9-14-2006

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MINNESOTA DEPARTMENT OF
LABOR & INDUSTRY

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September 13, 2006

Legislative Reference Library
645 State Office Building
100 Constitution Avenue
St. Paul, Minnesota 55155

Re: In the Matter of the Proposed Rules of the State Department of Labor and Industry Governing Elevators and Related Devices; Governor's Tracking #AR 023

Dear Librarian:

The Minnesota Department of Labor and Industry intends to adopt rules governing elevators and related devices. We plan to publish a Dual Notice of Intent to Adopt Rules Without a Public Hearing in the September 18, 2006 State Register.

The Department has prepared a Statement of Need and Reasonableness. As required by Minnesota Statutes, sections 14.131 and 14.23, the Department is sending the Library a copy of the Statement of Need and Reasonableness at the time we are mailing our Notice of Intent to Adopt Rules.

If you have any questions, please contact me at (651) 284-5217.

Yours very truly,

Carrie Rohling

Carrie Rohling
Rules Coordinator

Enclosure: Statement of Need and Reasonableness

Minnesota Department of Labor and Industry
Construction Codes and Licensing Division

STATEMENT OF NEED AND REASONABLENESS

Proposed Amendment to Rules Governing Elevators and Related Devices, Minnesota Rules, Chapter 1307.

INTRODUCTION

The Minnesota State Building Code, Minnesota Rules, chapter 1307, Elevators and Related Devices, is also known as the "Elevator Code." The Elevator Code is based upon the model International Building Code ("IBC") that is promulgated by the International Code Council ("ICC") and the standards promulgated by the American Society of Mechanical Engineers ("ASME"), which are then modified to reflect Minnesota's unique needs. Minnesota's Elevator Code requires periodic review and amendment since the IBC and ASME model codes and standards are updated regularly. In this way the Department is able to include the use of modern methods, devices, materials, and techniques intended to provide basic and uniform performance standards, and establish reasonable safeguards for the health, safety, welfare, comfort, and security of Minnesota's residents in its Elevator Code.

The proposed rules intend to provide clarity as to the application of the rules, and the minimum safety standards contained in the rules for those installing, maintaining, and inspecting elevators and related devices. The proposed rules also organize existing language, which in some instances has been modified, by repealing some rule parts and reorganizing the existing language into newly numbered rule parts.

The proposed rules incorporate the following documents[1] by reference:

1. *ASME A17.1-2004, with the 2005 A17.1A Addenda and the supplement to ASME A17.1S-2005 - Safety Code for Elevators, Escalators, and Related Equipment* ("ASME A17.1");
2. *ASME A17.3-2002, Safety Code For Existing Elevators and Escalators* ("ASME A17.3");
3. *ASME A17.5-2004 Elevator and Escalator Electrical Equipment* ("ASME A17.5"); *ASME A18.1-2005, Safety Standard for Platform Lifts and Stairway Chairlifts ("ASME A18.1");*
4. *ASME A90.1 – 2003 Safety Standard for Belt Manlifts* ("ASME A90.1");
5. *ASME B20.1-2003 Safety Standard for Conveyors and Related Equipment* ("ASME B20.1"); *and*
6. The *2006 International Building Code, Chapter 30.*

ALTERNATIVE FORMAT

[1] To review the documents that are incorporated by reference into the proposed rules, please contact John Roche at (651) 284-5873 or email to John.P.Roche@state.mn.us.

Upon request, this Statement of Need and Reasonableness can be made available in an alternative format, such as large print, Braille, or cassette tape. To make a request, contact Carrie Rohling at the Department of Labor and Industry, 443 Lafayette Road North, St. Paul, MN 55155, e-mail at Carrie.Rohling@state.mn.us, telephone (651) 284-5217, or fax (651) 284-5725. TTY users may call (651) 297-4198.

STATUTORY AUTHORITY

The Department's statutory authority to adopt the rules is set forth in Minnesota Statutes sections 16B.59, 16B.61, 16B.64, and 16B.748.[2]

Minnesota Statutes, section 16B.59 states in pertinent part,

> [T]he State Building Code governs the construction, reconstruction, alteration, and repair of buildings and other structures to which the code is applicable. The commissioner shall administer and amend a state code of building construction which will provide basic and uniform performance standards, establish reasonable safeguards for health, safety, welfare, comfort, and security of the residents of this state and provide for the use of modern methods, devices, materials, and techniques which will in part tend to lower construction costs. The construction of buildings should be permitted at the least possible cost consistent with recognized standards of health and safety.

Minnesota Statutes, section 16B.61, subdivision 1, states in part,

> [T]he commissioner shall by rule establish a code of standards for the construction, reconstruction, alteration, and repair of buildings, governing matters of structural materials, design and construction, fire protection, health, sanitation, and safety, including design and construction standards regarding heat loss control, illumination, and climate control. The code must also include duties and responsibilities for code administration, including procedures for administrative action, penalties, and suspension and revocation of certification. The code must conform insofar as practicable to model building codes generally accepted and in use throughout the United States, including a code for building conservation. In the preparation of the code, consideration must be given to the existing statewide specialty codes presently in use in the state. Model codes with necessary modifications and statewide specialty codes may be adopted by reference. The code must be based on the application of scientific principles, approved tests, and professional judgment. To the extent possible, the code must be adopted in terms of desired results instead of the means of achieving those results, avoiding wherever possible the incorporation of specifications of particular methods or materials. To that end the code must encourage the use of new methods and new materials. Except as otherwise provided in sections 16B.59 to 16B.75, the commissioner shall administer and enforce the provisions of those sections...

[2] All sources of statutory authority were adopted and effective prior to January 1, 1996, and so Minnesota Statutes, section 14.125, does not apply. See Minnesota Laws 1995, chapter 233, article 2, section 58.

Minnesota Statutes, section 16B.64, subdivision 6 states, "The commissioner shall approve any proposed amendments deemed by the commissioner to be reasonable in conformity with the policy and purpose of the code and justified under the particular circumstances involved. Upon adoption, a copy of each amendment must be distributed to the governing bodies of all affected municipalities."

Minnesota Statutes, section 16B.748 states,

> The commissioner may adopt rules for the following purposes:
>
> (1) to establish minimum qualifications for elevator inspectors that must include possession of a current elevator constructor electrician's license issued by the State Board of Electricity and proof of successful completion of the national elevator industry education program examination or equivalent experience;
>
> (2) to establish criteria for the qualifications of elevator contractors;
>
> (3) to establish elevator standards under sections 16B.61, subdivisions 1 and 2, and 16B.64;
>
> (4) to establish procedures for appeals of decisions of the commissioner under chapter 14 and procedures allowing the commissioner, before issuing a decision, to seek advice from the elevator trade, building owners or managers, and others knowledgeable in the installation, construction, and repair of elevators; and
>
> (5) to establish requirements for the registration of all elevators.

Pursuant to the *Department of Administration Reorganization Order No. 193*, dated April 4, 2005, the responsibilities of the Department of Administration in relation to State Building Codes and Standards as set forth in Minnesota Statutes, sections 16B.59 through 16B.76 (2004) were transferred to the Department of Labor and Industry.[3]

Pursuant to these statutes and the reorganization order, the Department of Labor and Industry has the authority to adopt these proposed rules.

REGULATORY ANALYSIS

Minnesota Statutes, section 14.131, sets out seven factors for a regulatory analysis that must be included in the SONAR. Paragraphs (1) through (7) below quote these factors and then give the agency's response.

(1) a description of the classes of persons who probably will be affected by the proposed rule, including classes that will bear the costs of the proposed rule and classes

[3] Reorganization Order No. 193 was effective upon filing with the Secretary of State on May 16, 2005, and shall remain in effect until amended, repealed, or superseded. For a copy of the reorganization order, please contact Carrie Rohling by e-mail at Carrie.Rohling@state.mn.us, or phone to (651) 284-5217.

that will benefit from the proposed rule:

The classes of persons who will be affected by the proposed rule include municipal elevator inspectors who must become familiar with and enforce the rule and code; elevator contractors and installers who must become familiar with and incorporate the provisions of the rule and code; elevator equipment manufacturers and suppliers who must become familiar with and incorporate the code into the manufacture and assembly of products; building owners and managers; and the general public that uses elevators and related devices in buildings and other structures.

The classes of persons who will bear the costs of the proposed rule include building owners and managers who pay for the initial installation costs and maintenance costs for elevators and related devices; elevator contractors and installers who bear short term costs associated with estimating and purchasing equipment and labor; and equipment manufacturers and suppliers who will bear short term costs of any provisions that affect costs relating to the manufacture of elevators and related devices. Many of these costs, however, are typically passed on to the building owners and managers who ultimately pass the costs onto the consumer.

The classes of persons who will benefit from the proposed rule include elevator inspectors who need the most current available standards to provide the most current technologies and methodologies and to provide more uniform application and enforcement; elevator contractors and installers who need to use the most current standards available to remain consistent with requirements that have been accepted and are currently in use throughout the nation; elevator equipment manufacturers and suppliers who use and apply the most current standards available to the manufacture and assembly of products; building owners and managers who require updated and uniform rules and codes to ensure safe equipment; and the general public who will be protected physically by updating current codes and standards.

(2) the probable costs to the agency and to any other agency of the implementation and enforcement of the proposed rule and any anticipated effect on state revenues:

The Department does not anticipate additional costs to this or any other agency related to the implementation and enforcement of the proposed rules. However, the Department does anticipate that it will continue to purchase and review the newest model codes and standards to determine whether the model codes and standards should be incorporated into Minnesota's Elevator code, and if so what modifications might be needed. The Department also intends to continue utilizing an advisory committee to provide technical advice about needed amendments, and while these committee members are not paid for their time, they are provided with the materials and resources necessary to review the model codes and standards.

Once these rules are adopted, the agency may need to provide updates or minimal training to the industry regarding the proposed rules. This would likely be accomplished by sending an email update, posting the rules on the Department's website, or by including a segment of elevator education within a larger training program for that target audience. The agency must also provide a copy of the final rule to all jurisdictions that enforce the Elevator Code.

There are no costs to any other agency for implementation and enforcement of the proposed rule. Any agency costs associated with the proposed rule would be borne by this agency as explained above.

There would be no anticipated effects on state revenue associated with the proposed rule.

(3) a determination of whether there are less costly methods or less intrusive methods for achieving the purpose of the proposed rule:

The agency's statutory authority requires the code to "conform insofar as practicable to model codes generally accepted and in use throughout the United States."[4] Given this requirement, the least costly method of implementing this statutory mandate is to incorporate by reference those recognized national models codes and standards into rule. Incorporation of national model codes and standards by reference is also the least intrusive methods of achieving the purpose of the proposed rules because the use of a national model will not require those businesses that desire to conduct business on a national scale to learn a unique code in order to conduct business in Minnesota.

(4) a description of any alternative methods for achieving the purpose of the proposed rule that were seriously considered by the agency and the reasons why they were rejected in favor of the proposed rule:

The agency's statutory authority requires the code to "conform insofar as practicable to model codes generally accepted and in use throughout the United States."[5] The best way to achieve this result is to incorporate by reference those recognized national model codes and standards into rule. The ASME standards are the only standards available in for use in the United States. There are no alternative elevator codes or standards available for consideration. As a result, the ASME standards were the only standards considered, reviewed, and incorporated by reference with modifications to retain Minnesota's current minimum standards and address circumstances unique to Minnesota (e.g. weather).

(5) the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals:

The probable costs of complying with the proposed rules will be incurred by four identifiable categories of affected parties:

A. Owners of existing escalators and elevators:

The proposed rules require updates to particular life safety mechanisms for existing escalators and elevators, which is likely to have an initial cost to owners of existing escalators and elevators. These safety mechanisms are intended to maintain minimum life safety standards

[4] Minn. Stat. § 16B.61, subd. 1 (2004).
[5] Id.

that impact those individuals riding on escalators or in elevators, other occupants of the building, and authorized or emergency personnel. The Department believes that updating these life safety mechanisms will reduce the risk of death or serious injury on particular escalators and elevators.

The proposed rules will require the owner to have a written maintenance control program for all equipment covered by the Code, which may result in an increase in costs associated with compliance with the proposed rules.

Proposed Minn. R. ch. 1307.0047, subpart 10, Clearance between step and skirt, and step/skirt performance index[6]

In order to determine the probability of side-foot entrapment the proposed rule will require certain escalators to have the coefficient of friction tested annually. The Department has, through its advisory committees, determined that there are about 1,000 escalators in Minnesota that will be required to undergo this particular diagnostic test within the first three years after the proposed rules are adopted. The Department anticipates that this test will have an approximate cost of $7,500. Each escalator with test results showing a danger of side-foot entrapment will require the installation of a brush to prevent such occurrences. The Department anticipates that there will be approximately 600 instances where a brush installation will be required within the first three years after the proposed rules are adopted. For those escalators requiring a brush installation the installation cost is approximately $7,500. As a result those escalators may have approximately $15,000 in costs associated with compliance within the first three years after the adoption of the proposed rules.

Proposed Minn. R. ch. 1307.0047, subpart 8, Safety Bulkhead[7]

An existing mechanism in many hydraulic elevators installed prior to 1972 is a cylinder, which has become outdated and obsolete. The cylinder is outdated and obsolete because repairing these cylinders has become impracticable in that it is unlikely that replacement parts can be found in today's marketplace and manufacturers are no longer producing replacement parts. These cylinders are likely to experience a free fall of the elevator cab as they age, which could result in death or serious injury. The Department anticipates that approximately 1,500 elevators are currently operating with these cylinders and estimates the cost of replacing this cylinder at about $40,000. Because these cylinders will experience a free fall at some future date and it is impracticable to repair these cylinders, the proposed rule requires that the cylinder be replaced within the first five years after the proposed rules are adopted.

It is possible that a few of the elevators currently operating with this cylinder may be repaired with the installation of a plunger gripper device; however, the application of this option is very limited because of the elevator pit depth required for its installation. In those circumstances where the installation of a plunger gripper device is permitted, the Department estimates the cost at approximately $1,500. As a result those elevators may have approximately $1,500 in costs associated with compliance within the first five years after the proposed rules are adopted.

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[6] For further discussion see page 17.
[7] For further discussion see page 17.

This proposed rule requires the owner to annually submit a statement that an oil usage log is being properly utilized and that the elevator has successfully passed annual pressure tests. The proposed rule will also require the owner to document the monitoring of any uncorrected cylinders.

Proposed Minn. R. ch. 1307.0047, subpart 13, Firefighter's service[8]

Another safety mechanism found in elevators is the fire service recall mechanism. The Department, through its advisory committees and an elevator consultant, has found that approximately 15,000 elevators[9] carrying passengers today do not have this safety mechanism installed. The installation of this mechanism, within the first five years after the proposed rules are adopted, will recall all elevators to the first floor in the event of a fire, which will assist in the evacuation of those present in the elevator at the time of recall and restrict the use of the elevator to authorized or emergency personnel during the unsafe fire condition. The Department estimates that the cost to install this mechanism will be approximately $10,000 in the first five years after the proposed rules are adopted.

Proposed Minn. R. ch. 1307.0047, subpart 12, Restricted opening of hoistway doors and car doors on passenger elevators[10]

There are approximately 20,000 elevators operating today where the doors are permitted to open when the elevator is not located within a door zone because a door restrictor mechanism has not been installed. The proposed rule requires the installation of this safety mechanism into those elevators within the first five years after the proposed rules are adopted. The Department estimates that the installation of this mechanism will be approximately $5,000. As a result there may be $5,000 in costs associated with compliance within the first five years after the proposed rules are adopted.

The proposed rule will require the owner to have a written maintenance control program for all equipment covered by the code. The proposed rule will also require the owner to document the monitoring of any uncorrected cylinders.

B. Elevator contractors:

The Department anticipates that elevator contractors may choose to purchase the new standards, train employees, or modify forms and practices, which may result in increased costs.

C. Elevator Inspectors:

The proposed rule 1307.0065, subpart 15[11] requires those individuals inspecting elevators to obtain certification as a qualified elevator inspector ("QEI Certification) in addition to other

[8] For further discussion see page 18.
[9] These elevators were installed prior to Minnesota's adoption of the 1987 Elevator Code and have 25 feet or more of travel.
[10] For further discussion see page 18.

requirements already in law. The QEI Certification is a nationally recognized standard for elevator inspectors that is provided by the American Society of Mechanical Engineers, the National Association of Elevator Safety Authorities, and the International Union of Elevator Constructors. The QEI Certification costs approximately $1,500. The Department has determined that approximately 85% of Minnesota's elevator inspectors already possess QEI Certification. As a result, the costs of complying with this proposed rule is likely to be borne by approximately 15% of those individuals currently inspecting elevators, and those individuals, or their employers, that intend to become elevator inspectors after the proposed rules are adopted.

The individual elevator inspector may also choose to purchase new standards or participate in fee-based training opportunities at their own expense.

D. Municipalities enforcing the elevator rule:

Although the Department is required to provide a copy of the final rule to all jurisdictions that enforce the Elevator Code, municipalities may choose to purchase new standards, train inspectors, and modify forms and practices, which may result in increased costs.

(6) the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals:

If the Department does not adopt the proposed rules, which incorporate updates of all the standards in the rule, it will have to fall back on the current Elevator Code. The current Elevator Code is outdated and contains provisions that are difficult to comply with, either because the equipment or materials are unavailable or methods and processes are no longer used or accepted on a national level. New technologies and methodologies help decrease costs by using less expensive materials or processes. Maintaining the current Elevator Code may result in keeping costs higher than necessary at the expense of decreasing protection of the public. Some of the new provisions also address increased life safety protections. Some of the new provisions incorporate life safety protections where none actually existed before, and are, therefore, very necessary to adequately protect the public and industry personnel.

(7) an assessment of any differences between the proposed rule and existing federal regulations and a specific analysis of the need for and reasonableness of each difference:

There are no applicable federal regulations that address elevator safety in the construction of non-federally owned buildings. The federal government does prescribe standards for persons with disabilities in all public use buildings including those with elevators. These proposed rules, however, refer to the Minnesota Accessibility Code for accessibility issues, which mirrors federal regulations with regard to accessibility.

PERFORMANCE-BASED RULES

[11] For further discussion Proposed Minn. R. ch. 1307.0067, subpart 15, Elevator inspector qualifications, please see page 18.

Minnesota Statutes, section 14.002 states that, "some regulatory rules and programs have become overly prescriptive and inflexible, thereby increasing costs to the state, local government and the regulated community and decreasing the effectiveness of the regulatory program. Therefore, whenever feasible, state agencies must develop rules and regulatory programs that emphasize superior achievement in meeting the agency's regulatory objectives and maximum flexibility for the regulated party and the agency meeting those goals."

Minnesota Statutes, section 16B.59, provides that "...The commissioner shall administer and amend a state code of building construction which will provide basic and uniform *performance* standards..." It further states, "...The construction of buildings should be permitted at the least possible cost consistent with recognized standards of health and safety." The standards referenced in this part of the statutes are referred to as "basic and uniform *performance* standards." The statute further requires an allowance for construction *at the least possible cost* consistent with recognized standards of health and safety. Minnesota Statutes, section 16B.61, authorizes the Department to, by rule, establish a code of standards for construction. This statute also mandates, that to the extent possible, the code must be adopted in terms of desired results instead of the means of achieving those results, *avoiding wherever possible the incorporation of specifications of particular methods or materials.*

The ASME standards address the approach to performance-based criteria in the preface of the standards. Specifically, it states, "[w]here present requirements are not applicable or do not describe new technology, the authority having jurisdiction should recognize the need for exercising latitude and granting exceptions where the product or system is equivalent in quality, strength or stability, fire resistance, effectiveness, durability, and safety to the intended by the present Code requirements."

ADDITIONAL NOTICE

This Additional Notice Plan was reviewed by the Office of Administrative Hearings and approved in a September 6, 2006 letter by Administrative Law Judge Eric Lipman.

The Department will mail the proposed rules and Notice of Intent to Adopt Rules to the following interested parties:

a. All municipal code officials involved in code administration. This list is taken from the Construction Codes and Licensing Division's database and includes all municipal building officials responsible for administration of the state building code;
b. Metropolitan Council;
c. Elevator Contractors Association;
d. League of Minnesota Cities;
e. Elevator Consultants Groups;
f. Elevator Inspection Groups;
g. Builders' associations;
h. Electrical associations;
i. Fire associations;
j. Building Owners and Managers Association;

k. Minnesota Multi Housing Association;
l. American Institute of Architects Minnesota; and the
m. State Fire Marshal Division.

Our notice plan also includes giving notice as required by statute. We will mail the proposed rules and Notice of Intent to Adopt to everyone who has registered to be on the Department's Construction Codes and Licensing Division rulemaking mailing list under Minnesota Statutes, section 14.14, subdivision 1a.

We will also publish the proposed rules, Statement of Need and Reasonableness, and Notice of Intent to Adopt Proposed Rules on the Department of Labor and Industry's web site, which is located at www.dli.state.mn.us. We will also give notice to the Legislature per Minnesota Statutes, section 14.116. We will also publish the notice in the *State Register*, as required by state law.

CONSULT WITH FINANCE ON LOCAL GOVERNMENT IMPACT

As required by Minnesota Statutes, section 14.131, the Department has consulted with the Commissioner of Finance. We did this by sending to the Commissioner of Finance copies of the documents sent to the Governor's Office for review and approval by the Governor's Office prior to the Department publishing the Notice of Intent to Adopt. We sent the copies on August 2, 2006. The documents included: the Governor's Office Proposed Rule and SONAR Form; almost final draft rules; and the almost final SONAR. The Department of Finance sent a letter dated August 15, 2006 with its comments.

COST OF COMPLYING FOR SMALL BUSINESS OR CITY

Agency Determination of Cost

As required by Minnesota Statutes, section 14.127, the Department has considered whether the cost of complying with the proposed rules will exceed $25,000 for any small business with less than 50 full-time employees[12] or any statutory or home rule charter that has less than 10 full-time employees[13] in the first year after the rules take effect. The Department has determined that the cost of complying with the proposed rules in the first year after the rules take effect will not exceed $25,000 for any small business or small city.

For further discussion of the costs of complying with the proposed rules see item five on pages 5-7.

LIST OF WITNESSES

If these rules go to a public hearing, the Department anticipates having the following witnesses testify in support of the need for and reasonableness of the rules:

[12] Hereinafter referred to as a "small business."
[13] Hereinafter referred to as a "small city."

1. Department of Labor and Industry, Construction Codes and Licensing Division staff as to the reasonableness of the rules.
2. Advisory Committee members representing public interests, building owners and managers as to the reasonableness of the rules.
3. Elevator consultants used by the Division as to the reasonableness of the rules.

RULE-BY-RULE ANALYSIS

1307.0010 PURPOSE AND SCOPE.

This part was modified to include a reference to part 1307.0110.

1307.0020 CODES ADOPTED BY REFERENCE.

This headnote was modified by changing the reference to "ASME Code" to "Codes"

Subpart 1. Incorporation by reference. This part was modified to update several incorporations by reference: Chapter 30 of the 2006 International Building Code, and newer or updated versions of various ASME standards and addenda that relate to elevators or related devices. It is necessary to incorporate updated versions of the codes to provide new methods and technologies. The final modification to this part changes the reference to the Department of Administration, Building Codes and Standards Division to the Department of Labor and Industry in accordance with Reorganization Order No. 193[14].

Subp. 3. Emergency personnel. This is a new amendment to the code. This change is necessary because it provides a reference document for emergency personnel. This Guide will give emergency personnel access to written documentation on procedures for releasing trapped passengers from elevators. It will also serve as a guide to be used for training emergency personnel. The guide was created to fulfill the needs of building owners, lessees, and operating managers who demanded a guide for the evacuation of passengers from stalled elevator cars.

1307.0025 DEFINITIONS

This entire part was repealed and some parts are relocated into proposed rule 1307.0027.

Subpart 1. Scope. This subpart is renumbered as proposed rule 1307.0027, subpart 1.

Subpart 2. ASME A17.1-1996. This is subpart is renumbered as proposed rule 1307.0027, subpart 2.

Subpart 3. ASME A17.3-1996. This subpart is renumbered as proposed rule 1307.0027, subpart 3.

Subpart 4. ASME Code. This subpart is renumbered as proposed rule 1307.0027, subpart 5.

[14] For additional discussion of Reorganization Order Number 193, see page 3.

Subpart 5. Authority having jurisdiction. This subpart is renumbered as proposed rule 1307.0027, subpart 6.

Subpart 6. Existing installation. This subpart is renumbered as proposed rule 1307.0027, subpart 11.

Subpart 7. Endless belt lift. This subpart is renumbered as proposed rule 1307.0027, subpart 10.

Subpart 8. Uniform Building Code. This subpart is renumbered as proposed rule 1307.0027, subpart 12.

Subpart 9. Vertical reciprocating conveyor. This subpart is renumbered as proposed rule 1307.0027, subpart 15.

1307.0027 DEFINITIONS.

This rule includes existing language, with modification where necessary, from Minnesota Rules part 1307.0025. The modifications are necessary to specify and properly define the terms that are used throughout the rule chapter.

Subpart 1. Scope. This language is from Minn. R. part 1307.0025, subp. 1, which was modified to include all rule parts in chapter 1307.

Subp. 2. ASME A17.1-2004. This language is from Minn. R. part 1307.0025, subp. 2. The modification specifies that references to "ASME A17.1-2004" mean the updated version of the Safety Code for Elevators and Related Equipment and the A17.1S-2005 supplement.

Subp. 3. ASME A17.3-2002. This language is from Minn. R. part 1307.0025, subp. 3. The modification specifies that references to "ASME A17-3-2002" mean the updated 2002 version of the Safety Code for Existing Elevators and Escalators.

Subp. 4. ASME A17.5-2004. This is new language. This subpart specifies that references to "ASME A17.5-2004" mean the updated 2004 version of the ASME A17.5 Safety Code for Elevators and Escalators.

Subp. 5. ASME A18.1-2005. This language is from Minn. R. part 1307.0025, subp. 2, which refers to ASME A17.1. The ASME standard for platform lifts and stairway chair lifts has been relocated by ASME to ASME A18.1. The modification specifies that references to "ASME A18.1-2005" mean the updated 2003 version of the Safety Standard for Platform Lifts and Stairway Chairlifts.

Subp. 6. ASME A90.1-2003. This is new language. This subpart specifies that references to "ASME A90.1-2003" mean the updated 2003 version of the Safety Standard for Belt Manlifts.

Subp. 7. ASME B20.1-2003. This is new language. This subpart specifies that references to "ASME B20.1-2003" mean the updated 2003 version of the B20.1 Safety Standard for Conveyors and Related Equipment.

Subp.8. ASME Code. This language is from Minn. R. part 1307.0025, subp. 4, which has not been modified.

Subp. 9. Authority having jurisdiction. This language is from Minn. R. part 1307.0025, subp. 5. In accordance with Reorganization Order No. 193, this modification specifies the authority having jurisdiction by changing the reference to the Department of Administration to the Department of Labor and Industry.

Subp. 10. Bank of elevators. This is new language. This subpart defines the phrase "bank of elevators" as used in the Elevator Code. The language specifies that "bank of elevators" means a group of elevators or a single elevator controlled by a common operating system; all elevators that respond to a single call button. The language does not limit the number of cars that may be in a bank. A definition is necessary to eliminate confusion regarding which elevators will activate during fire service circumstances and emergency power circumstances.

Subp. 11. Conditioned space. This is new language. This subpart defines the phrase "conditioned space" as used in the Elevator Code. The language specifies that references to "conditioned space" means space within a building which is conditioned either directly or indirectly by an energy using-system and is capable of maintaining at least 65 degrees Fahrenheit at winter design conditions or less than 78 degrees Fahrenheit at summer design conditions required by the Minnesota Energy Code. This definition was necessary because weather extremes in Minnesota have prohibited rooftop elevators from past acceptance. The elevator could continue to operate under harsh conditions, such as cold and ice, if a conditioned space is provided (i.e. heated elevator lobby at roof level). Heating or air conditioning loss from building to shaft would also be limited. ASME 5.6 rooftop elevator provisions are restrictive enough to limit the risk to the public.

Subp. 12. Dormant elevator, dormant dumbwaiter, or dormant escalator. This is new language. This subpart defines the phrase "dormant elevator," "dormant dumbwaiter," and "dormant escalator" as used in the Elevator Code. The language specifies that references to "dormant elevator," dormant dumbwaiter," and "dormant escalator" means an installation placed out of service as specified in ASME A17.1-2004 8.11.1.4. This definition was necessary to clarify what a long term out of service elevator is to be called, and to clarify how an elevator, dumbwaiter, or escalator that is placed out of service for a long period of time is identified.

Subp. 13. Endless belt lift. This language is from Minn. R. part 1307.0025, subp. 7. This modification defines the phrase "endless belt lift" as used in the Elevator Code. The language specifies that a "belt manlift" is governed by the 2003 updated version of the ASME A90.1 Standard for Belt Manlifts.

Subp. 14. Existing installation. This language is from Minn. R. part 1307.0025, subp. 6, which has not been modified.

Subp. 15. International Building Code or IBC. This language is from Minn. R. part 1307.0025, subp. 8. This modification specifies that the phrase "International Building Code," or the term "IBC" mean the International Building Code or IBC, which is the model code currently incorporated by reference in the State of Minnesota. This definition is necessary because Chapter 30 of the 2006 IBC and this rule chapter refer to the IBC and International Building Code. The headnote was also modified.

Subp. 16. Private residence. This is new language. This subpart defines "private residence" as used in the Elevator Code. This definition is necessary to distinguish a group home residence from a private residence. The reference to "no more than six unrelated persons" was included to coordinate with the Department of Human Services requirement that limits the number of residents to six or fewer unrelated persons in a private residence.

Subpart 17. Temporarily dormant elevator, temporarily dormant dumbwaiter, or temporarily dormant escalator. This is new language. This subpart defines the phrases "temporarily dormant elevators," "temporarily dormant dumbwaiters," and "temporarily dormant escalators" as used in the Elevator Code. This definition was necessary to clarify the provision regarding the removal of a unit from service.[15]

Subpart 18. Vertical reciprocating conveyor. This language is from Minn. R. part 1307.0025, subp. 9, which has been modified to refer to the 2003 updated version of the ASME B20.1 Safety Standards for Conveyors and Related Equipment.

1307.0030 PERMITS.

Subpart 1. Permits required. This subpart was modified to reflect the change in the in the authority having jurisdiction from the Department of Administration to the Department of Labor and Industry.[16] This subpart was also modified to specifically identify required permits, and eliminate an exception that does not encompass critical safety items.

Subp. 3. Plans and specifications. This is existing language. The modification reflects the change in the in the authority having jurisdiction from the Department of Administration to the Department of Labor and Industry.[17]

Subp. 4. Certificate of operations required. This subpart was modified to reflect updated versions of the referenced ASME standards for elevators.

Subp. 5. Application for certificate of operation. This subpart was modified to reflect updated versions of the referenced ASME standards for elevators.

1307.0032 FEES.

[15] See proposed rule 1307.0090, subp. 8, pages 23-24.
[16] See Reorganization Order No. 193.
[17] Id.

This part was modified to reflect the change in the in the authority having jurisdiction from the Department of Administration to the Department of Labor and Industry.[18]

1307.0035 INSPECTIONS, TESTS, AND APPROVALS.

Subpart 2. Inspections and tests. This part was modified to include a reference to part 1307.0110.

Subp. 3. Approval. This subpart was modified to reflect updated versions of the referenced ASME standards for elevators.

1307.0045 SPECIAL PROVISIONS.

This entire part was repealed, and certain subparts were relocated into proposed rule 1307.0047.

Subpart 1. Scope. This subpart is renumbered as proposed rule 1307.0047, subp. 1.

Subp. 2. Chairlifts. This subpart is renumbered as proposed rule 1307.0047, subp. 2.

Subp. 3. Elevator lobby. This subpart has not been relocated to proposed rule 1307.0047 because the language is contained in Minnesota Rules, Chapter 1305, which incorporates the 2006 IBC by reference.

Subp. 4. Standby power. This subpart has not been relocated to proposed rule 1307.0047 because the provisions are covered in 2006 IBC Chapter 30, which is incorporated by reference in these proposed rules.[19]

Subp. 5. Minimum car size. This subpart has not been relocated to proposed rule 1307.0047 because the requirement is dictated by "loading space" set out in ASME A17.1.

Subpart 6. Emergency signs. This subpart is renumbered as proposed rule 1307.1307.0095, subp.2 (3002.3).[20]

Subp. 7. Specific use. This subpart has not been relocated to proposed rules 1307.0047 because the requirement is too broad and is not enforceable as drafted.

Subp. 8. Illumination. This subpart is renumbered as proposed rule 1307.0067, subp. 10.

Subp. 9. Chairlifts. This subpart is renumbered as proposed rule 1307.0067, subp. 2.

Subp. 10. Attendant-operated lifts. This subpart is renumbered as proposed rule 1307.0047, subp. 3.

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[18] See Reorganization Order No. 193.
[19] For further discussion of standby power, see proposed rule 1307.0095, pages 24-27.
[20] For further discussion of proposed rule 1307.0095, see pages 24-27.

Subp. 11. Rooftop elevators. This subpart is renumbered as proposed rule 1307.0047, subp. 4.

Subp. 12. Outdoor moving walks. This subpart has not been relocated to proposed rule 1307.0047 because the code adequately addresses weather issues in ASME A17.1-2004 6.1.8 (Outdoor Escalators) and 6.2.8 (Outdoor Moving walks), which requires units installed outdoors be constructed so that exposure to the weather will not interfere with normal operation.

Subp. 13. Winding drum machines. This subpart is renumbered as proposed rule 1307.0047, subp. 5.

Subp. 14. Horizontal swing doors. This subpart is renumbered as proposed rule 1307.0047, subp. 6.

Subp. 15. Side emergency exits. This subpart has not been relocated to proposed rule 1307.0047 because the requirement is now located in ASME A17.1, which addresses the issue of side emergency exits.

Subp. 16. Operating devices. This subpart has not been relocated to proposed rule 1307.0047 because the requirement is now located in ASME A17.1, which addresses the issue of operating devices.

Subp. 17. Additional doors. This subpart was relocated, with modification, to proposed rule 1307.0095, subp. 2, item 3002.6.[21]

1307.0047 SPECIAL PROVISIONS.

This rule includes existing language, with modification where necessary, from Minnesota Rules part 1307.0045.

Subpart 1. Scope. This language is from Minn. R. part 1307.0045, supb. 1, which includes modification to reference updated versions of the referenced ASME standards for elevators.

Subp 2. Chairlifts. This language is from Minn. R. part 1307.0045, supb. 9, with modifications to replace the reference to "single-family dwelling units" with "private residence" to retain Minnesota's current application while applying current terminology. The reference to ASME A17.1-1996 was changed to ASME A18.1-2005 because ASME moved the provisions for chairlifts from the ASME A17.1 to ASME A18.1. The word "may" was replaced with "shall" because the requirement has always been intended to be mandatory and not permissive.

Subp. 3. Attendant-operated lifts. This language is from Minn. R. part 1307.0045, supb. 10, with modification to grammatically remove a double negative from the sentence.

Subp. 4. Rooftop elevators. This language is from Minn. R. part 1307.0045, supb. 11. This subpart has been modified to permit rooftop elevators that operate in a conditioned space. Minnesota's weather extremes have historically prohibited rooftop elevators; however, such

[21] For further discussion of proposed rule 1307.0095, subp. 2 see pages 24-25.

elevators can operate under harsh conditions, such as cold and ice, if a conditioned space is provided (i.e. heated elevator lobby at roof level). Heating or air conditioning loss from building to shaft would also be limited. ASME 5.6 rooftop elevator provisions are restrictive enough to limit the risk to the public.

Subp. 5. Winding drum machines. This language is from Minn. R. part 1307.0045, supb. 13. This subpart has been modified because the Department has permitted and inspected private residence winding drum elevators since its inception. The intent of the code is to prohibit their use as public freight and passenger elevators. The addition of "private residence elevator" clarifies this standing practice. The past editions of 1996 and 2000 ASME A17.1, part 5, section 5.3 permits the use of winding drum elevators in private residences, as does ASME A17.1-2004.

Subp. 6. Horizontal swing doors. This language is from Minn. R. part 1307.0045, supb. 14. The subpart has been modified to coordinate with Minnesota Rules Chapter 1305, which incorporates the 2006 IBC by reference. The language permits the installation of smoke doors over elevator doors, with additional language to clarify that hoistway doors can only be smoke doors. An exception for residential elevators is included because residential swing doors were intended to be permitted, but were overlooked by the code.

Subp. 7. Elevator equipment room signage. This is new language. This modification provides uniformity relating to signage. The specific requirements proposed reflect the National Electrical Code, which calls for warning signs to unauthorized persons. This will help emergency personnel find the machine room in the event of an emergency or entrapment—especially if they are unfamiliar with the building.

Subp. 8. All work required for compliance with ASME A17.1-2004 – Safety Bulkhead. This is new language. This subpart pertains to safety and includes guidance to building owners regarding a required upgrade to existing elevators. Under the proposed language, building owners are permitted to achieve compliance anytime within the first 60 months (five years) of the date the rules are adopted. The upgrade is required because danger to life, limb, and property due to blowout remain unless compliance is achieved. The proposed language eliminates the incentive to compromise safety by converting a material transfer lift to save cost.

Subp. 9. All work required for compliance with ASME A17.1-2004 8.6.5.8 Bulkhead Material Transfer. INSERT INFO

Subp. 10. A17.3-2002 2.7.4 Restricted Opening of Hoistway Doors and Car Doors on Passenger Elevators. This is new language. This subpart provides guidance to building owners regarding required upgrades to existing elevators, and permits compliance anytime within the first allows 60 months (five years) of the date the rules are adopted.

Subp. 11. All work required for compliance with ASME A17.3-2002 3.11.3 Firefighter's Service. This is new language. This subpart provides guidance to building owners regarding required upgrades to existing elevators, and permits compliance anytime within the first 60 months (five years) of the date the rules are adopted.

Subp. 12. All work required for compliance with ASME A17.3-2002 4.3.3 Hydraulic Elevators. This is new language. This subpart provides guidance to building owners regarding required upgrades to existing elevators, and permits compliance anytime within the first 60 months (five years) of the date the rules are adopted.

Subp. 13. ASME A17.1 Rule 8.10.4.1.1 (p) (5) Clearance between step and skirt (load gap) and ASME A17.1 Rule 8.10.4.1.1(t) step/skirt index. This is new language. This subpart provides guidance to building owners regarding required upgrades to existing elevators, and permits compliance anytime within the first 36 months (three years) of the date the rules are adopted.

Subp. 14. ASME A17.3 Rule 5.1.1 step/skirt performance index. This is new language. This subpart provides guidance to building owners regarding required upgrades to existing elevators, and permits compliance anytime within the first 36 months (three years) of the date the rules are adopted.

Subp. 15. ASME A17.3 Rule 2.2.4 Temperature control. This is new language. The purpose of this subpart is to address temperature control, which should not be confused with ventilation.

Subpart 16. Newly constructed parking ramps or new construction in an existing parking ramp. This is new language. This subpart is necessary because elevator lobbies are no longer required by the 2006 IBC. As a result, parking ramp elevators without lobbies are likely to subject any occupants and the elevators to extreme temperatures and temperature changes, which could pose a threat to life safety to those individuals who become trapped on an elevator without a lobby.

1307.0065 AMENDMENTS TO ASME A17.1-1996

This entire part was repealed, and certain subparts, with modification where necessary, were relocated into proposed rule 1307.0067.

Subpart 1. 100.4. This subpart has been relocated to proposed rule 1307.0095.

Subp. 2. 101.5b. This subpart is renumbered as proposed rule 1307.0067, subp. 14.

Subp. 3. 102.2 (c) (3). This subpart has not been relocated to proposed rule 1307.0067 because the code is obsolete as a result of changes made to the fire code (exception for sprinklers) and a state amendment made to chapter 9 of the IBC that prohibits the installation of sprinklers in elevator machine rooms and elevator hoistways.

Subp. 4. 106.1b (3). This subpart is renumbered as proposed rule 1307.0067, subp. 1.

Subp. 5. 111.9(d). This subpart has not been relocated to proposed rule 1307.0067 because the requirement is obsolete. ASME A17.1 2.1.2.6, and proposed rule 1307.0067, subp. 5, address door unlocking.

Subp. 6. 111.9 (e)(1), and Subp. 7. 111.9 (e) (2). These subparts have not been relocated to proposed rule 1307.0067 because similar updated language is located proposed rule 1307.0067, subp. 6.

Subp. 8. 211.1(a)(2). This subpart has not been relocated to proposed rule 1307.0067 because ASME A17.1 incorporates the repealed language.

Subp. 9. 211.1(b). This subpart has not been relocated to proposed rule 1307.0067 because the language in ASME A17.1-2004 includes similar language so this amendment is no longer needed.

Subp. 10. 211.8. This subpart is being repealed entirely and replaced with a revised version relating to switch keys in proposed rule 1307.0067, subp. 9. Previously Minnesota Rules Chapter 1307 addressed key and key location. The ASME Standard now incorporates its version of key and key location. The language of proposed rule 1307.0067, subp. 9 will aid in melding the two versions together. The fire department box and location for emergency use has been in place in Minnesota and a change to a different key box would be counter-productive and place unnecessary hardship on all affected parties (i.e.; owners, contractors, emergency personal and inspectors). An additional key box for elevator personnel will ensure that needed keys will be available for use by qualified elevator personnel at all times.

Subp. 11. 602.1 This subpart has been relocated to proposed rule 1307.0067, subp. 12.

Subp. 12. 701.6h. This subpart has been relocated to proposed rule 1307.0067, subp. 14.

Subp. 13. 1000.1. This subpart has been relocated to proposed rule 1307.0067, subp. 15.

Subp. 14. 1202.12b, 1203.8b, and 1203.8c. This subpart has not been relocated to proposed rule 1307.0067 because the rule is obsolete. The conditions no longer exist on new installations in ASME A17.1-2004.

Subp. 15. 1500.1. This subpart has not been relocated to proposed rule 1307.0067 because the language is now located in ASME 17.1-2004 2.7.1.

Subp. 16. Rule 1502.7a. This subpart has not been relocated to proposed rule 1307.0067 because the content is covered by ASME A17.1-2004 5.7.13.1.

Subparts 17 through 26. These subparts have not been relocated to proposed rule 1307.0067 because the content is covered in ASME A18.1.

1307.0067 AMENDMENTS TO ASME A17.1-2004.

The headnote and rule part are modified to reflect the updated version of ASME A17.1, which have been modified to reflect Minnesota's requirements, and also includes ASME's restructuring its standards from a "Rule" format to an "ASME" format (i.e. former Rule 602.1 means ASME A17.1 3.28.1).

Subpart 1. ASME A17.1 2.2.2.4. The proposed language amends language in the ASME standard to provide clarification on the installation of elevator pit drains.

Subp. 2. ASME A17.1 2.5.1.1, Between car and hoistway enclosures. This is new language. This subpart, which amends the ASME standard, provides for clearances between car and hoistway enclosures. This language is necessary to clarify the "hoistway enclosure." Presently, an elevator could be installed with the clearance too close to the items listed in the proposed language. Technically, the enclosure is the hoistway wall. The amendment will ensure that the car will not hit the items listed in the proposed language with normal wear of the roller guides or guide shoes.

Subp. 3. ASME A17.1 2.7.3.1 General requirements. This is new language. This subpart, amending the ASME standard, adds a sentence regarding restricted access to elevator equipment. This change is necessary to ensure elevator personnel have immediate access to elevator or machine room equipment. If equipment must be accessed through toilet rooms, the access may be delayed because the rooms would have to be cleared before entering to preserve privacy. If access to the equipment was prolonged, this could render the toilet rooms out of service to the occupants of the building for an extended period, which may be an unacceptable circumstance for the building's occupants. For this reason, the advisory committee recommended prohibiting access to the equipment through these areas to eliminate the possibility of this circumstance occurring.

Subp. 4. ASME A17.1 2.7.4.1. This is new language. Again, amending the ASME standard, this amendment provides increased headroom over raised surfaces that are intended as working space surrounding equipment. The amendment is intended to provide elevator technicians with a clear space to stand on and work safely without having to duck under any pipes or ducts when they are standing over or adjacent to the equipment.

Subp. 5. ASME A17.1 2.12.6.2.5. This is new language. This amendment, to the ASME standard, permits the unlocking device to be located at all floors in order to aid emergency personnel in the evacuation of trapped persons; however, any additional locking plug located at floors above the lower level are required to be keyed to ensure that only properly trained personnel would be able to access those floors.

Subp. 6. ASME A17.1 2.12.7.1.1. This is new language. This amendment to the ASME standard requires that hoistway access switches be provided under certain circumstances because past practices in Minnesota have shown that hoistway access on all elevators is a safer, more convenient way for elevator personnel to access the pit and the car top. Without hoistway access, service personnel have to stop an elevator in flight. An elevator with hoistway access will also help rescue trapped passengers in a bank of elevators by providing a means to release passengers from a stalled elevator, regardless of the type of elevator. The proposed amendment to this standard also effectively reduces the rated speed at which hoistway access switches are required. This reduced threshold requires access switches previously required by ASME A17.1 2.12.7.1.2 (subpart 9 below).

Subp. 7. ASME A17.1 2.12.7.1.2. This is new language. This change deletes the ASME requirement for hoistway access switches to be provided because it is no longer necessary with the amendment made to proposed subpart 6, which is discussed immediately above.

Subp. 8. ASME A17.1 2.14.7.1.4. This is new language. This amendment to the ASME standard provides a requirement for an electric light to include an OSHA-approved guard and a GFCI convenience outlet on the car top and car bottom. Proposed rule 1307.0090 allows inspectors to call out top and bottom of car lighting and GFCI outlets on existing elevators. This proposal enforces the long-standing practice of such requirements on new installations and provides additional safeguards with GFCI protection and light guarding. The National Electrical Code has similar requirements.

Subp. 9. ASME A17.1 2.27 Emergency operation and signaling devices. The proposed language amends the ASME standard because Chapter 1307 has addressed key and key location in the past; however, the ASME now incorporates its version of key and key location. The proposed amendment to the ASME standard will aid in melding the two versions together. The fire department box and location for emergency use has been in place in Minnesota. Changing to a different key box would be counter-productive and place unnecessary hardship on all affected parties (i.e.; owners, contractors, emergency personnel and inspectors). An additional key box for elevator personnel will ensure that needed keys will be available for use by qualified elevator personnel in the event of an emergency. This amendment is necessary because similar language, currently located in Minn. R. 1307.0065, is proposed for repeal.

Subp. 10. ASME A17.1 2.27.1.1.3(a). This ASME standard is deleted because the items listed in subitem b-i cover the necessary items, and its reference to ASME A117.1 is confusing and the referenced code in A117.1 is incomplete.

Subp. 11. ASME A17.1 3.28.1 Information included on layout drawing. This amendment to the ASME standard adds a subitem to the existing list of items, which is intended to permit owners, installers, or inspectors to verify that buried cylinder(s) are being installed with the protective means as designed by the manufacturer.

Subp. 12. ASME A17.1 4.3.15 Car safeties. This language is from Minn. R. part 1307.0065, supb. 11, which has been slightly modified for clarity.

Subp. 13. ASME A17.1 7.2.4.6 Application of safeties. This language is from Minn. R. part 1307.0065, supb. 12, which has been slightly modified for clarity.

Subp. 14. ASME A17.1 8.10.1.1.3. The modification deletes the ASME standard and replaces it with language from Minn. R. part 1307.0065, subp. 13, which has been modified. The proposed language sets the minimum standards for elevator inspectors, as required by Minnesota Statutes § 16B.748. Without stating minimum standards in the in Elevator Code, enforcement is difficult. Minn. Stat. § 16B.748 implies that only a person with an elevator constructor electrical license would be qualified to be an elevator inspector. However, the Department[22] qualifies master elevator constructors, elevator constructors, class A masters, or class A journeymen to inspect elevators. Quality well-trained inspectors are needed to keep pace with the ever-changing

[22] Before Reorganization Order No. 193, the Board of Electricity issued these licenses.

technology. ASME A17.1 requires QEI certification (Qualified Elevator Inspector) for elevator inspectors and elevator inspector supervisors performing inspections. QEI certification is the nationally recognized standard for elevator inspectors throughout the United States and Canada. Certification requires continuing education to keep up with new technology. Approximately 84 percent of current state and city elevator inspectors are certified to date.

Subp. 15. ASME A17.1 8.11.1.3 Periodic inspection and test frequency. The proposed amendment to the ASME standard provides a table for inspection and test intervals. This amendment is necessary because there is confusion as to inspection and test frequency requirements by various jurisdictions. For example, the City of St. Paul requires annual inspections while the City of Minneapolis no longer requires them. The amendment establishes minimum inspection and test intervals to create uniformity between the jurisdictions while giving jurisdictions the ability to increase inspection and test intervals as required by factors such as the environment, frequency and type of usage, and quality of maintenance. This requirement provides an opportunity for the Department to see the existing equipment before alternations, complaints, or accidents occur. The Department has seen an increase in reported complaints and accidents pertaining to existing elevators. By establishing an annual inspection program, the Department believes it may be able to identify unsafe equipment and order corrections for the unsafe equipment or remove it from service before complaints are submitted or accidents occur, whichever the circumstances require.

1307.0070 STAGE, ORCHESTRA LIFTS, AND MECHANICAL PARKING GARAGE EQUIPMENT.

This rule part merges Minn. R. parts 1307.0070 and 1307.0085 so that redundant language is eliminated.

1307.0085 MECHANICAL PARKING GARAGE EQUIPMENT.

This rule part is deleted in its entirety because the text has been merged with proposed rule 1307.0070 as discussed above.

1307.0090 EXISTING INSTALLATIONS.

Subpart 1. Routine and periodic inspections and tests. This subpart is proposed for repeal because the intent and content is embodied in proposed rule 1307.0067, subp. 16.

Subp. 2. Conditions for continued operation. This subpart has been modified to incorporate updated versions of the referenced ASME A17.1-2004, A17.3-2002, and ASME A90.1-2003 standards, update terminology, and increase the required number of footcandles from ten to 19. The proposed modification also deletes language requiring certain basic safety devices because those safety devices are now required by the referenced ASME standards. Additionally, the proposed modification deletes language pertaining to freight elevators that meet the capacity requirements of ASME A17.1 because those capacity requirements are now addressed by the referenced ASME standards. The proposed modification further deletes language permitting the

authority having jurisdiction to shut down any piece of equipment covered by this subpart, which is addressed in subpart 4 of this proposed rule part (below).

Subp. 3. Damaged installations. This subpart has been modified to include water as a source of damage because water is a common cause of damage to elevators. Further modification was made to the grammar and sentence structure to provide clarity. The proposed modification further deletes language that permits the authority having jurisdiction to shut down any piece of equipment covered by this subpart, which is addressed in subpart 4 of this proposed rule part (below).

Subp. 4. Unsafe conditions. The modification to this subpart deletes general language regarding unsafe conditions that endanger human life and property with more specific language that requires the authority having jurisdiction to order the shutdown dangerous equipment that endangers human life or property. Under the current rule the authority having jurisdiction has the discretion to order the shutdown. However, when dangerous equipment is present it must be removed from service to protect the public from danger. The proposed language also includes several grammatical modifications to correct sentence structure to provide clarity and to better explain an unsafe condition.

Subp. 5. Fire protection. This subpart is deleted in its entirety because the provision is obsolete as a result of changes made to the Fire Code that pertain to the exception for sprinklers, and a state amendment to Chapter 9 of the 2006 IBC that prohibits the installation of sprinklers in elevator machine rooms and elevator hoistways.

Subp. 6. Other requirements. This is existing language. Subitem A was modified to delete a reference to ASME A17.1-1996 Routine, Periodic and Acceptance Inspections and Tests and replace it with updated references to ASME A17.1-2004 and A17.3-2002, which pertain to the alterations of elevators. Subitem B was modified by deleting the subitem in its entirety because the requirements are covered in other referenced ASME standards rendering the language redundant and no longer necessary.

Subp. 8. Removal of existing elevators. This subpart is new language. The proposed language requires the unit to be removed from service in certain conditions. This language is necessary because the removal of ropes could cause the car or counterweight to freefall, which in turn could create a type of explosion upon impact with the ground that could propel destroyed material through the walls and doors thereby posing a safety threat to personnel and the general public in occupied buildings. Likewise, the removal of a hydraulic elevator could also pose a safety threat to personnel and the general public in occupied buildings if the hydraulic coupling is removed or the line is somehow sheared, which could cause this elevator to freefall, creating the same dangers as the traction elevator. Electrocution from the 480 V service is also a possible danger with respect to the removal of both elevators.

The proper disposal of hydraulic oil from the tank cylinder and line also needs to be monitored because there is a danger of polluting the ground water if the oil is not disposed of properly. The proposed language requires that wells and boring must be sealed to limit contamination of ground water in accordance with the rules of the Minnesota Pollution Control Agency.

The proposal also includes language to ensure that dormant and temporarily dormant elevators, dumbwaiters, and escalators have a uniform method of compliance. Unifying the method of compliance will ensure that all possible problems, such as corrosion and lack of maintenance, have been inspected and corrected before the elevator is permitted to return to service and operate safely. The proposed language also requires that elevators, dumbwaiters, and escalators that are in a temporarily dormant status in excess of three years be placed out of service in accordance with ASME A17.1-2004 8.11.1.4

1307.0095 CHAPTER 30 OF THE INTERATIONAL BUILDING CODE; ELEVATORS AND CONVEYING SYSTEMS.

This rule part is new language.

Subpart 1. IBC Section 3001, General. This subpart contains amendments to the "General" Elevators and Conveying Systems section of the 2006 International Building Code.

Section 3001.1 Scope, was not amended from the IBC model code document.

Section 3001.2 Referenced Standards, was amended to remove the references from the ASME standards and other materials and add a reference to Minnesota Rules, Chapter 1307. This change was necessary because Minnesota Rules, Chapter 1307 contains the entire elevator code for the State of Minnesota. Chapter 1307 is comprised of several incorporated documents with amendments, and provisions that are specific to Minnesota. To fully comply with Minnesota's Elevator Code, it is necessary to reference Minnesota's code rather than the standards referenced by the IBC.

Section 3001.3, Accessibility, is changed to remove the reference to Chapter 11 and A117.1 and adds a reference to Minnesota Rules, Chapter 1341. Chapter 1341 contains the entire Minnesota Accessibility Code, which is comprised of amendments to several documents. To fully comply with Minnesota's accessibility requirements, it is necessary to reference Minnesota's accessibility code instead of those listed in this section of the IBC.

Section 3001.4, Change in use, is modified to remove the reference to ASME A17.1 and refers the user to the Minnesota Elevator Code, Chapter 1307. To fully comply with the Minnesota Elevator Code, it is necessary to reference Minnesota's Elevator Code rather than the standard referenced by the IBC.

Subp. 2. IBC Section 3002, Hoistway enclosures. This section amends the "Hoistway Enclosures" section of chapter 30 of the 2006 International Building Code.

3002.1 Hoistway enclosure protection, and 3002.1.1 Opening protectives, was not amended from the model code.

3002.1.2 Hardware, is deleted in its entirety to prevent conflicts with provisions contained in ASME A17.1-2004.

3002.2 Number of elevator cars in a hoistway, was not amended from the IBC model code document.

3002.3 Emergency signs, is changed to make the language consistent with ASME A17.1-2004. Reference to the ASME A17.1 illustration is included. This amendment is necessary to provide a single consistent standard pertaining to emergency signs.

3002.4 Elevator car to accommodate ambulance stretcher, has been amended with the addition of an exception permitting a car size reduction in existing buildings where the configuration, or a technical infeasibility, prohibits compliance with this section if approved the authority having jurisdiction. This amendment is made to maintain the exception for existing buildings that is already contained in 1307.

3002.5 Emergency doors, was not amended from the IBC model code document.

3002.6 Prohibited doors, is amended to add language regarding smoke control doors. This amendment is necessary to clarify that doors, other than those listed, cannot be installed at elevator entrances. It is relatively common for building occupants and owners to attempt to install doors on elevator entrances to enhance security; however, such installations are prohibited since a required means of egress may be restricted by the installation. Note: This language includes text that has been relocated from Minn. R. ch. 1307.0045, supbp. 17.

3002.7 Common enclosure with stairway, was not amended from the IBC model code document.

3002.8 Glass in elevator enclosures, was not amended from the IBC model code document.

Subp. 3. IBC Section 3003, Emergency operations. This subpart amends the IBC section on "Emergency Operations."

3003.1 Standby power, Section 3003.1.1 Manual transfer, and 3003.1.2 One elevator, were not amended from the IBC model code document.

3003.1.3 Two or more elevators, amends the language regarding the standby power source not being of sufficient capacity to operate all elevators at the same time. The Department is amending this language to refer the user to ASME A17.1-2004 for this requirement to provide a single consistent standard.

3003.1.4 Venting, is amended by adding the clause, "if provided" when referring to machine room ventilation or air conditioning. This change is necessary to eliminate the inference that natural ventilation was not an acceptable method of ventilation since some authorities having jurisdiction have used the emergency power provisions to require the installation of power ventilation equipment.

3003.2 Firefighters' emergency operation, was not amended from the IBC model code document.

Subp. 4. IBC Section 3004, Hoistway venting. This subpart amends the IBC section on hoistway venting.

3004.1 Vents required, is amended by specifying the travel distance for hoistways that will require venting. This section is also amended by including a statement at the end of the exception to include "similar local codes." The hoistway distance amendment is necessary to provide a more easily applied definition.

3004.2 Location of vents, is amended to clarify the language about the location of vents in a hoistway. This change is necessary to provide more easily applied definition. This section is also amended by adding subitems 1, 2 and 3 to include additional venting requirements. These additional requirements are necessary as follows: 1 - to provide a safety standard for vent openings that are in public areas, 2 - to eliminate of possibility of providing a path for smoke migration from one area of a building to another, 3 - to provide a defined method of control for vent operation given they cannot remain open due to Minnesota's climate.

3004.3 Area of vents, is amended by deleting the sentence in the section that states, "Of the total required vent area, not less than one-third shall be of the permanently open type unless all vents activate upon detection of smoke from any of the elevator lobby smoke detectors." This change is required due to Minnesota's weather variations.

3004.3.1 Reduced vent area, was not amended from the IBC model code document.

3004.4 Plumbing and mechanical systems, is deleted in its entirety because the contect is covered by Minnesota's amendment to ASME A17.1-2004 2.2.2.4.

Subp. 5. IBC Section 3005, Conveying systems. This subpart amends the IBC Section on conveying systems.

3005.1 General, is amended to delete the requirement that conveying systems comply with the provisions of the IBC section and is replaced with the requirement that conveying systems comply with Minnesota Rules, Chapter 1307, Minnesota's elevator code. Minnesota Rules, Chapter 1307 contains the entire elevator code for the State of Minnesota. Chapter 1307 is comprised of several different incorporated documents with amendments, and some provisions specific to Minnesota. To fully comply with Minnesota's Elevator Code, it is necessary to reference Minnesota's code instead of the reference to the IBC.

3005.2 Escalators and moving walks, 3005.2.1 Enclosure, 3005.2.2 Escalators, 3005.3 Conveyors, 3005.3.1 Enclosure, 3005.3.2 Conveyor safeties, and 3005.4 Personnel and material hoists, were not amended from the IBC model code document.

Subp. 6. IBC Section 3006, Machine rooms. This subpart amends the IBC Section on machine rooms.

3006.1 Access, was not amended from the IBC model code document.

3006.2 Venting, is deleted in its entirety to provide a single consistent standard, which is the ASME standard.

3006.3 Pressurization, and 3006.4 Machine rooms and machinery spaces, were not amended from the IBC model code document.

3006.5, Shunt trip and 3006.6, Plumbing systems, are deleted in their entirety to eliminate conflicts with Minnesota's Fire and Plumbing Codes.

1307.0100 AMENDMENTS TO ASME A17.3-1996

This rule part did not permit the installation of door restrictor devices unless alterations were initiated on the car or hoistway door. However, injury or death can result when door restrictor devices are not installed in elevators and people trapped in an elevator attempt to exit the car when it is stopped in between floors. Repealing this provision will provide uniformity with current ASME standards, which has required the installation of door restrictor devices since 1996.

Similarly, this rule part did not require firefighter's service unless an alteration to the elevator or the installation of sprinklers in the machine room or hoistway was commenced. Repealing this provision will provide uniformity with current ASME standards, which requires firefighter's service whether or not a sprinkler has been installed in the machine room or hoistway.

1307.0110 MINNESOTA AMENDMENTS TO A18.1-2005.

Subpart 1. ASME A18.1-2005 Section 2.1 Runways. This subpart amends the ASME A18.1 section on runways.

Subitem A amends section 2.1.2.5 to reference a new provision, section 2.1.2.9.

Subitem B amends section 2.1.2 to add a new section 2.1.2.9. This language was previously located in the existing rule in Section 2.1.3, which is being deleted. This amendment is necessary to address lifts used at stages where a guard is not provided at the upper landing.

Subitem C amends section 2.1.2 by adding a new section 2.1.2.10. This language was located in the existing rule in Section 2.1.3, which is being deleted. This amendment is necessary to address lifts used at stages where a guard is not provided at the upper landing.

Subitem D amends section 2.1.3 by deleting the section in its entirety. This amendment addresses the appropriateness of section 2.1.3, lifts without an enclosure. There is concern about the reliability of the safety switches on the pan beneath the platform. Switches can become misaligned or bent and malfunction. Regular maintenance and adjustment of the switches is something that is not currently regulated. Even with properly operating safety switches, contact with the underside of a moving platform will occur before the lift stops its travel. This is not a failsafe means of stopping the platform. Note: Language pertaining to platform gates and automatic folding ramps has been relocated to 2.1.2.9 and 2.1.2.10.

However, this section is also referenced in the residential section of ASME A18.1. The reference at section 5.1 remains in effect. Deleting this section for residential applications may create a cost prohibitive situation for the resident. In a private residential setting where the user of the lift is generally a single individual, and where the lift may receive limited use, the safety concerns for a lift without an enclosure are greatly reduced. Therefore, the reference at 5.1 remains applicable.

Subitem E amends section 2.1.5 Lower level across ramps and pits. The amendment is necessary as there is currently no limitation to the rise of a ramp to a platform lift. The four-inch maximum rise is reasonable because most lifts situated on a finish floor will have a rise of 3 inches or less. This change will encourage a level platform at the lift door or a pit if the rise exceeds 4 inches. The provision of a platform or pit may increase the cost of the installation. However, instances where this is necessary should be limited.

The addition of the 1:20 limitation is necessary because backing down a ramp can be dangerous and may cause a wheelchair to tip. The wheelchair user may not be aware of the presence of a ramp that will increase the possibility of an accident. This change is based on changing the slope of the ramp from 1:12 to 1:20.

Subitem F amends section 2.1.5.1 by deleting the section in its entirety. This section is deleted as ramps are required, by the amendment to section 2.1.5, to comply with ASME A117.1, which, as amended, is part of Minnesota's Accessibility Code.[23]

Subitem G amends section 2.1.5.2 by deleting the section in its entirety. This section is deleted as ramps are required, by the amendment to section 2.1.5, to comply with ASME A117.1, which, as amended, is part of Minnesota's Accessibility Code.

Subp. 2. ASME A18.1-2005 2.7.1 Limitation of load, speed, and travel. This subpart amends section 2.7.1 on limitation of load, speed, and travel. The reference to paragraph 2.1.3 is deleted because that entire section has been deleted. The travel distance has been amended to 14 feet to coordinate with the ASME A18.1-2005.

Subpart 3. ASME A18.1-2005 Section 2.10, Operating devices and control equipment. This subpart amends section 2.10 on operating devices and control equipment.

Subitem A amends section 2.10.1 on operation. Many of the controls available for platform lifts are difficult for individuals with limited dexterity, strength, or coordination to operate because of the requirement for constant contact on a small operating control switch. An operating control switch with a minimum size of 2 inches by 4 inches is a reasonable minimum size that permits easier operation, using constant contact, for an increased number of people. A commonly provided product to meet this requirement will likely be a rocker-type switch meeting the minimum size requirement. This type of compliant switch is available directly from most, if not all, of the lift manufacturers. The reference to ANSI[24] A117.1 is replaced with the actual

[23] Minn. R. chapter 1341.
[24] American National Standards Institute

mounting height criteria. The rocker-type switch likely used to comply with this provision will result in a 2-inch square target for the user to operate. This is significantly larger than the typical minimum-sized control offered on lifts. The larger target is necessary for individuals with limited dexterity considering this must be a constant switch.

Subitem B amends section 2.10.2.2 on lifts without enclosures. The section permitting lifts without enclosures has been deleted. It is therefore necessary to delete the language referencing the ability to view the area under the platform lift, which was deleted from this section.

Subp. 4. ASME A18.1-2005 Section 2.11 Emergency signals. This subpart amends section 2.11 on emergency signals.

Subitem A amends section 2.11 to coordinate with emergency signaling requirements for elevators and rescue assistance areas. It is reasonable to require an emergency signaling alarm and communication device on any lift that is not being monitored during operation.

Subitem B amends section 2.11.2 to coordinate with the requirements for communication devices in an area of refuge or elevator. A two-way communication device for a lift is no less critical than in an area of refuge or elevator, and therefore should have the same provisions.

Subp. 5. ASME A18.1-2005 Section 2.13, Standby power. This subpart adds a new section 2.13 and several subitems pertaining to standby power. The scoping documents require standby power for certain lift installations. A section addressing how to provide standby power is necessary for vertical lifts (section 2.12) and inclined lifts (section 3.12). This section permits the use of rechargeable battery power.

Subp. 6. ASME A18.1-2005 3.6.8 Platform guarding. This subpart amends the section on platform guarding to give the authority having jurisdiction the ability to assess risk and hazard where lifts without runway protection are to be approved for installation. Such lifts may be inappropriate in settings with high traffic conditions or where the occupants are unable to recognize the potential hazard, such as an environment catering to young children.

Subp. 7. ASME A18.1-2005 3.10.1 Operation. This subpart amends section 3.10.1 on operation of the lifts from landings. Many of the controls available for platform lifts are difficult for individuals with limited dexterity, strength, or coordination to operate because of the requirement for constant contact on a small operating control switch. An operating control switch with a minimum size of 2 inches by 4 inches is a reasonable minimum size that permits easier operation, using constant contact, for an increased number of people. A commonly provided product to meet this requirement will likely be a rocker-type switch meeting the minimum size requirement. This type of compliant switch is available directly from most, if not all, of the lift manufacturers. The reference to ANSI A117.1 is replaced with the actual mounting height criteria. The rocker-type switch likely used to comply with this provision will result in a 2-inch square target for the user to operate. This is significantly larger than the typical minimum-sized control offered on lifts. The larger target is necessary for individuals with limited dexterity considering this must be a constant switch.

Subp. 8. ASME A18.1-2005 Section 3.11 Emergency signals. This subpart amends section 3.11 on emergency signals.

Subitem A amends the requirements for emergency signals on lifts. It is reasonable to require an emergency signaling alarm and communication device on any lift that is not monitored during operation.

Subitem B amends the requirements for two-way communication regarding lifts because a two-way communication device is no less critical than in an area of refuge or elevator and should, therefore, have the same provisions as those required in subpart 9 in this section.

Subp. 9. ASME A18.1-2005 Section 3.13 Standby power. This new subpart amends the requirements for standby power for lifts. The scoping documents require standby power for certain lift installations. A subpart addressing how to provide standby power is necessary for vertical lifts (section 2.12) and inclined lifts (section 3.12). Allowing battery power will reduce costs compared to the construction of standby power.

Subp. 10. ASME A18.1-2005 Section 5.7 Capacity, speed, and travel. This subpart amends the requirements for the limitation of load, speed, and travel by changing the travel distance to 14 feet to coordinate with the ASME A18.1-2005.

Subp. 11. ASME A18.1-2005 Section 6.1.2, Clearances. This subpart amends the section (deleted a specific headroom requirement) on clearances for platform lifts by deleting a specific headroom requirement because headroom clearance is a critical issue that is not addressed for residential platform lifts. Available space is sometimes limited in an existing residence and there may be unique installation difficulties, so a specific headroom clearance dimension is not appropriate for this section. However, the issue is critical and a statement addressing headroom clearance is warranted.

CONCLUSION

Based on the foregoing, the proposed rules are both needed and reasonable.

9/12/06
Date

M. Scott Brener
Commissioner