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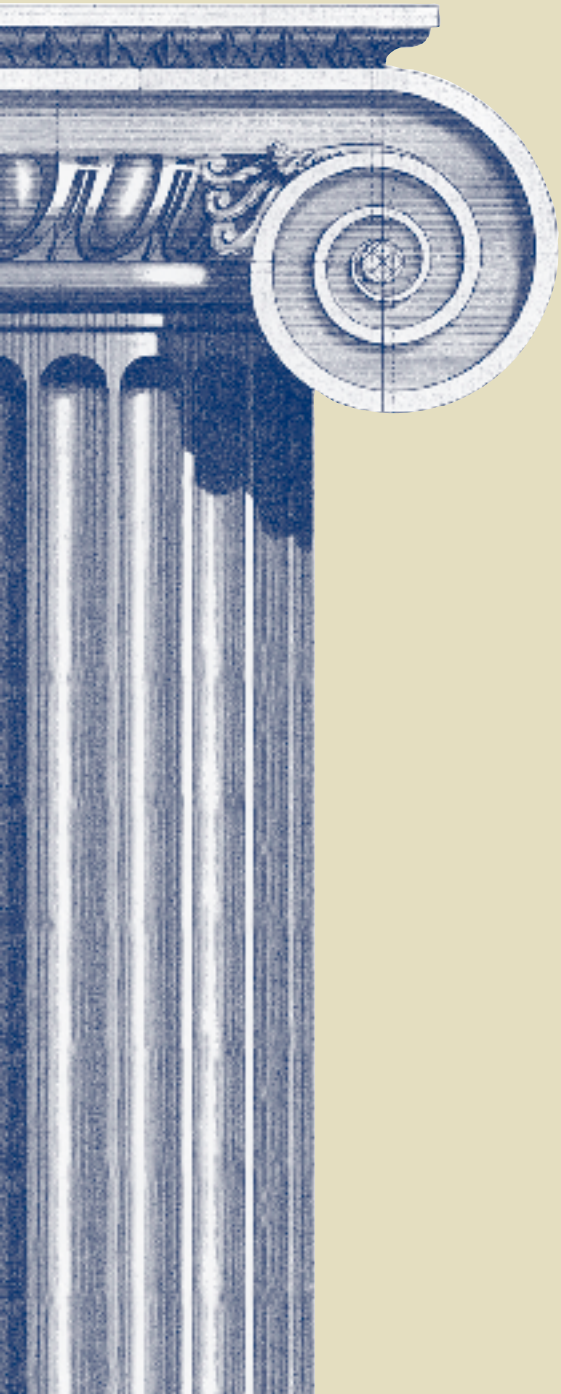

UNIVERSITY OF PITTSBURGH
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case study

The Media's Role in High Risk Conditions: Community "Right to Know" vs. Public Information Management

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and Carrie Miller
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THE POLICY PROBLEM

Informing the public regarding threats to health and safety represents a critical task for public officials, one that is especially difficult when conditions are uncertain and events are changing dynamically. In democratic policy making, public officials are sworn to act in the public interest, but are also expected to assess the exact nature of threats and propose a responsible course of action for their constituents. The public, understandably, wants to know what is happening, how they will be affected, and what alternatives they have to minimize risk.

The question is how to inform the public regarding extreme events in ways that are timely, accurate, and valid. In democratic theory, a free press would perform exactly this function. In democratic practice, news reports depend upon information from key officials and managers. If it is not given readily, news accounts may be flawed by inaccurate statements, particular biases, or journalists' incomplete assessments of evolving conditions. If information is given too quickly, news accounts may report incomplete or inaccurate assessments made by the officials. The klieg lights of the media shine relentlessly on public officials as they work through crisis conditions, revealing the tensions and uncertainty involved in the policy-making process as many actors spar over competing interpretations of the threat and grapple with doubts in their own search for reliable information.

This dilemma pits the community's "right to know" the nature and extent of any impending threat against the public officials' obligation to provide timely, accurate information. The media represent a critical means of providing information to the public, but also exposing any perceived malfunction in the public policy-making or implementation process. Balancing the obligation to provide valid information to the public regarding threatening events against the demands of media representatives to meet daily deadlines and market interests poses a crucial test for any public official. Failing this test of managing information in crisis conditions creates obvious costs for public officials, but also for the public. Defining a responsible role for the media in reporting on extreme events and creating the relationships that sustain that role under urgent conditions are primary tasks for both public officials and media staff, ones that have become increasingly important in the 24/7 news cycle of today's electronic networks.

THE DEBATE: COMMUNITY "RIGHT TO KNOW" VS. PUBLIC INFORMATION MANAGEMENT

The legal basis for an explicit policy of the community's right to know what threats existed in the immediate neighborhood was not formally established until 1986, when Congress passed the Emergency Planning and Community Right-to-Know Act, otherwise know as the Superfund Amendments and Reauthorization Act (SARA), Title III. The public's insistence on knowing the extent and probability of potential risks in their neighborhoods had long been latent, but public recognition of the threat posed by the Three Mile Island (TMI) nuclear power plant accident to the surrounding communities accentuated this effort. The accident happened at the plant, located on an island in the Susquehanna River, 10 miles south of Harrisburg, Pa., in March 1979. The hours and days of uncertainty that the people of central Pennsylvania experienced clarified a need to define a consistent policy regarding public information. However, none existed in 1979, and the officials responsible for emergency operations in the TMI case were left to define their own standards of providing information to the public. The media, eager to play their role as vigilant observers of the public interest under crisis conditions, seized any opportunity to report anomalies in public performance.

Defining what constitutes responsible information management under crisis conditions is not an easy task. Public officials are reluctant to make statements based on uncertain or incomplete information that may later prove inaccurate or embarrassing. Yet, research on managing disaster shows that timely, valid information provided by respected authorities during crisis conditions enables community residents to manage their own risk more effectively and reduces the likelihood of trauma for the community (Comfort et al. 1998; Lima 1989). In crisis situations, information during the first hours of an incident is often vague, incomplete, and conflicting, and emergency managers are reluctant to issue reports without validation. At the same time, the opportunities required for adequate information search are often limited by the urgency of the public's demand for assessment and action.

The long-respected professional norms of the free press add to the tension of managing information under crisis conditions. News reporters are eager to check multiple sources for a story, and are unwilling to accept only the reports of the public officials. Consequently, they are alert to discrepancies in reports from different actors involved in crisis operations, looking for signals that might indicate points of conflict or disagreement. Their intent is to provide a comprehensive view of a threatening event. Given the public's need for information in urgent conditions and the regular schedule of news deadlines, they often report the information they have, even if it is not complete or fully verified.

The bulk of the pressure typically returns to the public officials responsible for managing operations in crisis conditions. Managing the media takes scarce time away from the tasks of determining policy and directing operations. However, not setting up a reasonable forum for providing valid information and updates to the media creates even larger problems of inaccurate reports or rumors out of control. Determining the most appropriate role for the media in crisis situations is essentially a two-way process involving both public managers and media staff. Without forethought or planning, the media representatives will define their own role, using whatever access to information is available to them with results that may be harmful to responsible collective action. With forethought and planning, the media may well serve a critically important function for crisis managers by contributing to a shared community knowledge base to support collective action. Creating a responsible role for the media in disseminating timely, accurate information to the public becomes a central function of crisis management, as shown at Three Mile Island in the critical days of late March–early April 1979.

THE CASE: THREE MILE ISLAND, MARCH 28–APRIL 6, 1979

As a crisis unfolds, the primary actors are focused on trying to assess the risk, determine the scope and range of potential harm, and define a strategy of action to reduce that risk. Last on their list of potential actions is reporting the risk to the media. The crisis cannot be hidden, at least not for long. At that point of discovery, media representatives become an inherent part of any crisis response system, whether welcomed and supported or shunned and ignored by public officials. Reviewing this case, six basic questions are central to the task of defining a responsible public information policy in crisis conditions. These questions are:

1. What is the "core information" that public agencies need to communicate to individuals, households, businesses, and nonprofit organizations to enable them to take appropriate action to reduce risk?
2. What are the "core nodes" for disseminating this information—that is, what are the principal agencies that transmit information directly to the public about potential threats?
3. What are the professional standards for responsible reporting of information to the public regarding potential threats?
4. What are the principal means for engaging the media in the shared task of reporting timely, valid information concerning risk to the public?
5. How can public officials acknowledge the uncertainty involved in a crisis situation without raising undue alarm for the public?
6. How can the media maintain the legitimacy of their function of providing information to the public without bias or favor?

The challenge in managing this dilemma is to engage the media in the constructive task of informing the public about the risk and providing essential information to community households, organizations, and groups that will enable them to take responsible action to protect their families, personnel, and clients. Reviewing the events of the nuclear accident at Three Mile Island, readers are asked to devise a policy for public information that balances the community's "right to know" against the public officials' responsibility to provide valid information under the urgent time constraints of disaster. Six actors played critical roles in managing public information in the Three Mile Island accident.

THE ACTORS

Governor Dick Thornburgh

- Thornburgh demanded the facts as best as they could be determined and as quickly as they could be assembled. He has often attributed this well-developed respect for the integrity of facts to his training as both an engineer and an attorney.
- Although Thornburgh had been in political positions for many years, the incident at TMI forced him into media coverage far beyond anything he had ever experienced before (Gazit 1999).
- Thornburgh recognized right away that the incident would provoke a great deal of questioning from the press corps.

Lieutenant Governor William Scranton

- Scranton recognized the unique fear that nuclear technology and radiation can evoke in people. After the accident, he said, "there had never been anything like this...it wasn't something you could see or feel or taste or touch. We were talking about radiation, which generated an enormous amount of fear" (Gazit 1999).
- "Scranton also possessed a quality of familiarity and media savvy that would serve him well during the coming hectic days" (Gazit 1999).
- The Scranton name was well known in Pennsylvania. "The young lieutenant governor hailed from one of the state's oldest political dynasties. Bill Scranton's father had been a popular governor and a viable presidential candidate during the 1960s. His great, great grandfather had a city named after him. Young Bill had made a name for himself working on newspapers owned by his powerful family. When the accident at Three Mile Island became news, it was William Scranton, representing the Thornburgh administration, who faced the press first" (Gazit 1999).

Paul Critchlow, Press Secretary to the Governor and Director of Communications

- He had won numerous awards for journalism including The Associated Press Managing Editor Award for deadline reporting in 1976 while a political writer for the *Philadelphia Inquirer.*
- Thornburgh described him as an experienced newsman with a wide acquaintance and respect among his peers.
- He was a public relations expert; prior to the accident, Critchlow worked as Thornburgh's press secretary during his campaign for governor.

Mike Pintek, News Director for Radio Station WKBO

- His responsibility was to discover, know, and report the news to the community in and around Dauphin County, Pa. Pintek had lived in the area for his entire life. During the days of reporting, Pintek had to balance his roles of objective journalist and concerned citizen (Gazit 1999).
- Pintek was a 27-year-old small-town reporter who was the first to report on a story that would soon become national, and even international, headlines.

John Herbein, Vice President of Generation, Metropolitan Edison

- Although he was the vice president for generation (trained as an engineer), he had never before handled a situation in which he had to deal with the press corps. During the crisis, he was the main spokesperson for the company.
- Many people involved in the TMI situation have reflected that Herbein did not relate well to reporters; he spoke in very scientific language at his press conferences and during press inquiries.

Bob Dvorchak, Reporter, The Associated Press

- Dvorchak was a reporter for a national wire service, living in Harrisburg. His responsibility was to disseminate valid information about the case to nationwide news outlets.
- As a reporter for The Associated Press, Dvorchak followed professional standards of journalism: be fair, be accurate, check multiple sources. Journalists posed questions to people in authority and used information based on what the authorities said. They identified conflicting information and followed up on discrepancies between sources. Their basic standard was to verify facts in the case. The Associated Press brought science writers in from other news bureaus to work on the story.
- Journalists are expected to be detached observers, objective fact-finders in their reporting. Yet, in the TMI case, the reporters also were exposed to the risk, and had to develop their own assessment of danger. They also developed judgments regarding which sources were credible and which were not in this complex case with a highly technical content.

THE ACCIDENT: CHRONOLOGY, MARCH 28–APRIL 6, 1979

Wednesday, March 28, 1979

04:00: Something began to go wrong at the nuclear power plant facility located on Three Mile Island (TMI) near Harrisburg, Pa. That morning, the plant was operating at 97 percent power. The accident began in Unit II with a minor mechanical malfunction. A small-break loss-of-coolant accident (LOCA) occurred when a valve failed to close. The indicator light in the control room showed that the signal had been sent to close the valve even though the valve remained open. Relying on this indicator light, the control room operators believed that the valve had closed. Meanwhile, they ignored other indications that the valve was actually open and that temperatures in the core were rising. The emergency core cooling system (ECCS) automatically came on, but the operators turned it off because they did not understand what was actually taking place. By doing this, they severely restricted the amount of water that was being injected into the core by the ECCS. As a result, a significant portion of the core was left uncovered for an extended period of time. If the operators had let the ECCS come on and perform the operation it was designed to do, the accident would have been a minor glitch in the life of the plant.[1]

06:50: The operators in the control room realized that the radiation levels were abnormal. It was now time to take action by alerting authorities outside the plant to the problem. Following the procedures for emergencies at the plant, William Zewe, the shift supervisor for Units I and II and a senior operator, called Dauphin County emergency management officials and told them there was a "site emergency."[2] Zewe then called the Pennsylvania Emergency Management Agency (PEMA). Zewe told the PEMA watch officer, Clarence Deller, that the reactor "has been shut down...there is a high level of radiation within the reactor room..."[3] Since Deller was not trained in the technical details of nuclear reactor operations, Zewe did not go into any more detail about what was happening at the plant. Under the established flow of communication in the case of a nuclear accident, the plant is required to notify Dauphin County and PEMA. PEMA in turn notifies the Bureau of Radiation Protection (BRP) within the Department of Environmental Resources (DER). PEMA also notifies all counties within a five-mile radius of the plant (Lancaster, Dauphin, York) and neighboring states and state agencies. The Bureau of Radiation Protection is responsible for contacting the plant to determine the parameters of the situation. With an understanding of the technical details and implications, BRP then contacts PEMA with a proposed course of action.[4] This communication flow functioned exactly as it should have.

08:13: Governor Thornburgh left his breakfast meeting and called his press secretary and director of communications, Paul Critchlow. Thornburgh "knew that any kind of incident at a nuclear facility was bound to provoke some press inquiry once it became known."[5] After Critchlow reported everything he already knew about the situation, Thornburgh asked him to gather as much information as he could about the incident.[6]

08:25: The first members of the media became aware of the situation. A traffic reporter for WKBO, a local radio station, sensed trouble at the plant when he overheard conversations on his CB radio calling for the mobilization of fire and police departments in Middletown. He called the station manager, Mike Pintek, to alert him to the situation. Pintek immediately called the plant and was connected to the control room at TMI. The operator who answered the call said, "I can't talk now, we have a problem," and told Pintek to call Metropolitan Edison's headquarters in Reading, Pa.[7] Pintek spoke with Blaine Fabian, Metropolitan Edison's manager of communication services, who told him, "There was a problem with a feedwater pump. The plant is shut down. We're working on it. There's no danger off-site. No danger to the general public."[8]

08:30: Cumberland County's emergency preparedness office was contacted by PEMA. Cumberland County was not within a five-mile radius of the plant, but was just on the border of the 10-mile radius.[9] About 15 minutes later, the mayor of Middletown, Robert Reid, was notified by his civil defense director. Middletown is a small community located only a few miles from TMI. Mayor Reid, a high school teacher who was paid $150 a month for his job as the mayor, claimed the only information he received about the situation was from the television and the radio and complained that this information was "confusing and contradictory."[10]

[1] *Report of the President's Commission on the Accident at Three Mile Island.* Washington, D.C.: U.S. Government Printing Office, 1979, 27, 28, 110, & 111.

[2] Governor's Office. Press conference transcript. March 28, 1979, 11 a.m.

[3] Henderson, Oran. Memorandum to Governor Richard Thornburgh. "The Chronology of Alerting—Three Mile Island Incident." March 29, 1979.

[4] Henderson, Oran. Testimony to President's Commission on Three Mile Island. August 2, 1979, 33.

[5] Thornburgh, Richard L. Deposition for the President's Commission on the Accident at Three Mile Island. Harrisburg, Pennsylvania, 5 & 6.

[6] Ibid.

[7] *Report of the President's Commission on the Accident at Three Mile Island*, 123.

[8] Ibid., at 124.

[9] Staff Writer. 1979. "Call for Investigation: Area Officials Concerned Over 'Proper' Notification." *The Patriot.* March 29.

[10] Reid, Robert. Testimony for the Select Committee's Report of the hearing concerning Three Mile Island. June 8, 1979, 21.

09:05: Governor Thornburgh contacted the lieutenant governor and requested a report about the incident at TMI.[11] Thornburgh later acknowledged that he "had really put the major burden of fact-finding and briefing for me on his [Scranton's] shoulders, and so his contacts with DER...were, in effect, my contacts because they formed the basis of any briefing that he gave me."[12] Thornburgh thought it was important he continue to conduct business as usual in the capitol since there were many other pressing issues that needed his attention.[13]

09:06: The Associated Press, the organization for which Bob Dvorchak worked, released the first news story about TMI. The article quoted the Pennsylvania State Police as saying that a general emergency had been declared. The article also stated that there was no radiation leak and that a helicopter requested by Metropolitan Edison officials would be carrying a monitoring team to measure the levels of radiation in the atmosphere.[14]

09:30: Walter Creitz, president of Metropolitan Edison, directed John (Jack) Herbein, vice president of generation for Metropolitan Edison and located in Philadelphia, to go to the plant at Three Mile Island. Once he arrived, his main responsibility would be to manage press relations.[15] There were, in fact, dozens (soon to be hundreds) of reporters already gathered near the plant waiting to obtain information about the situation happening inside the nuclear power plant structures located on the island.

09:37: After much investigation and information gathering, Lieutenant Governor Scranton called Thornburgh to brief him on the situation. Scranton reported that there had been some release of radiation into the environment and stressed the importance of informing the public about the situation.[16]

10:55: State officials called the first press conference of the day. Present were: Lieutenant Governor Scranton; Oran Henderson, director of PEMA; William Dornsife, the only nuclear engineer employed by the state of Pennsylvania; Critchlow; and some other state officials. Scranton gave the opening statement and quoted Metropolitan Edison as saying "there is and was no danger to public health and safety." He told the press corps that there was a small amount of radiation released into the atmosphere. He also reported that all safety equipment functioned properly, that a helicopter was currently monitoring the air around the plant and the near vicinity, and that there was no need for evacuation.[17] After reading the opening statement, Scranton and others fielded questions from the press.

11:00: Mayor Robert Reid finally got through to TMI and was told to call Metropolitan Edison's headquarters in Reading, Pa. After hours of calling and trying to get more information, he finally received a phone call from the company assuring him "that no radioactive particles had been released and there were no injuries." He described what happened next in his testimony in front of the House Select Committee. "I walked out to my car, which took about 20 seconds, turned on my radio, and the announcer said that radioactive particles had been released. Now that's 20 seconds after the man told me that there were no radioactive particles released."[18]

11:30: Governor Thornburgh called a meeting in his office to review what had happened at the press conference. Thornburgh reported his understanding of the situation was "that there had been a venting to the environment of radiation; that at that time there was not perceived to be any substantial off-site threat or any concern; that they did not have the thing under control; that they were still trying to find out precisely what happened, and that our people were in contact with the utility people at the site, and that for the moment, there was no need for us to take any...action insofar as evacuation was concerned."[19]

13:00: Metropolitan Edison held its first press conference. John Herbein answered questions from reporters outside the observation deck of the plant. During the question and answer session Herbein said, "I would not call it at this point a very serious accident." He also reported that no significant levels of radiation were released, that the reactor was being cooled in accordance with design, and that there was no danger of a meltdown.[20] The word "meltdown" was one with which people had recently become more familiar. Coincidentally, only a few weeks before the incident at TMI, the movie, *China Syndrome*, dramatizing a fictional accident at a nuclear power plant facility, had been released. The term "China Syndrome" was a term used in the nuclear industry to describe the phenomenon of a core meltdown. Although it could never happen, of course, the term was used to describe how the melted fuel would burn a hole through the earth all the way to China.

[11] Governor's Office. Chronology of the TMI Incident: March 28, 1979–April 1, 1979. Draft prepared in preparation for the President's Commission testimonies, 2.

[12] Thornburgh, Richard L. Deposition for the President's Commission on the Accident at Three Mile Island. Harrisburg, Pa., 13.

[13] Ibid.

[14] *Report of the President's Commission on the Accident at Three Mile Island*, 124.

[15] Ibid.

[16] Governor's Office. Chronology of the TMI Incident: March 28, 1979–April 1, 1979, 2.

[17] Governor's Office. Press Conference Transcript. March 28, 1979, 11 a.m., Part II–3a.

[18] Reid, Robert. Testimony for the Select Committee's Report of the hearing concerning Three Mile Island. June 8, 1979, 21.

[19] Thornburgh, Richard L. Deposition for the President's Commission on the Accident at Three Mile Island. Harrisburg, Pa., 11 & 12.

[20] Metropolitan Edison. 1979. Video recording of 1 p.m. press conference, dated March 28, 1979. Filmed and produced by WQED. Videocassette.

14:30: Metropolitan Edison personnel had their first meeting with state officials. Paul Critchlow, press secretary to Governor Thornburgh, requested that a lawyer be present and the Department of Justice be in attendance. Tom Gerusky, director of radiation protection at BRP, reported that a release of radiation occurred between **11:00** and **13:30** and stated that the company had not provided appropriate notification of this event. Herbein claimed that it was normal ventilation and that, in fact, there would probably have to be more controlled releases of steam. When asked why he had not mentioned the release in his earlier press conference, Herbein responded, "It didn't come up." During this meeting, Herbein also admitted that there was possible fuel damage at the plant.[21]

16:30: Lieutenant Governor Scranton held his second press conference of the day. He stated that the "incident is more complex than Metropolitan Edison led us to believe." He informed the press that more tests were being taken and that the governor's office and other experts on the scene remained convinced that there was no danger to public health. Scranton said that the company had given out conflicting information and sought to correct it. There had been a release of radiation, but there was no evidence that it was at a dangerous level. He also informed reporters that steam was discharged earlier in the day during normal venting procedures, but due to the leak, radioactive material was also released. DER was not notified until after the release had taken place, but Scranton assured the press that Metropolitan Edison would be notifying the DER of any future ventilation. During the question and answer session, Scranton admitted his disappointment with the company for not revealing the information about the venting.[22]

22:00: Scranton held his third and final press conference of the day. He informed the press that there was currently no radioactive leakage from the primary building or the reactor itself. He told the press that the auxiliary building did contain radioactive material, which was being vented. As a result of the ventilation, some radiation was escaping into the atmosphere, but the levels were not dangerous. The Nuclear Regulatory Commission (NRC) officials reported that there had been no human error detected at this point and that the reactor was in a safe condition. They assured the reporters that the operations at the plant were being monitored by the NRC, that there was no problem with containment, that there was no significant core damage, and that Metropolitan Edison acted responsibly throughout the day.[23]

[21] Governor's Office. Chronology of the TMI Incident: March 28, 1979–April 1, 1979, 3.

[22] Governor's Office. Press conference transcript. March 28, 1979, 4:30 p.m., Part I–4 & 5.

[23] Governor's Office. Press conference transcript. March 28, 1979, 10:30 p.m.

That night, Walter Cronkite opened his CBS nightly newscast with the words, "It was the first step in a nuclear nightmare as far as we know at this hour, no worse than that. But a government official said that a breakdown in an atomic power plant in Pennsylvania today is probably the worst nuclear accident to date..."[24]

Thursday, March 29, 1979

Thursday, March 29, 1979, began with a number of talk show appearances by many of the key players in the situation. *The Today Show* with Tom Brokaw featured interviews with Walter Creitz, president of Metropolitan Edison, Richard Pollack from the Ralph Nader Critical Mass Energy Project, Daniel Ford from the Union of Concerned Scientists, and Senator Gary Hart, the chairman of the Senate subcommittee on nuclear regulations. The *Today* correspondent announced that federal officials had been aware of problems, including a problem with a safety valve, at the Three Mile Island plant as early as one month before the accident. Pollack said he was amazed that the plant was still in operation after being shut down for five out of the last 12 months due to safety-related problems. Brokaw reported that the NRC had said that radiation penetrated through four-foot thick walls and had spread as far as 10 to 16 miles from the plant. When Creitz was interviewed, he assured the viewers that there was no human error involved in the incident at the plant. During a debate with Creitz about the safety of the plant, Ford cited an NRC report written before the accident on safety problems at Three Mile Island. When Senator Hart was interviewed, he reported that there was, in fact, human error involved in the situation at TMI. He also supported the fact that the plant had been shut down four times already for safety reasons. Hart also stated that he did not believe the events at TMI would affect the future of nuclear energy in the United States.[25]

Later that morning, Creitz and Ford were also on *Good Morning America*, once again debating the safety of nuclear power plants. This time, Ford pointed to five other plants in the United States that had recently been shut down due to safety problems. Ford said, "the fact of the matter is that the regulatory program has been exceedingly lax, that they have been so interested in seeing a large nuclear power program that they have compromised the safety of the reactors in the interest of promoting the commercial prospects of the industry.

[24] Thornburgh, Dick. 2003. Draft Copy. *Where the Evidence Leads: An Autobiography.* Pittsburgh, Pa.: University of Pittsburgh Press. Located at the Dick Thornburgh Archives, University of Pittsburgh, Pittsburgh, Pa.

[25] National Broadcasting Company. *The Today Show,* March 29, 1979. Produced and written by WNBC-TV and NBC Television Network: New York. Transcript.

That's the problem." Creitz responded, "I think the record of the industry having 72 reactors in operation and never injuring any member of the public certainly speaks highly of the—of the safety precautions that are followed in the nuclear industry."[26]

10:00: Metropolitan Edison held another press conference, with both Herbein and Creitz present. Herbein stated that the situation was secure, cooling was in progress, and that there was no immediate danger to the general public. He anticipated that the reactor would be stabilized sometime later that day. Herbein said, "There is presently no danger to the public health or safety. We didn't injure anybody, we didn't over-expose anybody, and we certainly didn't kill anybody." Mayor Reid of Middletown confronted Herbein about the difficulty of getting any kind of concrete information from the company during the first hours of the incident.[27]

12:00: Lieutenant Governor Scranton released a press statement giving an update on the situation at TMI. He stated that off-site radiation was monitored overnight and that the readings were all within normal safety ranges. The statement also said that "the Company, the NRC, the DOE and the Pennsylvania DER have advised us that everything is under control. There is no need to consider evacuation at this time."[28]

12:45: Scranton went to TMI to tour the facility. When Scranton asked Metropolitan Edison about coming to visit the plant and see what was happening for himself, Creitz was hesitant. Scranton insisted, and Creitz finally agreed. Creitz also pointed out that Senators Hart and Heinz would be there around noon, and it would be convenient if they all toured the plant together. Scranton refused this offer because he had very specific questions to ask and details he wanted to know about. He did not want his experience to be limited by the Senators' time schedules or agendas.[29] When he got to the plant, he was given protective gear to wear and guided through the facilities.

14:30: The TMI plant began releasing wastewater into the river.[30]

15:45: Scranton returned from his tour of the TMI plant and reported his findings to Thornburgh. They decided it would be best to report Scranton's observations to the press and the public. This was to be the first press conference in which Thornburgh took part.[31]

[26] American Broadcasting Company. *Good Morning America*, March 29, 1979. Produced and written by WABC-TV and ABC Television Network: New York. Transcript, 5.

[27] Metropolitan Edison. 1979. Video recording of 10 a.m. press conference, dated March 29, 1979. Filmed and produced by WQED. Videocassette.

[28] Scranton, William. Press release, March 29, 1979.

[29] Scranton, William. Handwritten notes from Three Mile Island plant tour. March 29, 1979.

[30] Jones, Clifford L. Press release: Pennsylvania Department of Environmental Resources. March 29, 1979, 1.

[31] Thornburgh, Richard L. Deposition for the President's Commission on the Accident at Three Mile Island. Harrisburg, Pa., 37.

During the afternoon, Mobilization for Survival, a coalition of 250 people against nuclear technology, also called a press conference. Dr. George Wald, professor emeritus of biology at Harvard and winner of the 1967 Nobel Prize for physiology and medicine, and Dr. Ernest Sternglass, director of radiological physics at the University of Pittsburgh, both spoke at the event. Wald stated, "Every dose of radiation is an overdose...a little radiation does a little harm and more radiation does more harm." He also criticized the nuclear industry for prioritizing profit-making over safety and said, "The business of the power industry is not to make power but to make money...the industry has regularly cut corners to save money... and from the very beginning, the American insurance companies have refused to insure nuclear plants, making the bulk of liability rest on the government."[32] Sternglass spoke after Wald and argued that the plants should be shut down. He expressed his belief that more money should be spent on alternative energy sources such as clean oil and gas facilities. Sternglass had a portable radiation monitor with him, and claimed that three miles away from the plant, the reading was nine times higher than normal and that within a one-mile radius of the plant, the levels were 14 to 15 times higher than normal. Both men also warned of the latent cancers and ailments that could "creep up" on people and occur up to 30 years after exposure.[33]

18:00: Joseph Hendrie, the chair of the NRC, ordered the operators at TMI to cease the release of waste water into the Susquehanna River. He was unsure at the time whether the water was hazardous, but wanted to take all necessary precautions in protecting the public.[34]

18:00: Scranton was interviewed on the *McNeil/Lehrer Report*.[35] Both Thornburgh and Scranton made appearances on television and radio newscasts that evening to provide information about the situation. Thornburgh was interviewed on a Pittsburgh radio program with John Cigna and later on a televised program with John Baer.[36]

22:00: James Higgins, a reactor inspector, called Critchlow and reported that the NRC's estimate of the severity of the problem had changed. They had discovered serious fuel damage, and the recovery time could be very lengthy. There was a strong possibility that more emissions would need to be released from the plant.[37] Critchlow informed Thornburgh of the updated status of the plant, as well as the need for the plant to begin releasing wastewater again.[38]

[32] Mobilization for Survival. Press conference, dated March 29, 1979. Filmed and produced by WQED. Videocassette.

[33] Klaus, Mary. 1979. "Radiation Above Normal: Scientists Seek Closing." *The Patriot.* March 30.

[34] Jones, 1.

[35] Governor's Office. Typed list of daily chronological events. March 29, 1979.

[36] Ibid.

[37] *Report of the President's Commission on the Accident at Three Mile Island,* 135.

[38] Governor's Office. Typed list of daily chronological events. March 29, 1979.

Later that evening, a press release was drafted by DER explaining the wastewater release issues. The press release stated: "Metropolitan Edison and the NRC have informed us there is an urgent need to begin discharging waste water from the TMI nuclear power station that contains small concentrations of Xenon, a short lived radioactive gas...DER has reviewed the problem and agrees that the action must be taken...the discharge can be made without harmful radioactive pollution to the river."[39]

22:20: Governor Thornburgh participated in his first press conference and stated that there was no reason for alarm or to disrupt one's daily routine and no reason to believe that public health has been affected. He said he had spent "the last 36 hours trying to separate fact from fiction." He empathized with them for receiving conflicting information, and let them know he had received that same confusing information. Thornburgh shared his belief that things were now under control. Scranton described his experience touring the plant, said that he had been exposed to 80 millirems of radiation, and that he felt fine. State officials reported that the plant was approaching "the cold shut-down region," that "a preliminary evaluation indicated no operator error," and that the danger was now over for people off-site.[40] Thornburgh later reported that he was uncomfortable with this last statement. He thought it was too soon to be issuing these kinds of assurances to the public.[41]

James Schlesinger, secretary of the U.S. Department of Energy, was quoted sometime on Thursday as saying that the DOE would be looking into the accident at TMI. He also stated that the nuclear power industry had a good safety record and emphasized the importance of nuclear power for the U.S. economy. Without nuclear energy, he stated, the United States would be forced to increase dependence on foreign oil and potentially suffer from energy shortages.[42]

Senator Edward Kennedy, the chair of the subcommittee on energy of the Joint Economic Committee, urged Schlesinger to reconsider submitting a bill designed to expedite the licensing process for nuclear power plants.[43] Kennedy made reference to safety issues, saying "the shutdown of five reactors two weeks ago for safety reasons and the accident yesterday...show that the nuclear safety licensing process is not working." He stressed the importance of building the plants safely rather than trying to build them quickly.[44]

[39] Jones, 2.

[40] Governor's Office. Press conference transcript. March 29, 1979, 10:20 p.m.

[41] Thornburgh, Dick. 2003. Draft Copy. *Where the Evidence Leads: An Autobiography.* Pittsburgh, Pa.: University of Pittsburgh Press. Located at the Dick Thornburgh Archives, University of Pittsburgh, Pittsburgh, Pa.

[42] Ibid.

[43] Washington Bureau. 1979. "Schlesinger Is Cautioned." *The Patriot.* March 30.

[44] Ibid.

Other newspaper articles from Thursday cited interviews with mayors of the various towns surrounding the Three Mile Island plant. Charles Erisman, the mayor of Royalton, a small community within Dauphin County, stated that he did not hear any information about the incident until after **11:00** on Wednesday. Since the mayor is responsible for coordinating civil defense efforts, he was frustrated with this lack of information. Kevin Molloy, the director of Dauphin County Office of Emergency Preparedness, thought that Middletown had told Royalton about the situation. Another small community, Highspire, did not receive any official communication about the accident until after **21:30** on Wednesday.[45] Kenneth Myers, the mayor of Goldsboro, said he "wasn't notified of the accident, and I don't know how many other municipal officials were...they should have notified the officials in the local area."[46]

Friday, March 30, 1979

07:00: Thornburgh appeared on a local CBS station. Before the interview began, a reporter, Bob Schieffer, gave an explanation of and update on the situation at TMI. In his account, he talked about the element of human error, saying, "For some reason not yet explained, a control room operator cut off the emergency water supply."[47] Schieffer also said, "Some health officials are arguing it could be 30 or 40 years when cancer rates are finally evaluated before the effects of the accident are really known."[48] Gary Shepard, the reporter interviewing Thornburgh, reported that 400,000 gallons of radioactive water had been dumped into the river, and that officials said it posed no danger to public health. Thornburgh confirmed the statement, and stated that the water contained only trace elements of radiation. He went on to explain the necessity of discharging the water to avoid more serious problems in the future. Sternglass and Wald were present again, and both commented on the extreme dangers of radiation.[49]

08:00: Radioactive steam was released from the plant when James Floyd, supervisor of operations at TMI Unit II, and other operators opened a valve to release building pressure. They took this action without approval from anyone. At the very moment they released this steam, a helicopter flying over the plant monitoring radiation levels took a reading of 1,200 millirems/hour over the plant.[50]

[45] Harwood, Jon. 1979. "Royalton Never Got the Word." *The Patriot.* March 29.

[46] Quigley, Roger. 1979. "Goldsboro: Tranquility and Anger." *The Patriot.* March 29.

[47] Columbia Broadcasting System. *CBS Morning News*, March 30, 1979. Produced and written by WCBS and the CBS Television Network. Transcript, 1.

[48] Ibid.

[49] Ibid., at 4.

[50] Starr, Philip and William Pearman. 1983. *Three Mile Island Sourcebook: Annotations of a Disaster.* New York: Garland Publishers.

09:00: Just before the hour, NRC officials in Bethesda, Md., learned about the emission from the plant. Lake Barrett, a section leader in the environmental branch of the NRC, later said in his testimony in front of the President's Commission, "One of the NRC inspection people that had the direct phone lines to the TMI control room reported that he had received the message from the site that the tanks were full, that the relief valves on the tanks had lifted, and that gases were passing from the make-up tank to a waste gas decay tank where they could not go, and the gases were being vented from the plant." The NRC officials at Bethesda asked Barrett to make some quick calculations about what the radioactive material release rate would be. When he relayed this information to the five NRC commissioners, they asked him to estimate what the off-site radiation dose would be. Barrett was uncomfortable making the calculation right on the spot, but came up with a number—1,200 millirems/hour.[51]

Within 15 seconds of Barrett's announcement, the plant called the NRC to report the recent radiation reading taken by helicopter of 1,200 millirems/hour. Since the two numbers matched exactly, Barrett said it had a "profound effect on the whole center."[52] The NRC group in Bethesda immediately began discussing evacuation. They wanted to make sure they were taking all necessary precautions and agreed it was best to err on the side of caution. After discussing the risks of evacuation, the officials at the NRC office decided that they would begin moving people within a five-mile radius. Harold "Doc" Collins, the assistant director for emergency preparedness in the Office of State Programs of the NRC, was asked to make the phone call to recommend evacuation.[53]

09:15: "Doc" Collins from the NRC called Oran Henderson of PEMA and informed him that they should conduct an evacuation of the area. Henderson received a second phone call from Collins within five to 10 minutes of the first one reiterating the need for evacuation and assuring Henderson that all the NRC commissioners supported this recommendation.[54] Critchlow and Thornburgh soon learned about these phone calls from Bethesda.[55] Instead of immediately following through on the evacuation recommendation, Thornburgh first called Henderson to find out who "Doc" Collins was and asked for Henderson's judgment on evacuation. Henderson said he recommended they do so.[56]

[51] Barrett, Lake. Testimony to President's Commission on Three Mile Island. August 2, 1979, 294–298.

[52] Ibid., at 299.

[53] Ibid.

[54] Henderson, Oran. Testimony to President's Commission on Three Mile Island. August 2, 1979, 41 & 42.

[55] Governor's Office. Typed list of daily chronological events. March 30, 1979.

[56] Henderson, Oran. Testimony to President's Commission on Three Mile Island. August 2, 1979, 43.

09:25: Henderson called Molloy in Dauphin County and warned him of the impending evacuation. He told Molloy to expect an official evacuation order within about five minutes. Following procedures, Molloy began to prepare for the evacuation by alerting the firehouses and making a radio announcement about the potential evacuation.[57]

At the same time, Gerusky and Dornsife were trying to reach Thornburgh and Henderson to recommend against evacuation. Gerusky could not get through on the phone lines to either Thornburgh or Henderson, so he and Dornsife split up and personally went to their offices to try to stop the evacuation. Dornsife reached Henderson's office and informed him that the emission at the plant had stopped and that the BRP was recommending against any evacuation.[58]

Shortly after, the operators at the plant called the NRC to tell them that the 1,200 millirems/hour reading had been taken directly over the containment structures, not off-site. If Barrett had taken this information into account while calculating the potential radiation figures, there would have been no concern over the need for evacuation.[59]

10:00: Henderson called Critchlow to advise him against the evacuation. He told Critchlow about his conversation with Dornsife and informed him that the radiation reading from the BRP did not indicate a need for evacuation.[60]

10:07: Thornburgh called Joseph Hendrie, chairman of the NRC, to discuss the confusion over evacuation recommendation. Hendrie assured him that there was no need for an evacuation, but that the NRC would encourage citizens within 10 miles to stay indoors for a while. Thornburgh asked Hendrie to send an expert upon whom he could rely for accurate technical information and much needed advice.[61]

On Friday morning, the secretary of the Department of Health, Education, and Welfare (HEW), Joseph Califano became involved in the situation at TMI. Califano was concerned that most of the radiation monitoring was being done by pro-nuclear organizations—the DOE, the NRC, and Metropolitan Edison.[62] Califano also became concerned about the possible release of radioactive iodine and began a search for sufficient amounts of potassium iodide, a drug that prevents radioactive iodide from affecting the thyroid. It actually saturates the thyroid, making it unable to absorb any additional iodine. There were no

[57] *Report of the President's Commission on the Accident at Three Mile Island,* 139.

[58] Henderson, Oran. Testimony to President's Commission on Three Mile Island. August 2, 1979, 43.

[59] Barrett, Lake. Testimony to President's Commission on Three Mile Island. August 2, 1979, 303.

[60] Governor's Office. Chronology of the TMI Incident: March 28, 1979–April 1, 1979, 10.

[61] *Report of the President's Commission on the Accident at Three Mile Island,* 139.

[62] Martin, Daniel. 1980. *Three Mile Island: Prologue or Epilogue.* Cambridge, Mass.: Ballinger Publishing Company, 156.

pharmaceutical or chemical companies producing and marketing the drug in the quantities that HEW believed might be necessary for the area around TMI. They finally found a company willing to provide HEW with almost 250,000 one-ounce bottles of potassium iodide. The shipments began arriving very early Sunday morning and the last shipment arrived on Wednesday, April 4.[63]

10:30: President Jimmy Carter called Hendrie to determine whether the NRC needed assistance. Hendrie told him that the communications were "a mess." Carter asked for a recommendation of someone who could be on-site to speak for the government. Hendrie replied that Harold Denton was the appropriate person, and that he was already on the way to Pennsylvania.[64]

11:40: Joseph Hendrie called Thornburgh to apologize for the NRC's erroneous evacuation recommendation. Thornburgh mentioned a recommendation that he had received advising an evacuation for pregnant women and children from the area and asked Hendrie what he thought about it. Hendrie replied, "If my wife were pregnant and I had small children in the area, I would get them out because we don't know what is going to happen."[65]

12:15: The governor's office and PEMA issued a directive requesting "that all children attending school within the 5-mile radius of Three Mile Island be sent home immediately. All pregnant women and preschool children within the 5-mile area should be evacuated immediately. Intermediate units should be alert for the possible need for their buses for civil defense agencies."[66]

12:30: Thornburgh held another press conference and reported that he had spoken with President Jimmy Carter. Carter agreed there was no reason for panic or the implementation of emergency measures. Thornburgh also informed the press that Harold Denton from the NRC was on his way to assist with the situation. He advised that because of their particular susceptibility to the effects of radiation, pregnant women and children should leave the area within a five-mile radius of the plant. He announced that the schools within that same area had been ordered to close. He assured the press that the radiation readings were no higher than they had been the day before, but they wanted to take "excess caution" to protect the health and safety of the public. While answering questions, Gerusky of the BRP said the unplanned release of radioactive gas occurred when they were transferring water and a valve failed. Reporters asked further questions about the previous water release and the various levels of radiation measured throughout the day.[67]

[63] *Report of the President's Commission on the Accident at Three Mile Island*, 145.

[64] Martin, 148.

[65] *Report of the President's Commission on the Accident at Three Mile Island*, 139.

[66] Manchester, Frank. 12:15 p.m. Memorandum to IU Directors: *Three Mile Island*. March 30, 1979.

[67] Governor's Office. Press conference transcript. March 30, 1979, 12:30 p.m.

13:00: Metropolitan Edison held another press conference. Herbein told the press that the earlier release had been measured at around 300–350 millirems/hour by an aircraft flying over the plant. The press corps had heard the report of 1,200 millirems/hour earlier in the day, but Herbein admitted he had not heard that figure mentioned. There were many questions from the press about the validity of the numbers and whether the release had been controlled or uncontrolled. They also asked about public safety and the previous release of wastewater from the plant. Herbein was visibly frustrated with the situation and finally responded to a question by saying, "I don't know why we have to tell you each and every thing we do!" Reporters were obviously upset by this remark and intensely questioned the responsibility of the plant managers' actions to inform the public.[68]

13:30: In Washington, representatives from key federal agencies met at the White House. Agencies represented included the NRC, the Defense Department, the DOE, the Joint Chiefs of Staff, the FDA, and the FDAA (Federal Disaster Assistance Administration). Hendrie, the NRC's chair, opened the meeting with a briefing on the status of the nuclear plant. The meeting then focused on the organization of the federal efforts and the chain of command for doing so. Jack Watson, Carter's executive assistant for intergovernmental affairs, informed the group that he was now the White House coordinator for TMI issues. Harold Denton would serve as the sole source of information regarding the plant's status in future inquires, and the FDAA would coordinate evacuation planning.[69]

After the meeting at the White House, Jessica Mathews spoke with Governor Thornburgh's executive assistant, Jay Waldman. She had previously been the contact at the White House, but informed him that Jack Watson would now be his point person at the White House. She also filled him in on information she learned at the meeting—that the situation was unprecedented and that the "worst case" scenario was a meltdown. Thornburgh also spoke with Mathews a bit later. She informed him that there was a gas bubble present in the reactor, but the situation was stable. She told him the core was hot and partially uncovered and admitted that there was "nobody with a very good picture of the situation."[70]

14:00: Harold Denton arrived in Harrisburg with a team of experts. He immediately got to work assessing the situation.[71]

[68] Metropolitan Edison. 1979. Video recording of 1 p.m. press conference, dated March 30, 1979. Filmed and produced by WQED. Videocassette.

[69] Martin, 159.

[70] Governor's Office. Chronology of the TMI Incident: March 28, 1979–April 1, 1979, 14.

[71] Martin, 165.

15:15: Denton called Hendrie in Washington to share technical information about the plant. Denton concurred with the earlier decision that evacuation was not necessary at the present time.[72] About 30 minutes later, Hendrie called Thornburgh and told him that the NRC and Metropolitan Edison agreed that the core damage was serious. He confirmed that the bubble was, in fact, present, but that it was stable and had only a small chance of exploding. Hendrie told Thornburgh there was a one percent chance of a meltdown occurring, but a five percent chance of large unplanned releases of potentially radioactive gases from the plant.[73]

16:00: A United Press International wire story quoted an NRC staff member stating that there was a possibility of a core meltdown within a few days.[74] Although Harold Denton was to be the spokesperson for the NRC, two other NRC staff members had addressed the press regarding technical issues and mentioned that the worst-case scenario was a meltdown.[75]

16:05: Denton called Thornburgh to give him an update on the status of the plant.[76] Denton reported that he had assigned four task forces to study the situation, that the releases off-site were routine noble gases and were nonthreatening, that the fuel damage was significant, and that a bubble was present at the top of the core and it might be expanding. They agreed on the need for another press conference to inform the public about the current status of the plant and the general situation.[77]

17:15: Since the UPI story had been released only a little over an hour earlier, Jody Powell, Carter's press secretary, had to do some damage control. He attempted to assure the press that the experts believed there was a chance of meltdown, but that the chance was extremely remote. After the press conference, Powell called the NRC commissioners and warned them to be more cautious about what they said to the press. Powell also requested that the NRC cancel the two television appearances scheduled for later that night.[78] He wanted to make sure that a limited number of people were actually delivering information about the incident at Three Mile Island.

[72] Ibid.

[73] Governor's Office. Chronology of the TMI Incident: March 28, 1979–April 1, 1979, 15.

[74] Starr, Philip and William Pearman. 1983. *Three Mile Island Sourcebook: Annotations of a Disaster.* New York: Garland Publishers.

[75] Martin, 166.

[76] Governor's Office. Chronology of the TMI Incident: March 28, 1979–April 1, 1979, 15.

[77] Ibid.

[78] Martin, 167.

18:30: The NRC released a statement to the media. Among other things, the statement contained the following information: "Hendrie said this afternoon that there is no imminent danger of a core melt at the TMI nuclear plant... Harold Denton reached the site early this afternoon...temperatures are coming down...evidence of severe damage to the nuclear fuel...large bubble of non-condensable gases in the top of the reactor vessel...several options to reach a final safe state for the fuel are under consideration...there have been intermittent releases of radioactivity into the atmosphere."[79]

22:00: Thornburgh and Denton gave their first joint press conference. Thornburgh stated: (1) "no evacuation order is necessary at this time"; (2) "my earlier recommendation that pregnant women and pre-school children stay out of the area within five miles of the plant site will remain in effect until at least sometime tomorrow, when we expect to provide you with further advice"; and (3) "earlier advice that people living within 10 miles of the plant site try to remain indoors will expire at midnight." Denton gave a quick summary of the plant's status and then fielded questions. During the question period, he said that they were making sure that the system was being cooled down properly, that there was no danger to the public, that there had been extensive damage, that there was a gas bubble present that needs to be monitored, that there was no risk of explosion in the reactor vessel, and that the chance of a meltdown was extremely remote. He spent some time describing what would happen in the case of a meltdown, including latent cancers and land contamination. Denton also admitted that there had been a serious communications problem getting information back to Washington, which was one of the reasons why conflicting information had been dispersed. He told the press about the new phone lines to keep open lines to the White House and the NRC. Denton also informed the press that the NRC would make the final decision about the options for bringing the reactor to cold shutdown and for dealing with the bubble.[80]

Again, Walter Cronkite opened his nightly CBS news report with information about the situation in Pennsylvania. He said, "We are faced with the remote, but very real, possibility of a nuclear meltdown at the Three Mile Island atomic power plant."[81]

[79] Nuclear Regulatory Commission. Press release: Office of Public Affairs, Washington, D.C. March 31, 1979, 6:30 p.m.

[80] Governor's Office. Press conference transcript. March 30, 1979, 10 p.m.

[81] Thornburgh, Dick. 2003. Draft Copy. *Where the Evidence Leads: An Autobiography.* Pittsburgh, Pa.: University of Pittsburgh Press. Located at the Dick Thornburgh Archives, University of Pittsburgh, Pittsburgh, Pa.

Saturday, March 31, 1979

09:30: Metropolitan Edison released a statement to the press. The press release stated: "Radiation levels monitored at the site have decreased since yesterday... minor emissions from the auxiliary building ventilation stack are temporarily continuing...all proper authorities are being notified of these emissions...action is underway to prevent the gas bubble from increasing in size...estimated between six and fourteen percent of the fuel elements have been damaged." The press statement also announced that American Nuclear Insurers and Mutual Atomic Energy Liability Underwriters, the insurance agencies for TMI, had set up a temporary office in Harrisburg for the convenience of the citizens. Claims could be made for damages resulting from the situation, including evacuation costs and/or away-from-home living costs.[82]

11:00: Metropolitan Edison held its final press conference. Herbein declared, "I personally think the crisis is over." Creitz announced that the press conference would be the last one held by the company. Although Creitz did not explain why, the White House had requested that all further information regarding the situation be released by the NRC.[83]

12:00: Denton held a press conference. He disagreed with Herbein's statement about the crisis being over, and instead asserted that the crisis would not be over until the reactor was in a state of cold shutdown. He informed the press that the NRC was still examining the bubble data and, at this point, did not believe the bubble posed a threat. When asked about the potential health effects of the accident, Denton replied, "At these low levels the impact can only be predicted from health data obtained from much higher exposure levels, but based on people who had very high exposures and in calculating downward, health physicists and medical professionals think that it—in terms of 10,000 people receiving exposure of 1,000 millirems each, the probability of latent cancer being caused in that population is only one or two percent."[84]

13:00: Roger Mattson, the director of the Divisions of Systems Safety in the Office of Nuclear Reactor Regulation at the NRC, and others working on research and calculations about the bubble, estimated, "There was considerable time, a matter of several days, before there was a potential combustible mixture in the reactor coolant system."[85]

[82] Metropolitan Edison. Press release. March 31, 1979.

[83] Martin, 166.

[84] Nuclear Regulatory Commission. Press conference transcript. March 31, 1979, noon.

[85] *Report of the President's Commission on the Accident at Three Mile Island*, 149.

14:45: Joseph Hendrie met with reporters and said, "We consider it very important that any move from the present status of the reactor be very carefully thought through and agreed upon by the plant operating staff, by the NRC experts who are there, by the state people, so that we have some reasonable confidence in the maneuver when it comes." He announced that the engineers might attempt to force the bubble out of the reactor, and if they did so, a precautionary evacuation of 10 to 20 miles might be necessary. He explained that the methods by which they would force the bubble out could cause more damage and possibly cause the bubble to explode.[86]

After the press conference, reporter Stan Benjamin interviewed three NRC officials. In this private interview, the NRC officials told him of the growing concern within the NRC that the bubble could become explosive in only a few days. After writing the story, Benjamin asked for the same NRC officials who he interviewed to review it and confirm its accuracy before it was released. They complied with his request and the story was made public at **20:23**.[87]

15:27: Roger Mattson met with NRC commissioners and assured them that there were still a few days left before the bubble would become potentially explosive. Not long after that meeting, Mattson was notified by the consultants working with him on the situation that their calculations now indicated the bubble was "on the threshold of the flammability limit."[88]

20:23: The first story about the NRC's concern regarding the potential explosiveness of the bubble was released. The information caused some general panic among the public and the group of reporters who were all staying within close proximity of the plant.[89] Critchlow immediately called Denton to check the accuracy of the story. Denton told him the explosion was merely a "postulation."[90] Critchlow called the governor to discuss a possible statement, and then issued a press release to assure the public that the "news report about the gas bubble in the nuclear reactor becoming potentially explosive is not true, according to Harold Denton, director of the office of nuclear reactor regulation...by 3:00 p.m. today, they had ascertained that there was no danger of explosion. He said there is no cause for alarm."[91]

[86] Nuclear Regulatory Commission. Press conference transcript. March 31, 1979, 2:45 p.m.

[87] *Report of the President's Commission on the Accident at Three Mile Island*, 149 & 150.

[88] Ibid., at 149

[89] Governor's Office. Chronology of the TMI Incident: March 28, 1979–April 1, 1979, 22.

[90] Ibid.

[91] Governor's Press Office. Press release. March 31, 1979.

23:00: Denton and Thornburgh held another press conference. Thornburgh said, "There have been a number of erroneous or distorted reports during the day about occurrences or possible difficulties at the facility on Three Mile Island... I appeal to all Pennsylvanians to display an appropriate degree of calm and resolve and patience in dealing with this situation." Thornburgh also announced that President Jimmy Carter would be visiting the site the next day. Denton reassured the press that the bubble was much less threatening than they once believed; there was no possibility of an explosion. He also admitted that communication had been difficult and contradicting information had been released. He also noted that better communication between the NRC representatives in Pennsylvania and those in Bethesda was important.[92] Although not mentioned in the press conference, there was still disagreement between the folks in Bethesda and Denton's crew in Pennsylvania about the potential explosiveness of the bubble. After the press conference, Denton asked Victor Stello, the director of the Office of Operating Reactions at the NRC, to continue exploring the situation with outside consultants/experts.[93]

Sunday, April 1, 1979

Throughout Saturday night and into the morning hours of Sunday, many citizens called the county emergency offices (Dauphin, York, Cumberland, Lancaster) to inquire about the bubble situation. They were concerned and confused by the conflicting reports they had received throughout the day.

02:00: Scranton called Kevin Molloy in Dauphin County to attempt to temper their evacuation threat. They set an appointment for later that morning to discuss issues surrounding evacuation and information flow. Scranton gave Molloy a list of reasons why they should not evacuate.[94] The federal officials were also busy with telephone communications in the middle of the night. Jessica Mathews spoke with Denton and learned that he was not concerned about the bubble exploding. Denton explained Stello's calculations suggesting that the bubble was not dangerous, and assured her that the situation was less risky than he had believed on Saturday.[95]

[92] Governor's Office. Press conference transcript. March 31, 1979, 10 p.m.

[93] *Report of the President's Commission on the Accident at Three Mile Island*, 150.

[94] *Report of the President's Commission on the Accident at Three Mile Island*, 151.

[95] Martin, 195.

Victor Stello attended church in the area on Sunday morning. During mass, the priest announced that he had been given permission from the bishop to grant a "general absolution." In the Roman Catholic Church, this absolution may be conferred at a time of imminent death. The citizens around TMI were still afraid for their safety and even for their lives.[96]

13:00: President Carter and the First Lady arrive and were escorted to a briefing about the situation. Denton explained that there was still controversy and uncertainty about the fate of the bubble in the reactor, but he had confidence in Stello's calculations.[97] A decision was then made to follow through with the plans to visit the plant. President Carter, Mrs. Carter, Denton, and Thornburgh toured the plant together. During his visit, President Carter, trained as a nuclear engineer in the Navy, had many technical questions about the situation.

Immediately following the president's visit to the plant, Carter and Thornburgh held a joint press conference. Carter assured the people that "everything possible is being done to cope with these problems, both at the reactor and in contingency planning." Carter praised Thornburgh and other state and local officials for the leadership shown through the previous days. He also expressed admiration to the citizens for behaving "calmly and responsibly." In addition, he commended the civilian and government personnel "who continue to devote themselves without reservation to solving problems at the reactor site...Over the next few days, decisions will be made on how to shut down the reactor...the primary consideration will be health and safety...an investigation will be conducted, and the results will be made public." Thornburgh concluded the press conference with positive words about the strength and stability of the people of Pennsylvania and thanked Carter and his wife for traveling to Three Mile Island.[98]

While the president's tour of the plant was taking place, Hendrie, Mattson, and Stello worked to explain the discrepancy between the two calculations regarding the potential explosion of the bubble. They finally concluded that Mattson's camp was using a flawed formula. After Stello found the error, they were finally convinced that the bubble was not dangerous.[99, 100] This news was not announced to the public or even to state officials any time on Sunday.[101]

[96] Gazit, Chana. 1999. *The American Experience: The Meltdown at Three Mile Island.* Produced and written by Chana Gazit. 60 min. PBS Home Video. Videocassette.

[97] Martin, 197.

[98] Governor's Office. Press conference transcript. April 1, 1979, 2 p.m.

[99] Martin, 195 & 199.

[100] Gazit, Chana. 1999. *The American Experience: The Meltdown at Three Mile Island.* Produced and written by Chana Gazit. 60 min. PBS Home Video. Videocassette.

[101] *Report of the President's Commission on the Accident at Three Mile Island*, 154.

Sometime Sunday, Thornburgh released a press statement issuing "the following directives, recommendations, and advisories:

1) I am directing that state offices continue to conduct business as usual, beginning Monday morning. Recognizing the special difficulties some families may have returning to the area this weekend, however:
   (A) Personal or vacation leaves will be granted, and charged, to all absentees.
   (B) Pregnant women and mothers of pre-school children who live within a five-mile radius of the power plant, and who are also state employees, will be excused, with no loss of vacation time.
2) I am continuing to advise pregnant women and mothers of pre-school aged children to stay out of the area within a 5-mile radius of the plant.
3) I am recommending that schools within five miles of the plant remain closed until further notice, consistent with the precautions we took last Friday."[102]

Monday, April 2, 1979

Monday morning, George Troffer, a Metropolitan Edison employee, leaked to the press that the bubble was likely gone. He claimed to have gleaned this information from internal reports at the company.[103] Obviously, the press wanted information about the bubble's status immediately.

11:15: NRC officials held a press conference regarding the current status of TMI. Denton began by informing the press that the NRC has "issued a bulletin regarding this accident to all the other B&W [Babcock and Wilcox, the company that designed and built the reactor] designed plants which are operating...these bulletins require the licensee to inform the NRC in ten days of the steps he's taking to assure that this type of occurrence won't be repeated." When asked whether the bubble was gone, Denton replied, "B&W is of the opinion that for all practical purposes, the bubble is gone...there is not a clear line between here and gone...it's a gradual process."[104] Mattson later described the tone of the press conference, explaining that "its vagueness and imprecision...was decided upon at a meeting of NRC officials on Monday morning...they wanted to go slow on saying it was good news...they wanted to save 'wiggle room' in order to preserve credibility."[105]

[102] Governor's Press Office. Press release. April 1, 1979.

[103] Governor's Office. Typed list of daily chronological events. April 2, 1979.

[104] Nuclear Regulatory Commission. Press conference transcript. April 2, 1979, 11:15 a.m.

[105] *Report of the President's Commission on the Accident at Three Mile Island*, 155.

Monday evening, *The Evening News* published stories and information about the evacuation plans of Lancaster, York, Dauphin, and Cumberland Counties. All evacuation plans were ready, and outlined in the newspaper so people knew where they should go in the event of an emergency.[106]

On Monday, a local paper ran a story about Schlesinger's continued support for the nuclear licensing bill that would cut the usual time for the plant licensing process (10–12 years) in half. Schlesinger predicted that the Carter administration would resubmit the legislation even after the events at TMI, arguing that atomic power "will and should be part of the energy mix." He stated that the bill was intended to reduce the amount of paperwork, not to cut back on safety.[107]

Tuesday, April 3, 1979

14:40: Denton gave a press conference and announced that the situation remained stable. He reported that the risk of a hydrogen explosion was no longer significant, and the bubble had been eliminated for all practical purposes.[108]

21:30: Thornburgh held a press conference. He reiterated Denton's earlier remarks that the bubble had dissipated and the core was stable, and explained that various plans were being explored to bring the reactor to a state of cold shutdown. He expressed his gratitude to Denton and praised him for a job well done. He said, "One of the most serious problems we had in this episode...[was] the unending flow of rumors hurled at us from a variety of sources...a nuclear specialist was quoted today as observing that alarming reports probably caused more psychological harm than did the radiation itself." He assured the press and the public, "at no time have a variety of test measurements shown levels of contamination that were dangerous to normally health people." Thornburgh stated, "In my opinion...we stand at a point where the chances of any catastrophic event have been greatly reduced, that may mean that the worse is over...but I am not so sure that it doesn't mean that we are approaching a much more crucial interval for the future of central Pennsylvania from the point of view of public health, environmental integrity and the economic development of this area... those who would press for any expansion of present nuclear energy facilities in this state have a very heavy burden to prove to me so far as this Pennsylvanian is concerned."[109]

[106] Staff Writer. 1979. "Lancaster County Area Ready for Evacuation." *The Evening News.* April 3.

[107] Associated Press. 1979. "Schlesinger Backs N-License Bill." *Pittsburgh Post-Gazette.* April 3.

[108] Nuclear Regulatory Commission. Press conference transcript. April 3, 1979, 2:40 p.m.

[109] Governor's Office. Press conference transcript. April 3, 1979, 9:30 p.m.

Wednesday, April 4, 1979

09:00: Governor Thornburgh made an appearance on the television show, *AM New York*. The host asked him if he had enough information to make decisions during the incident. He responded, "During the first two days, we were confused by a number of seemingly conflicting reports...we were getting information from diverse sources and it wasn't always consistent...from the utility, from representatives of state and federal agencies on the scene." He credited Denton's arrival in Harrisburg with bringing about a productive change. Thornburgh also discussed his concerns about evacuation, and noted that an evacuation of that magnitude had never been carried out before in the United States. Reporters in the area around TMI had interviewed citizens the night before, and the host expressed her surprise at the faith in the local government and in the local press expressed by the citizens. They believed that the network press had blown the situation out of proportion. Many citizens also expressed the belief that if the plant was safe enough for President Carter to visit, then it must certainly be safe enough for them.[110]

15:30: Denton held a press conference in Middletown. He announced that there was steady improvement in the status of the plant and that the core remained stable. He reported that progress was being made in planning the recovery of the TMI plant, but a plan had not yet been approved. A plan for bringing the reactor to cold shutdown submitted by Babcock and Wilcox was the preferred plan at the time, and was under evaluation.[111]

Thursday, April 5, 1979

16:00: Denton held a press conference to announce that they were in the first phase of the Babcock & Wilcox proposal to achieve cold shutdown. The first part required five days of degassing before the cooling could begin. Denton announced that there was no chance of the bubble returning as long as the pressure was maintained at the current level. Everything appeared to be proceeding as planned.[112]

Thornburgh released a press statement on Wednesday announcing that he had "just met with Harold Denton...the news remains encouraging...it appears that we may be close to the time when the women and children who left their homes a week ago can return...until that time, however, my advisory that pregnant women and preschool children stay at least five miles away from the plant remains in effect...for this reason, I also continue to recommend that the schools in that area remain closed."[113]

Friday, April 6, 1979 and Beyond

At 19:30, on April 6, Governor Thornburgh gave a televised statewide address to the people of Pennsylvania. He stated, "I hope to be able to tell women and children they can go home—that will mark the end of the most dangerous days of decision any governor has had to face in this century...I now have serious doubts about opening TMI again...nuclear opponents are not in touch with our needs for tomorrow, nuclear advocates simply are not in touch with reality... its not easy for ordinary people to assume that the power company is protecting their interests—only to find out that government standards of efficiency and expertise have been ignored and loosely enforced...I am asking President Carter to stand by our side...I intend to seek...all appropriate assistance—financial, technical, or otherwise—in putting us back on the road to recovery...I am also asking the federal government to inspect, without delay, every nuclear reactor located within the borders of Pennsylvania...I am appointing a Central Pennsylvania Recovery Committee to be chaired by Lieutenant Governor Scranton, to review the role of nuclear power in meeting our energy needs in Pennsylvania, to monitor the long-term health effects of this accident, to assess the economic consequences, and to coordinate the implementation of assistance and relief to our people."[114]

On April 9, Thornburgh was finally able to announce that he was lifting all previous recommendations and directives. At press conference held at 15:00, he announced that it was now safe for pregnant women and preschool children to come home. He also informed the public that "schools may reopen tomorrow... state offices can return completely to business as usual...Civil Defense and Emergency Preparedness can shift from full-alert status to on-call status." He stressed that the commonwealth would continue to monitor the situation at the plant continuously. Thornburgh thanked Robert Adamcik, the regional director of the FDAA, for the coordination of the federal effort, stating that although it was low profile, it was extremely effective: "The 30 federal and volunteer agencies led by Adamcik provided assistance and advice on a whole range of matters and stood ready to assist if a large-scale evacuation was necessary."

[110] Thornburgh, Richard. *AM New York*: April 4, 1979, 9 a.m., interviewed by Janet Langhart. (Radio TV Reports, Incorporated: Washington, D.C.), 1–14.

[111] Audio recording of 3:30 p.m. press conference with Harold Denton. April 4, 1979.

[112] Audio recording of 4 p.m. press conference with Harold Denton. April 5, 1979.

[113] Governor's Press Office. Press release. April 5, 1979.

[114] Pennsylvania State Address, written in Harrisburg, Pa., and delivered by Governor Thornburgh on April 9, 1979. Located at the Dick Thornburgh Archives, University of Pittsburgh, Pittsburgh, Pa.

When asked about evacuation, Thornburgh responded by saying, "We were never on the brink of an evacuation...as the incident went on, the mechanics of carrying out the evacuation became less of a concern because the response became more realistic and well-planned."[115]

On April 28, 1979, exactly one month after the small glitch in the system turned into the most serious nuclear reactor accident to ever occur in the United States, Unit II at TMI was finally brought to a cold shutdown. Since that event, not one nuclear reactor has been purchased in the United States. Seventy-four plants under construction in 1979 were cancelled and 13 of the plants operating at the time were shut down by their owners. Only 53 of the plants under construction at the time of the accident were finished and put into operation.[116]

DISCUSSION: MANAGING PUBLIC INFORMATION IN CRISIS CONDITIONS

Advances in telecommunications have transformed the news cycle significantly since 1979. The challenges faced by public managers in providing accurate, timely information to the public are indeed more demanding and more complex in a global communications arena. The uncertainties in complex situations are just as great; the need for public information is even more acute; and the legitimacy of public actions is calibrated against an unspoken norm of trust in the validity of information provided to the public. Professional careers in public service are gained and lost on the basis of how incumbent officials manage information. Readers are asked to define their own standards for managing information in crisis situations. Please review the questions originally posed on page 5.

1) What is the "core information" that public agencies need to communicate to individuals, households, businesses, and nonprofit organizations to enable them to take appropriate action to reduce risk?
2) What are the "core nodes" for disseminating this information, that is, what are the principal agencies that transmit information directly to the public about potential threats?
3) What are the professional standards for responsible reporting of information to the public regarding potential threats?
4) What are the principal means for engaging the media in the shared task of reporting timely, valid information concerning risk to the public?
5) How can public officials acknowledge the uncertainty involved in a crisis situation without raising undue alarm for the public?
6) How can the media maintain the legitimacy of their function of providing information to the public without bias or favor?

[115] Governor's Office. Press conference transcript. April 9, 1979, 3 p.m.

[116] Union of Concerned Scientists. 1999. "Clean Energy: Three Mile Island's Puzzling Legacy." Internet. Available from www.ucsusa.org/clean_energy/nuclear_safety/page.cfm?pageID=183; accessed November 15, 2003.

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