UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

JUN 30 1980

The Honorable William Proxmire
United States Senate
Washington, D. C. 20510

Dear Senator Proxmire:

Your letter of March 14, 1980 brought to my attention the concern of your constituent Ms. Nancy Bohm concerning emergency preparedness warning systems around nuclear power plants.

Since the summer of 1979, the Nuclear Regulatory Commission has been actively pursuing a major program of upgrading the state of emergency preparedness in the environs of operating nuclear power plants. The program was initiated by a series of regional meetings in which new and more stringent criteria were explained to licensee representatives and State and local officials. The criteria have recently been published as a joint Nuclear Regulatory Commission - Federal Emergency Management Agency document (NUREG-0654/FEMA-REP-1), a copy of which is enclosed with this letter.

By direction of President Carter on December 7, 1979, the Federal Emergency Management Agency (FEMA) is responsible for review of emergency plans, which includes evacuation planning, of State and local authorities in the environs of a nuclear power plant. The NRC works closely with FEMA in this regard. Upon completion of its review, FEMA will present its findings on the adequacy of offsite emergency plans to NRC, and the NRC will then make the final licensing decision.

The acceptance criteria in NUREG-0654/FEMA-REP-1 include three principal items: (1) the distance to which planning should be done, (2) the criteria for defining an emergency, and (3) the time for notifying the general public.

The NRC Commissioners have recently endorsed an NRC-EPA task force report, NUREG-0396, which is the planning basis for the development of State and local radiological emergency response plans in support of light water nuclear power plants. This report recommends that planning for protective measures should be made out to a distance of 10 miles from an operating nuclear power plant. The report also recommends that there should be provisions for early warning and instructions to the general public. The emergency planners are defining this requirement in terms that state there should be a maximum of 15 minutes from the time an operator of a nuclear power plant defines an emergency to his notification to local authorities, and there should be a maximum of another 15 minutes for local authorities to alert the general public within 10 miles of the plant. We have not defined the means by which the general

public shall be alerted. Sirens can be used in built-up localities or some other system similar to weather alert systems for rural areas. The purpose of the early warning system is not to instruct people to evacuate an area - it is simply to gain their attention and to have them shelter in one's home and to close doors and windows and listen for further instructions on the radio and TV, which may include subsequent instructions to evacuate. With regard to resources for these systems, FEMA and NRC expect that the nuclear facility operator will have an interest in assisting State and local governments by providing certain manpower, items of equipment, or other resources that the State and local governments may need but are themselves unable to provide.

A further key element in upgrading emergency plans is the concept of emergency action levels. NUREG-0610, Emergency Action Level Guidelines for Nuclear Power Plants is included as an Appendix to NUREG-0654/FEMA-REP-1. We have defined a number of parameters in terms of observable indications in the control room which will require immediate notification to local authorities. For example, the loss of two of the three fission product barriers would be defined in observable indications on control room instrumentation such as high pressure and temperature in containment as well as high radiation levels in containment. The goal in upgrading emergency plans to these criteria is to ensure that the general public in the environs of the plant will have early warning and clear instructions of what to do in the event of a potentially serious accident at a nuclear power plant.

We trust this information will be helpful to you.

Sincerely,

(Signed) T. A. Rehm

William J. Dircks, Acting Executive
Director for Operations

Enclosures:
1. NUREG-0654/FEMA-REP-1
2. Incoming Letter dated 2/15/80

February 15, 1980

Senator Wm. Proxmire
United States Senator
Washington D.C., 20510

Dear Senator,

As a student at the University of Wisconsin River Falls, (which is located only a mere thirty miles from the Prairie Island Nuclear Plant in Red Wing, Mn.), I am concerned about possible dangers involved with nuclear energy and what is currently being done in terms of these potential dangers.

On Wednesday, February 6, 1980 a team of Federal Investigators visited the Prairie Island Plant to evaluate how the Northern States Power Company (NSP), along with state and local officials, have upgraded their planning for nuclear emergencies. At a similar meeting in Monticello City, Mn. an NRC official mentioned that the federal agents will soon require installation of an emergency warning system for areas surrounding nuclear plants.

According to the officials the system would warn everyone within a ten mile radius of the plant to evacate within fifteen minutes. This ten mile radius involves approximately 314 square miles. Obviously, a system large enough to cover this much area will cost us, the taxpayers, a great deal of money. Before my money is spent on such an alarm, I want a demonstration on it's effectiveness.

In the February 11th, issue of the St. Paul Pioneer Press, page 19 and 21, John Camp lists three good reasons why the alarm won't work.

> "Because Uncle Fred is deaf and can't hear either the sirens or the special weather alert beeper or the expensive radio the feds gave him."
>
> "It won't work because the man who is suppose to push the alert button knows that if he pushes it, NSP is going to pay fifteen zillion dollars to the evacuees and he wants to make real sure that things are as bad as the engineers say."
>
> "It won't work because there are so many tests that nobody believes it anymore."

John Camp also points out that one of the nations most expensive and most frequently tested warning systems (the radio) totally failed the only time it was really tried.

Besides failing to mention who was going to pay for the suggested alarm system the Feds have not defined what they consider a reasonable cause for evacuation. On Monday February 13, 1980, a cooling system inside the already crippled Three Mile Island Nuclear Plant leaked as much as 1,000 gallons of highly radioactive water. Authorities said that no radioactive material escaped, whereas the control room operator reported as much as 300 millicuries of Krypton gas escaped into the atmosphere. How much radioactive material will officals allow to escape into the atmosphere before we are warned?

Radiation is especially dangerous to us because we can't see, feel, smell, hear or touch it. It gives off rays which penetrate and damages our cells, children are more susceptible than adults to radiation damage because their cells are constantly growing and dividing.

If Nuclear energy must be used, all citizens should be made aware of any dangers involved. Therfore I'm asking you to support the NRC's plans for a warning system, if such a device can be pro en effective. Please also support any plans that will warn of dangers as they occur and not days later. Your consideration of these matters will be greatly appreciated.

Sincerely,

Nancy Bohn

Nancy Bohn
457 Johnson Hall
River Falls, WI. 54022

"Three Mile Island Radioactive Water Leaks", St. Paul Pioneer Press, Tuesday, February 12, 1980 page 1.

"What Radiation Is and Does", North Country Anvil, A Primer on Nuclear Power. No. 30s, published by box 37, Millville, Mn. 55957 1979 page11.

Helen Caldicoat, "At the Crossroads", New Age Magazine, December 1977, reprinted by Environmental Action Reprint Service.