
PUBLIC INFORMATION DURING A NUCLEAR POWER PLANT ACCIDENT: LESSONS LEARNED FROM THREE MILE ISLAND*

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MORE than four years have passed since an unexpected shutdown at Reactor Number Two on Three Mile Island sent shock waves throughout Pennsylvania that echoed around the world. Of the many lessons learned during the crisis which followed, perhaps none are more explicit than the need for a coordinated approach to public information during emergency response—before such a nuclear accident occurs.

At the time of the accident I was the assignment editor at WHP-AM-FM-TV, a CBS affiliate in Harrisburg, Pennsylvania. In that capacity I determined how the station's radio and television news staff reported the rapidly changing situation at the plant.

Prior to the accident, public education of the local media by plant operator Metropolitan Edison (now GPU Nuclear) consisted almost entirely of routine assertions of the overall safety of Three Mile Island Unit 1, and weekly press releases of problems, as they occurred, in Unit 2, which went on line at the end of 1978.

The story of the nuclear accident was first broken to the world by an enterprising reporter at another AM radio station in Harrisburg. Listening to the police monitor, I happened to hear an exchange between Unit 2 control room operators and local officials concerning an "on-site emergency at TMI." Unaware of what an on-site emergency meant, he then called the local county emergency management office and confirmed that a turbine trip had triggered an unexpected shutdown of the Unit 2 reactor. He went on the air with that story at 8:25 A.M., nearly four and a half hours after the transient had begun.

WHP's radio newscast at 8:30 A.M. did not mention the TMI emergency. As soon as I reported to work, I telephoned plant operator Metropoli-

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tan Edison's home office in Reading some 50 miles away, and was told by a public relations representative, "We're in the process of formulating a statement on the condition of the reactor." At the time of the accident, Metropolitan Edison had no public information representatives on-site.

In examining the chronology of that confusing Wednesday morning, the Nuclear Regulatory Commission reports the onsite emergency declaration was made at 6:55 A.M. Coincident with that declaration, a projected off-site radiation exposure calculation indicated a whole body exposure rate of 40 rems an hour in Goldsboro, a rural community directly across the Susquehanna River from Three Mile Island, roughly one half mile away. An investigation of the accident by the Nuclear Regulatory Commission's Office of Inspection and Enforcement later reported that no attempt was made to calculate a projected dose by factoring in the anticipated duration of the condition that precipitated the number. The 40 rem an hour calculation was later refuted due to lack of concurring evidence.

At 7:24 A.M. a general emergency was declared when a monitor on top of the Unit 2 containment building dome detected radiation seeping into the environment at a rate in excess of 8 rems an hour. Dauphin County Civil Defense Officials were notified of the change in the plant's emergency status, but members of the news media were not. State and federal officials were also notified in accordance with existing agreements. However, WHP, which is the designated hub of the emergency broadcast system in the Pennsylvania area, was never formally informed of the Three Mile Island emergency.

Cumberland County, one of five counties within a 20-mile radius, was notified of the emergency several hours *after* Dauphin County. Middletown Mayor Robert Reid later testified he learned of the accident through a radio dispatcher at the municipal police station. And one former Dauphin County Commissioner has gone on record as saying he is still waiting to be told there is an emergency at Three Mile Island. Clearly, no direct communication line existed between all the forms of government within that 20-mile radius.

Prior to the accident, evacuation planning within a five-mile radius of the plant was beyond the financial realm of many of the area's small communities. Although Met-Ed had to present plans for evacuating the area within a 2.2 mile radius of the plant in order to obtain an operating license, those plans were not widely known. What plans did exist on the county level did not contain detailed evacuation operations.

Evacuation did not become a real concern to members of media and the

public until Friday, March 30th. Ironically, I had just assigned a reporter and a photographer to a story on potential evacuation sites when we were notified of an uncontrolled release of radiation from the plant. According to the utility, the estimated release of 12-hundred millirems was a controlled means to alleviate pressure building within the reactor containment building. However, later testimony by members of the State Bureau of Radiological Health and Oran Henderson, then director of the Pennsylvania Emergency Management Agency, indicated two conflicting phone calls had been received about the radiation release. Testifying before the State House Select Committee on Three Mile Island, Henderson said his office, but not he personally, received a call from Unit 2's supervisor of operations who recommended evacuation. The second caller, who was not identified, presented details of the release in a calmer tone and did not recommend protective action.

Faced with these two conflicting recommendations, Governor Thornburgh advised people within a 10-mile radius of the plant to remain indoors and to keep their doors and windows closed. At a news conference that morning in Middletown's Borough Hall, Met-Ed Vice President for Generation and unwitting spokesman Jack Herbein assured reporters the maximum emission was no more than 350 millirems during the controlled release. However, according to Victor Stello, Director of the Nuclear Regulatory Commission's Office of Inspection and Enforcement, it is likely that for some period of time a release occurred over which operators had no control.

Shortly after that news conference, Pennsylvania Governor Thornburgh advised pregnant women and preschool children to evacuate the area within a five-mile radius of the plant. In the meantime, a direct phone line was established between Dauphin County Civil Defense and WHP in the event that full scale evacuation was ordered.

In reviewing the chronology of those confusing first days, the President's Commission on the Accident at Three Mile Island found that Met-Ed's handling of public information during the first three days of the accident resulted in loss of its credibility as an information source with state and local officials, as well as with the news media. Part of the problem was that the utility was slow to confirm "pessimistic" news about the accident.

In an effort to stop the release of conflicting information, Governor Thornburgh, through an informal agreement with the White House, moved to centralize the information flow. Beginning on Friday, March 30th, all

information pertaining to the state's response to the emergency had to come directly from the Governor's Press Office. Meanwhile, Harold Denton of the Nuclear Regulatory Commission was assigned sole responsibility for reporting on the plant's status, and the White House coordinated comment on federal emergency relief.

While this agreement was far from perfect—it was still difficult to get calls returned in time for broadcast news deadlines—it did bring some order to the chaos which had erupted after the accident.

The hastily established public information agreement did have two important shortfalls: no single source had been designated to report on off-site radiation releases and the utility was not assigned any specific public information responsibilities. That agreement, however, did form the basis for much of the planning for public information during emergency response which has ensued since Three Mile Island.

In June 1981, as Press Secretary and Special Assistant to the Commissioner of the Pennsylvania Insurance Department, I participated in a full scale drill on emergency response in the 10-mile radius encircling Three Mile Island.

That exercise was a direct result of regulations promulgated by the federal government after Three Mile Island. As detailed in NUREG 0654, published by the Federal Emergency Management Agency in November 1980, all state emergency management agencies must conduct a full scale exercise, involving state and municipal response teams, once a year on a rotating basis at each licensed nuclear utility operating within the state. Additionally, all Pennsylvania counties which fall within a 10-mile radius of an operating nuclear power plant conduct full scale exercises on an annual basis.

Pennsylvania has conducted eight such drills for its three operational nuclear facilities since the Three Mile Island accident. Both the state and the county full-scale emergency response drills present an excellent opportunity to test the "coordinated, integrated information flow" which the accident established as a critical need during a time of crisis.

Three Mile Island also demonstrated that the governor's office must play a prominent role during a nuclear emergency. As the chief elected officer, it is the governor's responsibility to protect the health and safety of the citizens of that state by declaring an emergency and ordering an evacuation, if necessary.

Governor Thornburgh earned national acclaim for his cool-headed handling of the emergency. Given the fact that his administration had just

stepped into office two and a half months earlier, the state's public information flow occurred remarkably smoothly. Much of that had to do with the fact that after Friday, March 30th the state of Pennsylvania was speaking with one voice.

Another important lesson learned from Three Mile Island was the need for a division of responsibility in public information. As developed by the Pennsylvania Emergency Management Agency, the state's emergency response plan requires that the designated state information source report solely on emergency response off site, and the utility be solely responsible for communicating information about plant conditions on site.

This division of responsibility has greatly facilitated the flow of accurate and timely information during emergency response drills. During these exercises, which elapse under a prearranged, condensed time scenario, the state establishes a centralized media center within Pennsylvania Emergency Management Agency's headquarters in Harrisburg, and the utility establishes a similar media center just outside the 10-mile radius from the plant. Present thinking is that while the state may send a representative to the utility's media center, that person only serves as a satellite source of information released in Harrisburg. That way, no new or different information is provided to the media that may conflict with what the state is saying in Harrisburg.

In addition to establishing a statewide media center staffed by representatives of the governor's press office, the Pennsylvania Emergency Management Agency coordinates the response of the numerous state agencies involved in the event of an emergency. State police and the agriculture, health, and welfare departments are primary respondents during a nuclear emergency. Secondary agencies, such as insurance and community affairs, are summoned only as the emergency response requires. Each administrative agency has predesignated an individual or individuals to coordinate its emergency response. In the event of an emergency, these key people assemble in the Emergency Operations Control center established in the Pennsylvania Emergency Management Agency's underground headquarters in Harrisburg. At the Emergency Operations Control Center, all decisions on emergency response are made and put into action.

By locating a media center within the Control Center, the state can address the status of emergency response with one reliable voice. This coordinated, interagency emergency response has been perfected during the numerous floods and other natural disasters which have occurred in Pennsylvania over the years.

Another important public information tool recognized during the Three Mile Island accident is a designated source for rumor control. During the accident, the Governor's Action Line, a statewide, toll free hotline, was staffed 24 hours a day to provide accurate, timely information to thousands of callers. Designation of that hotline for rumor control is an essential part of public information during a nuclear emergency.

Evacuation planning has continued almost unabated since the Three Mile Island Accident under the leadership of the Pennsylvania Emergency Management Agency. Whereas the state's disaster response plan for nuclear emergencies measured a slim seven pages prior to the accident, the state's master plan for emergency response now runs to thousands of pages.

In addition, fact sheets on each of the three operational nuclear power facilities and the two additional plants scheduled to go on line in the near future have been developed. These fact sheets provide emergency response coordinators with a concise list of the hospitals, schools, special care facilities, and transportation needs that must be taken into account when evacuating the area around the nuclear facility.

Unlike any other state in the country, Pennsylvania Emergency Management Agency's evacuation plans are for a 10-mile, 360-degree radius of each nuclear plant. Present federal regulations require that plans be developed for evacuating a 10-mile radius by vector, or air direction.

Release of evacuation plans is another public information problem encountered during Three Mile Island. As no detailed evacuation plans were in existence prior to the accident, the plans which were drawn up afterward were released approximately eight days later, long after many Central Pennsylvanians had left their homes voluntarily.

It is interesting to note that while the local newspaper printed verbatim the evacuation plans for the area surrounding Three Mile Island, WHP chose not to broadcast the evacuation information for fear that some listeners might misinterpret the newscast and think that an evacuation had been ordered.

This public information problem has since been resolved by the Pennsylvania Emergency Management Agency who have developed and disseminated detailed evacuation instruction booklets to all residents who reside within a 10-mile radius.

The Commonwealth of Pennsylvania operates a tripartite approach to emergency response: state, county, and municipal. Recognizing the need to remain current with its emergency response personnel, the Thornburgh

administration has made a concerted effort at the state level to train new public information officers during each nuclear response drill it conducts. But, at the local level, municipal emergency operations in Pennsylvania are often manned by volunteers, and offices are sometimes underfunded and understaffed. Approximately 145 municipalities within Pennsylvania border nuclear reactors.

Three Mile Island demonstrated the need for emergency personnel at all levels to have good working relationships with local media. In the event of a real emergency, the county or municipal office has exclusive responsibility for using the media to alert its citizens to evacuate if ordered to do so.

Finally, and perhaps most important, Three Mile Island demonstrated that the media must be better informed about nuclear power. Based on its investigation into the accident, the Kemeny Commission recommended in October 1979 that all major media outlets retain specialists on nuclear energy. All other media outlets, regardless of size, located near nuclear power plants should attempt to do the same or make arrangements to secure such expertise during a nuclear emergency.

The accident at Three Mile Island demonstrated that accidents can and will occur at nuclear power plants. In order that a public information crisis similar to what occurred there does not occur again, I believe it is imperative that each of us who lives near a nuclear facility work together to form an ad hoc emergency information network. Such a committee, consisting of health care professionals, utility representatives, elected officials, and members of the press, could meet on a regular basis to address the specific problems which may occur during a nuclear emergency. Public information documents, like those discussed earlier from the Pennsylvania Emergency Management Agency, could and should be used as a model for a rational, workable plan for emergency response.

GENERAL REFERENCES

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