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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING APPEAL BOARD

In the Matter of)	
)	
METROPOLITAN EDISON COMPANY)	Docket No. 50-289-SP
)	(Restart)
(Three Mile Island Nuclear)	(Emergency Planning)
Station, Unit No. 1))	

LICENSEE'S RESPONSE TO APPEAL BOARD
ORDER OF JUNE 29, 1982

The Appeal Board has requested Licensee to serve it and the parties to the proceeding with copies of the revised PEMA public education pamphlet. Enclosed herewith are copies of the requested pamphlet. In addition, the five risk county emergency information brochures have been revised since the close of the hearing, and copies of each county's brochure also are enclosed. A press briefing is to be held at the State Capitol on July 23, 1982 to describe the distribution process, and distribution of the pamphlet and brochures will start immediately thereafter.

During the course of oral argument, two other matters were raised for which the undersigned counsel committed to provide further information. First, at App. Tr. 12 (afternoon session), I offered to provide a transcript reference

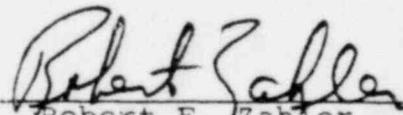
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where the transfer of command from emergency director to emergency support director was discussed. That testimony appears at Tr. 14,764-65 (Rogan). Second, at App. Tr. 20 (afternoon session), I was questioned from what level of management the emergency support staff members come. Pursuant to Licensee's philosophy of establishing a three-section duty roster for each position in the emergency organization, the current designees as emergency support staff members are: (1) Manager, Unit 1 Radiological Controls; (2) Manager, TMI Plant Training; and (3) Chairman, Unit 1 Plant Operations Review Committee ("PORC") and a senior plant engineer. The offsite duty roster is updated monthly, and the people designated as emergency support staff members can change depending on the background, training and experience of personnel available to Licensee. However, it is Licensee's expectation that personnel filling the emergency support staff member position would have qualifications similar to the current designees.

Respectfully submitted,

SHAW, PITTMAN, POTTS & TROWBRIDGE



Robert E. Zahler
Counsel for Licensee

Dated: July 9, 1982

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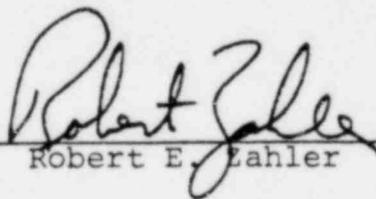
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CERTIFICATE OF SERVICE

I hereby certify that copies of "Licensee's Response to Appeal Board Order of June 29, 1982", were served upon those persons on the attached Service List by deposit in the United States mail, postage prepaid, this 9th day of July, 1982.



Robert E. Zahler

Dated: July 9, 1982

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NUCLEAR REGULATORY COMMISSION

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**EMERGENCY
INFORMATION**

**WHAT YOU SHOULD
KNOW ABOUT
NUCLEAR POWER
PLANT INCIDENTS**



Commonwealth of Pennsylvania
**PENNSYLVANIA EMERGENCY
MANAGEMENT AGENCY**
Harrisburg, Pennsylvania



Fellow Pennsylvanians:

This booklet, concerning the potential hazard of a nuclear power plant incident, is being released as part of our efforts to inform the public of steps to protect their life, health, and property.

People living near nuclear power plants need to know that protective measures are available for their safety if an incident occurs. And, the public is just not as well informed about nuclear power and the nature of possible incidents as it should be.

The likelihood of a serious incident occurring at a nuclear power plant is small, but our experience at Three Mile Island showed us that it can happen.

The Commonwealth of Pennsylvania believes it has a responsibility to publish the basic facts and to inform people of measures they could be advised to take.

I can assure you that state government is working hard on these concerns, not only in the effort to clean up Three Mile Island, but in our work to be prepared to respond to future incidents.

The Pennsylvania Emergency Management Agency has comprehensive plans which are kept current describing actions to be taken in the event of an emergency. It works in close coordination with the federal, state, county and municipal governments to ensure that public safety can be maintained.

I hope you find this booklet informative and helpful.

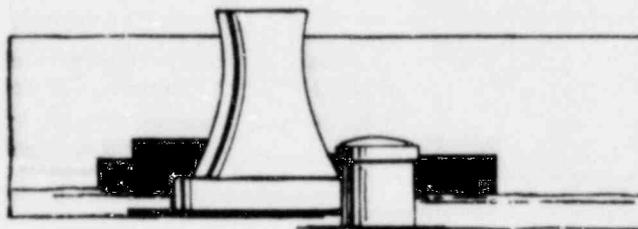
Sincerely,
William W. Scranton, III
Lieutenant Governor
Chairman, Pennsylvania Emergency
Management Council

PURPOSE OF THIS BOOKLET

This booklet is about nuclear power plants. It tells what the effects of a nuclear power plant incident could be and what you should do to protect yourself.

WHAT IS A NUCLEAR POWER PLANT INCIDENT?

A nuclear power plant incident is the abnormal release by a nuclear power plant of radioactive material to the surrounding countryside.



HOW LIKELY IS AN INCIDENT?

The chances of a serious nuclear power plant incident occurring are remote compared to the threat of natural and other accidental disasters such as floods, tornadoes and hazardous chemical spills. Nevertheless, the Commonwealth believes that citizens should know what to do if a serious nuclear power plant incident occurs.

WHAT ARE THE HAZARDS?

A variety of industrial plants pose some hazard to the public. Usually these hazards affect only the people who work in the plants, but sometimes the general public living near industrial plants are threatened by fires, explosions, and the escape of harmful liquids or gases. People living near nuclear power plants face a similar risk.

A nuclear power plant, like many industrial plants, releases water vapors from its cooling towers everyday. This water vapor is not radioactive and should cause no concern. Nuclear power plants also release small quantities of radioactive materials into the air and water.

under controlled conditions. These planned releases are within the limits established by the Federal Government. They are monitored on a continuing basis by the plant and by Commonwealth agencies.

If a nuclear power plant incident occurs, there could be a release of a large quantity of radioactive material into the water or into the air. If there is an abnormal release of radioactive material into the water, those communities downstream of the plant will be notified to stop pumping water until the radioactive material has passed by. If there is an abnormal release of radioactive material into the air, the protective actions you will be advised to take will depend upon the size of the release and prevailing weather conditions.

The duration of the hazard from a nuclear power plant incident could be several hours or several days depending upon the seriousness of the incident. The hazard posed would be in the form of radiation given off by radioactive materials that could be emitted in abnormally large quantities in a nuclear power plant incident.

WHAT IS RADIATION?

Nuclear radiation consists of energy in the form of invisible particles or rays, given off by radioactive material. Small amounts of radioactive material occur naturally and always have been part of man's environment. For example, the earth's crust contains uranium, radium, thorium, and other radioactive materials. Further radiation from outer space and from the sun partially penetrates the earth's atmosphere and continuously bombards our planet. Additionally, natural radioactive materials appear in the air we breathe, the food we eat, and the water we drink. As a result, every person has radioactive materials within his body. Much larger amounts of radioactive materials are produced by and contained within a nuclear power plant.

Man's use of radioactive materials also results in radiation exposure. For example, doctors and scientists have utilized X-rays in medical treatment for many years.

The amount of radiation a person receives is measured in terms of radiation dose. The unit used to measure this dose is called a millirem.

The following table shows examples of typical radiation doses due to natural radioactive materials or man's use of radioactive materials compared to the

worst estimated exposure received by an individual during the TMI-2 incident.

Source	Millirem Per Year
* Color television	1
* Airline travel (typical airline passenger who makes 10 flights per year)	3
* Natural radioactive materials within the body	20
* Medical X-rays (average patient)	20
* Cosmic rays	27
* Natural radioactive materials in the earth	46
** Maximum off-site exposure during TMI incident	70

* "The Effects on Population of Exposure to Low Levels of Ionizing Radiation," National Academy of Science, 1980.

** Report of the President's Commission on the Accident at Three Mile Island, October 1979, Page 34.

It is generally accepted by the scientific community that exposure to radiation may cause biological effects that could be harmful. Whether those effects occur or not depends on two factors: how much radiation is received and whether the dose was received over a short or long time period. For example, radiation doses of about 25,000 millirems in a few hours may cause slight changes in a person's blood count. Below doses of about 100,000 millirems received in a few hours, there are no immediate ill effects. Radiation doses of about 350,000 millirems in a short period can cause illness or even death if no medical care is received. However, the same radiation doses received over a long time period, such as years, may cause no measurable changes in the body.

HOW IS RADIATION DETECTED?

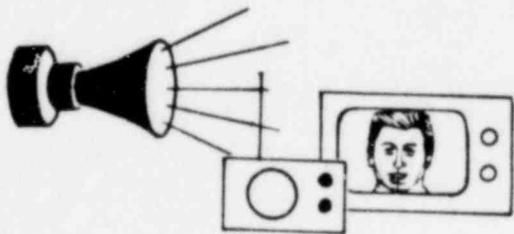
Radiation cannot be detected through any of the senses, but it can be detected with the aid of instruments designed for that purpose. Experts using these instruments are continually monitoring radiation

levels around nuclear power plants. If a nuclear power plant incident occurs, this monitoring will be increased to obtain accurate information for all areas that might be affected.



HOW WILL YOU LEARN OF A NUCLEAR INCIDENT?

If protective measures are required to protect your health and safety, the standard "Alert Signal" will be sounded over the siren system that has been installed within an approximate ten-mile radius of the nuclear power plant. This signal is a steady three to five minute signal — not a wailing or warbling signal. The purpose of the siren system is to advise the public to tune their radios or TV's to the local Emergency Broadcast Station. A message will be broadcast advising you what action should be taken. To make sure that everyone concerned "gets the word", emergency broadcast messages will be repeated at frequent intervals. In addition, state and/or municipal police and fire departments and other agencies will act to help "spread the word". This will be accomplished by the use of sound trucks, bullhorns or even a knock on your door. When you receive the information, a knock on your neighbors' doors will help to ensure that everyone "gets the word". Don't use the telephone to try to get emergency information. That seldom will bring results and could tie up lines urgently needed for emergency operations aimed at your protection.



Always remember these key facts:

- If you hear the Attention Signal — Turn on your radio or TV set!
- Don't use the telephone in an attempt to get additional information since this will only tie up lines urgently needed for emergency operations. Use the telephone only if you need emergency assistance or transportation in the event of an evacuation!
- Do not automatically evacuate!
- Follow the instructions given on the radio or TV!

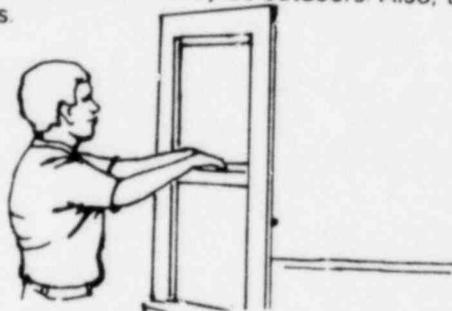
HOW CAN YOU PROTECT YOURSELF FROM RADIATION?

There are two sound, simple and effective steps you can take to protect yourself if a nuclear power plant incident occurs. These steps will help reduce potential radiation exposure.

One step is taking cover or shelter (which means going indoors). Should a small puff of radioactive material rise from the plant and move fairly quickly away, people within a predictable area downwind from the plant may have to go indoors and remain there until the cloud passes and the hazard no longer exists. Emergency TV and radio broadcast messages relating to the need for people to go to shelter, or "take cover", will be addressed to individuals in the area concerned. They will also contain specific instructions as to what you should do for your own self-protection.

Should you be directed to take shelter, there will be several things you need to do when you get there.

Close all outside doors and windows and leave them that way. This will help to keep out any radioactive materials which may be outdoors. Also, turn off air intakes.



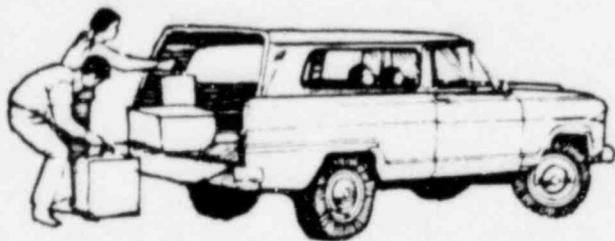
Efforts should be made to keep radioactive materials from getting inside your body. If you have just come in from outside, wash your face and hands, particularly before you handle or eat any food. Preferably, take a shower and wash any clothes you were wearing while outside.

Take precautions with food. Immediately cover up or put in your refrigerator any "open" foods not in covered containers. This will keep any radioactive materials which might seep into the house from contaminating foodstuffs. It will be safe to eat or drink anything in cans, bottles or other sealed containers.

Keep your radio or TV turned on and listen for further emergency instructions. Don't use the telephone — leave all lines open for emergency communications.

Stay in your place of shelter until you receive official notice that it is safe to go out. Special arrangements will be made by state, county and municipal officials to take care of school children and hospital patients. Others not at home should take the best available shelter.

Another step you may be advised to take is evacuation. In the event that larger amounts of radioactive materials are projected to escape over a prolonged period, it may be necessary for people to move out of the area and stay out until advised to return.



If it is necessary to evacuate an area, notice of need for the action will come to you primarily by radio or television. Here, too, the message will be addressed to those people in the area and will include any special instructions which might be called for by the particular situation. Again, special arrangements will be made to take care of school children, the sick, and the disabled.

The procedures here will not be very different from those followed during a flood alert when people may be advised to evacuate their homes for a period of time until the danger from flood waters pass.

HOW WOULD RESPONSE TO A NUCLEAR INCIDENT BE MANAGED?

Each nuclear power plant licensee is required to develop an emergency plan to cope with any incident, however remote. Detailed plans have also been developed by state, county and municipal officials to protect people living within the vicinity of the plant. If a nuclear power plant incident does occur, your government officials will act to minimize the consequences to you and your family.



However remote the possibility of an incident, the Commonwealth believes it has a responsibility to publish the basic facts and to inform people of the measures they could be advised to take.

WHAT TO DO IN A NUCLEAR POWER PLANT INCIDENT?

If advised to **take cover** or **shelter** you should do the following:

1. Remain indoors; close all windows and doors; turn off fans and air conditioning.
2. Tune to your local radio or television station to await further instructions.
3. Do not attempt to call your friends and neighbors; this might tie up telephone lines which should be kept open.

If advised to **evacuate** you should do the following:

1. Close all doors and windows; turn off fans and air conditioning.
2. Turn down heating system.
3. Tune to your local radio or television station to await further instructions.
4. Do not attempt to call your friends and neighbors; this might tie up telephone lines which should be kept open.
5. When instructed do so, leave the area calmly in your, or your neighbor's private vehicle using the routes designated.
6. If you do not have transportation call your police or fire department and you will be advised what to do.
7. If you do not have a place to stay outside the area, you will be directed to a mass care center.



IMPORTANT TELEPHONE NUMBERS

Local Emergency Management Coordinator

Local Police Department

Local Fire Department

Pennsylvania Emergency Management Agency
Transportation & Safety Building
Harrisburg, Pennsylvania

