs supervisors that are certified
9 in the disciplines for which the contractor seeks certification,
10 as defined in part 7105.0010, subpart 13:

11 A. installation;

12 B. repair; and

13 C. closure.

14 Subp. 3. Application procedures for contractor
15 certification. To apply for certification as a certified
16 contractor, the following information must be submitted to the
17 agency on a form provided by the agency:

18 A. the full name, address, and telephone number of
19 the firm;

20 B. any names held by the firm within the previous
21 five years;

22 C. the discipline for which the applicant wishes
23 certification;

24 D. the nature of the storage tank projects to be
25 conducted;

26 E. a summary of the project history of the firm over
27 the two-year period immediately preceding the application;

28 F. documentation that the contractor meets the
29 financial responsibility requirements in subpart 1, item B;

30 G. identification of industry or government licenses
31 held by the firm related to underground storage tanks;

32 H. the names of employees certified by the agency to
33 perform and supervise storage tank projects, including
34 identification of the specific disciplines for which they are
35 certified, certification numbers, and expiration dates;

36 I. a statement signed and notarized by at least one

1 active officer, partner, owner, or designated managerial
2 representative of the contractor that certifies that:

3 (1) the person signing has obtained a copy of the
4 applicable laws and rules pertaining to the regulation of
5 underground storage tanks in the state, including the standards
6 of performance in part 7105.0070;

7 (2) the person signing has read and understands
8 the regulations in subitem (1) and will direct the employees and
9 principals of the company to perform the storage tank projects
10 rendered by the company in a manner that is consistent with
11 their requirements; and

12 (3) on all storage tank projects a certified
13 supervisor will exercise responsible supervisory control over
14 the work and will be physically present on site at all critical
15 junctures during the storage tank project; and

16 J. remittance of the contractor certification fee.

17 The application must be specific to one contractor, but may
18 include a request to be certified in more than one discipline.

19 Subp. 4. **Application procedures for contractor**
20 **certification renewals and upgrades.** Certification renewals and
21 upgrades must be applied for as outlined in subpart 3. In
22 addition, a copy of the applicant's most recent contractor
23 certificate must also accompany the application. Completed
24 renewal applications should be submitted no later than 30 days
25 before the expiration date.

26 Subp. 5. **Length of contractor certification.** Contractor
27 certificates expire two years after the date of issuance.

28 7105.0060 SUPERVISOR CERTIFICATION.

29 Subpart 1. **Supervisor certification requirements.** To
30 obtain certification from the commissioner, an applicant for a
31 supervisor's certificate shall:

32 A. in the two-year period immediately before making
33 the an initial or renewal application, have successfully
34 completed an approved five-day training course as outlined in
35 parts 7105.0080 and 7105.0090, or a course approved by the

1 commissioner under subpart 7;

2 B. have at least two years of tank service experience
3 and have actively participated in the field on a minimum of five
4 underground storage tank projects during the two-year period
5 immediately before making the an initial or renewal application,
6 with at least four of these projects being in the discipline for
7 which the individual wishes to be certified. Any experience
8 obtained after [insert date six months after the effective date
9 of this chapter], for the purposes of obtaining initial
10 certification, must be in the employ of a certified contractor
11 and under the immediate and personal supervision of a certified
12 supervisor; and

13 C. complete the application procedures in subpart 4
14 or 5.

15 Subp. 2. **Successful completion of a training course.**
16 Successful completion of a training course includes attending
17 all training hours and passing the final examination.

18 Subp. 3. **Disciplines of supervisor certification.** An
19 individual, with the appropriate training and experience, may be
20 certified in one or more of the following disciplines, as
21 defined in part 7105.0010, subpart 13:

22 A. installation;

23 B. repair; and

24 C. closure.

25 Subp. 4. **Application procedures for supervisor**
26 **certification.** To apply for certification as a certified
27 supervisor, the following information must be submitted to the
28 agency on a form provided by the agency:

29 A. the applicant's full name, social security number,
30 job title, name of business, business address, and business
31 phone number;

32 B. a copy of the most recent training course diploma;

33 C. the date of the final examination and
34 documentation that a passing score was received, if not included
35 on the course diploma;

36 D. the discipline for which the applicant wishes

1 certification;

2 E. documentation that the experience requirements in
3 subpart 1 have been met; and

4 F. a signed, notarized statement that the applicant
5 has obtained a copy, read, understands, and will comply with all
6 applicable laws and rules pertaining to the regulation of
7 underground storage tanks in the state, including the standards
8 of performance in part 7105.0070.

9 The application must be specific to one individual, but may
10 include a request to be certified in more than one discipline.

11 Subp. 5. **Additional application procedures for supervisor**
12 **certification renewals and upgrades.** Certification renewals and
13 upgrades must be applied for as outlined in subpart 4. In
14 addition, a copy of the applicant's most recent certificate must
15 accompany the application. Completed renewal applications
16 should be submitted no later than 30 days before the expiration
17 date.

18 Subp. 6. **Length of supervisor certification.** Supervisor
19 certificates expire two years after the applicant successfully
20 completes the final training course examination.

21 Subp. 7. **Reciprocity.** The commissioner shall approve a
22 tank installer certification course sponsored by a state or
23 organization other than an approved training provider if the
24 commissioner determines that the course is comparable to the
25 program outlined in parts 7105.0080 and 7105.0090. Persons
26 seeking reciprocity under this subpart shall be required by the
27 commissioner to pass an examination to verify their familiarity
28 with Minnesota's laws pertaining to underground storage tank
29 systems if the commissioner finds that their courses did not
30 adequately address Minnesota's statutes and rules. This
31 examination may be taken any time after the completion of the
32 approved training course and before applying for certification.
33 However, the certificate expires two years after the final day
34 of the approved training course.

35 7105.0070 STANDARDS OF PERFORMANCE.

1 Subpart 1. Standards of performance for contractors and
2 supervisors. Certified contractors and supervisors shall comply
3 with the standards of performance in items A and B.

4 A. Certified contractors and supervisors shall
5 perform or undertake only those storage tank projects that
6 conform to accepted industry standards and federal, state, and
7 local laws and safeguard the public life, health, safety and
8 welfare, and the environment.

9 B. Certified contractors and supervisors must not
10 offer, give, solicit, or receive, either directly or indirectly,
11 any commission, gift, or other valuable consideration to secure
12 work, and shall not make any political contribution with the
13 intent to influence the award of a contract by public authority.

14 Subp. 2. Additional standards of performance for
15 supervisors. In addition to the standards in subpart 1,
16 certified supervisors:

17 A. shall perform all storage tank projects so that
18 there is no release of the contents of the tank;

19 B. must not affix the supervisor's signature or
20 certification number to a storage tank project unless it was
21 accomplished under the supervisor's direct control and personal
22 supervision and the supervisor was present at all critical
23 junctures during the storage tank project; and

24 C. must not certify to an owner that a storage tank
25 project is complete unless it complies with Minnesota Statutes,
26 sections 116.46 to 116.50, Code of Federal Regulations, title
27 40, part 280, subparts A to G, and state technical tank rules
28 adopted under Minnesota Statutes, section 116.49, subdivision 1,
29 when adopted. Where storage tank projects are being performed
30 for an owner or operator on a contract basis, both the certified
31 supervisor and the certified contractor for whom the supervisor
32 works are responsible for the accuracy of the representations
33 made.

34 7105.0080 TRAINING COURSE REQUIREMENTS.

35 Subpart 1. Storage tank installer training course

1 requirements. The storage tank installer training course must
 2 be at least five days in length and must include lectures,
 3 demonstrations, four hours of hands-on training, course review,
 4 and a final written examination. Publications cited are
 5 incorporated by reference in part 7105.0130. The following
 6 topics must be included in the course:

7 A. regulatory review providing familiarity with the
 8 following codes, statutes, rules, and recommended practices and
 9 how they relate to the other course requirements, with
 10 particular emphasis on subitem ~~(10)~~ (9):

11 (1) PEI's Recommended Practices for Installation
 12 of Underground Liquid Storage Systems (PEI/RP 100);

13 (2) API's Installation of Underground Petroleum
 14 Storage Systems (API Recommended Practice 1615);

15 (3) API's Removal and Disposal of Used
 16 Underground Petroleum Storage Tanks (API Recommended Practice
 17 1604);

18 ~~(4) NFPA's Flammable and Combustible Liquids Code~~
 19 ~~(ANSI/NFPA-30)~~;

20 ~~(5) NFPA's Automotive and Marine Service Station~~
 21 ~~Code (ANSI/NFPA-30A)~~;

22 ~~(6) EPA's Underground Storage Tanks - Technical~~
 23 ~~Requirements at Code of Federal Regulations, title 40, part 280,~~
 24 ~~subparts A to G;~~

25 (5) parts 7510.3120 and 7510.3240, incorporating
 26 by reference and amending Article 79 of the Uniform Fire Code;

27 ~~(7) (6) parts 7001.0580, 7045.0020, 7045.0528,~~
 28 ~~7045.0580, 7045.0628, and 7045.0629, relating to hazardous waste~~
 29 ~~tanks;~~

30 ~~(8) (7) Minnesota Statutes, sections 116.46 to~~
 31 ~~116.50;~~

32 ~~(9) (8) Minnesota Statutes, chapter 115C; and~~

33 ~~(10) (9) state technical tank rules adopted under~~
 34 ~~Minnesota Statutes, section 116.49, subdivision 1, when adopted;~~

35 B. legal liabilities and defenses:

36 (1) responsibilities of the contractor;

1 (2) a discussion of comprehensive general
2 liability policies, claims-made and occurrence policies, and
3 environmental and pollution liability policy clauses;

4 (3) state tank contractor liability insurance
5 requirements;

6 (4) bonding and the relationship of insurance
7 availability to bond availability;

8 (5) a discussion of EPA's Underground Storage
9 Tanks Containing Petroleum - Financial Responsibility
10 Requirements at Code of Federal Regulations, title 40, part 280,
11 subpart H; and

12 (6) third party liabilities and defenses;

13 C. safety aspects, including discussions on:

14 (1) OSHA's Safety and Health standards relating
15 to excavations, trenching, and shoring at Code of Federal
16 Regulations, title 29, part 1926, subpart P;

17 (2) Minnesota Department of Labor and Industry
18 Employee Right-to-Know training standards in part 5206.0700;

19 (3) fire and explosion hazards;

20 (4) working around heavy equipment, excavations,
21 hazardous materials, vehicular traffic, overhead and underground
22 obstacles such as power and sewer lines, and other hazardous
23 situations;

24 (5) personal protective equipment and its proper
25 use; and

26 (6) safety considerations and precautions,
27 including erecting physical barriers and signs, and trench
28 shoring;

29 D. underground storage tank installation:

30 (1) project management:

31 (a) establishing lines of responsibility;

32 (b) financial parameters;

33 (c) planning and mobilization, including

34 lining up work crews and tools, calling subcontractors, and

35 picking up materials;

36 (d) site visit before bidding;

- 1 (e) project team, assigning a project
2 leader;
- 3 (f) timing, including completion date and
4 schedules for equipment, materials, and crews;
- 5 (g) subcontractors and material suppliers,
6 including coordination of schedules and ordering materials, with
7 consideration given to material compatibility between other
8 equipment and product to be stored;
- 9 (h) job site management and allocation of
10 work areas, including areas to safely stockpile materials such
11 as backfill, tanks, and piping, and safe and effective traffic
12 flow for heavy equipment as well as civilian traffic;
- 13 (i) safety, including assessing hazards and
14 planning for proper safety equipment;
- 15 (j) employee training, including informal
16 field training and formal in-house or outside training;
- 17 (k) contingency planning;
- 18 (l) progress reports; and
- 19 (m) plans and specifications, as-built
20 drawings;
- 21 (2) material handling:
- 22 (a) transportation, unloading, lifting,
23 lowering, and storage;
- 24 (b) steel, fiberglass, and composite tanks
25 and pipe handling requirements; and
- 26 (c) single-wall versus double-wall;
- 27 (3) preinstallation inspection and testing:
- 28 (a) inspection of tanks, pipes, and other
29 materials for size, as well as scratches, dents or other
30 damages, and minor repairs;
- 31 (b) preinstallation "soap test" on
32 single-wall and double-wall tanks, including proper soaping
33 techniques, selection of gauges, and proper pressures;
- 34 (c) preinstallation testing of tanks shipped
35 under a vacuum;
- 36 (d) holiday testing techniques for composite

- 1 tanks;
- 2 (e) isolating and soap testing pipe runs
- 3 before backfilling;
- 4 (f) inspection and testing of impervious
- 5 liners before backfilling; and
- 6 (g) testing and visual inspection of
- 7 cathodic protection systems, secondary containment, monitoring
- 8 systems, and overflow prevention systems before placing the tank
- 9 facility into operation;
- 10 (4) excavating and trenching:
- 11 (a) excavation size, depth, bedding, and
- 12 backfill;
- 13 (b) filter fabrics, sloping, and water
- 14 problems;
- 15 (c) storage and disposal of excavated
- 16 materials, contaminated versus uncontaminated;
- 17 (d) adjacent structures;
- 18 (e) safety considerations, including
- 19 properly sized equipment; and
- 20 (f) piping trench slope and depth
- 21 considerations;
- 22 (5) supplemental restraints:
- 23 (a) reasons for supplemental restraints;
- 24 (b) types and proper installation of
- 25 supports, foundations, and anchorage;
- 26 (c) water table, flooding, and weather
- 27 considerations; and
- 28 (d) factors influencing buoyancy, including
- 29 flotation and anchorage calculation exercises;
- 30 (6) backfilling and compaction:
- 31 (a) ballasting;
- 32 (b) types and sizes of backfill materials
- 33 suitable for composite tanks and steel and fiberglass tanks and
- 34 piping;
- 35 (c) placement of tanks and piping, including
- 36 bedding depth and distances between tanks or pipes;

- 1 (d) backfilling and compaction procedures,
2 including the special compaction requirements of sand;
3 (e) measuring tank deflection;
4 (f) prevention of backfill migration using
5 filter fabrics; and
6 (g) grading and paving precautions;
7 (7) secondary containment:
8 (a) types, including double-walled tanks and
9 piping, impervious liners, catchment basins, piping sumps, and
10 concrete vaults;
11 (b) installation methods and considerations;
12 and
13 (c) material compatibility;
- 14 E. piping:
15 (1) leak statistics concerning improperly
16 installed piping;
17 (2) installation methods:
18 (a) types and specific installation
19 requirements, including galvanized steel, fiberglass, coated,
20 and single-walled and double-walled;
21 (b) piping layout and design;
22 (c) pipe trenches, backfilling, compaction,
23 and paving;
24 (d) pipefitting, including curing times for
25 fiberglass adhesives, compatibility of product with pipe dope,
26 minimizing fittings, tightness, and pipe support;
27 (e) swing joints and flexible connectors;
28 (f) emergency shutoff valves;
29 (g) tank fittings and bushings;
30 (h) vent capacity, location, arrangement,
31 and height; and
32 (i) visual inspections;
33 (3) material compatibility;
34 (4) manifolded tanks; and
35 (5) vapor recovery systems;
- 36 F. electrical installation:

1 (1) regulatory review, including:

2 (a) ~~NFPA's National Fire Code (ANSI/NFPA~~
3 ~~Article-79)~~ parts 7510.3120 and 7510.3240, incorporating by
4 reference and amending Article 79 of the Uniform Fire Code; and

5 (b) API's Cathodic Protection of Underground
6 Petroleum Storage Tanks and Piping Systems (API Recommended
7 Practice 1632);

8 (2) ~~NFPA Class I liquids~~ locations, Divisions I
9 and II, requirements and restrictions as described in parts
10 7510.3120 and 7510.3240, incorporating by reference and amending
11 Article 79 of the Uniform Fire Code;

12 (3) definitions, including explosion proof
13 apparatus and intrinsically safe equipment and wiring;

14 (4) general installation considerations,
15 including trenching, cover, grounding, backfill, seals,
16 bushings, supports, and stray currents;

17 (5) circuit disconnects;

18 (6) accessibility of circuit breakers for
19 monitoring devices and impressed cathodic protection systems by
20 unauthorized personnel; and

21 (7) as-built drawings;

22 G. ancillary equipment placement and installation:

23 (1) fuel dispensing systems;

24 (2) emergency power cutoffs;

25 (3) suction and remote pumping systems;

26 (4) fill-pipe and spill catchment basin;

27 (5) tank fittings;

28 (6) observation and monitoring wells, including a
29 discussion of Minnesota Department of Health's Water Well
30 Construction Code in chapter 4725;

31 (7) interstitial tank and piping monitors; and

32 (8) identification of wells, manholes, and fill
33 pipes;

34 H. tank system testing:

35 (1) methods and appropriate uses:

36 (a) a detailed discussion of how to conduct

- 1 a proper "soap" or air test;
- 2 (b) hydrostatic pressure, tightness, or
- 3 precision tests;
- 4 (c) spark testing for holidays on composite
- 5 steel tanks;
- 6 (d) testing of new cathodic protection
- 7 systems for continuity and isolation;
- 8 (e) vapor testing during tank closure;
- 9 (f) testing impervious liners according to
- 10 the manufacturers' instructions; and
- 11 (g) testing of other associated equipment
- 12 for proper installation and operation;
- 13 (2) testing considerations:
- 14 (a) new versus existing tanks or piping;
- 15 (b) single-wall versus double-wall tanks or
- 16 piping;
- 17 (c) manufacturers' instructions;
- 18 (d) safeguards;
- 19 (e) tank deflection; and
- 20 (f) variables specific to certain tests,
- 21 such as pressure, temperature, and vapor traps; and
- 22 (3) documentation and record keeping
- 23 requirements;
- 24 I. release detection:
- 25 (1) leak detection:
- 26 (a) interstitial monitoring;
- 27 (b) observation wells located in the
- 28 excavation zone and collection sumps of secondary containment
- 29 systems;
- 30 (c) automatic tank gauging;
- 31 (d) vapor monitoring;
- 32 (e) groundwater monitoring;
- 33 (f) inventory control; and
- 34 (g) line pressure monitoring;
- 35 (2) spill and overfill prevention:
- 36 (a) catchment basins;

1 (b) automatic shutoff devices; and

2 (c) ball float valves; and

3 (3) identification and security considerations
4 for monitoring systems;

5 J. corrosion protection:

6 (1) requirements for external corrosion
7 protection in Code of Federal Regulations, title 40, part 280,
8 subparts A to G, and state technical tank rules adopted under
9 Minnesota Statutes, section 116.49, subdivision 1, when adopted;

10 (2) a discussion of API's Cathodic Protection of
11 Underground Storage Tanks and Piping Systems (API Recommended
12 Practice 1632);

13 (3) coatings for external corrosion protection:

14 (a) desirable characteristics;

15 (b) handling, inspection, and installation;

16 and

17 (c) minor, on-site repairs according to the
18 manufacturers' instructions;

19 (4) cathodic protection:

20 (a) sacrificial anode versus impressed
21 current;

22 (b) isolation of tank and piping;

23 (c) rule of thumb and mathematical
24 determination of adequate corrosion protection;

25 (d) periodic inspections and testing;

26 (e) considerations when choosing a cathodic
27 protection system;

28 (f) stray current corrosion;

29 (g) proper installation of a cathodic
30 protection system, including an in-depth discussion of the
31 installation of the factory-installed cathodic protection
32 systems; and

33 (h) installation and use of test cells and
34 monitoring ports;

35 K. tank closure and removal:

36 (1) regulatory discussion:

1 (a) requirements for external corrosion
2 protection in EPA's Underground Storage Tanks - Technical
3 Requirements at Code of Federal Regulations, title 40, part 280,
4 subparts A to G;

5 (b) API's Removal and Disposal of Used
6 Underground Petroleum Storage Tanks (API Recommended Practice
7 1604);

8 (c) API's Cleaning Petroleum Storage Tanks
9 (API Recommended Practice 2015);

10 (d) NFPA's Cleaning Small Tanks and
11 Containers (NFPA Standard 327);

12 (e) requirements for tank closure in ~~NFPA's~~
13 ~~Uniform-Fire-Code, Article-79~~ parts 7510.3120 and 7510.3240,
14 incorporating by reference and amending Article 79 of the
15 Uniform Fire Code; and

16 (f) state technical tank rules adopted under
17 Minnesota Statutes, section 116.49, subdivision 1, when adopted;

18 (2) temporary and permanent closure requirements;
19 (3) tank cleaning methods:

20 (a) purging procedures, pros and cons:

21 i. inert gas: carbon dioxide (CO₂) or
22 nitrogen (N₂);

23 ii. solid carbon dioxide (dry ice);

24 iii. compressed air;

25 iv. diffused air;

26 v. water; and

27 vi. steam;

28 (b) compatibility of method with product;

29 (c) safety procedures and equipment; and

30 (d) proper disposal of residues and sludge;

31 (4) testing for flammable and combustible vapors
32 and oxygen content;

33 (5) closure in place, filling with inert

34 substances such as sand, concrete slurries, or polyurethane-type
35 foams;

36 (6) tank removal;

- 1 (7) site assessment requirements:
- 2 (a) sampling equipment and methods;
- 3 (b) reporting requirements; and
- 4 (c) records; and
- 5 (8) disposal of tanks;
- 6 L. role of other consultants, including corrosion
- 7 experts, environmental contamination consultants, and engineers;
- 8 M. contract specifications and discussion of key
- 9 elements that are included in contract specifications;
- 10 N. demonstrations and hands-on training that gives
- 11 actual experience performing tasks associated with tank projects:
- 12 (1) soap testing and leak detection procedures;
- 13 (2) cathodic protection demonstrations;
- 14 (3) tank and piping installation procedures; and
- 15 (4) safety considerations for installation,
- 16 repair, and removal;
- 17 O. record keeping:
- 18 (1) records required by state and federal
- 19 regulations in item A;
- 20 (2) records recommended for legal and insurance
- 21 purposes; and
- 22 (3) use of photographs for installation and
- 23 removal records;
- 24 P. supervisory techniques for tank activities to
- 25 enforce and reinforce the required work practices and discourage
- 26 unsafe work practices;
- 27 Q. a discussion of the possible environmental
- 28 consequences resulting from improper installation, repair, and
- 29 closure of underground storage tank systems;
- 30 R. course review covering the key aspects of the
- 31 training course; and
- 32 S. other subjects that the commissioner determines
- 33 should be taught to reflect advances in tank installation,
- 34 repair, and removal methods or safety practices.

35 7105.0090 EXAMINATIONS AND DIPLOMAS.

1 Subpart 1. Administration of examinations. Examinations
2 must be conducted by the agency, or by personnel of colleges or
3 educational institutes selected and designated by the agency.

4 Subp. 2. Examination specifications. The final
5 examination administered under this chapter must be a written,
6 comprehensive examination consisting of 100 multiple choice
7 questions, covering the topics discussed in the training course.

8 Subp. 3. Examination requirements. A person seeking
9 certification as a certified supervisor shall participate in all
10 course requirements and pass a written final examination. An
11 applicant shall score 75 percent or higher to pass the final
12 examination. The final examination must be passed within ten
13 days after completing the training course.

14 Subp. 4. Retest. If a person fails to pass the final
15 examination, one retest may be taken. If a person fails to pass
16 the retest, the full course must be attended again before
17 further testing.

18 Subp. 5. Diplomas. The training provider shall issue a
19 numbered diploma to each student who completes the training
20 course and successfully passes the examination. The following
21 information must be included on the diploma:

- 22 A. the name of the student;
- 23 B. the name of the course completed;
- 24 C. the dates of the course and the examination;
- 25 D. a statement indicating that the student attended
26 the course and passed the examination;
- 27 E. an expiration date for accreditation that is two
28 years after the date on which the student passed the
29 examination; and
- 30 F. a diploma number.

31 If the person administering the examination is not the same
32 person administering the course, both persons shall sign the
33 diploma.

34 7105.0100 APPROVAL OF TRAINING COURSE.

35 Subpart 1. Application procedures for training course

1 approval. The commissioner may approve training courses
2 developed by persons other than the agency staff. The
3 commissioner shall approve a course that meets the requirements
4 of this part and parts 7105.0080 and 7105.0090. To apply for
5 agency approval of a tank installer training course, the
6 following information must be submitted to the commissioner:

7 A. the course sponsor's name, address, and phone
8 number;

9 B. a list of states that currently approve the
10 training course;

11 C. the course curriculum;

12 D. a letter from the training course sponsor that
13 clearly indicates how the course meets parts 7105.0080 and
14 7105.0090, including:

15 (1) length of training in days;

16 (2) amount and type of hands-on training;

17 (3) examination, including length, format, and
18 passing score; and

19 (4) topics covered in the course;

20 E. a copy of all course materials, such as student
21 manuals, instructor notebooks, and handouts;

22 F. a detailed statement about development of the
23 examination used in the course;

24 G. the names and qualifications of course
25 instructors, as outlined in subpart 2; and

26 H. a description and an example of numbered diplomas
27 issued to students who attend the course and pass the
28 examination.

29 Subp. 2. Experience requirements for instructors. To be
30 considered qualified, course instructors shall meet the
31 following requirements:

32 A. field experience in storage tank installation,
33 repair, and removal equal to a total of at least 4,000 hours,
34 which may be met by just one instructor, or through a
35 combination of experience held by a number of instructors; and

36 B. after meeting the requirement in item A, any

1 additional instructors shall have directly related experience or
2 academic credentials in a related field.

3 Subp. 3. Suspension or revocation of course approval. The
4 agency shall suspend or revoke approval of a training course if
5 the commissioner finds that the course is not providing training
6 that meets the requirements of this chapter.

7 Subp. 4. Renewal of course approval. Except as provided
8 in subpart 3, approval of a training course shall remain in
9 effect until the agency notifies approved trainers that changes
10 in the course are required. At that time, the training
11 providers shall submit the revised course to the agency for
12 approval.

13 7105.0110 SANCTIONS.

14 Subpart 1. Criteria. The commissioner may refuse to
15 issue, renew, or reinstate a certificate or suspend or revoke a
16 certificate for any of the following reasons:

17 A. submission of false or misleading information or
18 credentials to obtain or renew a certificate;

19 B. failure to meet the requirements to obtain or
20 renew a certificate in this chapter;

21 C. failure to meet the technical requirements of Code
22 of Federal Regulations, title 40, part 280, or its counterpart
23 in Minnesota rules when adopted, the requirements of this
24 chapter including the Standards of Performance in part
25 7105.0070, or other law relating to storage tank projects; or

26 D. negligence in the performance of storage tank
27 projects.

28 Subp. 2. Investigation. The commissioner may initiate an
29 investigation upon receiving a signed written complaint alleging
30 the existence of grounds for sanctions against a certified
31 person or an applicant for certification, or whenever the
32 commissioner has reason to believe that sanctions may be
33 warranted.

34 Subp. 3. Procedures. Prior to revoking or suspending a
35 certificate and subsequent to a refusal to issue, reissue, or

1 reinstate a certificate, the person against whom the sanction is
2 being imposed shall be given notice of the sanction, and the
3 reasons for it, and the person shall have ten days from the date
4 of receiving the notice to request that a contested case hearing
5 be held on the matter. The commissioner shall not revoke or
6 suspend a certificate until the contested case hearing has been
7 completed or until the request for a hearing has been considered
8 at an agency meeting and denied. If no request for a contested
9 case hearing is received by the commissioner within the ten
10 days, the sanction set forth in the notice shall go into effect,
11 in the case of a certificate suspension or revocation, or shall
12 become final, in the case of a refusal to issue, reissue, or
13 reinstate a certificate.

14 Subp. 4. Contested case requests. Upon receipt of a
15 contested case hearing request, the commissioner shall either
16 grant the request and schedule a hearing or put the matter on
17 the agenda for consideration at an agency meeting under part
18 7000.0500, subpart 6. If the matter is considered at an agency
19 meeting, the provisions of part 7000.1000, subpart 3, shall
20 govern whether a hearing request is granted. Contested case
21 hearings under this part must comply with the contested case
22 provisions of chapter 7000 and Minnesota Statutes, chapter 14.

23 Subp. 5. Return of certificate. Upon revocation or
24 suspension, certified persons shall return to the agency their
25 original certificate and current renewal certificates.

26 Subp. 6. Recertification. A person whose certificate has
27 been revoked shall not be entitled to apply for recertification
28 until at least one year following the effective date of
29 revocation or for any longer period of time specified in the
30 revocation order.

31 Subp. 7. Reinstatement after suspension. The commissioner
32 shall reinstate a suspended certificate if the person whose
33 certificate has been suspended fulfills the terms of the
34 suspension order and meets all applicable requirements of the
35 rules for obtaining a certificate.

1 7105.0120 FEES.

2 Subpart 1. **Certification fee.** The fee for each new,
3 modified, or renewal application for contractor or supervisor
4 certification is \$50.

5 Subp. 2. **Refund of fees.** The agency commissioner shall
6 only return fees received from individuals who are rejected for
7 certification.

8 7105.0130 INCORPORATION BY REFERENCE.

9 Subpart 1. **Scope.** For purposes of this chapter, the
10 documents in subparts 2 to 4 are incorporated by reference.
11 They can be found at the Minnesota Law Library, Ford Building,
12 117 University Avenue, Saint Paul, Minnesota 55155. They are
13 subject to frequent change. If any of the documents in subparts
14 2 to 4 are amended, and if the amendments are incorporated by
15 reference or otherwise made a part of state or federal law
16 applicable to the installation, repair, or closure of storage
17 tank systems, then the amendments to the documents are also
18 incorporated by reference into this chapter.

19 Subp. 2. **API documents.** The following documents are also
20 available from the American Petroleum Institute, 1220 L Street,
21 Northwest, Washington, D.C. 20005:

22 A. American Petroleum Institute, Removal and Disposal
23 of Used Underground Petroleum Storage Tanks, API/RP 1604
24 (December 1987);

25 B. American Petroleum Institute, Installation of
26 Underground Petroleum Storage Systems, API/RP 1615 (November
27 1987);

28 C. American Petroleum Institute, Cathodic Protection
29 of Underground Petroleum Storage Tanks and Piping Systems,
30 API/RP 1632 (December 1987); and

31 D. American Petroleum Institute, Cleaning Petroleum
32 Storage Tanks, API/RP 2015 (September 1985).

33 Subp. 3. **NFPA documents document.** The following documents
34 are document is also available from the National Fire Protection
35 Association, Batterymarch Park, Quincy, Massachusetts 02269:

1 ~~A.--National-Fire-Protection-Association, Flammable~~
2 ~~and-Combustible-Liquids-Code, NFPA-30-(August-7, 1987),~~

3 ~~B.--National-Fire-Protection-Association, Automotive~~
4 ~~and-Marine-Service-Station-Code, NFPA-30A-(June-10, 1987),~~

5 ~~C. National Fire Protection Association, Cleaning~~
6 ~~Small Tanks and Containers, NFPA 327 (1982 1987), and~~

7 ~~D.--National-Fire-Protection-Association, Uniform-Fire~~
8 ~~Code, NFPA-Article-79-(1988).~~

9 Subp. 4. PEI document. The following document is also
10 available from the Petroleum Equipment Institute, P.O. Box 2380,
11 Tulsa, Oklahoma 74101: Petroleum Equipment Institute,
12 Recommended Practices for the Installation of Liquid Storage
13 Systems, PEI/RP 100 (1987).