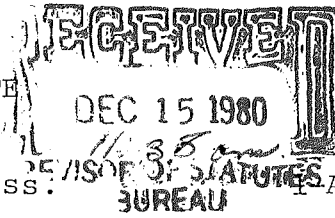


PSC 136



CERTIFICATE

STATE OF WISCONSIN)
PUBLIC SERVICE COMMISSION)

DEC 15 1980
DEPT. OF STATUTES
BUREAU AC-34

TO ALL WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Jacqueline K. Reynolds, Assistant to the Public Service Commission of Wisconsin, and custodian of the official records of said commission, do hereby certify that the annexed order creating Wis. Adm. Code section PSC 136.04 was duly approved and adopted by this commission on December 11, 1980.

I further certify that said copy has been compared by me with the original on file in this commission and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the commission at the Hill Farms State Office Building, in the City of Madison this 11th day of December, 1980.

Jacqueline K. Reynolds

Jacqueline K. Reynolds
Assistant Secretary
to the

PUBLIC SERVICE COMMISSION OF WISCONSIN

2-1-81

BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN

In the Matter of Energy Conservation by)
Natural Gas and Electric Public Utilities) 1-AC-34

ORDER OF THE PUBLIC SERVICE COMMISSION
ADOPTING RULES

Analysis prepared by Public Service Commission

Between November 5, 1979 and December 20, 1979, the Commission issued orders in ten dockets, one for each class A gas utility, directing the utilities to place into effect conservation standards for existing structures converting to natural gas space heating service. The standards required customers to meet certain energy conservation requirements as a condition of receiving service.

Pursuant to a directive by the Joint Committee for Review of Administrative Rules (JCRAR), the Commission adopted the rule proposed in this docket and set forth in the previous Commission orders as an emergency rule, effective on April 25, 1980. The Commission at that time, also issued Notice of Hearing, that it would consider final adoption of the permanent rule in Chapter PSC 136.04 of the Wisconsin Administrative Code. Pursuant to due notice hearing was held on July 7, 1980 in Madison, before Examiner Ann Pfeifer.

At the hearing, staff of the Commission's Utility Rates Division suggested several minor changes to the Commission's proposed standards. In paragraph (2) (a) of the rules, the staff proposed that the two possible energy conservation measures that can be used as alternatives to installing R-38 ceiling insulation be removed and included in a later section. Commission staff also proposed that under (2) (a), that the alternative of insulation materials equal to R-5 on the walls of a heated basement be changed in order to require that insulation go to the bottom of the inside basement wall. In paragraphs (b), (c), (d), (e) and (f), the staff proposed minor editorial changes in order to conform the language to that suggested by the Wisconsin Legislative Council in its comments on the proposed rules. In paragraph (g), the Commission staff indicated that some of the caulking requirements may be practically impossible for existing structures; therefore, the staff recommended the following language:

- (g) Caulking shall be applied wherever two different materials or parts of the structure meet, such as chimney openings, around windows and door frames, etc.

In paragraph (i), the staff's experience in enforcing the rules indicated that the 1/150 ventilation requirement may be

excessive for eliminating moisture in the attic due to additional insulation and the staff recommended that the 1/300 requirement be applied to all homes. In paragraph (j), the staff proposed that the words "because of physical limitations" be eliminated to allow customers to make energy saving modifications that would save the same amount of energy as long as the modifications were acceptable to the utilities. In several instances, it has been a utility's interpretation that customers are not physically limited from installing certain of the energy conservation measures, whereas the customer felt that he/she was physically limited or would prefer to do some other conservation measure which would have the same energy saving effect. The staff also proposed that paragraph (j) be modified to add the conservation measures previously listed at the end of paragraph (a). The staff testified that the changes would make the rules more flexible, yet still in accordance with the Commission's conservation goals.

The Commission staff also discussed a concern of the Commission relative to the enforcement of the one and two-family dwelling code by the Department of Industry Labor and Human Relations (DILHR). DILHR has adopted an emergency rule which exempts all municipalities of under 2,500 inhabitants from the requirements of issuing permits and providing mandatory inspections of new one and two-family dwellings. In effect, this

allows homes to be built in municipalities of less than 2,500 inhabitants which will not be inspected in any way for energy conservation compliance. The staff brought this matter to the attention of the Commission and raised the issue in this docket to allow the Commission to consider whether the utilities could enforce energy conservation standards for these dwellings. The staff enumerated three options for the Commission:

1. Require the utilities to inspect such dwellings in those municipalities of less than 2,500 inhabitants for compliance with the DILHR standards;

2. Take no action; or

3. Require utilities to inform such customers for gas service that they are required to meet the DILHR one and two-family dwelling code, and that inspection at a later time may cause them to have their gas service disconnected if the dwelling does not comply with the one and two-family dwelling code.

Wisconsin Natural Gas Company entered a statement of legal position relative to the Commission's statutory authority in adopting the conservation standards. Wisconsin Natural's main contentions were:

1. The impact of the rules is not the regulation of public utilities under Chapter 196.02, but rather the regulation of the citizens of the State of Wisconsin, which may be outside the authority of the Commission;

2. The rules may be partially or entirely prohibited by Chapter 196.175, Wis. Stats.;

3. The rules establish a discrimination between homeowners whose use of natural gas is identical; and

4. The rules require policing by the utility in such a manner which may render them unenforceable or subject the utility to liability in attempting to enforce such rules.

In conclusion, Wisconsin Natural recommended that the audits and standards be made voluntary and that if the Commission's final order includes mandatory conservation standards, Wisconsin Natural recommended what it believes to be a more reasonable set of standards.

Wisconsin Natural believes the ceiling insulation requirements should be reduced to R-19 and, as a result of its own furnace testing, it believes that automatic flue dampers and electronic ignition should not be required on new furnaces. Wisconsin Natural also believes that isolated outside air for combustion and dilution purposes does not save energy and should not be used as an alternative to one of the other conservation standards. Wisconsin Natural proposed that a modified standard based on Chapter IND 22, of the Wis. Adm. Code be used; however, Wisconsin Natural would not require side-wall insulation, would reduce the maximum ceiling insulation to R-19, and would not require triple-glazed windows.

Several utilities testified that the rule should be revised to allow customers applying for space heating service to receive such service immediately, on the condition that they comply with the conservation standards within the following 12-month period. Upon receiving an application for service, the utility would perform an energy audit, advise the applicant of the improvements that would have to be made, and require that the applicant sign an affidavit stating that the improvements would be completed within the next 12 months. The utilities stated that the revision would be beneficial to the applicants for gas service because they could begin receiving natural gas immediately. Furthermore, by giving the customer additional time to complete the necessary energy conservation measures, the customer may be able to do much of the work himself which will reduce his ultimate costs and improve his paybacks. Moreover, the savings that the customer would achieve over a 12-month period following the switching from fuel oil to natural gas would help to pay for some of the necessary weatherization improvements.

The utilities believe that as a result of having to weatherize their buildings, pay for the costs of natural gas service extension, and the cost of a new heating unit, customers are put under both a severe financial burden and an unreasonable time deadline. As a result, many customers may continue to utilize alternative sources of energy such as fuel oil. The utilities

also feel that such a revision to the rule would be easier to administer as both audits and post-installation inspections could be scheduled in a more orderly fashion. To insure compliance with the order, the utilities proposed that all customers would be informed that if they failed to install the required conservation measures, their service would be terminated at the end of the one-year period even during the period of a winter moratorium for customers who do not pay their gas bills.

Wisconsin Power and Light Company supported the goals of the Commission proposed rule; however, WP&L stated that the benefits that can be realized from the current standards are limited as the proposed rule only addresses one fuel source. WP&L believes that statewide mandatory standards for weatherization of all buildings regardless of fuel source are more appropriate. WP&L states that the appropriate source for the development of mandatory weatherization standards is the legislature. It believes the utility's role in a mandatory program would be one of a consultant on energy efficiency and weatherization needs. Enforcement provisions for the standards should be the responsibility of state government because the standards would be statewide and would cover all space heating fuels. Any consumer financing programs that would be deemed necessary could be developed and administered by existing lending institutions or

appropriate government agencies, as these groups have the experience, expertise, and available resources to provide the most economical financing arrangements possible. WP&L also stated that it is inappropriate for utilities to inspect new buildings and municipalities with less than 2,500 inhabitants.

A landlord from Racine also presented a short statement. He believes that the Commission does not have the regulatory authority to institute such conservation standards; he believes the Commission is regulating people and that the Commission has no such authority. He indicated he owns rental property that would be required to meet the Commission's conservation standards because he intends to convert them to gas.

Need for Proposed Rules

The Commission continues to believe that conservation requirements as a condition of providing utility service to existing structures are appropriate and in the public interest. Throughout its conservation efforts, the Commission has sought to maximize the availability of natural gas to all consumers in the state. Conservation is one of the cheapest, most practical ways to meet Wisconsin's gas supply needs. Natural gas must be used wisely and efficiently to reduce the effects of ever-increasing gas costs.

The Commission finds merit in specifying a particular set of requirements for all Class A gas utilities; however, the

Commission also believes these standards should be as flexible as possible, in order to allow customers to effectuate conservation in a practical and cost-effective manner. Therefore, the commission will herein adopt the proposed modifications to the rules as proposed by the Commission staff. The prescriptive list of standards contained in the proposed rules are easy for customers to understand and simple for utilities to administer. The modifications will improve the understandability and administration of the rules.

The Commission does not believe that the utilities' proposal to allow a 12-month period for customers to install conservation measures is reasonable or practical. The Commission finds that installation of the required conservation measures are cost-effective for natural gas service; therefore, these measures are even more cost-effective for customers who decide to continue using fuel oil, which is substantially more expensive at the present time. Furthermore, the Commission finds it unreasonable to allow utilities to secure large numbers of gas customers and then threaten these same new customers with disconnection only 12-months later. For emergency situations, the Commission has allowed utilities to grant waivers to certain customers provided these customers comply with the requirements within 6 months. This procedure will be continued.

Although the Commission is very concerned that new buildings in municipalities with less than 2,500 inhabitants may not be in compliance with the DILHR one and two-family dwelling codes, the Commission does not believe it is appropriate at this time to require the utilities to become involved with the enforcement of that code. All utilities should make all customers aware of the benefits of energy conservation measures contained in the DIHLR rules. The Commission will continue to review this issue of energy conservation in small municipalities and, in the future, it may support legislation to close this apparent "loophole."

No fiscal impact will result from adoption of the rules proposed herein.

Pursuant to authority vested in the Public Service Commission by ss. 196.02, 196.03, 196.37 and 227.014, Wis. Stats., the Public Service Commission proposes to adopt rules to promote conservation in accordance with ss. 196.02, 196.03 and 196.37, Wis. Stats., as follows:

Section PSC 136.04 of the Wisconsin Administrative Code is adopted to read:

PSC 136.04 Conservation standards for converting existing structures to natural gas spaceheating service.

(1) The provisions of this section shall apply only to those investor-owned utilities set forth below:

- (a) Lake Superior District Power Company
- (b) Madison Gas and Electric Company
- (c) Northern States Power Company
- (d) Superior Water, Light and Power Company
- (e) Wisconsin Fuel and Light Company
- (f) Wisconsin Gas Company
- (g) Wisconsin Natural Gas Company
- (h) Wisconsin Power and Light Company
- (i) Wisconsin Public Service Corporation
- (j) Wisconsin Southern Gas Company

(2) Nothing in s. PSC 136.04 of the Wisconsin Administrative Code shall preclude special and individual consideration being given to exceptional or unusual situations. The rule may be modified or waived by the Public Service Commission in particular cases whenever said rules are shown to be impracticable for special reasons. Upon due investigation of the facts and circumstances involved and after hearing if required, the commission may order requirements as to individual utilities or service which shall be lesser, greater, other or different from those provided in the rules of this section.

(3) Before natural gas service can be rendered to existing residential structures converting to gas space-heating service, each utility listed in PSC 136.04(1) shall require that the following conservation standards be met:

(a) Ceiling or attic insulation: If a structure has insulating material with insulation value less than R-19, the customer shall install insulation to a level of R-38. If insulation materials equal to a level of R-38 cannot be installed because of inadequate space between the ceiling and the roof, then as much insulation as space permits shall be installed. Exception: If the structure has existing insulation material with a value of R-11 or more and the customer is installing batt insulation, the customer need only install additional insulation material with a value of R-19.

(b) Sill box area insulation shall be installed to a level of R-19, unless physically impractical.

(c) Floor insulation over vented crawl spaces or unheated basements shall reach a level of R-19. In a heated crawl space, insulation materials with an R factor of at least 5 shall be installed on the walls.

(d) In unheated areas, insulation shall be installed on all heating ducts, cold air returns, and hot water pipes.

(e) Windows shall be double-glazed or have storms.

(f) All doors exposed to the outside atmosphere shall have a storm door or equivalent insulated door.

(g) Weatherstripping shall be installed on all movable doors and windows exposed to an unheated space. Caulking shall be installed whenever two different materials or parts of a structure meet, such as chimney openings, around windows and doors, etc.

(h) If a new central heating unit is to be installed, the equipment shall meet the energy efficiency requirements of IND 22.13, Wis. Adm. Code, which are as follows:

Combustion spaceheating equipment shall be provided with electronic ignition and automatic flue dampering, except sealed combustion equipment or equipment located in enclosures and provided with combustion air need not be provided with flue dampering.

(i) Ventilation above the ceiling/attic insulation shall be installed. The free ventilating area shall be at least 1/300 of the horizontal area. One half of the venting should be near the eaves and the other half near the top of the roof.

(j) If a structure is unable to meet all required standards, other methods of energy conservation may be substituted such that the energy savings will be the same or greater. This substitution shall be based on heat loss calculations performed in a normally accepted manner. Such substitutions may include but are not limited to the following:

- (i) Furnace modifications as suggested by the utility; or
- (ii) Insulation materials equal to R-5 on the inside walls of a heated basement.

(4) Before natural gas service can be rendered for commercial or industrial spaceheating use in buildings constructed before July 1, 1978, each utility listed in PSC 136.04(1) shall require that the following conservation standards be met:

(a) Design heat loss, excluding infiltration and ventilation, through above-grade gross walls and roofs facing heated interiors shall not exceed 13 BTU per hour per square foot for the total building envelope;

(b) If a building exceeds the heat loss of (a) above, the building may receive gas service provided that it demonstrates additional innovative building or system designs that will reduce fuel consumption to a level equal to or less than fuel consumption which results from complying with (a) above;

(c) All exterior windows and doors shall be designed to limit leakage into or from the building and shall be weatherstripped; and

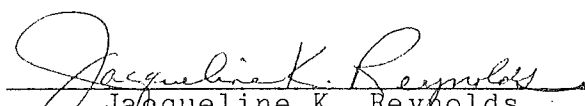
(d) Special use buildings such as greenhouse, inflatable structures, and the like, or any building exempt from the heating and ventilating requirements of Chapter IND 63, Wis. Adm. Code, are exempt from these requirements.

The rules contained herein shall take effect on the first day of the month following their publication in the Wisconsin Administrative Register as provided in s. 227.026(1), Wis. Stats.

Dated at Madison, Wisconsin,

December 11, 1980

By the Commission.


Jacqueline K. Reynolds
Assistant Secretary to
the Commission

Report to Legislature

2. A copy of the analysis done by the legislative council is attached.

3. Analysis:

(a) see proposed rule

(b) see proposed rule

(c) Minor modifications were made to make compliance with the requirements more flexible. (see text of proposed rule.)

(d) As Interest May Appear:

Wisconsin Natural Gas Company by Dan L. Sanford, Attorney
Wisconsin Gas Company by Wallace Zeddun, Attorney
and by Glen E. Hibbard

Hugh H. Bell, Attorney for several utilities

Wisconsin Southern Gas Company by Charles Larson

Wisconsin Power and Light Company by Griffin G. Dorschel,
Attorney and by Kay Kirchner

Northern States Power Company by Dennis C. Holt

Wisconsin Public Service Corporation by William A. Swan

National Electric Contractors Association by James S. McDonell

In opposition:

George W. Goodwater

Commission staff:

Harold A. Meyer

Paul C. Newman

Benita S. Byrd

(e) The Commission has accepted the majority of the recommendations of the legislative council staff. However, in recommendation 5(c) regarding insulation on heating ducts, cold air returns and hot water pipes, the Commission has not specified the amount of insulation required in order to allow customers the maximum amount of flexibility in complying with this provision. The variety of installations is such that varying amounts of insulation can be applied under different circumstances;

however, any amount applied in these areas will save substantial amounts of energy. Each utility auditor makes a recommendation of the amount to be used based on a customer's needs and the cost-effectiveness of the installation.

The legislative council staff makes no recommendation regarding statutory authority of the Commission but does present a lengthy discussion of the matter. The Commission continues to rely on the broad authority granted it under Chapter 196, Wis. Stats., to regulate service to ensure that such service remains as reasonably adequate and sufficient in the future as is practicable.

All other recommendations proposed by the legislative council staff have been reflected in the rules.