

1968

9-3900-6068-1

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS

FOR THE MINNESOTA DEPARTMENT OF PUBLIC SERVICE

In the Matter of Proposed Amendments
to Rules of the Minnesota Department
of Public Service Amending the State
Building Code Regarding Heat Loss,
Illumination, and Climate Control
Minn. Rules Chapter 7670.

REPORT OF THE
ADMINISTRATIVE LAW JUDGE

The above-entitled matter came on for hearing before Administrative Law Judge Phyllis A. Reha on February 11, 1992, at 9:00 a.m. in the Large Hearing Room, American Center Building, 150 East Kellogg Boulevard, St. Paul, Minnesota.

This Report is part of a rulemaking proceeding held pursuant to Minn. Stat. §§ 14.131 to 14.20, to hear public comment, to determine whether the Minnesota Department of Public Service (DPS or Department) has fulfilled all relevant substantive and procedural requirements of law applicable to the adoption of the rules, whether the proposed rules are needed and reasonable and whether or not modifications to the rules proposed by DPS after initial publication are impermissible substantial changes.

Brent Vanderlinden, Special Assistant Attorney General, 1100 Bremer Tower, St. Paul, Minnesota 55101, appeared on behalf of DPS. The hearing panel consisted of Burl W. Haar, Assistant Commissioner for the Department's Energy Division and Bruce Nelson, Senior Engineer for DPS.

Twenty-three persons attended the hearing. All twenty-three signed the hearing register. The hearing continued until all interested persons, groups or associations had an opportunity to be heard concerning the adoption of these rules.

The record remained open for the submission of written comments for twenty calendar days following the date of the hearing, to March 2, 1992. Pursuant to Minn. Stat. § 14.15, subd. 1 (1988), three business days were allowed for the filing of responsive comments. At the close of business on March 5, 1991, the rulemaking record closed for all purposes. The Administrative Law Judge received written comments from interested persons during the comment period. DPS submitted written comments responding to matters discussed at the hearings and suggesting changes in the proposed rules.

This Report must be made available for review to all affected individuals upon request for at least five working days before the agency takes any further action on the rules. The agency may then adopt a final rule or modify or withdraw its proposed rule. If the Commissioner makes changes in the rule other than those recommended in this Report, she must submit the rule with the complete hearing record to the Chief Administrative Law Judge for a review of

the changes prior to final adoption. Upon adoption of a final rule, the agency must submit it to the Revisor of Statutes for a review of the form of the rule. The agency must also give notice to all persons who requested to be informed when the rule is adopted and filed with the Secretary of State.

Based upon all the testimony, exhibits, and written comments, the Administrative Law Judge makes the following:

FINDINGS OF FACT

Procedural Requirements

1. On December 13, 1991, the Department filed the following documents with the Chief Administrative Law Judge:
 - (a) a copy of the proposed rules certified by the Revisor of Statutes;
 - (b) the Notice of Hearing proposed to be issued; and,
 - (c) the Statement of Need and Reasonableness (SONAR).
2. On December 31, 1991, the Department mailed the Notice of Hearing to all persons and associations who had registered their names with the Department for the purpose of receiving such notice.
3. On January 3, 1992, the Department mailed the Notice of Hearing to those persons and associations, primarily small businesses, on a mailing list in the possession of DPS to provide additional discretionary notice.
4. On January 6, 1992, a copy of the proposed rules were published at 16 State Register 1636.
5. On January 17, 1991, DPS filed the following documents with the Administrative Law Judge:
 - (a) the Notice of Hearing as mailed;
 - (b) a photocopy of the pages of the State Register containing the Notice of Hearing and the proposed rules;
 - (c) a copy of the Notice of Solicitation of Outside Opinion together with all materials received in response to that notice;
 - (d) the Board's certification that its mailing list was accurate and complete as of December 27, 1991, and the Affidavit of Mailing the Notice to all persons on the Department's mailing list;
 - (e) the Affidavit of Mailing the Notice to those persons to whom the Department gave discretionary notice; and,
 - (f) the names of persons who would represent the Department and witnesses the DPS might call at the hearing.
6. DPS certified its mailing list as accurate and complete as of December 27, 1991. The Department's mailing to that list occurred on December 31, 1991. The purpose of certifying the list is to ensure that all persons whose names are on the list on the day of mailing receive notice. While the Department's certification of the accuracy and completeness of the mailing list has a technical defect of four calendar days, this technical defect is harmless. The entire mailing list was filed with the certification and the

affidavit of mailing. Extensive discretionary notice was given by DPS. No objection to the mailing was raised at the hearing; no persons or interested groups claimed prejudice due to the technical defect.

The extent to which the agency deviated from the requirement, whether the deviation was inadvertent, and the potential impact of the irregularity on the public participation determines whether a procedural error is harmless. Auerbach, Administrative Rulemaking in Minnesota, 63 Minn.L.Rev. 151, 215 (1979); but see Johnson Bros. Wholesale Liquor Co. v. Novak, 295 N.W.2d 238, 241-42 (Minn. 1980). Only four days, two of those being weekend days, elapsed from the date of certification to the date of mailing. There is no indication that the error was intentional. Most significantly, there is no indication that any person or association asked to be on the list and did not receive notice of this hearing. Under these circumstances, the Judge finds the error to be harmless, and it does not constitute a defect in the rulemaking procedure which would require beginning again. See City of Minneapolis v. Wurtele, 291 N.W.2d 386, 391 (Minn. 1980); see also Handle with Care v. Department of Human Services, 406 N.W.2d 518 (Minn. 1987).

Nature of the Proposed Rules and Statutory Authority.

7. The State Building Code contains requirements for heating, ventilation, and air conditioning (HVAC) equipment, building envelope standards for insulation, and lighting power budget standards in a section known as the Minnesota Energy Code. Minn. Stat. § 216C.19, subd. 8 authorizes the Commissioner of DPS to adopt rules regarding "heat loss control, illumination and climate control." DPS has proposed rules in this proceeding to modify the standards for insulation, building mechanical systems for climate control, HVAC efficiency, water heating, and lighting design efficiency. The Administrative Law Judge concludes that the Department has statutory authority to adopt these rules.

Small Business Considerations in Rulemaking.

8. Minn. Stat. § 14.115, subd. 2, provides that state agencies proposing rules affecting small businesses must consider methods for reducing adverse impact on those businesses. The rules proposed by DPS will affect small business by altering the performance requirements which construction contractors must meet. SONAR, at 17-18. The rules do not contain reporting requirements. The Department concluded that exempting small businesses from the performance standards set by the proposed rules would be inconsistent with the requirements of Minn. Stat. § 16B.62, which sets the scope for these rules. DPS has complied with Minn. Stat. § 14.115, subd. 2.

Fiscal Notice.

9. Minn. Stat. § 14.11, subd. 1, requires the preparation of a fiscal notice when the adoption of a rule will result in the expenditure of public funds in excess of \$100,000 per year by local public bodies. The notice must include an estimate of the total cost to local public bodies for a two-year period. In its Notice of Hearing, DPS stated that the proposed rules will not require expenditures by local bodies of government in excess of \$100,000 in either of the two years immediately following adoption. No notice is required in this rulemaking.

Impact on Agricultural Land.

10. Minn. Stat. § 14.11, subd. 2 (1988), imposes additional statutory requirements when rules are proposed that have a "direct and substantial adverse impact on agricultural land in this state." The statutory requirements referred to are found in Minn. Stat. §§ 17.80 to 17.84. The rules proposed by the Department will have no substantial adverse impact on agricultural land within the meaning of Minn. Stat. § 14.11, subd. 2 (1988).

Reasonableness of the Proposed Rules.

11. The question of whether a rule is reasonable focuses on whether it has a rational basis. The Minnesota Court of Appeals has held a rule to be reasonable if it is rationally related to the end sought to be achieved by the statute. Broen Memorial Home v. Minnesota Department of Human Services, 364 N.W.2d 436, 440 (Minn.App. 1985); Blocker Outdoor Advertising Company v. Minnesota Department of Transportation, 347 N.W.2d 88, 91 (Minn.App. 1984). The Supreme Court of Minnesota has further defined the burden by requiring that the agency "explain on what evidence it is relying and how the evidence connects rationally with the agency's choice of action to be taken." Manufactured Housing Institute v. Pettersen, 347 N.W.2d 238, 244 (Minn. 1984). In support of the adoption of the proposed rules, DPS has prepared a Statement of Need and Reasonableness (SONAR). The Department has relied primarily on its SONAR as its affirmative presentation of need and reasonableness at the hearings. The Department's comments made at the public hearings and in written comments following the hearing supplemented that presentation. This Report will not discuss each rule part, or each change proposed by DPS from the rules as published in the State Register. The Report will focus on those provisions that the Administrative Law Judge or members of the public questioned. Persons or groups who do not find their particular comments in this Report should know that the Administrative Law Judge has read and considered each and every suggestion. A part not commented on in this Report is hereby found to be needed and reasonable and does not exceed the statutory authority for the promulgation thereof. It is further found that on those parts not commented on, the Department has documented its need and reasonableness with an affirmative presentation of facts. Any change not commented upon is found not to constitute a substantial change.

Rule 7670.0100 - Authority; Scope; Applicability.

12. The proposed rules amend Minn. Rule 7670.0100, subpart 3. Subpart 3 sets forth the applicability of the Energy Code to buildings. The amendment, as originally proposed, altered the definition of "building" to include driveways, walkways, entrances, parking lots, and grounds. At the hearing, DPS suggested a change to the amendment which would drop the definitional change and replace it with language making the chapter explicitly applicable to those structures. The Minnesota Department of Administration objected to the scope of the rule including anything not a part of a building. DPS maintained that the inclusion of these adjuncts is necessary to calculate the true power budget of buildings. Where the energy needs of these adjunct constructions exceed the standards of these rules, the energy budget approach allows the use of excess power from other areas to these adjuncts. SONAR, at 4. The additional language ensures that the explicit standards for efficiency in the rules are not inconsistent with the scope provisions of 7670.0100.

This rule part, as amended, is needed and reasonable. The new language proposed by the Department states the same concept as originally proposed in a different way and does not constitute a substantial change.

Rule 7670.0130 - Incorporations by Reference.

13. Subpart 1(I) of Minn. Rule 7670.0130 lists WINDOW, a computer program, as a reference incorporated in the rule. DPS has replaced this listing in the proposed rules with a reference to NFRC 100-91: Procedure for Determining Fenestration Product Thermal Properties. The National Fenestration Rating Council (NFRC) has promulgated that standard, which incorporates the WINDOW program as one evaluation method. SONAR, at 5. The effect of the proposed rule is to expand the methods of evaluating the thermal properties of window products. The new reference to NFRC 100-91 is needed and reasonable.

Rule 7670.0260 - Materials and Equipment.

14. Minn. Rule 7670.0260 amends section 103 of the Model Energy Code by adding a paragraph labelled 102.3, Thermal Insulation. The added language is amended in the proposed rules by adding the following language:

All thermal insulation must achieve stated performance at 75 degrees Fahrenheit mean temperature and no less than stated performance at winter design conditions.

An exception is also added for insulation designed only to reduce summer cooling load from the winter design requirement.

Many commentators objected to the winter design conditions standard. The North American Insulation Manufacturers Association (NAIMA), Owens-Corning Fiberglass Corporation (Owens-Corning), and others maintain that there is presently no accepted test of insulating materials which establishes conditions which accurately measure the performance of insulation at conditions below the 75 degree Fahrenheit mean temperature.

DPS has proposed the addition to the Model Energy Code based upon studies which indicate some insulation has different R-values (indicating insulating performance) at different temperatures. Specifically, a study at the Oak Ridge National Laboratory (ORNL study) indicated that the R-value of loose-fill fiberglass (nominally R-19) dropped to R-17 at 32°F, R-15 at 19°F, R-13 at 9°F, R-12.5 at -4°F, and R-10 at -18°F. Edwards Sales Comment (March 2, 1992), Attachment Figure 1. While more testing is planned, the study has found that a six-inch batt of insulation over the loose-fill material restores the full R-value of the fill. Id. Loose-fill cellulose insulation (installed at 15% to 20% over the labelled density) underwent similar testing sponsored by CertainTeed Corporation performed at the University of Illinois Building Research Council. That testing indicated the R-value of loose-fill cellulose insulation increases over the nominal value as the temperature decreases. Energy Design Update, October 1991, at 5. Similarly, batt insulation produces an increase in R-value with a decrease in temperature. Id.

The theory advanced to explain the R-value reduction in loose-fill fiberglass is that convection occurs between the cold attic air and the warmed air nearest the conditioned space. This convection draws the warmed air out as a result of the different air pressures between cold and warm air. CertainTeed Comment (February 27, 1992), Attachment 3. Requiring insulation to meet "stated performance at winter design conditions" would require nominal R-19 insulation to provide at least R-19 insulation at the temperatures likely to be encountered by the insulation. NAIMA, CertainTeed, Owens-Corning and other commentators objected to the winter design condition requirement on the ground that the most serious loss of R-value occurs only at very low temperatures which are not present for long periods and would impose an average cost of \$20.54 per year. CertainTeed Comment (February 27, 1992), Attachment 2. The cost objection misses the purpose of the rule. The primary factors in choosing an insulation are cost, ease of installation, and effectiveness. The cost and method of installation are obvious to any consumer. The R-value, however, is not independently verifiable by the consumer and has a substantial impact on the type of insulation chosen. If the consumer is aware that a particular type of insulation with a nominal value of R-19 will actually provide progressively less insulation as the temperature falls, this information will affect both the type and amount of insulation obtained.

NAIMA and Owens-Corning pointed out that the rule does not establish any standard for how insulation is to meet the winter design conditions standards. The only explicit standard set in the rule is that the R-value insulation must be provided at 75°F mean temperature. This standard is usually determined by placing the insulating material between hot and cold plates and measuring the temperature conductivity between the plates. Energy Design Update, October 1991, at 6. This testing method is designated ASTM C518. Id. Since it is an ASTM test method, there are specific parameters which must be met to validate the test. The Department has not identified any ASTM test or other recognized testing method to meet the winter design conditions standard. The commentators assert that this omission renders the rule unreasonable as there is no stated method to meet the required standard.

Requiring a "safe harbor," such as a particular testing process by which insulating material can be rated, is a good practice in rulemaking. That approach eliminates questions regarding the method used to conclude that the standard is met and eases enforcement for the agency. However, there is no requirement that the actual process be stated as a rule, so long as the standard to be met is expressly stated in the rule. The standard for R-value of insulation being met at 75°F mean temperature was not questioned by any commentators, despite the fact that the rule does not identify the testing method used to arrive at that standard. Since "winter design conditions" is not specifically defined, any test which provides reasonably accurate results demonstrating the performance of the insulation in situations which are similar to those encountered by the insulation as installed during the winter months, meets the rule requirement. Two methods have been mentioned in this Report (i.e. the ORNL study and the University of Illinois study) which appear to meet the requirements of the rule. Further, the existing tests indicate that loose-fill fiberglass is the only commonly used insulation which does not meet this standard. The adverse impact of the rule appears to be limited to that type of insulation.

DPS has shown that the subpart is needed to match the insulation installed with the building envelope requirements. The requirement, that the insulation must meet its nominal R-value under winter design conditions, is needed to advise consumers of what performance to expect from the insulation chosen. The subpart is not unreasonable for omitting reference to particular tests which qualify the insulation to meet the winter design standard. Since the accuracy, cost, and availability of particular tests have not been discussed as part of this record, identifying any individual test as the only method of meeting this standard would be arbitrary and impermissible. It might also constitute a substantial change. DPS has shown that the subpart is needed and reasonable, as proposed.

Minn. Rule 7670.0325 - Amendments to Section 201: Definitions.

15. Subpart 5 of Minn. Rule 7670.0325 consists of all new material and defines "advanced framing." The definition includes advanced area framing which reduces the uninsulated area required for proper structural support; advanced wall framing which sets specific standards for stud spacing, insulated headers, two stud corners, and other items; and advanced ceiling framing which requires the full insulating value to the outside of exterior walls. DPS maintains that the definition is needed since it uses the term in other segments of the rule. The Department has taken the wording of the definition from the Model Conservation Standards and the Oregon Energy Conservation Code. SONAR, at 6.

The Department of Administration believes that "advanced framing" is a misleading term since it could be thought of as a different type of construction process than the traditional stick-built method. The Department of Administration recommended that the term be replaced with the exact standard which comprises the definition of advanced framing. The Uniform Building Code includes a method which is similar to advanced framing. BAM objected to advanced framing being "purported as a norm." Public Exhibit 1, at 5. Stephen Klossner, Certified Thermographer with Advanced Certified Thermography, pointed out that advanced framing is only an option, not a requirement.

Defining "advanced framing" is needed since the term is used in the rule and subject to more than one interpretation. Based on the comments received, the Department altered the definition to expressly conform with the Uniform Building Code and require 2x6 studs and approved backing of facing materials for advanced wall framing. The 2x6 stud requirement is based on the Uniform Building Code standard and promotes effectiveness of some insulation in a 6 inch wall cavity by not compressing fiberglass batts. SONAR, Attachment A. The changes meet the concerns of commentators to this subpart. Subpart 5, as amended, is needed and reasonable. The new language is not a substantial change.

Minn. Rule 7670.0470 - Amendments to Section 502: Envelope Thermal Transmittance.

16. Substantial confusion surrounded the window thermal transmittance standard proposed in Subpart 2(4) of Minn. Rule 7670.0470. DPS has proposed a change in one of four items providing alternative methods to determine compliance. The comments made at the hearing clearly indicated that the regulated public believed that the one new item would be the only method of

compliance. Based on this misconception, commentators asserted that the window industry would be disrupted in the short term unless the implementation of the rule was delayed until July, 1993. The wording of the rule part clearly allows a manufacturer to determine the thermal transmission of its product by any one of four methods. Three of those methods remain unchanged. The Department altered item 4 to replace a modified standard RS-29 with RS-20. The change is needed to eliminate duplication in the rule and update available methods of compliance.

17. Subpart 3 of Minn. Rule 7670.0470 alters section 502.2.1 of the Energy Code. This section permits the alternative compliance method ("the cook-book approach") for insulating one and two-family dwellings. The Department supports the changes because they are a more accurate description of the code requirements; reduce confusion over vague applications of the existing language; and provide forty combinations of wall systems which meet the rule, rather than the one combination originally provided. SONAR, at 7. DPS states that window manufacturers carry many models which can meet the new methodology proposed; whereas the original rule allowed for only one window standard. Id. The point cannot be overemphasized that subpart 3 sets alternative standards. The effect of the subpart is to provide more choices for the public, not fewer. While the new rule will take some time to be fully implemented and understood by contractors and building inspectors, DPS has already conducted mailings to inform the public of the options available for windows and insulation. SONAR, at 8, and Attachment A. The Department has shown that offering alternative compliance methods through the "cookbook approach" is needed and reasonable.

Minn. Rule 7670.0550 - Amendments to Section 502: Air Leakage.

18. Subpart 3 of Minn. Rule 7670.0550 amends section 502 of the Energy Code. The amendment adds new language which requires rim joists, band joists and the meeting point between floor joists and the building envelope be sealed to prevent air leakage. BAM objected to this subpart on the ground that making buildings "tighter" would increase health problems due to inadequate ventilation and air contaminants such as radon. Joe Fischer, Sales and Marketing Manager of Quality Insulation, Inc., suggested that increasing the tightness of houses should be done only as part of an overall system of insulation and ventilation to eliminate potential adverse health impacts. Jay Jacobson, Director of Sales and Marketing for Commercial Energy Services and Mark LaLiberte of Shelter Supply responded to those objections. They assert that the benefits of tight houses are evident in moisture control (reducing mold and insulation failure through water contamination) and improved energy efficiency through elimination of drafts. These commentators maintain that problems aggravated by tightening houses are being solved in other countries (motivated by higher energy costs) and any health problems aggravated by reduced air leakage should be resolved through elimination of the underlying problem. Patrick Huelman, Coordinator of the Cold Climate Housing Center at the University of Minnesota Extension Service supported the air leakage rule, particularly at the rim joist. Mr. Huelman acknowledged concerns about indoor air quality, but stated that source control and mechanical ventilation are the "preferred solutions" to poor indoor air quality. The Department asserts that it has found no evidence on which to base a conclusion that adequate ventilation is provided by air leakage, or that air-tight houses will provide inadequate ventilation. SONAR, at 10. The Department has shown that air

leakage, particularly at the meeting point between floor joists and the building envelope, is a substantial source of energy loss. SONAR, Attachment E. Preventing air leakage at the points identified by subpart 3 is needed and reasonable.

Minn. Rule 7670.0610 - Amendments to Section 503: Building Mechanical Systems.

19. DPS has proposed eight new subparts to Minn. Rule 7670.0610. These new subparts impose performance standards on pumping systems, balancing, air-handling duct system insulation, duct construction; and require that an operation and maintenance manual be provided. The standards adopted in these subparts are taken from American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc. (ASHRAE) Standard 90.1-1989. SONAR, at 10. The Minnesota Department of Administration objected to subparts 3, 4, 5, 6, 8, 9 and 10. The objections ranged from not including all the ASHRAE standard language in subpart 3, to including language which duplicates the State Mechanical Code in subpart 9. The Department of Administration did not indicate what other language should be included in any of the subparts. The fact that a standard is found in another applicable code is not a basis for finding a subpart unreasonable. The statutory authorization for DPS's adoption of a rule requires that "to the maximum extent practical shall be based on and conform to model codes generally accepted throughout the United States." Minn. Stat. § 216C.19, subd. 8. DPS has shown that the rule is needed and reasonable to incorporate a model code.

Minn. Rule 7670.0710 - Amendments to Section 504: Service Water Heating.

20. DPS has proposed an amendment to the rules governing water heating in certain applications. Subpart 2 (formerly subpart 1) of Minn. Rule 7670.0710 would be amended by requiring a time clock on swimming pool heaters which would shut off the heater during periods of peak demand. The Department of Administration objected to the rule as potentially hazardous to public health. DPS altered the proposed rule language from ASHRAE 90.1-1989 to remove the requirement of time clocks for water pumps, based on a suggestion by the Minnesota Department of Health. In response to the comments from the Department of Administration, DPS withdrew the time clock requirement for swimming pool heaters. Since the subpart is withdrawn there is no need to determine the need or reasonableness of the provision. Withdrawing the provision does not result in a rule substantially different from that published in the State Register.

Minn. Rule 7670.0800 - Amendments to Section 505: Electric Power and Lighting.

21. The Department of Administration objected to the amendment to the rules governing electric power and lighting. The objection went to the lack of a definition of "low-rise residential building" in subpart 1 of Minn. Rule 7670.0800. This commentator suggested that the only alternative to not defining this term is delineating what is not included in the high-rise definition. No other commentator suggested there would be difficulty in applying this subpart. The Department did not add any definition or otherwise respond to the comment. The dictionary definition of "low-rise" states "being one or two stories high and having no elevators." American Heritage Dictionary 745 (2nd College Ed. 1985). There is no need to include a specific definition of a term which has a common meaning, unless something other than

the common meaning is intended. If DPS wishes to add the common definition of "low-rise residential building" in subpart 1, it may do so. However, subpart 1 is found to be needed and reasonable, as proposed.

22. In the lighting power budget requirements of Subpart 2, items 2 and 3, DPS uses the Revisor's instruction to change "shall" in the Model Energy Code to "must," to delete the provisions which only "may" or "should" be followed. The Department of Administration pointed out that one of the provisions added by DPS has "may" in it. That provision, item 7, allows lighting for one type of space to be controlled by a lesser number of controls, but not fewer than a set minimum. Taken literally, the Revisor's instruction could delete item 7, which is added by DPS in this rulemaking. While these items can be read as inconsistent, the inconsistency can be resolved by interpreting the Revisor's instruction as applicable only to the Model Energy Code, not to any addition to the Code items made in subpart 2. The wording of subpart 2 is not defective since it can be fairly read as not affecting language being added. DPS altered the applicable standard in subpart 2, item 8 from RS-31 to RS-5 in the Model Energy Code to conform with changes in those standards and changes made through this rulemaking. No commentator objected to the change in standard. Subpart 2 has been shown to be needed and reasonable, as amended.

23. Electrical motor efficiencies are required by subpart 4. To ease the compliance burden on the regulated public, the Department incorporated a table of efficiencies based on ASHRAE Standard 90.1-1989. The Department of Administration acknowledged that electric motors consume large portions of the energy used in a building, but pointed out that testing of electric motors to determine their efficiencies at various horsepower and revolutions per minute was beyond the capabilities of most users of the motors. DPS responded by adding the term "nominal" to the efficiency requirement and by moving the reference to the National Electric Manufacturers Association to the same sentence. This alteration permits the person using the motor to rely upon the manufacturer's efficiency and revolution per minute standards. Additionally, DPS corrected a typographical error in the table. Subpart 4, as amended, is needed and reasonable to require efficient motors in buildings. The changes ease the compliance burden on the public and do not constitute substantial changes.

Proposed Rule 7670.1100 - Effective Dates.

24. Prior to the close of the hearing record, DPS proposed to add two effective dates in rule 7670.1100. The proposed rule contains one subpart, which provides that the rules take effect 90 days after publication; and one exception, which provides that Minn. Rule 7670.0550, subp. 4 takes effect on January 1, 1993. The subpart and the exception were proposed to give the regulated public time to adapt to the rule requirements. The exception provides more time to meet the air leakage requirements. Since the air leakage requirement requires greater tightness in buildings, and many commentators suggested that more time was necessary to adapt the ventilation and air quality of buildings to the new standard; lengthening the time for compliance with subpart 4 is reasonable. Proposed rule 7670.1100 is needed and reasonable. The change adopts the intent of many suggestions in this rulemaking proceeding and does not constitute a substantial change.

Model Codes.

25. The Builders Association of Minnesota (BAM) objected to the entire rulemaking on the grounds that the Department has failed to meet its statutory requirement to establish rules which conform to model codes to the "maximum extent practicable." Minn. Stat. § 216C.19, subd. 8. BAM identifies seven rule parts which exceed model code requirements and asserts that the Department has not shown any need to exceed the model codes. Public Exhibit 1. In response, DPS indicated that the model codes have not meaningfully changed since 1983 and some model code provisions are inadequately stated. Model codes are designed for use in average climatic conditions. Many climatic conditions in Minnesota are not average. The provisions identified by BAM all relate to insulation requirements, an area in which exceeding model codes may be required to obtain reasonable energy use due to severe Minnesota winters. In each of the rules relating to insulation requirements, DPS has clearly identified the need to exceed the model code standards and the factors supporting the reasonableness of the proposed changes. Minn. Stat. § 216C.19, subd. 8 does not require the DPS to strictly adopt model codes if to do so would be impractical or contrary to its statutory charge to provide standards consistent with the "most efficient use of energy." Adoption of standards which vary from model codes, if affirmatively shown to be needed and reasonable, does not constitute a defect.

Economic Feasibility.

26. Minn. Stat. § 216C.19, subd. 8 requires the rules to be economically feasible by not costing more than the anticipated savings in energy procurement. BAM asserts that the Department has not performed a cost/benefit analysis for the majority of the rule parts, and therefore the rule is in conflict with this statutory provision. The commentators to this rulemaking have identified only one provision in which the cost figures are disputed. That provision is the "winter design conditions" standard discussed in Finding 14, above. The cost/benefit analysis of that standard is discussed in Finding 14. Where the rule imposes no new requirements not already found in existing construction process (e.g. mechanical ventilation of low-rise dwellings), and no specific objections are raised, there is no need for a detailed cost/benefit analysis. DPS can meet the statutory requirement by determining that the proposed rules do not significantly increase costs. The proposed rules are not defective because the DPS did not include an analysis of the cost of energy saved compared to the cost of each and every rule requirement. The Department has complied with the statutory intent of Minn. Stat. § 216C.19, subd. 8.

Building Code Officials.

27. Merwyn Larson, Deputy Director of Inspections for the City of Minneapolis Department of Regulatory Services, expressed concern that any change to the Energy Code makes the job of building code officials extremely difficult. Mr. Larson suggested more training, a delayed effective date for the rules, or combining the Energy Code into one document. As discussed at Finding 24, above, the effective date of the rules has been delayed, to provide all affected persons the opportunity to become familiar with the new rules. Providing additional training is a matter which falls entirely within the discretion of the Department. The Judge notes that DPS has disseminated

bulletins advising builders and building code officials of new procedures and standards. SONAR, Attachments A, D and E. The Department has met the requirements of incorporating documents by reference into the rule. The Judge cannot direct the Department to reorganize its rule to physically incorporate documents properly incorporated by reference.

Based upon the foregoing Findings of Fact, the Administrative Law Judge makes the following:

CONCLUSIONS

1. The Minnesota Department of Public Service (DPS) gave proper notice of this rulemaking hearing.
2. DPS has substantially fulfilled the procedural requirements of Minn. Stat. §§ 14.14, subds. 1, 1a and 14.14, subd. 2, and all other procedural requirements of law or rule so as to allow it to adopt the proposed rules.
3. DPS has demonstrated its statutory authority to adopt the proposed rules, and has fulfilled all other substantive requirements of law or rule within the meaning of Minn. Stat. §§ 14.05, subd. 1, 14.15, subd. 3 and 14.50 (i) and (ii).
4. DPS has demonstrated the need for and reasonableness of the proposed rules by an affirmative presentation of facts in the record within the meaning of Minn. Stat. §§ 14.14, subd. 2 and 14.50 (iii).
5. The additions and amendments to the proposed rules which were suggested by DPS after publication of the proposed rules in the State Register do not result in rules which are substantially different from the proposed rules as published in the State Register within the meaning of Minn. Stat. § 14.15, subd. 3, and Minn. Rule 1400.1000, subp. 1 and 1400.1100.
6. Any Findings which might properly be termed Conclusions and any Conclusions which might properly be termed Findings are hereby adopted as such.
7. A Finding or Conclusion of need and reasonableness in regard to any particular rule subsection does not preclude and should not discourage DPS from further modification of the proposed rules based upon an examination of the public comments, provided that no substantial change is made from the proposed rules as originally published, and provided that the rule finally adopted is based upon facts appearing in this rule hearing record.

Based upon the foregoing Conclusions, the Administrative Law Judge makes the following:

RECOMMENDATION

IT IS HEREBY RECOMMENDED that the proposed rules be adopted consistent with the Findings and Conclusions made above.

Dated this 3rd day of April, 1992.

Phyllis A. Reha

PHYLLIS A. REHA
Administrative Law Judge

Reported: Tape Recorded; No Transcript.