



**House
Legislative
Analysis
Section**

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REGULATE HEATING CABLES

**Senate Bill 364 (Substitute S-1)
House Committee: Local Government**

**Senate Bill 365 (Substitute H-2)
First House Committee: Labor
Second House Committee: Local
Government**

First Analysis (4-13-94)

**Sponsor: Sen. John D. Cherry, Jr.
Senate Committee: State Affairs and
Military/Veteran Affairs**

THE APPARENT PROBLEM:

Fires from faulty or improperly installed heating cables, electrically heated cables designed to prevent water and drain pipes from freezing, are a serious problem. Based on data from the U.S. Fire Administration and the National Fire Protection Association, the U.S. Consumer Product Safety Commission (CPSC) reported that, from 1985 through 1990, there were nearly 18,000 such fires that resulted in 130 deaths, 840 injuries, and over \$151 million in damages. Over half of these fires involved mobile homes and trailers. Put another way, the CPSC estimates that there are about 3,300 residential fires each year involving heat tapes that have resulted in an estimated 20 deaths, 140 injuries, and over \$25 million in property losses each year.

Electric heat tapes (sometimes referred to as "heat tracing" devices) are commonly used in winter to keep water pipes from freezing, as well as being used on roofs and in rain gutters and downspouts to prevent snow and ice buildup. Heat tapes usually are installed in attics and crawl spaces and in the sub-structures of mobile homes to heat water supply pipes that come from underground up to the mobile home. In many cases, heat tapes are plugged in year-round and are activated by a thermostat when the outdoor temperature approaches freezing.

An electric heat tape resembles an electric cord, and may be round or flat, and may have an overall covering of light metal braid. There is an electrical plug on one end, and sometimes a pod or box with

a thermostat switch to control the power to the heating conductors in the tape.

In a January 1990 report, the CPSC further noted that of the heat tape fires in all structures (whether mobile homes, seasonal homes, apartments, attics, barns, or outbuildings), about one-half occurred in states located in the Great Lakes region. In Michigan, reportedly at least 37 fires between January 1990 and January 1993 were caused by heat tape.

Despite the loss of lives and damage to personal property, there are no national standards for heat tape, though there are voluntary testing standards. In the absence of federal regulation, legislation has been introduced to regulate heat tape in Michigan.

THE CONTENT OF THE BILLS:

Senate Bill 364 would amend the State Construction Code Act (Public Act 230 of 1972, MCL 125.1508 and 125.1521a) to require that, beginning one year after the bill took effect, heating cable (or heating tape) couldn't be used in a building or structure in Michigan until approved by the State Construction Code Commission (in the Department of Labor). The commission would be required to approve certain applications for approval of heating cable (those that included listing by a nationally recognized testing laboratory) unless the commission found it would endanger the public safety. The bill would be effective throughout the state, without local modification, and couldn't be

Senate Bills 364 and 365 (4-13-94)

construed to limit the statutory powers and duties of state agencies or officials.

Senate Bill 365 would create the "heating cable safety act" to prohibit the sale, beginning one year after the bill took effect, of heating cable that hadn't been approved by the state Construction Code Commission under the State Construction Code Act, and to provide civil fines for violations of the act.

Definition of "heating cable." The bill would define "heating cable" (commonly known as "heating tape") to mean "cable designed to be secured to pipes and vessels to reduce their likelihood of freezing or to facilitate the flow of viscous liquids." "Heating cable" would include products used for de-icing on roofs and in gutters and downspouts. Industrial and commercial heating cable would be connected to the electrical system either by permanent wiring or by an attachment plug for connection to a receptacle outlet; residential heating cable would have an attachment plug for connection to a receptacle outlet.

Possible violations. The director of the Department of Labor would be required to investigate any complaints of possible violations of the act. On his or her own initiative, the director also would conduct any investigations he or she considered advisable to determine possible violations of the act.

If the director found or believed that a heating cable was being sold in violation of the act, he or she would both order that the sale of that heating cable be stopped and tag or mark the cable to give notice that it was (or was suspected of) being sold in violation of the act and to warn that the cable wasn't to be sold or otherwise distributed in Michigan.

People would be prohibited from obstructing or hindering the director in performing his or her duties under the bill, and the director would be able to apply to any court of competent jurisdiction for temporary restraining orders or injunctions (preliminary or permanent) restraining the sale of heating cable in violation of the act. The bill couldn't be construed to limit the statutory powers and duties of state agencies or officials.

Penalties. Anyone who violated the bill (or an order issued or a rule promulgated under the bill) would be liable for a civil fine of up to \$500 plus

costs. The fine would be assessed by the Electrical Administrative Board and paid into the State Construction Code Fund. Each sale of heating cable in violation of the act would constitute a separate offense.

Rules promulgation. The Department of Labor would promulgate any necessary rules to implement the act.

Tie-bar. The bill is tie-barred to Senate Bill 364.

BACKGROUND INFORMATION:

Currently, there reportedly are three organizations that are certifying heat tapes to meet recognized national voluntary standards: Underwriters Laboratories (UL), the Canadian Standards Association (CSA), and Factory Mutual Research Corporation (FMRC). Reportedly, all new certified heat tapes will have a three-prong plug; the older, uncertified heat tapes have a two-prong plug.

FISCAL IMPLICATIONS:

The Senate Fiscal Agency reports that the bills would have no significant impact on the workload of the Bureau of Construction Codes or on local units of government. (10-28-93) The Department of Labor agrees with that analysis, reporting that although Senate Bill 365 would require that the department carry out certain administrative and investigative functions, the additional revenue from the product approval fee (\$500) would offset staff time involved in reviewing request for approval and may provide adequate revenue to support the program. (10-29-93)

ARGUMENTS:

For:

By prohibiting the sale and use in Michigan of heat tape that wasn't approved by the State Construction Code Commission, the bills would help to protect consumers from the hazards of faulty heating cables. According to commission testimony before the House Committee on Local Government, in deciding whether to approve a heat tape product for sale and use in Michigan, it would determine if the product had been tested and approved by a nationally recognized testing laboratory, such as Underwriters Laboratories (UL), and would examine the product's label to ensure that installation and care instructions were accurate and

thorough. This last point is particularly important, since some heating cables that currently are on store shelves have incomplete or inaccurate installation instructions that can lead to cables being installed in such a way that they emit too much heat in a concentrated area, which can pose a fire hazard. The label of one heating cable product, for example, shows a heating cable wrapped around a pipe, rather than stretched along the length of the pipe. Spiral wrapping of heating cables is incorrect, and particularly in the case of vertical pipes, the cable can slip down on itself and catch fire. Also, cables without thermostats that are left on year-round can actually wind up boiling the water inside the pipes, and if the pipes are leaky, can cause electrical shorts that also can result in fires. Finally, not all manufacturers inform consumers that cable need to be inspected periodically for signs of wear, so that they may be replaced, or fail to give instructions on the use of cables with insulation (for example, over-insulation can cause fires, only fire resistant insulation should be used, and heat tapes should be wrapped directly over the pipe to be protected and never on top of the thermal insulation covering a pipe). The bills would help ensure consumer protection and enhance public safety.

Against:

While the bills might constitute a good first step in ensuring public safety, particularly in the absence of federal standards and regulation, some people still are certain to continue to install heating cable improperly and to neglect to check them periodically for wear.

Response:

While commission approval of heating cable products will not eliminate consumer misuse of the product, it will go a long way toward addressing the serious problems that currently exist with heating cables. The commission reportedly will be contacting wholesale marketers regarding the proposed legislation, which means that the majority of suppliers of heat tape products (as well as users, such as licensed plumbers and contractors) will be informed of the proposed changes.

Against:

Although heating cables are used in all types of residential and commercial structures, their most common use apparently is for water pipes leading to mobile homes. In fact, the CPSC report on fires related to heating cable use indicates that over half of those fires involved mobile homes or trailers. Since mobile homes are particularly at risk from

faulty or improperly installed heating tape, perhaps enforcement of the regulation of heating cables should rest with the Mobile Home Commission in the Department of Commerce, rather than the State Construction Code Commission in the Department of Labor.

Against:

What about the heating cable currently held by retailers that will not meet the proposed regulation? Will retailers simply have to "eat" the costs of being unable to sell this product? At the very least, retailers should be able to sell off the stock that they currently hold before being required to meet the bills' proposed requirements.

Response:

It would be irresponsible to allow the sale of heating products known to be potentially hazardous. And although Senate Bill 365, as introduced, would have required cable manufacturers to give refunds to retailers for cables returned because the cable wasn't on the commission's approved list of products, this refund provision apparently was removed because of concerns that it could violate the federal interstate commerce clause of the U.S. Constitution. Reportedly, there are no Michigan manufacturers of heating cable, so only out-of-state companies would be subject to a refund requirement.

POSITIONS:

The Department of Labor supports the bills. (4-12-94)

The Michigan Manufactured Housing Association (a division of the Michigan Manufactured Housing, RV and Campground Association) supports the bills. (4-12-94)

The Michigan State Firefighters Association supports the bills. (4-12-94)

A number of mobile home associations and manufacturers of heating tape submitted letters in support of earlier versions of the bills.