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Three Mile Island Alert

Island Updates

News Watch on the
Harrisburg Area

Vol. 1 No. 2

January 10, 1980

Harrisburg, Pa., Wednesday, December 26, 1979

It's March 28 at TMI...

By PAUL CARPENTER
Associated Press Writer

It was 38 seconds after 4 a.m. on March 28, when water leaked into something called an air fluffing line, commencing a frightful chain of events — the accident at Three Mile Island Nuclear Generating Station.

For two weeks, world attention was riveted on the nuclear power plant, a huge concrete citadel of invisible dangers on a scenic island in the Susquehanna River.

Hundreds of thousands of lives were disrupted, national energy plans were knocked askew, and the nuclear power establishment saw its procedures, practices and attitudes questioned.

Nine months after the accident, the worst in the history of commercial nuclear power, only the initial stages of a planned four-year \$400 million cleanup have been started.

The presidential Kemeny Commission, one of a dozen or so official bodies named to probe TMI, said the accident was caused by some equipment malfunctions and errors by plant operators.

A stuck valve allowed water to rush from the reactor's cooling system, unnoticed for more than two hours. As the reactor began overheating, operators switched off emergency cooling systems that could have prevented a major accident.

Before the cooling systems were restored, much of the plant's 100 tons of uranium fuel was mangled and the reactor core remained unstable for days.

Confusion marked the first day of the crisis.

Prior to the accident, Civil Defense officials had drawn up contingency plans for a five-mile evacuation. By nightfall on March 30, the plans were hurriedly changed to 10-mile, then 20-mile evacuations.

State Civil Defense director Oran Henderson was advised that day by a top official at the Nuclear Regulatory Commission to begin an evacuation, and he relayed the message to Gov. Dick Thornburgh.

Higher NRC officials quickly told Thornburgh a general evacuation was not necessary, and he instead advised pregnant women and small children within five miles of the plant to leave.

No one ever found out if the highways around Harrisburg could have handled the 636,073 people living within 20 miles of TMI, but officials estimate that up to half of the area's people left on their own.

Official testimony and government reports strongly indicated, in hindsight, that a general evacuation might have been a good idea.

While concern during and since the crisis focused on relatively small amounts of leaking radiation, the Kemeny Commission said the plant had teetered on the edge of a potentially awesome disaster — a core meltdown.

A meltdown, where the uranium fuel becomes so hot that it melts through protective structures, is something the nuclear power industry had previously said couldn't happen.

technology prior to TMI held that a reactor core would melt if deprived of coolant for more than just a few moments.

Up to two-thirds of TMI's core was uncovered from 6:15 a.m. to 10:30 a.m. on March 28, said the Kemeny Commission. It was uncovered again at 11:38 a.m. for an unknown period.

9 Months Later Fiscal Fallout Still Heavy

By JILL LAWRENCE
Associated Press Writer

"Met-Ed should not be paid for almost killing us," Patricia Smith said shortly after the March 28 accident that destroyed a reactor at Metropolitan Edison Co.'s Three Mile Island Nuclear Generating Station.

Mrs. Smith, who lives two miles from the plant in Newberry Twp., spoke for many angry customers who are battling the utility over who should pay for the accident and what should become of the ill-fated plant.

Nine months later, emotions are still running as high as they did last spring, when an irate Met-Ed customer presented the state Public Utility Commission with a pint of his blood and an equally irate stockholder offered to beat up every member of the overwhelmingly anti-nuclear audience.

Met-Ed customers are determined to avoid paying for the accident, which has required huge purchases of expensive replacement power and a projected \$400 million, four-year cleanup of the contaminated plant site.

And some people living near the plant are waging war against the reopening of an undamaged reactor at the site. They say they'll move if that happens.

Met-Ed, meanwhile, is trying to convince the Nuclear Regulatory Commission it is capable of running the plant safely. And the company is literally fighting for its life in landmark hearings before the PUC.

The PUC, the only governmental body with jurisdiction over Met-Ed, has taken the offensive with two bold show-cause orders.

One asks Met-Ed to show why customers should continue to pay for the operation and maintenance of the undamaged reactor, which has been shut down since the accident by NRC decree.

The other order asks Met-Ed to show why it should stay in business. It was issued after the NRC ordered Met-Ed to pay the highest fine — \$155,000 — ever imposed on a nuclear utility, and the President's Commission on TMI criticized Met-Ed.

Both orders set precedents, leading the PUC into areas that have not been explored by other states. And both are being considered in complicated hearings expected to last four months.

But after a strong start, PUC momentum has been thwarted by turnover on the five-member panel.

Three new members were finally seated last month, bringing the commission to full strength.

Then chairman W. Wilson Goode, the key shaper of the PUC's aggressive stance,

May Merge With Met-Ed, Penelec Says

JOHNSTOWN (AP) — Pennsylvania Electric Co. reports it may merge with Metropolitan Edison Co., financially strained following the Three Mile Island disaster.

Both utilities are owned by General Public Utilities Corp.

Herman Dieckamp, president of General Public Utilities and acting president of Metropolitan Edison, says the possible merger is not a new idea but that review of it "has been more intensive in the last two or three months."

He said merger would mean "more efficient management" but would have no immediate effect on rates.

Dieckamp says the possibility of the merger stems in part from Public Utility Commission hearings into whether Metropolitan Edison should be allowed to keep its license to operate.

Testimony in Harrisburg this week indicated Metropolitan Edison is in difficult financial condition because of the Three Mile Island incident.

Metropolitan Edison serves about 351,000 customers in the York, Reading, Easton and Stroudsburg areas.

Penelec serves 500,000 customers in an area that includes Erie, Johnstown and Altoona.

If merged, the two would form the second largest electric utility in Pennsylvania, based on peak generation figures.

The merger would have to be approved by the Securities and Exchange Commission, the Federal Energy Commission and the state Public Utility Commission.

delivered a knockout blow by resigning to become managing director of Philadelphia.

Goode will not leave until Jan. 7, but he is sitting out the TMI hearings since he won't be there next spring to make a decision. That leaves commissioner Michael Johnson, 67, and three novices to rule in the most far-reaching case in PUC history.

"It's the first time any commission in the United States has inquired of any utility as to its right to continue to hold an operating certificate. Our problem is a very, very severe one, particularly for the ratepayers that are in this service area," said Johnson, presiding over the opening hearing on Dec. 10.

General Public Utilities Corp., parent company of Met-Ed and Pennsylvania Electric Co., a co-owner of TMI, maintains the two companies have delivered reliable service to nearly one million customers under trying circumstances.

But Met-Ed now says it needs another \$55 million to continue that service in the face of rising oil prices and the prolonged shutdown of the undamaged reactor. GPU officials claim Met-Ed piled up \$61 million in unrecovered energy costs between June and December.

Still, GPU had to borrow \$15 million to pay 25-cent-a-share dividends in August. It had enough cash to pay dividends in November but will need another loan to issue payments in February.

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Krypton Leaks at Site

By JOHN TROUTMAN
Staff Writer

Small amounts of highly radioactive Krypton-85 gas are leaking from the Unit 2 containment building at Three Mile Island into the crippled reactor's non-nuclear system, a Metropolitan Edison Co. official said Friday.

Robert C. Arnold, Met-Ed senior vice president, told a year-end press conference at the TMI Observation Center that the gas, apparently is passing through a pipe leading from the steam generator, which cools decayed heat within the containment structure, to the main condensor unit outside the structure.

Minute amounts of krypton are then being detected in exhaust gases from the condensor, according to Arnold.

However, he said none of the krypton is being released into the atmosphere and presents no danger "off-site."

"I consider it to be of no consequence," Arnold said. "I only mention it to point out the tremendous sensitivity of our instruments."

Arnold said that the krypton being detected amounts on an annual basis to only 12 cubic centimeters, and would be equivalent to the contents of two tiny laboratory vials he held up for reporters.

He said Met-Ed is not sure why the krypton is leaking, but speculated it could be the result of valve packings weakening on the pipe leading out of the steam generator and into the condensor.

Under that theory, the krypton would be passing through the valve packings before being sucked into the condensor by the pipe vacuum, Arnold said.

It is the highly radioactive krypton within the Unit 2 containment building that prevents workers from getting inside to begin cleanup operations.

As a result of the March 28 acci-

dent, 44,000 curies of krypton are suspended in 2 million cubic feet of air inside the structure containing the damaged reactor.

Met-Ed has proposed venting the krypton into the atmosphere under controlled conditions, and submitted a proposal for the venting process to the Nuclear Regulatory Commission in mid-December.

Arnold said on Friday that the NRC has requested the following additional data in response to the company's proposal to vent the gas: Information on whether Met-Ed has considered other alternatives; a cost and schedule basis for the alternatives; and specific design features of both the venting operation and alternatives.

He said Met-Ed is complying with the NRC request and will probably get the information to the commission by mid-January.

A decision on the method to rid the Unit 2 containment building of the krypton is the first step toward decontamination.

Editorial Notes

As the new year begins, radioactive Krypton 85 gas in the TMI Unit 2 containment building, which has been detected as leaking, continues to worry local residents. The NRC has ruled that Met Ed may not - except under emergency conditions - vent any radioactive gas or water before a full environmental impact study is done. The Commission on Environmental Quality is preparing such a study; no information is currently available on the make-up of this presidential commission.

The NRC has released its preliminary decision that despite TMI Accident's Class 9 status, it was not an "extraordinary nuclear occurrence" because there was not substantial offsite radiation releases - this despite the NRC's own admission that there is no way of determining the actual radiation release (see Island Updates, December 1979; also the New York Times, June 6, 1979). Note that public comment is invited on this decision and that the NRC is reconsidering its entire accident classification scheme.

This newsletter is designed to keep national activist and media groups informed of the ongoing accident at TMI. As space permits, we will also fill in the gaps left by earlier news reporting. In this issue, we take the opportunity to provide a few perspectives on the Kemeny Commission. In future issues, we hope to provide more information about the report itself.

A correction: This newsletter was made possible by a grant from the May 6 Coalition. The grant is administered by the Youth Project.

State Civil Defense Official Says:

Nuclear Accident Evacuation Rules 'Impossible'

By ROBIN REISIG
States News Service
WASHINGTON — In the wake of Three Mile Island, the federal government has proposed some tough new rules for notifying and evacuating the public during a nuclear accident. But some of those requirements are "impossible" to meet, according to a Pennsylvania civil defense official.

Pennsylvania is not equipped to comply with the new rules now. And state utilities operating nuclear plants all received extensions past the Jan. 1 deadline to come up with their emergency notification and evacuation plans.

If Duquesne Light Co., which owns the Beaver Valley Plant, and Philadelphia Electric Co., which owns the Peach Bottom plant in Pottstown, can't find a way to meet these standards by January 1981, the two nuclear power plants could be shut down.

The Nuclear Regulatory Commission is proposing that utilities be required to notify local authorities within 15 minutes of detecting a nuclear accident.

Utilities would also have to make provisions so that governmental authorities can notify people within 10 miles of the plant within an additional 15 minutes.

The new rules would mean "from the time they detect it to the time Mary Jo is awakened and gets in her car is 30 minutes.

"Now it's six hours to eight hours.

"At Three Mile Island it took them eight hours to call the sheriff," said Tom McKenna, an NRC official.

The proposed 15-minute deadline for warning the public is "so difficult it's unrealistic," according to James Lothrop of the Pennsylvania Emergency Management Agen-

cy, the state's civil defense arm.

The NRC wants "essentially all the people in 10 miles" warned, according to McKenna.

"We get different figures from different people at the NRC, 90 percent, 100 percent", said Lothrop.

"That (100 percent) to any thinking person is impossible, because how do you notify 100 percent of everybody?"

In fact, one of the methods the NRC has suggested for notifying the public is putting a tone alert in every home to warn people to turn on their radios and televisions.

Another possible method is putting air raid sirens in every neighborhood.

The NRC official said sirens could be bought at \$3,000 apiece and tone alerts at \$20 apiece.

Another said the cost would be at least twice that high.

And another, Robert DeFayette of the Office of State Programs, said, "We don't even know if the sirens are available."

As to who foots the bill for this, the NRC's McKenna said, "We are essentially looking to the utilities to put up the money like the railroads put up railroad crossings."

But spokesmen for Three Mile Island and Peach Bottom, when asked the same question, both said, "I don't know."

The quick warning was the most controversial aspect of the new regulations which were proposed because, after TMI, the NRC realized a major accident requiring protective action for thousands of people was more likely than previously thought.

Another key aspect of the proposed rules would require utilities to come up with plans for evacuating people within 10 miles of the plant.

Previously planning for evacuation of people within 2 to 4 miles was suggested.

The utilities would also have to plan for a 50-mile "food pathway zone" so that contaminated food — especially milk — would not reach the public.

The companies are also asked to detail what instrument readings on the reactor control would require declaring an emergency.

It is not only the utilities that must come up with approved plans if the nuclear plants are to stay in operation.

"A major departure from past experience," said the commission's DeFayette, "is requiring an approved state and local radiological emergency response plan."

If state and local emergency and evacuation plans are not approved, an area's nuclear plants could be shut down permanently, according to Ray Priebe, NRC team leader for Beaver Valley.

Asked if California Gov. Jerry Brown, for instance, who is campaigning against nuclear power in his bid for the presidency, could shut down all California nuclear plants simply by not coming up with the required evacuation plan, Priebe said, "Sure. Absolutely. And in fact," he continued, "that could even be done on a local basis. A county sheriff could run on a platform, 'Elect me and I'll withdraw the plans around the plant.' This does put it in the hands of the state and local government."

Pennsylvania filed its plan on Oct. 1, and state officials are now working with the commission on amending it.

"There were no major problems with it," said Tom Elsasser, a NRC state liaison officer.

Citizens Panel Resigns Denied Access to Data,

Patriot, July 25, 1979

WASHINGTON (AP) — A citizens panel, formed to advise the president's commission investigating the Three Mile Island nuclear accident, met for the first time Tuesday and resigned in disgust when it learned it could not share commission information.

A spokesman for the 10-member advisory group, who asked not to be identified, said that shortly after convening at the commission offices here, the group requested investigation data and was turned down by the commission.

Its major request, submitted by Dr. Rosalie Bertel, a Buffalo, N.Y., radiation health specialist, was for data on personal radiation exposures from the accident which severely damaged the Three Mile Island Nuclear Generating Station near Harrisburg, Pa., last March 28, the spokesman said.

The president's commission issued a statement regretting "this misunderstanding."

The commission wanted the advice of a citizens group on a variety of nuclear issues, as a counterweight to another advisory group

representing the nuclear power industry, the statement noted.

"However," it added, "the commission feels that the active participation by any outside group in the internal workings of the investigation is inappropriate to the commission's commitment to a completely independent and objective investigation."

Richard Pollack, a member of the advisory group who heads the anti-nuclear Critical Mass organization here, told a reporter that the group met for the first time at 10 a.m. Tuesday and disbanded in a mass resignation at 4 p.m., one of the shortest advisory careers on record.

In addition to Dr. Bertel and Pollack, the advisory panel included Ms. Joan Allen of Huntsville, Ala.; Ms. Kathie Chamberlin of Linglestown, Pa.; Mark Widoff of Camp Hill, Pa.; Jim Herding of San Francisco; William Miller of Washington, D.C.; Morey Wolfson of Denver; Ellen Weiss of Washington, D.C.; and Frank Collins, also of Washington, who was not present at the meeting.

March 28 at TMI

CONT FROM 1

It had been felt that nuclear plant cooling systems were designed with enough backup emergency cooling systems to make such an event impossible.

The TMI accident, said an NRC report in November, was a "significant precursor of a core meltdown accident."

A widely accepted report by nuclear physicist Norman Rasmussen had previously said there was annually only one chance in five billion of a meltdown.

Rasmussen said if one did occur, and it breached a reactor's containment building in an area similar to that surrounding TMI, the consequences would be horrendous.

In such an event, he said there would be 3,000 immediate fatalities, nearly one of every 10 survivors within 50 miles would get cancer, and about 400 square miles would be left uninhabitable.

In contrast, state and federal agencies say the amount of radiation that leaked from the plant during the crisis was all but harmless. The highest accumulated dose anyone could have received offsite was put at less than 100 millirems.

Natural background radiation in Pennsylvania runs between 100 and 125 millirems per year, said Thomas Gerstly, head of the state bureau of radiological protection.

Radioactive iodine levels found in milk, he said, had been 10 times higher after Chinese weapons tests in 1956.

But on Friday, March 30, there was only fear of and confusion about the unknown.

Evacuation (from p. 4)

Before TMI, Pennsylvania had an emergency plan, but, like most states, it had not submitted it to the commission.

Depending on the type of accident, the public could be advised to stay inside their homes until the radioactive cloud passed or to evacuate.

Also potassium iodide pills could be distributed to reduce the effect of radioactive iodine on the thyroid gland. Exposure to radioactive iodine can result in cancer.

In some types of accidents, the utility would have a warning time of hours and possibly days that protective action was necessary.

But in others, radioactive material could begin to spill from the plant in as short a time as 30 minutes,

according to the NRC.

It would be "impossible" to evacuate everyone within 10 miles of Pennsylvania's nuclear plants in 30 minutes, according to Charles Crowe, a state Emergency Management Agency planner.

For these "quick" accidents, it might be recommended that people stay in their homes.

The state's emergency plans also tentatively call for a reliance on the potassium iodide pills.

However, Pennsylvania has returned its TMI potassium iodide stockpile to the government, and the state has not yet purchased any of the costly medication.

All utilities currently operating Pennsylvania nuclear plants plan to meet the federal requirements.

'Extraordinary' Finding In TMI Mishap Withheld

By JANIS L. WILSON
Staff Writer

The Nuclear Regulatory Commission staff recommendation that the Three Mile Island accident not be declared an "extraordinary nuclear occurrence" in a legal sense was to be published in the Federal Register Friday, The Patriot has learned.

A ruling from the commissioners is expected by Feb. 15, after a month of written public comment on the findings, said Jerome Saltzman, chief of the NRC's antitrust and indemnity group.

The staff report was based on two criteria, both of which must be met to declare an ENO. The ENO label was established as part of the Price-Anderson Act in 1968 as a means of expediting court action on claims from a nuclear accident.

If a radiation release is declared an ENO, claimants are not required to prove negligence by the power plant. The company involved cannot

defend itself by saying that the person filing suit assumed some risk by agreeing to live near the plant. Also, the statute of limitations on lawsuits would be lengthened.

Saltzman said the staff has determined that the first ENO requirement — substantial offsite releases of radiation — was not met. Therefore, the staff did not have to determine whether the second requirement of offsite damages existed.

However, Saltzman said a determination of damages would be difficult under present regulations. "Many claims wouldn't fit the criteria," Saltzman said. The regulations "are applicable to evacuation, decontamination of property and paying for property that can't be used. The general losses are too vague to fit into the criteria."

Saltzman said "injuries to people — death or hospitalization" would be a better yardstick for measuring

damages, but "no one died or had manifestations" of such injury.

"Some said we have to calculate psychological damage and damage to genes," Saltzman said. But he said the regulations are too vague to determine mental stress and genetic damage cannot be determined for 20 or 30 years.

"A lot of very worried people took reasonable precautions" in leaving the area after TMI — the most severe accident in civilian nuclear history, Saltzman said.

The NRC held a one-day hearing at Harrisburg Area Community College in November to gather public comment on whether an ENO should be declared. Saltzman said the NRC received 58 statements.

Copies of the staff recommendation will be available in the Public Documents Room at TMI, Saltzman said. Public comment should be addressed to the Secretary of the NRC in Washington.

Patriot, January 5, 1980

NRC May Change Accident Categories

Sunday Patriot-News,

Harrisburg, Pa., January 6, 1980.

By RICHARD ROBERTS
Staff Writer

The U.S. Nuclear Regulatory Commission may abandon its categorization of nuclear power plant accidents — a system which has excluded evidence about the possibility of Class 9, or worst-case, accidents from licensing proceedings for nuclear reactors.

Nuclear regulatory commissioners have directed the NRC staff to prepare recommendations on how the system might be modified on an interim basis to reflect current policy and recent developments, especially the Three Mile Island accident.

The staff also was directed to bring to the commission's attention any instances in which environmental consequences of Class 9 accidents should be considered.

The interim measure would be followed by a formal rule-making procedure in which the NRC formally would draw up a new system of categorization and present it for public comment.

The possible policy change is detailed in a footnote of a recent decision by the NRC's Atomic Safety and Licensing Board, which is holding deliberations on Metropolitan Edison Co.'s proposal to restart the undamaged Unit 1 reactor at Three Mile Island Nuclear Generating Station.

The staff intends to submit recommendations for an interim system by the end of this month, according to NRC spokesman Clare Miles. The interim measure would scrap the present system, which classifies accidents on a scale from one to nine.

Class 1 accidents are those in which the consequences are "trivial." Accidents in Classes 2 through 8 are "design basis" events — accidents for which nuclear power plant safety equipment must be designed to control.

Class 9 accidents involve a series of successive plant failures "more severe" than those for which plant safeguards are designed. Until last year, the NRC and federal courts had held that

NRC Panel Says Met-Ed Radiation Safety Flawed

By RICHARD ROBERTS
Staff Writer

A U.S. Nuclear Regulatory Commission panel has determined that Metropolitan Edison Co.'s radiation safety program for workers involved in the cleanup of the damaged Unit 2 reactor at Three Mile Island Nuclear Generating Station has "substantial deficiencies" and requires "significant correction action."

The panel also concluded that Met-Ed and its parent company, General Public Utilities Corp., have demonstrated a "strong commitment" to upgrade the radiation safety program to assure that workers' exposure to radiation will be "as low as reasonably achievable."

The panel was appointed in late September by Harold R. Denton, director of the NRC's Office of Nuclear Reactor Regulation, to review Met-Ed's radiation safety program after deficiencies were found by the NRC's Office of Inspection and Enforcement.

The radiation safety program is capable of supporting the current limited decontamination effort, according to the panel, which also said it cannot judge Met-Ed's upgraded radiation safety program because it is not complete.

The panel recommended that Met-Ed be permitted to continue limited decontamination operations as long as recently established ad-

ministrative controls and a "positive management attitude" toward the radiation safety program are maintained.

Met-Ed should not, however, undertake any major decontamination procedures until an upgraded radiation safety program has been implemented, the panel said. The adequacy of the upgraded program should be assessed by an independent group, the panel said.

Met-Ed and GPU should provide a management plan, a firm schedule and demonstrate sustained progress towards its intended resolution of management and technical deficiencies in the radiation safety program, the panel said.

NRC Orders Environmental Impact Study

Harrisburg, Pa., Thursday, Nov. 15, 1979

By RICHARD ROBERTS
Staff Writer

A U.S. Nuclear Regulatory Commission official confirmed Wednesday that the NRC staff will conduct an environmental impact study on the implications of decontamination and recovery operations at Three Mile Island Nuclear Generating Station.

John T. Collins, deputy director of NRC support operations at the crippled plant, said NRC Chairman Joseph M. Hendrie intends to issue a policy statement in the near future directing the staff to prepare the environmental report.

Collins told a meeting at the Forum of the State Education Building that Hendrie made a commitment on the environmental report in testimony before the U.S. Senate's nuclear regulation subcommittee on Friday. Collins said he did not know exactly what issues the report would address.

The meeting at the Forum was sponsored by the state Department of Environmental Resources to inform state and local government officials, members of the press and area residents of the status of cleanup operations at the plant.

The NRC's failure to conduct an

environmental impact statement thus far has been criticized by several anti-nuclear groups, including the Lancaster-based Susquehanna Valley Alliance. SVA has sued the NRC in federal court on issues connected with cleanup operations at Three Mile Island.

So far, the NRC has approached decontamination and recovery on a piecemeal basis, ordering that "environmental assessments" be prepared on individual projects. The en-

vironmental assessments are less expensive to prepare and less extensive than full environmental impact statements.

Robert C. Arnold, senior vice president of Met-Ed and head of the utility's recovery operations at the plant, would not speculate on what the impact of the environmental statement might be, saying only that he hoped cleanup work will be allowed to continue as the report is being prepared.

Nuke Plan Out, Site For Sale

The Patriot, Harrisburg, Pa., Friday, January 4, 1980

Metropolitan Edison Co. is attempting to sell 2,500 acres of land in Berks County that it had acquired for a proposed 1,200-megawatt nuclear generating station and reservoir.

The decision to sell the land is the result of changing energy requirements of the utility's customers, "burdensome" carrying costs and "cash-flow considerations," according to Met-Ed spokesman Blaine F. Fabian.

The land, mostly in Tilden Twp., was acquired by the company between 1967 and 1974 and was called the "Berne Site" after the village of Berne nearby. Met-Ed invested a total of \$7 million in the site.

According to Fabian, the investment in the land is not included in the company's rates, and the annual carrying costs are not being paid by Met-Ed customers.

The utility originally planned to construct a nuclear generating station at the site by 1985.

Accident Categories (from p. 6)

Three Mile Island was a Class 9 accident."

The response was written by Roger J. Mattson, director of the NRC's TMI-2 Lessons Learned Task Force.

Mattson said the Three Mile Island breakdown involved a "sequence of three successive failures" more severe than those for which plant safeguards were designed. But he emphasized that the radiological consequences were within the plant's design standards.

Critics of nuclear power had hoped that the government, in conceding an accident of that magnitude for the first time, would provide fresh ammunition to challenge licenses for existing and future plants.

"It is expected that the NRC staff will recommend a new system of categorization which would state the probability that expected consequences in given accidents might be exceeded. The system would be based on new quantitative-risk-assessment techniques and information generated by the Three Mile Island accident. The chance of such accidents occurring was too remote to consider in licensing hearings.

But in a response to a question posed by an NRC administrative law panel considering the licensing of Public Service Electric and Gas Co.'s Salem Nuclear Generating Station in New Jersey, the NRC staff in August said: "The occurrence at

The licensing board in the Unit 1 restart proceeding recently said it would not consider arguments based on unspecified theoretical Class 9 accidents. But the board said specific hypothetical Class 9 accidents would be considered if they could be related to the Three Mile Island accident.

The board said: "... no further special showing is required of intervenors to admit a contention alleging a specific Class 9 accident which is either the same as or closely related to the actual accident which took place at TMI Unit 2."

That ruling closely parallels a decision in October by another NRC panel in licensing proceedings for Pennsylvania Power and Light Co.'s new nuclear plant, the Susquehanna Steam Electric Station, near Berwick. That board held that Class 9 accidents are not generally litigable but the accident at Three Mile Island could be litigated.

The board in the TMI Unit 1 restart proceeding directed the NRC staff to inform the board by Feb. 1 whether any specific accident sequence, which might be regarded as a Class 9 mishap, should be considered.

The board also noted changes in NRC policy might "require adjustments to our approach of admitting Class 9 contentions which set forth a specific accident within the scope of this proceeding."

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Three Mile Island Alert

Island Updates

News Watch on the
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The Patriot, Harrisburg, Pa., Tuesday, January 29, 1980

Start Cleanup of TMI

By RICHARD ROBERTS
Staff Writer

Three Mile Island Nuclear Generating Station is "on its way to becoming one of the most dangerous radioactive waste storage sites in the world," and cleanup of the contaminated plant should be expedited, according to the secretary of the state Department of Environmental Resources.

Clifford L. Jones said in an interview Monday that highly radioactive materials inside the Unit 2 reactor containment building present a "long-term threat" because they must be kept under control with equipment that "cannot be serviced and therefore cannot be considered reliable over the long run."

A delay or failure to act by the U.S. Nuclear Regulatory Commission in allowing the plant to be cleaned up could "lead to needless

public exposure of uncontrolled radiation," he said.

The dangerous materials include millions of curies of damaged uranium fuel inside the Unit 2 reactor core, more than 50,000 curies of radioactive krypton 85 gas in the containment building and more than 600,000 gallons of radioactive water on the floor of the structure, he said.

"None of these potential sources of radiation exposure to the public presents an immediate danger," Jones said. But he added that he is worried about the possibility of an "uncontrolled leak" of radioactive materials from the containment building.

The structure currently is being maintained at negative atmospheric pressure with the aid of large cooling fans to prevent radioactive materials from escaping. A potential problem exists because those fans

are inaccessible and cannot be serviced, he said.

"If negative pressure is lost and the hot summer months cause a major rise in containment pressure, there could very well be an uncontrolled leak from the containment building," he said.

Jones warned that another "serious problem" is posed by Metropolitan Edison Co.'s disposal of radioactive wastes on the island.

Met-Ed, with the approval of the NRC, is storing concentrated radioactive wastes produced by the Epicor II decontamination unit in containers on the island. Epicor II is being used to filter thousands of gallons of moderately contaminated water.

Met-Ed has said it eventually plans to solidify Epicor II's radioac-

Cont. p. 6

NRC Staff Fines Met-Ed \$155,000 On Safety Counts

WASHINGTON (AP) — The staff of the Nuclear Regulatory Commission ordered the operator of the Three Mile Island nuclear power plant Wednesday to pay a \$155,000 fine on violating federal safety standards.

The NRC staff gave Metropolitan Edison Co. of Reading, Pa., 20 days to pay the fine or request a hearing on the matter. The agency staff charged that management controls at the Three Mile Island plant were inadequate.

The staff had first proposed the fine last Oct. 25 and the power company had responded in December seeking reconsideration. However, after considering the company's argument, the NRC staff stood by its earlier decision.

Company officials have said that the deficiencies arose because Met Ed, the nuclear industry and the NRC itself were unaware of how the plant would respond under the conditions of the March 28 accident.

Report Says TMI Crisis Hurt Real Estate Sales

Real Estate sales and values apparently were more adversely affected than other areas of the economy by the short-term impact of the accident at Three Mile Island, according to a preliminary report released Wednesday by a special study group appointed by Gov. Dick Thornburgh.

According to Lt. Gov. William W. Scranton III, who headed the Pennsylvania Commission on Three Mile Island, there was a definite short-term impact on the economy of a seven-county area surrounding the plant, and in some cases there may be a long-term effect.

Scranton said a broader report will be issued within a few weeks by the study group, which included experts from state government and the private sector.

Scranton said that while the economy of the area returned to near normal levels shortly after the crisis had ended, some adverse economic impacts persist.

The accident had a negative impact on property sales and property values within a five-mile radius of the plant, the report said. According to a study by the Department of Community Affairs, the volume of property sales in the areas has decreased over last year's sales, and unsold properties have remained on the market longer than in the past. In addition, housing sales prices in the area have not appreciated at the same level as have those in the surrounding areas.

The preliminary report highlights these effects:

— Manufacturing and non-manufacturing interests sustained short-term revenue losses but were able to recover by late May 1979. Manufacturing lost \$7.7 million in production, or \$6,725 per establishment, according to the Department of Commerce. Also, \$1.5 million was lost in wages or an average of \$15 per manufacturing plant employee. Nonmanufacturing losses were placed at \$74.2 million, or an

average of \$3,763 per establishment, with \$5.5 million lost in wages, or an average of \$21 per employee.

— The local agricultural industry suffered some financial losses, but the overall impact was not pervasive since, according to a study by the Department of Agriculture, more than 96 percent of the farms within a 25-mile radius of the plant said they suffered no losses.

— Government agencies at the state and local level incurred additional expenses, especially in increased personnel costs. Three counties and 34 municipalities reported TMI-related expenditures of \$113,000. To date, Metropolitan Edison Co., operators of the plant,

has repaid \$41,761 to 21 municipalities within a 10-mile radius. Increased state government costs totaled \$630,000.

— State tax revenues (personal income taxes, corporate net income taxes, sales taxes and realty transfer taxes) did not appear to have suffered, according to a survey by the Department of Revenue.

— The tourism industry of Central Pennsylvania sustained an estimated short-term loss of \$5 million, according to the Department of Commerce. The tourism industry, in general, has been below previous years' levels, but local tourism officials cite increased gasoline prices and the summer fuel shortage as the major causes of the decline.

REALTOR DISPUTES STUDY

By RICHARD ROBERTS
Staff Writer

The Greater Harrisburg Board of Realtors on Thursday challenged the substance and conclusion of a state study that claims the March 28 accident at Three Mile Island Nuclear Generating Station had a "negative impact" on area property sales and values.

"There is no evidence whatsoever that the Three Mile Island accident caused any harm to the real estate market during 1979," said Don Paul Shearer, chairman of the board's legislative and political affairs committee.

Shearer said the "preliminary" study, conducted by the Pennsylvania Commission on Three Mile Island and issued Wednesday by its

chairman, Lt. Gov. William W. Scranton III, is based on inconclusive data and draws an erroneous conclusion.

The study's section on housing and property values was prepared by the state Department of Community Affairs.

"Despite Three Mile Island, high mortgage costs, the lack of mortgage money, rising house prices and increases in the cost of gasoline, there are still house sales and there are still a substantial number of people willing to buy in the Harrisburg area," he said.

However, the study itself might have the effect of reducing property values by discouraging potential buyers, he said.

Met-Ed Probers To Enter Unit 2 In Mid-March

By RICHARD ROBERTS
Staff Writer

A Metropolitan Edison Co. official Tuesday said the utility intends to send an inspection team into the Unit 2 reactor containment building at Three Mile Island Nuclear Generating Station before the structure is purged of radioactive gas.

Met-Ed Senior Vice President Robert C. Arnold told a briefing session at the Forum of the Education Building that the utility plans to send men into the structure in mid-March to check and make any necessary repairs to vital equipment that keeps radioactivity from leaking out.

Company officials had hoped the NRC would approve a plan for disposing of approximately 50,000 curies of radioactive krypton 85 gas inside the structure before there was any need for human entry. But NRC officials said a final decision on the gas-disposal plan probably won't be made until late spring or early summer.

Met-Ed has proposed venting the gas, which has a half-life of 10.4 years (meaning it loses half its radioactivity in that time), into the atmosphere in "controlled amounts" and in concentrations within federal limits.

The utility maintains that venting is the safest of four methods under consideration for disposing of the gas. Met-Ed officials proposed the idea in mid-August 1979.

In an interview after the briefing, Arnold said the entry team will check cooling fans and other devices that keep the containment at negative atmospheric pressure — and thus leakproof — and obtain samples of surface contamination.

"With the length of time since the accident, we're experiencing an increasing degree of uneasiness about not having gotten inside the building to look around," he said. "Just the passage of time increases the priority of getting inside."

The men who enter the building will be exposed to higher levels of radiation than they would have

faced if the krypton gas had been removed, Arnold said. But he added that the entry is being planned to minimize the workers' exposure.

IN ABOUT 10 days, technicians will enter the airlock that leads into the containment to check radiation levels, he said. In mid-March, the team will enter the building.

The initial entry will be brief because little is known about what protection is necessary for humans working in an atmosphere of radioactive krypton gas, Arnold said.

In another development, Arnold said the Epicor II decontamination system is operating less efficiently than planned and that only 95,000 of an estimated 400,000 gallons of moderately radioactive water in the auxiliary building have been processed since the unit became operational in October 1979.

The Epicor II unit is having difficulty removing suspended radioactive particles from the water, he said. The \$5 million device performs well in removing dissolved particles, but suspended particles must be circulated through the machine a number of times before they are removed.

Met-Ed officials have asked scientists at the Oak Ridge National Laboratory in Tennessee to help improve Epicor II's operation, he said.

The utility had hoped that all of the water would be processed as early as the end of this month. Arnold said it will take "several" additional months to complete the task if a solution to the problem is not found.

Arnold said a tentative settlement has been reached between the utility, the Nuclear Regulatory Commission, and the City of Lancaster concerning Lancaster's suit against the NRC to prevent discharge of processed water into the Susquehanna River.

The settlement "has been agreed to but not signed by all parties," Arnold said. However, he added, he did not anticipate "any difficulties" in the final settlement.

Settlement was reached when Met-Ed agreed to the following two commitments:

— Not to request permission from the NRC to discharge into the Susquehanna River any processed water generated by the Unit 2 accident before the completion of the NRC's environmental impact statement on the cleanup or before Jan. 1, 1982.

— To provide Lancaster with analytical equipment so the city can monitor the river water at the intake of its treatment plant.

Lancaster draws its drinking water from the Susquehanna River.

During the next two weeks, Met-Ed intends to furlough up to 250 contractor employees involved in construction or maintenance work because of the utility's tight financial situation, he said. The layoffs are expected to save about \$800,000 a month.

Meanwhile, Met-Ed's parent company, General Public Utilities Corp., is recruiting new employees for its cleanup and recovery operations, he said.

Engineering work is under way on a system to decontaminate about 700,000 gallons of highly radioactive water in the containment, and equipment associated with the project will begin arriving at the plant in April, according to Arnold.

THE DEVICE, called a submersed demineralizer system, will be installed in a pool designed to store spent reactor fuel, and it will be submerged during operation, he said. The machine will cost up to \$30 million to install and operate and it will complete the processing of the water within about six months.

In a meeting that followed Met-Ed's presentation, the NRC staff unveiled a tentative outline of an environmental impact statement they are preparing on the full range of decontamination work under way and planned for Three Mile Island.

Cont. p. 6

Within '30 to 60 Minutes,' Inquiry Group Says

Close to Meltdown

WASHINGTON (AP) — Last year's accident at the Three Mile Island nuclear power plant came within "30 to 60 minutes" of a meltdown that would have required evacuation of thousands of people in the area, a special investigating team reported Thursday.

The Special Inquiry Group, headed by private attorney Mitchell Rogovin, recommended to the government that future nuclear power plants be located 10 miles or more away from population centers. It said some existing plants too close to cities might have to be shut down.

But the group left it up to the Nuclear Regulatory Commission to figure out how local circumstances should influence those decisions.

After release of the report, Rogovin briefed NRC commissioners on the findings and was harshly critical of the agency.

Rogovin said the NRC "has provided neither leadership nor management" in safety programs for nuclear plants. He said some of the members of his staff described the agency as "non-management, a mess, and a situation in which nobody is minding the store."

But the Rogovin report noted improvements made by the NRC and the nuclear industry and said "an accident identical to that at Three Mile Island is not going to happen again."

But it warned that unless more fundamental changes are made, "similar accidents — perhaps with the potentially serious consequences to public health and safety that were only narrowly averted at Three Mile Island — are likely to recur."

The group rejected the idea of a moratorium on operating reactors or the licensing of reactors already under construction, but it urged that the NRC not process future construction applications until changes in licensing procedures are considered.

Although established by the NRC, the Rogovin group agreed with a separate presidential panel

that concluded the five-member NRC should be replaced by a single administrator — a recommendation rejected earlier by both the NRC and President Jimmy Carter.

The Rogovin group also recommended that a consortium of utility companies or a public corporation take over operation of nuclear plants whose owner-utilities can't meet new, tougher safety requirements on their own.

The NRC selected Rogovin last June 14 to head the commission's investigation of the accident that severely damaged the Three Mile Island power plant near Harrisburg, Pa., on March 28, 1979.

The commission said the Rogovin study was not to duplicate that of the Kemeny Commission appointed by the president, but to help the NRC improve its accident prevention and response activities.

Rogovin's group spelled out just how narrowly the most serious of nuclear accidents — a meltdown — was averted last year.

As had been previously reported, a valve had stuck open allowing vital cooling water to bleed out of the reactor of Three Mile Island Unit 2 for more than two hours after another malfunction shut the reactor down. The previous reports said plant operators overlooked mounting clues to the danger.

A valve was available to halt the leak of cooling water, but was not checked until a technical consultant from the reactor manufacturer, in a telephone conversation from his home, asked about it and the operators closed it.

"If the valve had remained open and the TMI operators had done nothing, water and steam would have continued to escape," the Rogovin report said.

"Engineering calculations . . . show that within 30 to 60 minutes, a substantial portion of the fuel in the core — certainly the center of the top half of the core, and perhaps as much as half of all the fuel — would have melted."

The report estimated that "an eventual fuel core meltdown proba-

bly would have occurred," especially if the operators, who did not recognize the danger at the time, continued to cut off additional cooling water — a move which was already getting them into deep trouble.

A meltdown would have released large amounts of radioactive material within the reactor building.

The Rogovin group said the reactor building would probably — but not certainly — have contained the radioactivity, posing only a small chance of a public health catastrophe.

But it said a meltdown would have required "at least the precautionary evacuation of thousands of people living near the plant, and potentially serious public health and safety consequences for the immediate area."

The report agreed with earlier assessments that the accident, in fact, "did not result in radioactive release levels that posed any threat to public health, even in the long run" and that safety systems worked well enough to bring the plant, although damaged, under control.

But it concluded that public evacuation "within a 10-mile radius of a commercial nuclear power plant, or beyond, needs to be considered a realistic precautionary measure," even when radioactive releases seem low.

"Distance should be regarded as the ultimate defense-in-depth barrier protecting those who live near nuclear plants," the report said.

At his briefing for the commissioners, Rogovin said emergency plans for dealing with a possible nuclear accident should be strengthened and that it might be necessary to close a power plant if a previously determined evacuation plan could not be carried out.

For instance, he said, if a blizzard blocked roads that would be needed for evacuation in the event of a power plant accident, it might be necessary to shut the plant down until the roads were cleared.

In Unit 2 Termination

Met-Ed Would Prefer 'Mothballing' Option

By CARMEN BRUTTO
Staff Writer

The preferred method in any government-ordered decommissioning of Three Mile Island Unit 2 would be to "mothball" the damaged nuclear facility for 30 years and then dismantle it, a Metropolitan Edison Co. official told the Public Utility Commission on Tuesday.

The preference was enunciated by Robert Arnold, vice president, who is in charge of cleanup operations on TMI, in answer to a question from Craig R. Burgraff, of the Consumer Advocate's office, as the PUC continued hearings into Met-Ed's \$55 million rate request and whether its license to operate should be revoked.

In any event, Arnold said, the present cleanup activities would have to be completed, at an estimated cost of \$275 million, regardless of whether a final decision is made by government to permit the damaged unit's return to operation or to direct it be shut down permanently.

Arnold said putting the facility in a 30-year "caretaking stage" would allow for natural dissipation of certain short-life radioactive products.

Arnold put the dismantling cost at \$101 million in 1978 dollars, but said inflation has added at least 20 percent to that figure. The unit could be mothballed for \$7 million, but Arnold said that method also would mean permanent closing down, because deterioration inside the facility would preclude future operation.

A third method of decommissioning would be entombment — placing the facility under a concrete blanket — at a cost of \$38.2 million.

Arnold said that "not cleaning up the plant" is not an option that is open to the company. Any perma-

Harrisburg, Pa., Wednesday, January 22, 1980

GPU Earmarks \$13 Million Toward Unit 2 Replacement

By CARMEN BRUTTO
Staff Writer

General Public Utilities has earmarked \$13 million this year toward the eventual replacement cost of the damaged nuclear core in Three Mile Island Unit 2, the Public Utility Commission was told Monday.

Complete replacement of a nuclear core, similar to those in the damaged Unit 2 and in Unit 1, would cost about \$75 million, according to testimony given the PUC during the series of hearings coming in the aftermath of the TMI accident last March 28.

The \$13 million figure is contained in an overall \$103 million budgeted this year for restoration costs at TMI, according to John Graham, GPU treasurer, who testified Monday at the hearings into a rate increase request of \$55 million by Metropolitan Edison Co., operators of the nuclear facility.

Graham said that half the \$13 million would be credited to Met-

Ed, and one quarter each to Pennsylvania Electric Co., and GPU, which is the parent company of the other two. The ratio is equal to their ownership of the nuclear generating facilities.

In a related move, the PUC authorized Met-Ed to sell \$13 million in first mortgage bonds to a group of banks lending money to the utility since the accident.

MET-ED SAID \$6 million will be used to repay short-term debt, replacing a \$12 million issue approved last month that Met-Ed was unable to sell.

The other \$7 million will go to retire first mortgage bonds due Feb. 1. They will have an Oct. 1, 1981, maturity date.

The matter of the purchase of the nuclear fuel was brought up by David Barasch, attorney in the Office of Consumer Advocate, who asked Graham why, in view of the financial problems claimed by Met

Cont. p. 6

nent closing would require decontamination of the site, as well as removal of nuclear fuel.

A PLUS in any cleanup of TMI-2, Arnold indicated, is the fact that the unit has not been in operation for any significant length of time and, therefore, that there has not been a buildup of radiation. Such plants, he said, have a normal life of about 30 years before a "natural" decommissioning is required.

Arnold also told reporters that a final decommissioning by disman-

ting should result in the entire plant being leveled.

Under cross examination by PUC staff attorney Joseph Malatesta, Arnold said that by early summer Met-Ed will have fulfilled all Nuclear Regulatory Commission requirements to place the undamaged TMI-1 unit into operation. However, he said, procedural matters now before the NRC will "control the matter" and "all matters within the control of the company" would be resolved by mid-June.

Clean-up (from 1)

tive filter beds and ship the wastes to the state of Washington. But equipment to solidify the wastes has not been constructed, and Gov. Dixy Lee Ray of Washington has threatened to close down the burial site.

If she makes good on her threat, "the present TMI II waste must be kept on the site," Jones said, adding: "No one in his right mind would put a permanent waste storage area in the middle of a river. The waste must be disposed of in a properly designed radioactive burial site."

Jones said the NRC should "act as soon as possible to permit the cleanup of that site so we can bring the wastes that are entombed there under permanent, safe control."

The most pressing problem requiring a decision by the nuclear regulatory commissioners is the hazard posed by the krypton gas, Jones said. "If they don't make a decision on that, they can't make other decisions (affecting decontamination)."

Met-Ed has proposed venting the krypton gas, which has a half-life of about 10.4 years (meaning it loses half its potency in that time), into the atmosphere "in controlled amounts" and in concentrations within federal limits.

The utility maintains that venting is the safest of four methods under consideration for disposing of the gas.

The three alternatives are com-

pressing the gas and storing it in tanks; cooling the gas to minus 300 degrees, then liquifying it and storing it at low temperatures; and absorbing the gas with charcoal filters cooled to very low temperatures.

All of those alternatives require storage of the compressed or liquified gas for years at the site with the risk that the gas might be discharged rapidly and uncontrollably if a problem occurred, according to Met-Ed. Also, it might take up to three years to construct processing equipment.

Jones said DER's Bureau of Radiation Protection has reviewed Met-Ed's plan to vent the gas and found it "technically feasible." However, the department will not take a position on the different proposals until the NRC completes its own review, he said.

If the NRC fails to reach a decision promptly on the gas-disposal issue, then the risk increases that the gas might leak from the containment building and that equipment might break down, causing "uncontrolled releases" of radiation, he said.

Asked when a problem might develop, Jones said: "We really don't know, and I don't think anybody really knows what kind of time you have before equipment breaks down. But what I'm pointing out is, why delay?"

"We'd better clean it up. We've got a problem there, it's been there

(nearly) a year, let's get it over with."

The nuclear regulatory commissioners, however, are not likely to make a decision soon on the gas disposal. They have ordered the NRC staff to prepare an "environmental assessment" on Met-Ed's proposal, and members of the public may submit comments and request that hearings be held before a final decision is rendered.

John T. Collins, deputy director of NRC support operations at TMI, said last week that the environmental assessment probably would not be completed until mid-February.

Jones said he fears Met-Ed will lose its best personnel at Three Mile Island if decisions are not made promptly. "If you don't make some decisions on this, the very technically skilled people that Met-Ed has out there are simply going to go ahead and find better jobs," he said.

The NRC's decision to prepare an environmental impact statement covering all activities related to the plant cleanup may worsen the delays, he said. "If we're talking about years or more or even months or more (to prepare the statement), then I think you're losing valuable time."

Jones attributed delays in getting the plant cleaned up to "very genuine, real concerns" expressed by the public, and he said he shares and appreciates those concerns.

UNIT 2 (from 3)

The impact statement will address 11 main issues, including decontamination alternatives, cleanup of the containment, damage assessment, shipment of the ruined fuel and solid waste to disposal sites and the environmental consequences of decontamination and waste processing.

Donald E. Sells, acting chief of the NRC's Environmental Projects Branch No. 2, said a draft impact statement should be completed by June.

The nuclear regulatory commissioners have reserved the right to allow certain cleanup activities to proceed prior to completion of the impact statement.

GPU (from 5)

Ed, the purchase of nuclear fuel is not being delayed.

Graham said the purchase is contained in a contract with Anaconda Corp., which supplies the uranium product, at a rate averaging \$11 per pound. On today's market, Graham said, similar nuclear products sell for about \$40 per pound.

With the four-to-one ratio of contract price to market value, Graham said Met Ed is able to use the uranium as security in dealing with financial institutions lending funds to the money-strapped utility.

Should the utility decide either to sell or discontinue buying the uranium at present, it would only mean that Met Ed would have to go into the market sometime in the future and make purchases at higher

costs of at least \$40 a pound, Graham said.

Monday's hearing before the PUC was the 10th in a series of sessions that began December 11 on three issues: whether Met Ed should get the \$55 million increase to replace power lost because of the TMI accident; whether Met Ed's operating certificate should be lifted, and whether the undamaged TMI-1, closed down for refueling and ordered closed until all public hearings are concluded, should be continued in the base rate computations for utility charges.

Much of Monday's cross-examination of GPU and Met-Ed officials covered the area of fuel replacement, plant depreciation and tax problems, and company efforts to hold down costs.

IF YOU'D LIKE US TO KEEP SENDING YOUR ISLAND UPDATES,

Please let us know!

Thanks to some help from our friends, our mailing list for this third issue of ISLAND UPDATES has grown to over 800 groups. We'd like to be sure that everyone who receives this publication really wants it. So we're asking that you fill out the tearsheet below and send it to ISLAND UPDATES, 315 Pfeffer Street, Harrisburg, PA 17102, if you want to stay on the mailing list.

TMI is not the only nuclear tragedy that has gripped our country during this grisly nuclear age. But there are many lessons to be had in following the on-going accident, and that is why all of you have made this newsletter possible via a grant from the May 6th Coalition.

In this issue of ISLAND UPDATES, we report on the costs of both the accident and the clean-up. We report on real estate values. In previous issues, we profiled the 144,000 people who evacuated from what the NRC called "Not an Extraordinary Nuclear Event." We pointed out that TMI was a Class 9 Accident, but that the NRC was rethinking its accident categories. We described the legal suits intervening against the reopening of Unit 1.

Taken as a sum, this information becomes a portrait, not of a single accident, but of the entire nuclear industry. We learn from TMI how people, government, industry and financial institutions react to a nuclear accident. From this information comes power.

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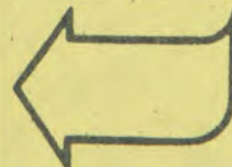
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**SUPPORT LOCAL
ACTIONS MARCH 28**



Message from the 28th Coalition

The suffering of the people of Three Mile Island is the suffering of all nuclear victims -- those exposed to uranium mining, nuclear facilities, and atomic weapons. We call for national and international efforts to end the nuclear nightmare. We call on you to demand the permanent shutdown of Three Mile Island by supporting local actions on March 28-30, 1980, and to participate in the national actions on April 26-28 in Washington and elsewhere. Support the movement for a NUCLEAR FREE FUTURE..

The people of the Three Mile Island area will hold a service and commemorative vigil in Harrisburg on March 28. On March 29 there will be a demonstration near the TMI facility. We invite people of central Pennsylvania to attend the action at TMI.

The March 28th Coalition is selling armbands with the message "TMI-- NEVER AGAIN." Cost per armband is \$1.00 (1-9), \$.80 (10-49), and \$.60 (50+). We are asking people world wide to order these armbands and wear them on the weekend of March 28.

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Three Mile Island Alert

Island Updates

News Watch on the
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Feb. 1980

Harrisburg, Pa., TUESDAY, February 12, 1980

TMI Pumps Spill Radioactive Water

By RICHARD ROBERTS
Staff Writer

A "local emergency" was declared Monday afternoon at Three Mile Island Nuclear Generating Station after two pumps supplying coolant to the damaged Unit 2 reactor leaked 1,000 gallons of radioactive water, forcing 11 workers to flee the auxiliary building and causing radioactive gas to escape.

No one was reported hurt or overexposed to radiation, and monitoring instruments around the plant did not show increased levels of radioactivity, according to spokesmen for Metropolitan Edison Co., the state Department of Environmental Resources and the U.S. Nuclear Regulatory Commission.

A number of Met-Ed technicians reportedly were contaminated slightly on their hands as a result of the accident, but a spokesman for the utility said their exposure to radiation was not harmful.

The plant was stabilized when a back-up system automatically began cooling the crippled reactor, which continues to generate a small amount of heat, NRC and Met-Ed spokesmen said.

Meanwhile, in what some officials termed an apparent replay of the communications breakdown that followed the March 28, 1979, nuclear accident at Three Mile Island, Met-Ed control room personnel Monday failed to notify either county or state civil defense authorities of the emergency.

A Met-Ed spokesman Monday night said the utility is not required under the existing NRC-approved emergency plan for Three Mile Island to notify either the state or county civil defense organizations following the declaration of a "local emergency."

The leak of radioactive water caused 300 millicuries of radioactive krypton 85 gas to be released from the Unit 2 vent stack into the environment, according to Mrs. Jane R. Fisher, a radiological health physicist for DER's Bureau of Radiation Protection.

Mrs. Fisher said DER learned of the gas release from Met-Ed personnel who telephoned from Three Mile Island. That report contradicted information provided by NRC officials, she said. "The NRC had told us there wasn't a release."

Contacted separately Monday afternoon, John T. Collins Jr., deputy director of the NRC's support staff at Three Mile Island, and Met-Ed spokesman David J. Delzingari said no radiation had been released from the plant.

But on Monday night, Met-Ed spokesman David M. Klucsik confirmed that stack monitors showed that a maximum of from 200-300 millicuries of radioactive gas had been released. He termed the amount of radiation "minute" and said it was dispersed quickly by the

Cont. p 4

The Patriot, Harrisburg, Pa., Monday, Feb. 18, 1980

91 Electricians Walk Out at TMI

By MARY KLAUS
Staff Writer

Calling for constant radiation safety policies at Three Mile Island Nuclear Generating Station, 91 members of the International Brotherhood of Electrical Workers Local 143 who work at TMI on Monday walked off their jobs.

The men, employees of Catalytic Inc. of Philadelphia, the contractor doing TMI construction and maintenance, have been "concerned about health physics procedures since the

accident," according to George Sagle, Local 143 business manager.

Robert C. Arnold Sr., Metropolitan Edison senior vice president, reported that although some of the electricians were working on recovery projects, the safety and stability of the operation has not been affected.

"We're down there working and we're not afraid if things are done properly," Sagle said, declining to

Cont. p 4

TMI Again? How Much?

Oh nuts. Not again.

It wasn't too long ago that we were scanning the Susquehanna River horizon for microcuries, and the president of the United States was stomping through the Three Mile Island Nuclear Generating Station in custom-fit galoshes.

Suddenly Harrisburg was on the map. Less than one year after the March 28 accident, some thought Harrisburg might be going off the map.

A faulty water pump used to cool the Unit 2 reactor at TMI was the immediate cause of the problem, and radiation was released into the air.

You're not experiencing a case of *deja vu* if you think that sounds familiar. The most recent leak at the publicity prone plant, however, is

much less than the amount released in March, according to officials.

A breakdown in communication in both instances adds to the confusion. In Monday's incident, Metropolitan Edison officials failed to notify proper authorities about the release, county officials said. Authorities were notified last March but accurate information became more scarce later.

"No cause for alarm" sounds like a barely revised one-year birthday present. Met-Ed officials at first on Monday said no radiation was released, while a Department of Environmental Resources spokeswoman said krypton gas was released into the atmosphere.

This issue of ISLAND UPDATES points out very clearly the accident at Three Mile Island is not over yet. Worse, the NRC and Met Ed seem determined to prove that they have learned nothing about accident management over the past eleven months.

On February 11, an accident at the nuclear generating station resulted in a "local emergency;" yet Met Ed failed to notify either state or county civil defense authorities. In a statement highly reminiscent of Jack Herbein's famous "We don't have to tell you anything" statement of last March, Met Ed claimed they did not have to notify officials.

Met Ed was not the only negligent party in this leak. The NRC denied that there had been any release of radioactivity into the atmosphere. This contradicted a Met Ed report (released to the the DER) that 200-300 millicuries of Krypton 85 had been vented.

On February 14, there was yet another leak -- this time in an air sampling system, resulting in a release of 3 curies of radioactive Krypton 85. Although the proper civil defense authorities were notified, there was a delay of 4-8 hours. Furthermore, Met Ed violated federal regulations in continuing the air sampling once abnormally high readings of radiation were registered.

What is frightening about this news is two-fold. First it is quite clear that neither Met Ed nor the NRC can be trusted to inform the public about events at TMI. Second, the coincidence of leaks in two separate systems points out the very fragile stability of the crippled reactor. Although officials are quick to point out that there is no impact on the public health from these leaks, it is unknown what the cumulative effects will be. A suggestion of a rise in birth defects pinpoints these worries.

As we approach the anniversary of the accident at TMI, it is sobering to think that lessons have not been learned, radiation leaks continue, and central Pennsylvania remains hostage to nuclear technology run amuck.

TMI Leaks Again

By RICHARD ROBERTS
Staff Writer

About three curies of radioactive krypton 85 gas escaped from Three Mile Island Nuclear Generating Station on Wednesday, an amount about 10 times greater than that released Monday in the wake of a pump leak that spilled 1,000 gallons of radioactive water inside the plant's auxiliary building.

John T. Collins Jr., director of the U.S. Nuclear Regulatory Commission's support staff at Three Mile Island, said the quantity of gas leaked Wednesday represents a "small fraction of what a normal operating nuclear power plant would be expected and allowed to discharge on a daily basis."

A pressurized water reactor like Unit 2 at Three Mile Island routinely discharges about 10,000 curies of radioactive noble gases, including krypton, each year, he said, adding: "There is no such plant that does not give off these gases."

Nevertheless, in response to the incidents on Wednesday and Monday, the five nuclear regulatory commissioners in Washington instructed Victor Stello Jr., director of the NRC's Office of Inspection and Enforcement, to visit the site Thursday.

The gas leak reportedly was discovered early Wednesday morning during the night work shift at the plant, when an NRC inspector in the Unit 2 control room noticed that air-sampling devices in the auxiliary building were registering more radioactivity than normal. Calculations of the extent of the release were completed about 3:30 p.m., and procedures to notify emergency personnel were not begun until then.

Thomas M. Gerusky, director of the state Department of Environmental Resources' Bureau of Radiation Protection, said the inspector notified NRC health-physics technicians, who calculated that three curies of the krypton gas had been released between 7:30 p.m. Tuesday until noon Wednesday.

NRC officials determined that the leak originated in a device, situated in the auxiliary building, that is used to measure the radioactivity of air inside the Unit 2 reactor containment building, he said. The air from the containment was being circulated through the equipment when the leak occurred.

When informed of the incident, Metropolitan Edison Co. personnel told the NRC inspector that plant procedures call for purging to be halted only when the radiation level inside the auxiliary building exceeds a certain level, and that level was not reached Wednesday, Gerusky said.

The gas sampling device is a "closed" system, meaning that it is designed to pump all gases back into the containment, he said. Containment air routinely is circulated through the system for about 16 hours in order to obtain a representative sample for analysis.

The leak represents a previously unknown source of krypton gas emissions from the plant, Gerusky said, adding: "It is possible that the sampling device has been leaking all along and nobody knew it, or this could be the first time that it has leaked."

Since the March 28, 1979, accident that severely crippled the Unit 2 reactor, about 75-80 curies of krypton gas have been escaping from the plant each month — or from about 2.5 to 2.7 curies a day, according to DER, NRC and Met-Ed officials.

About 13 million curies of noble gases, including krypton, were released during accident.

Gerusky said the gas discharge Wednesday was not detected by U.S. Environmental Protection Agency radiation monitors around the plant.

Met-Ed technicians sample air inside the containment about every two weeks "just to make sure that there hasn't been a significant change," he said. "Sampling the air is how they initially determined that

53,000 curies of krypton gas were inside."

Gerusky said he believes it is prudent to check the containment air periodically. "I don't know what might go wrong (inside the containment), but it's best to know what's going on. They also routinely sample the water inside the building."

The accident last year spilled about 500,000 gallons of highly radioactive water onto the floor of the structure.

Gerusky said Wednesday's incident does not worry him, adding that the amount of gas discharged was "so small that if you continued to allow that rate of leakage, it would take many, many years for all of the krypton to escape from the containment."

The amount of radioactive gas released Wednesday is far less than the quantity that would be released daily if the NRC approves Met-Ed's plan to discharge all of the 53,000 curies inside the containment over several months, he said.

Gary F. Sanborn, NRC field public affairs officer, said the NRC has instructed Met-Ed to discontinue testing containment air "until we determine for sure whether (the sampling device) is the source of the leak and whether we can do something to repair it."

Met-Ed had known of the leak in the air sampling system for "several weeks" and had been attempting to locate the source of the leakage, he said.

Unlike on Monday, when Met-Ed control room operators failed to notify state and county civil defense officials when the water spill promoted the declaration of a "local emergency," plant officials Wednesday contacted Dauphin County, DER, the Pennsylvania Emergency Management Agency, the governor's office, the lieutenant governor's office and other officials, he said. ●

TMI Pumps from 1

wind and did not pose a health hazard to anyone.

DER dispatched technicians to collect samples of water from the Susquehanna River downstream from the plant, Mrs. Fisher said, adding that the water will be tested to determine if any of the water that spilled during the accident seeped into the river.

"There is no indication that anything was released into the river, but we're taking samples as a precaution," she said. "As far as we know at this time, all the water released was contained in the building."

The 300 millicuries of radioactive krypton gas, or about $\frac{1}{3}$ curie, is a "very small amount" compared to the thousands of curies of gas released during the first days of the accident last year, she said.

The gas discharge was measured by an "effluent monitoring system" in the auxiliary building, Mrs. Fisher said, adding that the gas was vented gradually from 12:58 p.m. when the pumps began leaking until 2:40 p.m. when plant technicians halted the flow of water inside the auxiliary building.

In response to a DER request, the U.S. Environmental Protection Agency checked two of its radiation monitors near Three Mile Island and found no increase in radioactivity, she said. The monitors are located at the plant's north gate and observation center, both on the East Shore of the river.

"Our assessment of the situation right now is that there isn't anything to worry about," she said late Monday.

Met-Ed spokesman Delzingaro said plant personnel declared a local emergency at about 1 p.m. Radiation alarms sounded inside the auxiliary building and adjacent fuel-handling building, prompting 11 workers inside the auxiliary building to evacuate, he said.

A two-man inspection team equipped with protective clothing and breathing apparatus was dispatched to the building, and another similarly outfitted three-man inspection team was placed on standby, he said.

Met-Ed spokesman Ralph Neidig said the 11 evacuated workers were wearing anti-contamination cloth-

ing and respirators when the leak occurred and that none of them was overexposed to radiation or otherwise injured.

Kevin J. Molloy, director of Dauphin County's Office of Emergency Preparedness, said Met-Ed control room personnel failed to notify his office of the emergency.

"Once again we have had an obvious collapse" in the chain of communications, he said. "The county should have been notified. We didn't get a phone call. I've been here all day. Somebody goofed."

Molloy said he went to the Three Mile Island Observation Building on Monday afternoon to learn more about the accident and was handed a press release by Sanford Polon, Met-Ed's director of Three Mile Island communications.

"I'm very irate and upset over

this thing," Molloy said. "Somebody at Met-Ed had better learn that times have changed and that even though they're not bound legally and technically to advise us, that there's got to be a little courtesy and common sense displayed by the utility."

"I don't appreciate just being handed a press release. I think Met-Ed has to be aware that emergency personnel obviously want to know as rapidly as possible of an incident that could have off-site consequences."

Met-Ed also failed to notify the Pennsylvania Emergency Management Agency of the emergency, according to Col. Oran K. Henderson, agency director. PEMA learned of the accident from a third party and called Met-Ed for confirmation, he said.

Electricians from 1

mention specific safety complaints. "We have the skill to put the place together but we want a safe workplace and we want consistent policies."

Local 143, concerned about Met-Ed's actions to correct radiological control program problems, plans to furnish a list of those concerns to Catalytic, Sagle said.

Met-Ed spokesman Sandy Polon said Monday night that "the workers left the site apparently as result of a dispute which occurred when 2 electricians were disciplined by the contractor, Catalytic. The two workmen were disciplined for failure to observe proper radiological control practices."

The workers were fired last Thursday for alleged violations of HP rules.

The two men, electricians for 10 years, worked at TMI during its construction and since the accident there last March 28, according to Sagle. He said that last week, they were stringing heavy cables to hook up equipment for stress welding.

Sagle said that during this procedure, each man was wearing protective coveralls covered by paper coveralls, four sets of boots, several layers of gloves, a hood, goggles and a face mask to protect him from airborne radiation.

"When you stress weld, you

must observe meters and if there's a malfunction with the equipment, you must be in that section to repair it," Sagle said. "Their work was complete to the point where they could take a break but it didn't seem practical to leave. Rather than walk away, strip down, take a break, resuit, and come back, they chose to rest."

He said that the two men were in a state of standby, "one sitting on the floor, one laying out with his head against a piece of $\frac{1}{2}$ inch highly radioactive copper tubing not properly marked by the health physicists."

The HPs, Sagle said, are supposed to point out specific hot (contaminated) spots to electrical workers, but failed to do so. Moreover, Sagle said that a 3X5 sign warning workers about the copper tubing was at floor level. Describing the work as strenuous, Sagle said the men's goggles fogged up "because of the heat and (the man against the tubing) didn't see the sign."

An HP saw the men in resting positions, Sagle said, and reported that they were violating HP rules.

"This was inconsistent with the times this has happened before," Sagle said, adding that the rest period was 10-15 minutes at most.

Rules Violated at TMI

By RICHARD ROBERTS
Staff Writer

A top U.S. Nuclear Regulatory Commission official Thursday said workers at Three Mile Island Nuclear Generating Station violated federal regulations this week when they continued to take air samples from the reactor containment building despite indications of excessive radiation inside the auxiliary building.

Victor Stello Jr., director of the NRC's Office of Inspection and Enforcement, told a news conference in Middletown that his investigation of the incident revealed that

plant personnel should have ceased taking the samples when monitors showed radiation three times higher than normal.

Stello also said Met-Ed violated an agreement made with the NRC shortly after the March 28, 1979, nuclear accident when it failed to notify county and state civil defense authorities on Monday when a pump in the auxiliary building leaked 1,000 gallons of radioactive water.

Stello, who was instructed to conduct the on-site investigation by the five nuclear regulatory commissioners in Washington, suggested

that the NRC might penalize Metropolitan Edison Co. for its alleged failure to follow federally mandated procedures in the air sampling.

The sampling process caused the release of about four curies of radioactive krypton 85 gas to escape from the plant between Tuesday and Wednesday, but Stello said the discharge could not be measured off-site and did not pose a health risk to anyone.

"Any time they don't follow our requirements, which includes adherence to regulations, that's a possibility," he said.

The procedure calls for plant operators to watch four radiation monitors while air samples are being taken from the containment building and to halt the sampling process if the instruments indicate radiation intensity has reached three times the normal level, he said.

While a sample was being taken during a 16½-hour period from 7:30 p.m. Tuesday to noon Wednesday, two of the monitors showed radiation exceeded three times the normal level and reached four times the normal level, Stello said.

"They (the plant operators), in my judgment, should have stopped (the sampling process)," he said. "They did not stop the process."

"In my opinion, they should have been aware of the readings. They should have paid more attention to (the instrument) to make the judgment. It's a standard procedure and that's why it's there."

"I have reached the judgment that I don't think they followed (the instruments) as carefully as they should have."

A Met-Ed spokesman, in a statement issued Wednesday night, said radiation inside the auxiliary building had not exceeded twice the normal level.

Asked if the plant personnel had been negligent, Stello said: "I don't want to use the word negligent. They didn't do the job as well as it should have been done. I have a view that I like to make sure that people are adhering to the procedures that are there for that purpose."

Harrisburg, Pa., Wednesday, Feb. 20, 1980

Krypton 85 Detected

By RICHARD ROBERTS
Staff Writer

A minute amount of radioactive krypton 85 gas was detected near Three Mile Island Nuclear Generating Station as a result of radiation leaks at the plant last week, an official of the state Department of Environmental Resources said Tuesday.

Spokesmen for DER, the Nuclear regulatory Commission and Metropolitan Edison Co. had said last

week that no radiation was detected off site following the incidents.

Thomas M. Gerusky, director of DER's Bureau of Radiation Protection, said he was informed by the U.S. Environmental Protection Agency late Tuesday that an analysis of an atmospheric sample taken near the plant on Feb. 11, 12 and 13 indicated a greater than normal quantity of krypton 85 gas.

TMI, Hypothyroidism

WASHINGTON — Rep. Peter Kostmayer, D-Solebury, Friday asked U.S. Health, Education and Welfare Secretary Patricia Harris to establish a special task force to investigate the abnormally high rate of thyroid birth defects in three Pennsylvania counties.

Dr. Gordon MacLeod, who was Pennsylvania's health secretary at the time of the accident, disclosed the unusual statistics last week. During the last nine months of 1979, 13 hypothyroid babies were born in the three counties — six in Lancaster, four in Bucks and three in Lehigh.

Under normal circumstances, over that span, the counties reportedly would have had a total of three births of hypothyroid infants, who can suffer severe mental retardation and stunted growth as a result of a missing or abnormal thyroid gland.

Previous HEW-instituted studies of the health effects of the Three Mile Island accident have been limited to persons living or working within 10 miles of the plant.

TMI Security Faulted

The Guide,
February 6, 1980

Met Ed is doing little to protect its vital areas from potentially hazardous inside forces—like saboteurs, a month-long Guide undercover investigation has revealed. A Guide reporter was hired on the spot as a security guard and spent four weeks in TMI.

Apparently never-published Nuclear Regulatory Commission (NRC) documents show that a determined saboteur with access to vital areas and some technical expertise could cause a meltdown in either Unit 1 or Unit 2's reactor, release radioactive gases, or dump thousands upon thousands of gallons of radioactive waste into the Susquehanna River. In fact the documents—technical reports by an independent scientific laboratory—list 15 scenarios for sabotage at TMI, nine of them possible in Unit 2.

Met Ed has spent millions of dollars on electronic monitoring equipment: Closed circuit television, motion detectors, sensitized eight-foot high cyclone fences, coded key card reader access control devices, metal and explosives detectors—in short, the best security hardware money can buy.

Half of guards armed

In addition, Met Ed has a 125-member security force—of which nearly half are armed. Most security experts agree that anything less than a small army landing by parachute would have little chance of beating the security force and taking over the facility, since it would first have to penetrate several layers of fences and concrete walls. That would take enormous explosive and fire power.

However, The Guide has discovered in the NRC Documents Room of the State Library a study done for the NRC that details how long it would take to overcome every conceivable barrier an intruder might encounter in a nuclear power plant, such as fences, key-card locks and electronic systems, as well as listing the tools needed to get past them.

A fortress from without

Met Ed has turned TMI into a fortress by locating it on an island, with an effective river moat, accessible only by two bridges guarded by armed men and by installing several layers of fences. An intruder would find it difficult to force his way onto the island.

But a month-long Guide look by a reporter who got a job on TMI as a security guard shows glaring gaps in its security defenses, gaps that would permit a terrorist or saboteur to sneak

through and destroy the plant from within.

Faults discovered

They are:

- A faulty screening process for security employees; lack of a background check.
- Uncontrolled access between vital areas in Unit 2; no key-card locks between areas (as there are in Unit 1).
- Inadequate protection for the Unit 2 Control Room; the doors are unlocked.
- Ineffective search and detection safeguards for Unit 2; no metal or explosives detectors as in Unit 1.
- Radio and public address communications problems in Unit 2; walkie talkies and PA systems often fail.
- Inadequate badge accountability; 1 walked around undetected for four days with an unauthorized badge.

Two independent studies conducted for the NRC by Los Alamos Scientific Laboratories (LASL), in New Mexico, conclude that TMI is even more vulnerable to sabotage since the March 28, 1979 accident and lists 15 ways to sabotage the plant.

In fact, the studies show that while security protection against insiders has changed little in Unit 2 since March 28, both reactors are still capable of sabotage-induced meltdown, and the chances of an insider deliberately dumping radioactive gas or water into the environment have actually increased.

For example it states "...by operating valves and energized pumps, radioactive water from certain tanks can be released directly to the (Susquehanna) river."

The inherent weaknesses of TMI security in preventing sabotage stem from its failure to comply to the original letter and intent of an NRC regulation, established three years ago.

This regulation, Title 10, Code of Regulations, Part 73.55 (10 CFR 73.55), required each nuclear facility to beef up its procedures for screening, training and issuing clearance badges to its employees, and to intensify traffic control and search procedures in all vital areas.

The NRC gave the industry two years to comply, but then later on extended its deadline and modified certain terms of the regulation for several nuclear operators—including TMI. In November 1978, the NRC inspected TMI and found no violations of the new regulations. Four months later, the NRC again inspected TMI, this time only days before the March 28 accident.

"The plant was found to be in compliance," says Donald G. Rose, author of the report entitled "Pre And Post-Accident Security Status at Three Mile Island" "except that some vital door that should have been locked or guarded were found open and unguarded. Actually, there was very poor protection against the sabotage activities of an insider."

The LASL study concluded that sabotage couldn't be ruled out as a major contributing cause of the accident.

All the electronic gadgetry used for monitoring purposes makes a security guard's job relatively easy. But while closed circuit television and sensitized barriers are used for perimeter protection, to give early warning of an outside intrusion or attack, they are scarcely found inside the vital areas.

Also, some of the devices found in Unit 1 are missing in Unit 2, so the chain of security that surrounds the highly sensitive areas inside the Unit: Containment, Turbine, Control and Auxiliary buildings has some missing links.

Unit 1 has key card readers—computer-controlled mechanisms that "read" coded key cards and unlock doors, permitting authorized entry to the sensitive areas.

Control room unlocked

Unit 2 has only the empty steel shell in which the devices were to be installed. Even the doors of the Control Room—brain center for Unit 2—are wide open, as they were the night of the accident.

As the accompanying photo shows, the latches to the doors are taped over and a piece of nylon clothesline rope serves as a handy door pull.

There are an estimated 1,400 Met Ed systems workers and contract workers with access to Unit 2. This is almost a thousand more than before the 1979 accident. This abnormally high number of bodies walking around the vital areas has created an extra-ordinary security situation.

Without key card readers, hundreds of temporary employees are free to enter the Turbine Building or Control Building and walk from one vital area to another—without detection.

The NRC rule, 10 CFR 73.55 has required nuclear power plant owners to ensure they are hiring only trustworthy, mentally stable, law-abiding citizens. This calls for thorough background investigations, and indepth psychological testing.

Cont. p 7

Met-Ed Rate Boost

By CARMEN DIAMANTO
Staff Writer

The state Public Utility Commission approved a \$55 million rate increase on Friday for the financially troubled Metropolitan Edison Co.

The increase, effective March 1, is conditional. Its continuation depends on the PUC's eventual decisions about a range of matters involving Met-Ed and the March 28, 1979, accident at Three Mile Island Nuclear Generating Station. The rate hike is intended to aid Met-Ed in its purchase of energy lost as a consequence of the accident.

The company's immediate response was that the action gives it "something to go to the banks with," to get credit extended beyond the \$292 million borrowing limit fixed by the PUC.

Approval of the rate hike, which Met-Ed had sought to become effective Jan. 1, came a day after Met-Ed's parent company, General Public Utilities Corp., decided to omit a quarterly stock dividend for the first time in the firm's history. The action will save GPU about \$15 million.

On Dec. 21, the PUC rejected a Met-Ed request to have the rate increase go into effect immediately,

rather than at the conclusion of the extensive PUC hearings. In addition to the rate-hike request, the hearings deal with a show-cause order on the possible lifting of Met-Ed's operating license and with whether the undamaged TMI Unit 1 should be considered in calculating base energy rates.

According to Fred Hafer, vice president for rates at GPU, the three-month delay in the effective date will cost the company about \$11 million, because of higher rates Met-Ed must pay for oil-produced energy from other companies.

The PUC's action on Friday was telegraphed somewhat by a reversal of the position by the commission's advisory staff.

Earlier, the staff had opposed the immediate boost, holding that nothing should be done until the hearings have concluded. But late Thursday, after the GPU directors voted to omit the stock dividend, the staff recommended that the boost be approved on the condition that it be effective only until the remaining issues of the current proceedings have been resolved. At that time a decision would be made as to the continuation of the increased rates, which would then be subject to refund if held to be too high. ●

SECURITY

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Background not checked

Yet the information on the employment application this reporter submitted to Gregg Security Services was never verified. Neither Gregg nor Met Ed contacted any of the several employment or character references listed. And the psychological testing and screening interviews given during a two-week training stint also failed to expose an impostor within.

In any nuclear plant, there are a number of secondary and emergency systems designed to automatically activate if a primary system fails. Likewise, the NRC has mandated that a nuclear power plant employ a number of secondary security safeguards in case its

primary anti-sabotage safeguard—the screening process—fails.

These include restricting access to all vital areas, enforcing the two-man rule (which prohibits an employee from entering a vital area without a companion), and monitoring or searching all employees and their bags to insure no bombs, guns, ammunition or cameras enter the plant.

No metal detectors at Unit 2

Unit 1 is equipped with metal and explosives detectors, X-ray machines and key card readers.

Incredibly, Unit 2 has none of these, but instead relies on frisking—or pat-down searches, as it is called—and package searches to detect prohibited items. ●

PUC Hearing

By JILL LAWRENCE
Associated Press Writer

It is only fair that utility customers foot most of the bill for the accident at the Three Mile Island nuclear plant, two legal experts told the Public Utility Commission on Tuesday.

George Avery, a Washington lawyer, said customers should be charged the equivalent of retroactive insurance rates to pay costs stemming from the March 28, 1979, nuclear accident.

"Requiring ratepayers to bear a large portion of the costs of an accident whose costs were not insured mimics as closely as possible in TMI-type situations the effect of insurance and loss spreading," Avery said in testimony to the PUC.

Avery also suggested that investors be assessed the equivalent of "a reasonable insurance deductible," to create incentives for companies to provide safer service.

Avery, a former member of the District of Columbia Public Service Commission, said the insurance set up would eliminate catastrophic risks for investors but would not have a catastrophic impact on ratepayers.

"The burden of the actual accident as reflected in electric rates would be spread out over a long period of time and no single user would bear a sudden huge cost," Avery said in prepared testimony.

Guido Calabresi, a Yale University law professor, told the PUC that utility customers have traditionally shouldered non-nuclear risks.

"Analogous risks in fossil areas have in various ways been placed on ratepayers — not investors," he said, citing costs associated with natural gas production.

Calabresi also said the courts have repeatedly denied utility investors the benefits of wildly spectacular gains.

Witnesses: Andrew Chesman

Cathie Rasser

Jonas Mark Bartlett

George Clement

Nancy Larson Bill Huey

Ray Decker John Dizio

Last Chance:

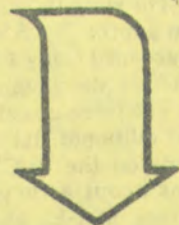
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Three Mile Island Alert

Island Updates

News Watch on the
Harrisburg Area

Vol 1 No 6

April 1980

THREE MILE ISLAND ALERT ORGANIZING NOTES

We are going to step back a bit from our usual "just the facts, folks" format and devote a little space to organizing in this issue of ISLAND UPDATES. And the reason for it is the inspiration that all of you gave to us with your TMI anniversary events. To the many, many groups who sponsored such events, we thank you.

Many of us had the inspiring opportunity to come and speak and learn and share at your TMI anniversary rallies and teach-ins. A very fine thing happened as a result: we all came back newly energized and hopeful about the sharing that can happen when grassroots groups reach out to one another, without the assistance of even a national group. We hope to build on that -- through ISLAND UPDATES and through the formation of the Three Mile Island Alert Speakers' Bureau.

ISLAND UPDATES is proud to announce the formation of the Three Mile Island Alert Speakers' Bureau. We want to set up an easy exchange of ideas and energy, and there will be a letter with details following up this announcement. What we hope to be able to do is to schedule and coordinate so that even small groups can bring speakers out. We want to celebrate the grassroots nature of the anti-nuclear movement, and we want to facilitate it in any way we can.

At Three Mile Island Alert, we have had the unusual experience of growing from an organization of just 7 people to one of almost 1000. One year after the accident began, we are still caught up in monitoring the accident and the radiation releases, in attending hearings and public meetings, in pursuing evacuations plans, in fighting proposed ventings, in pursuing

NOTES from 1

questions of job security in the event of voluntary evacuations, in meeting with the media, in fundraising for our legal intervention.

But miraculously, we have managed to put together an organization that spans seven counties. And we have done it all without the aid of national organizers. We think we have some organizing experience worth sharing.

Our legal intervention, if it succeeds, will have impact on every nuclear power plant in this country. We are challenging Metropolitan Edison's ability to safely operate a nuclear power plant on grounds never considered before. Most intervention suits are highly technical, with one set of experts challenging the calculations of the others. In our intervention, we are looking at the way Met Ed will actually run Unit 1. We are looking at the facts, not the blueprints.

Just last week, the Atomic Safety Licensing Board recommended to the NRC that the NRC fund our intervention, since we are the only group contesting certain areas. The ASLB believes that our contentions should be examined.

So now we have a precedent-setting lawsuit that may be funded by the NRC. That is a good thing, since fundraising has been very difficult for us. Our MUSE grant was only \$3000, \$7000 less than we need each month in legal research fees. There have been promises from other national groups for funding, but nothing is available now - while we are doing the expensive research necessary to guarantee our success in the courts!

We have also learned a tremendous amount about dealing with the utilities and the NRC. Perhaps you read in your local papers about the anger of local residents at recent public meetings with the NRC. You may not know that such anger has indeed had an impact on the NRC, at least to merit a delay in the venting of the radioactive Krypton. Public opinion has forced the governor to bring in the Union of Concerned Scientists on the venting issue. So we have learned something about bringing our concerns to the attention of the government.

But now our public meetings are being packed by Met Ed employees (paid overtime?). The utilities are catching on to our tactics, and we have to keep ahead of them... More organizing strategies learned.

The accident at TMI taught us all about the dangers of nuclear power. The anniversary regional events were a poignant reminder that the problem is in everyone's backyard. In Harrisburg, we have a real strong feeling that what has happened, is happening still, to us here should never happen again -- not anywhere. And that's why we, in Three Mile Island Alert, want to take a real strong and active role in supporting you in your struggles in your backyards.

Andrea Chesman
Three Mile Island Alert

Panel to Study Krypton Options

By MARY O. BRADLEY
Staff Writer

Gov. Dick Thornburgh will ask the Nuclear Regulatory Commission to postpone a decision on a proposal to vent radioactive Krypton-85 gas trapped in the Three Mile Island Unit 2 containment building until a blue-ribbon scientific panel completes a study of methods to dispose of the gas, the Sunday Patriot-News has learned.

The Union of Concerned Scientists, a prominent anti-nuclear group, has agreed to a request of Thornburgh to undertake a comprehensive study of ways to dispose of the krypton gas. The UCS study is expected to take a month.

The NRC was to have ruled later this month on whether to allow Metropolitan-Edison Co., TMI's operator, to release into the atmosphere 44,000 curies of krypton dispersed in 2 million cubic feet of air in the Unit 2 reactor building. The NRC's staff has recommended that the krypton venting proposal be approved.

The controversial venting proposal has generated a storm of protest from local officials and citizens who contend the release could cause severe psychological stress and detrimental health effects.

Thornburgh will announce Monday the members of a blue-ribbon panel — expected to be composed of six to eight persons — that will conduct the study under UCS' auspices.

Thornburgh Press Secretary Paul W. Critchlow confirmed Saturday that Dr. Henry W. Kendall, UCS chairman, notified Thornburgh late Friday that UCS would do the study.

Critchlow said Thornburgh will ask the NRC to delay its decision on venting, "and the governor has every reason to expect the NRC will

accede to his request."

Kendall, a physics professor with the Massachusetts Institute of Technology, could not be reached for comment Saturday.

Harold R. Denton, director of the NRC office of reactor regulation, said Saturday the NRC staff agreed to cooperate with the UCS study.

Denton met with Richard D. Pollard, a nuclear engineer and UCS staff member, on Wednesday. "I gave him the background information he needed," Denton said.

In response to a question as to whether he would support Thornburgh's request for a postponement in the venting decision, Denton said, "I haven't heard any formal request from the governor. We give all his (Thornburgh's) requests great weight."

Critchlow said the study will deal with two key questions:

- Is venting safe?
- Is venting the best alternative?

Critchlow said it is implied that other alternatives to venting will be scrutinized in the UCS study.

Critchlow said UCS will not charge the commonwealth for its service, but the group asked that the governor pay any incidental expenses, such as for food and travel. That figure could reach \$10,000, and Thornburgh plans to use funds from the governor's office to pay the bills, Critchlow said.

It could not be determined how much of a delay in the Unit 2 cleanup schedule a postponement of the NRC decision might cause. Met-Ed officials are anxious to proceed

with cleaning up Unit 2, which was severely damaged and contaminated in the March 28, 1979, nuclear accident.

Critchlow said Kendall told Thornburgh — "and the governor agreed" — that in reviewing methods to dispose of the krypton, the "cost" of the procedure should not be a factor.

A number of other procedures were examined by the NRC and Met-Ed, but they were rejected because of the time needed to construct the hardware, the hefty price tags and the fact that the krypton would not be disposed of but stored on site in some other form.

The Patriot, Harrisburg, Pa., Wednesday, March 26, 1980.

GPU Seeks \$1½ Billion From B & W

PARSIPPANY, N.J. (AP) — General Public Utilities Corp. filed a \$500 million negligence suit Tuesday against the manufacturer of the crippled Three Mile Island reactor.

The action came three days before the first anniversary of the worst accident in the history of American commercial nuclear energy.

The suit, filed in federal court in New York City, charges Babcock & Wilcox Co. with gross negligence and failing to abide by its contractual obligation to provide written procedures and training services necessary for the operation of the plant.

Also named as a defendant was J. Ray McDermott & Co. Inc, parent company of Babcock & Wilcox.

Unit II Entry Denied

By RICHARD ROBERTS
Staff Writer

The U.S. Nuclear Regulatory Commission has denied, at least for the time being, Metropolitan Edison

Harrisburg, Pa., April 3, 1980

Death Rate TMI Link Is Denied

By RICHARD KAUFFMAN
Staff Writer

The state Health Department on Wednesday said a preliminary report on fetal and infant deaths within 10 miles of Three Mile Island shows "no statistically significant difference" from statewide rates.

And while the infant death rate for within a five-mile radius increased during the six months after the March 1979 nuclear accident, the fetal death rate for the same area decreased, health officials said.

Health Secretary H. Arnold Muller cautioned that raw numbers can be "very misleading" and said the Health Department looked at mortality rates that, while they may appear confusing, are "often more meaningful."

Muller said the 10-mile figures in the report include the entire city of Harrisburg, even though only a small section of the city lies within the 10-mile radius.

Eliminating the Harrisburg figures, Muller said, would leave the death rate around TMI the same as or lower than the state rate.

Co.'s request for permission to send technicians into the Unit 2 reactor containment building at Three Mile Island Nuclear Generating Station.

Met-Ed proposed to send men inside on April 15 — before the structure is purged of about 57,000 curies of radioactive krypton 85 gas — to check vital equipment and take radiation samples. The technicians would be equipped with anti-contamination clothing and special breathing gear.

John T. Collins Jr., deputy director of the NRC support staff at Three Mile Island, said in a letter to Met-Ed Senior Vice President Robert C. Arnold that Met-Ed first must prove that the containment building atmosphere will sustain life should the technicians' breathing gear fail.

"Present data suggests that there is an oxygen deficiency in the containment atmosphere," Collins said. "In addition, no data exists to preclude the existence of toxic contaminants in the building atmosphere, (such as) carbon monoxide and ozone."

Collins recommended that a qualified industrial hygienist check the containment building atmosphere for toxic substances and that the utility eliminate "any potential for threat to life and safety of the entry team members."

He also suggested that breathing equipment face masks be double checked, that entry team members undergo additional practice in radiological survey methods, that air samplers be provided to all team members and that extra precautions be taken to reduce the beta radiation dose to the technicians.

Meanwhile, the NRC on-site staff is preparing a paper to be pre-

sented to the nuclear regulatory commissioners in Washington detailing the proposed manned entry "in light of the fact" that approximately 24 curies of krypton gas would be vented in the process, he said.

That would be the largest amount of radioactive gas released from the plant in recent months. In March, Met-Ed vented about 1/20th of a curie from an airlock that provides access to the containment building.

But the release of 24 curies would be less than the 35 curies of radioactive gases routinely vented from normal operating nuclear power plants every day and would be well within NRC limits. The gas probably would not be detectable off site.

Arnold said Thursday that Collins' recommendations probably will not delay Met-Ed's plans to send a team of men into the containment on April 15. "We're confident at this time that we can pacify all of those items within that time frame," Arnold said.

Met-Ed is anxious to enter the structure to evaluate working conditions inside and to gather samples of surface contamination in order to develop detailed plans for cleaning up the building, he said.

Arnold said, however, that Met-Ed would delay the manned entry if the NRC approved the purging of the krypton gas from the structure "in the near future." Venting the building would reduce radiation levels inside dramatically and decrease the hazard to workers.

If technicians enter the structure prior to the venting, they probably would not be able to perform any needed maintenance on the critical components that have been virtually unseen since the accident.

TMI-Inspired PUC Hearings Draw to Close

By United Press International

The state Public Utility Commission Wednesday ended 27 days of often complex public hearings that began last Dec. 10 on the future of Three Mile Island operator Metropolitan Edison Co. and its parent, General Public Utilities Corp.

The commission, which will officially close its record on the Met-Ed hearings Friday, will hear a summation of arguments by all sides April 23 and issue its initial decision May 9.

That three-point PUC order will decide the financial viability of Met-Ed, whether the company can continue to collect a \$55 million rate increase granted temporarily and the question of whether the idle but undamaged twin reactor at Three Mile Island should be removed from the rate bases of Met-Ed and its affiliate, Pennsylvania Electric Co.

A phalanx of Met-Ed and GPU executives appeared before the PUC on the final hearing day to reply to commission requests for information on conversion of Three Mile Island to coal, power conservation plans, the Three Mile Island cleanup and the issue of psychological stress.

Robert Arnold, Met-Ed senior vice president and Three Mile Island cleanup director, said his "guess is that the Nuclear Regulatory Commission will permit the Atomic Safety and Licensing Board to consider psychological stress in relation to the restart of TMI-1."

Arnold said such a decision could delay further the date for a resumption of power at the idled plant.

GPU Vice President Fred Hafer said that despite the \$55 million rate increase granted by the commission, Met-Ed will have unreimbursed power purchase costs of \$90 million by the end of May, plus an interest carrying charge of \$20 million.

GPU Vice President B.H. Cherry said the company on Friday would give the PUC a master plan for conservation and load management that "if successful, could cut GPU's new power needs by 550 megawatts in Pennsylvania and 450 megawatts in New Jersey by 1990.

N-Costs Veiled PUC Told

By The Associated Press

The true costs of nuclear power have been ignored or systematically understated to make nuclear energy appear economical, a consultant told the Public Utility Commission on Tuesday.

"Nuclear power has been artificially priced into the realm of feasibility," said Dr. William Belmont, a member of Associated Regulatory Consultants of Rockville, Md.

"If we had looked at the economic feasibility as well as the technological feasibility, we may well have made a different decision historically," he added.

Appearing at PUC hearings stemming from the March 1979 accident at the Three Mile Island nuclear power plant near here, Belmont also said investors have been shielded from the true costs of the accident and nuclear power in general.

He called on the PUC to rectify this situation by making investors bear a greater share of the accident costs. Some experts estimate that cleanup and replacement power costs could reach \$1 billion.

"It's almost incumbent on this commission to increase the burden on stockholders, to communicate to them a truer set of signals as to the actual cost of nuclear technology," said Belmont, a witness for the anti-nuclear Three Mile Island Alert group.

In prepared testimony, Belmont said the PUC and the plant owners should seriously consider converting the mangled TMI-2 reactor to coal.

"This may, in fact, be the strategy which minimizes the long-run cost consequences of the TMI accident," Belmont said in the testimony.

Belmont said numerous costs have not been included in considerations of the feasibility of nuclear power. He said the following factors have been understated or ignored:

- Adequate insurance for the plant and for replacement power needs.

- Realistic liability insurance against a catastrophic nuclear accident.

- The true cost of decommissioning a nuclear plant.

- The true cost of spent fuel disposal.

- The increased reserve capacity required by a nuclear plant to achieve the same reliability as a coal-fired plant.

- The social concerns and anxieties associated with living and working near nuclear plants.

- The risk premium imposed by investors on utilities with nuclear facilities.

Dr. Vincent Taylor, an economist and another TMIA witness, said nuclear power will not wean the country from foreign oil and urged greater use of coal.

In prepared testimony, he said utilities actually used less petroleum in the months following the accident than they did during a comparable period in 1978.

"There's no connection between more nuclear power and less oil. If we don't build any more nuclear plants, utilities will build more coal plants," Taylor said at a news conference.

He said the country now has 35 percent excess nuclear generating capacity, while coal is in abundant supply, coal plants are cleaner than ever and electricity growth has slowed down a great deal.

More for N-Insurance

By MICHAEL F. CONLAN

Newhouse News Service

WASHINGTON — Electric utility companies with nuclear generators will pay at least \$27 million more in insurance premiums this year, largely because of the accident last March at Three Mile Island, the president of the American Nuclear Insurers said yesterday.

That will bring the bill for property and liability insurance in 1980 for nuclear utilities to \$88 million, ANI president Burt Proom told reporters.

Proom also said 3,166 families living within five miles of TMI received a total of \$1,215,934 to cover expenses incurred during the evacuation of pregnant women and pre-school children recommended

by Gov. Dick Thornburgh during the accident.

Payments for lost wages totaling \$92,103 were made to 633 persons, he added.

These liability payments were made by ANI and another group of insurance companies that pool their resources to provide nuclear coverage, the Mutual Atomic Energy Liability Underwriters. ANI provides

about three-fourths of the coverage, Proom said in an interview.

Proom also reported that Metropolitan Edison, operators of TMI, had received \$83 million from ANI for damage to its property at the plant including \$50 million for the fuel core. The payment for the fuel core was based on the premise that it "would not be reusable," Proom said.

He estimated that ANI would pay Met Ed \$200 million to cover clean up costs that, according to some estimates, might reach \$400 million.

Proom said at a news conference that premiums for plant property would climb the sharpest both because of TMI and some changes in rating. "The average plant would have about a 63 percent increase in its premium this year," he said.

Monitoring

Secretary of Environmental Resources Clifford L. Jones said Tuesday people living around the Three Mile Island nuclear plant will be trained to use radiation detection equipment so they can independently monitor all radiation levels in the vicinity.

Jones said that 30 to 40 residents from 11 communities within a five-mile radius of the facility will be selected for the program, developed by the Department of Environmental Resources, the U.S. Department of Energy, the U.S. Environmental Protection Agency and Pennsylvania State University.

Jones said the citizen-volunteers will be given a two-week training course on how to use the equipment and how to report information.

The monitoring program will include periodic measurements of radioactivity levels in the local environment; a system to collect, compile and summarize the data; a process for releasing the data to local communities on a regular basis; establishment by the EPA of a mechanism to assure that all federal data will be properly collected and disseminated, and a continuing program of education on radioactivity, radiation and radiation effects.

GPU Subsidiaries

Bond Ratings Slashed

NEW YORK (AP) — Moody's Investors Service on Friday reduced the rating of bonds issued by the utilities that own the crippled Three Mile Island nuclear plant, saying it considers the bonds to be speculative investments.

The action left the bonds, issued by subsidiaries of General Public Utilities Corp., as the lowest rated utility bonds in the country. It will make it difficult, if not impossible, for the company to sell new bonds.

The action came exactly one year after the accident at the plant. Moody's cited "the continuing unresolved problems stemming from the accident," which left one of the two reactors badly damaged.

A GPU spokesman could not be reached for comment Friday.

The senior bonds issued by Met-

ropolitan Edison Co., the GPU subsidiary that owns the largest share of the plant and that operated it, were reduced to a "B" rating, meaning they "generally lack characteristics of the desirable investment."

The bonds had been rated "Baa," the lowest of the ratings that signals bonds are of investment quality. Metropolitan Edison debentures and preferred stock issues were reduced to "B" from "Ba," the highest of the speculative ratings.

Bonds issued by GPU subsidiaries Pennsylvania Electric Co. and Jersey Central Power & Light Co. were reduced to "Ba," which Moody's said means "their future cannot be considered as well assured." They also had been rated "Baa."

TMI Venting Due Study

By JOHN TROUTMAN
Staff Writer

Dauphin County Commissioner and state Rep. Stephen R. Reed said Thursday night that he has received assurances from the White House that a "sizable amount" of federal funding will be provided to Harrisburg area citizens groups for an "independent assessment" of cleanup operations at Three Mile Island.

Reed, who was among 150 public officials and private sector representatives who met with President Jimmy Carter at the White House Thursday for a briefing on inflation and energy policies, also said he asked Carter in a private session following the group's briefing to personally intercede in the Nuclear Regulatory Commission's plans to vent 50,000 curies of radioactive Krypton 85 gas from the damaged TMI Unit 2 reactor.

Reed, D-Harrisburg, said Carter "expressed concern" over the planned venting of the gas, and while he gave no firm commitments, the president did pledge to follow up on the issue.

The state legislator said the commitment for federal funding for an independent assessment of TMI cleanup operations came from White House aides, but "had the president's approval."

The independent assessment is necessary, Reed said, to give area citizens the opportunity to get "outside, expert help of their choosing" to assess the actions of Metropolitan Edison Co., the NRC and other agencies involved in the cleanup process.

"A good example of why this is clearly necessary is the horrendous plan to outright release 50,000 curies of Krypton 85 into the air — action which I told the president was both unconscionable and capricious," Reed said.

Reed said federal aid for the independent assessment will come through the U.S. Department of Energy.

He said the exact amount of aid is still being discussed, but claimed it will be a "sizable amount."

The independent assessment will be overseen by citizens groups that have expressed concern over TMI, and staff will be based at Penn State-Capitol Campus, Reed said.

He said details as to how independent experts will be selected and the eventual use of their findings are still being worked out.

However, Reed said that he will "insist that the final working arrangements of this independent analysis be such that the NRC or others cannot step in and twist, alter, substitute or otherwise dictate what the independent conclusions may turn out to be."

He noted that he and other area officials will be invited to Washington within the "next several weeks" to discuss TMI cleanup operations with "high-level" federal officials.

Reed reported that he found Carter "very interested" in Three Mile Island and said he was "amazed at the knowledge the president has on the matter."

NEWS BRIEFS

- Local officials met with President Carter about the proposed venting. President Carter "expressed his concern."
- Dauphin County (which includes Harrisburg) Commissioners unanimously adapted a resolution opposing plans to vent Krypton.
- Following the lead of the Lebanon County Board of Commissioners, Mayor Donald N. Griffith opposed the proposed venting of Krypton.
- Daily radiation readings will be posted at the NRC's Middletown office. The State DER will train 30-40 persons from 11 communities near TMI to use radiation detection equipment. Also, the NRC has determined that surplus civil defense radiation meters used by some local residents are "obsolete" and "useless."
- 15,000 people rallied in the rain in Harrisburg on March 29, 1980. Organizers of the event called it a great success.

MARCH ON THE 26TH!!

Once again, Harrisburg will lead the march on Washington on April 26th. The message here is, of course, that the accident at TMI is not yet over. That is a sobering thought.

But there is good news, too, in the fact that Harrisburg remains prominent. In the year since the accident at TMI, there have been no major accidents, no core meltdowns, no spent fuel pools reaching critical mass, no major leaks from a waste storage site. (Although of course there were minor leaks, there were flood waters contaminated from uranium mines, not to mention the continued, slow degradation of ourselves and the planet from "acceptable" levels of radiation. There were more cancer deaths among workers and miners and families of miners, there was the leak at Crystal River, there was the opening of the Sequioa plant, to name a few.

While we can't sit back and relax as long as we live in the nuclear age, we can take this time to appreciate the fact that what happened in Harrisburg last year did not happen again this year.

See you in Washington!



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2 Will Enter TMI's Unit 2

By RICHARD ROBERTS
Staff Writer

The U.S. Nuclear Regulatory Commission on Tuesday approved Metropolitan Edison Co.'s plan to send technicians into the highly radioactive Unit 2 reactor containment building at the Three Mile Island Nuclear Generating Station.

Gary Sanborn, NRC field public affairs officer, said the entry is scheduled to begin late Thursday afternoon and will mark the first time humans have ventured inside the structure since the March 28, 1979, nuclear accident.

"The entry will allow Met-Ed to

visually inspect equipment and conditions in a limited area of the containment building, make radiation and contamination surveys and get a better understanding of conditions if an emergency entry is required," he said.

Met-Ed and NRC officials have warned that an emergency entry might be required if equipment inside the structure deteriorates, creating the potential for the uncontrolled release of some of the building's inventory of 57,000 curies of radioactive gas and 600,000 gallons of highly contaminated water.

Officials are particularly wor-

ried about the potential failure of fans that are used to keep the building at negative atmospheric pressure, and thus airtight.

The fans, which have been running continuously for more than a year in an environment that has been compared to a tropical rain forest, were rated for only a few hours' operation in high humidity. If those fans fail, pressure inside the building could increase, causing krypton gas to leak out.

There is also concern that pipes could corrode and leak some of the highly radioactive water from the

Cont. p 5

Sunday Patriot-News, Harrisburg, Pa., April 27, 1980

TMI Items Altered Illegally, Unit Says

MORGANTOWN, W.Va. (UPI) — Bio Marine Industries, the firm supplying respirators to be used by cleanup workers at the Three Mile Island nuclear power plant, illegally altered the air packs, federal officials have charged.

The move, made without approval by the National Institute of Occupational Safety and Health, violated federal safety regulations, Dr. Anthony Robbins, the agency's director, said.

Workers for General Public Utilities, owner of the nuclear plant, were to have used the self-contained air packs to enter the contaminated containment building last Thursday. NIOSH officials became aware the respirators had been changed and notified the company and the Nuclear Regulatory Commission.

A GPU statement, announcing a postponement of the containment building entry, said that NIOSH was testing the units and that certification procedures were under way.

"Through our efforts here, we

prevented someone from going into the Three Mile Island containment vessel with potentially poor equipment; nonapproved equipment," Dr. James Oppold, director of NIOSH's Division of Safety Research here, said. "It is possible they could have been overcome or inhaled some radioactive contaminants while in there."

The GPU statement said recertification was expected by the weekend.

NIOSH officials, disgruntled by the GPU statement, said it pictured them as holding up the TMI cleanup.

"We haven't even started on them yet," said Oppold. "The manufacturer hasn't gotten us units here to test. So we're not the valve in the pipeline."

Oppold said that numerous changes that Bio Marine made, including a spring that could make breathing more difficult, negated the NIOSH certification. Yet, he said, Bio Marine continued claim the units were approved by NIOSH.

Oppold said recertification would take at least 10 days after the units were received for testing.

The Bio Marine respirator was selected because is a "positive pressure" type unit which is said to decrease the likelihood of outside air being sucked in around the edge of the mask. Its 60-minute air supply is also the longest available among the positive pressure models.

"We've done our job," Oppold said, "and by doing our job we possibly prevented some sort of incident from happening at TMI."

NIOSH has barred Bio Marine Industries from selling additional respirators and has requested Bio Marine to recall some 2,000 units already on the market.

"It is a very serious problem," Robbins said. "It's terribly difficult to operate this kind of program when you assume the manufacturer is proceeding in good faith and then find that doesn't seem to be the case."

\$100,000 FINE FOR B&W

By The Associated Press

WASHINGTON (AP) — The Nuclear Regulatory Commission on Thursday proposed a \$100,000 fine against Babcock & Wilcox Co., designer of the Three Mile Island nuclear plant, for allegedly failing to report safety information which might have prevented or lessened last year's accident.

The company immediately denied violating any federal reporting requirements and said it would fight the proposed penalty.

General Public Utilities, owner of the stricken Three Mile Island plant, sued Babcock & Wilcox last March 25 for more than \$500 million, charging failure to provide adequate information and training for safe operation of the plant.

The fine proposed Thursday against the company would be the NRC's first civil penalty against a reactor supplier; penalties have been assessed in the past against plant operators who violated NRC rules.

Victor Stello, Jr., NRC director of inspection and enforcement, wrote to Babcock & Wilcox that the company "failed to collect, evaluate and report . . . safety information in a timely manner so that action could have been taken to avoid or reduce the effects of the TMI-2 (Three Mile Island Unit 2) accident."

"It distresses us," Stello added, "to note that B&W technical personnel stated that some of these matters should not be reported to NRC licensees or to the NRC because of fear of overreaction on the part of the NRC."

"We will examine further the question of withholding of information from the NRC."

As early as November 1977, the NRC said, a Babcock & Wilcox engineer wrote a memorandum questioning whether operators of the firm's nuclear plants had sufficient guidance on dealing with small breaks in the reactor coolant system.

Babcock & Wilcox was aware as early as November 1978, the NRC said, that analyses had not been performed for certain accident conditions but it did not follow up.

And on April 27, 1978, the NRC said, the Tennessee Valley Authority wrote to Babcock & Wilcox about potential accident conditions, and again the company did not report on the matter.

The NRC said these lapses violated NRC regulations which carry a civil penalty of up to \$5,000 per day.

The NRC considered the violations to have begun on Dec. 4, 1978, the date of a Babcock & Wilcox conference call with the Tennessee Valley Authority.

At \$5,000 a day, it said, the penalties would add up to \$575,000 for the 115 days that went by before the Three Mile Island accident of March 28, 1979.

But the Atomic Energy Act of 1954 prevents the NRC from charging a penalty of more than \$25,000 within any 30-day period, so the most it could impose was \$100,000.

Plant Control

By RICHARD ROBERTS
Staff Writer

In a move that may surprise some critics of Metropolitan Edison Co., an advisory arm of the U.S. Nuclear Regulatory Commission has urged that the operation of a nuclear power plant remain the hands of the operating utility during an accident.

Met-Ed has been accused of both precipitating and bungling the accident last year at Three Mile Island Nuclear Generating Station.

The Advisory Committee on Reactor Safeguards made the recommendation to NRC chairman John F. Ahearne as part of a critique of "action plans" developed by the NRC staff in response to the Three Mile Island accident.

"We believe that the responsibility for handling an emergency should be clear and undiluted and should rest with the utility, the committee said. "The NRC should be fully informed, prepared to intervene when necessary for the public health and safety but should not, as a rule, take over responsibility in the event of an accident."

The advisory committee said the "issue must be resolved," but did not elaborate.

In its action plan for future nuclear plant accidents, the NRC staff has defined its role as advising the utility's operating staff "as needed" and, in "extreme cases," issuing orders governing the operation of the nuclear power plant.

To that end, the NRC's Office of Inspection and Enforcement is paying a private consultant to evaluate and prepare a report on the "operational implications of the spectrum of actions" that may be taken by the NRC in response to accidents.

Some Post-TMI Safety Rules Queried

By RICHARD ROBERTS
Staff Writer

An independent advisory arm of the U.S. Nuclear Regulatory Commission has warned that some nuclear power plant modifications mandated by the NRC to improve safety in the wake of the Three Mile Island accident may have created new hazards.

The Advisory Committee on Reactor Safeguards, in a letter to NRC Chairman John F. Ahearne, described four new NRC requirements that it said could impair the safety of reactors.

One new requirement specifies that reactor coolant pumps be automatically turned off, or "tripped," during accidents involving relatively small leaks of water from the reactor cooling system.

When such an accident occurs, plant operators have been ordered to allow emergency high-pressure-

injection pumps to flood the reactor vessel with water, even to the point where the cooling system is filled "solid" — a practice that, prior to the Three Mile Island accident, operators were taught to avoid.

During the accident, plant operators turned off high-pressure-injection pumps to prevent the overfilling of the cooling system. But because of a stuck-open safety valve, the water level inside the reactor vessel plummeted, allowing the reactor core to overheat.

After utilities brought their reactors into conformance with the two new NRC requirements, they reported instances where reactor coolant pumps automatically tripped during plant mishaps not involving water leaks, apparently because of the modifications.

When operators subsequently allowed high-pressure-injection pumps to fill the reactor cooling sys-

tems "solid," as per the new NRC rules, pressure increased in some of the units and forced pressure-operated relief valves to open and release water.

Those unintended results may "increase the difficulty in establishing uninterrupted" cooling of the reactor core, the advisory committee said. An interruption in cooling can damage a reactor core.

The committee urged the NRC staff to review its new requirements concerning reactor coolant pumps and high-pressure-injection pumps.

The advisory committee also disagreed with the NRC staff's requirement that the owners of all nuclear plants equipped with Babcock and Wilcox Co. reactor systems increase the setpoint at which pressure-operated relief valves open and lower the setpoint at which reactors shut down, or "scram," in response to pressure increases in the cooling system.

NRC Asked to Study Options

By MICK ROOD
Washington Bureau

WASHINGTON — The Nuclear Regulatory Commission has been asked to consider more seriously an alternative to the venting of Three Mile Island Unit 2 containment gases so vociferously opposed by some midstate residents.

One of several options to venting that has been considered by the commission, the so-called "Selective Absorption System" had been rejected by NRC staff experts less than six weeks ago as too time-consuming, expensive and subject to uncontrolled radioactive releases. So as a first major step toward the ultimate decontamination of Unit 2, the staff recommended releasing more than 50,000 curies of radioactive krypton 85 gas into the atmosphere.

A majority of NRC members appear to be leaning toward the controlled purging of containment building gas unless a pending Union of Concerned Scientists study recommends against it, setting up a confrontation with Gov. Dick Thornburgh, who asked for the analysis.

But now renewed attention may be given to the Selective Absorption System, which has been researched and developed in three successive pilot project models by Union Carbide scientists at the Tennessee Valley Authority's gaseous diffusion plant in Oak Ridge, Tenn.

Rep. Allen Ertel, D-Montoursville, flew to Oak Ridge Saturday for a day-long inspection of the system along with two of his staff members and NRC member Victor Gilinsky.

Ertel came back more impressed than he had been after reading about selective absorption in a report written by Dr. Gerald Pollack, whom Commissioner Gilinsky hired as an independent consultant to advise him on methods of decontaminating TMI.

In an attempt to get the NRC to reconsider its apparent preference of venting, which the staff feels can be done safely during the right weather conditions, Ertel wrote NRC Chairman John F. Ahearne in support of the Oak Ridge process.

"The Selective Absorption System has already been proven to be effective, and it can be put into place quickly. Passing the gases in TMI Unit 2 only once would reduce the krypton 85 in containment by a factor of 100 to 1,000 times," Ertel wrote Ahearne after having discussed the system with engineers who designed the pilot plants and Union Carbide officials, who have developed the process under contract with the federal Energy Department.

Ertel had planned to wait until

later in the week to announce his initiative, so he and Gilinsky would have time to brief Ahearne, whose support will be vital to any reconsideration of the system. Ertel and Gilinsky also wanted to contact other experts and avoid unnecessarily raising the hopes of TMI-area residents. But shortly after Ahearne was contacted Monday, the congressman made public his letter to the NRC chairman.

Gilinsky, whom Ertel and his staff members described as enthusiastic about the Selective Absorption System, could not be reached for comment.

If an enlarged version of the column-shaped pilot device at Oak Ridge was built (with about 13 times more capacity) at Three Mile Island, it would withdraw contaminated gases from the containment building, dehumidify, filter, compress and cool them to about 30 degrees Fahrenheit. After that the gases would be fed into the absorption section of the column, where the gases will be exposed to Freon solvent and absorbed. The processed gas would be returned to containment and the process repeated until operators were assured that the krypton 85 was eliminated.

In a March 11 environmental assessment of various gas decontamination methods, the NRC staff described the absorption system as the only process with "zero release as a goal." Union Carbide personnel "are optimistic that a larger scale krypton removal system could be used at Three Mile Island," the staff noted.

But NRC officials also downgraded the system for a number of reasons, all of which Ertel rebutted in an interview and in his letter to Ahearne.

The NRC staff analysis claimed the Selective Absorption System would cost the least of any process considered, but put that cost at between \$4 and \$10 million. Based on his discussions with Oak Ridge personnel, Ertel said the system might be installed for as little as \$1 million. While the staff estimated it would take as little as 18 months or as much as 4 years to install it, Ertel claimed an "all-out" effort would put the system in place in about six months. Ertel also added that because the system treats only small amounts of gas at one time, effects of accidental releases would be minimal.

Aside from time and expense, the NRC staff said the only other disadvantage of the absorption system would be if the gas cylinders containing the concentrated krypton gas were to rupture.

Study Details Stress Increase Following TMI

By CARMEN BRUTTO
Staff Writer

The increased use of alcohol, tobacco, sleeping pills and tranquilizers as a way of coping with stress after the Three Mile Island accident was reported by area residents in a survey conducted by the state Department of Health.

These were coupled with movies, television and reading as ways of dealing with anxiety by the residents from the onset of the accident to January 1980, nine months after the nuclear unit on the island was crippled.

The study was undertaken by the department by telephone, in conjunction with the Nuclear Regulatory Commission, and in interviews with patients at the Hershey Medical Center who talked about their reactions to the accident.

Between 10 and 20 percent of the population living within 15 miles of the plant had heightened levels of distress, the report found, with increased concern about safety for themselves and their families.

Among those questioned, 13.6 percent who drank said they increased their use of alcohol; 31.9 percent of the smokers reported they smoked more; there was a 112.5 percent increase in the number of people who said they used sleeping pills (compared with July 1979), and 87.5 percent more people were using tranquilizers.

One fourth of all people queried said they attempted to cope with their problems by going to the movies, watching TV or reading, while another one-fourth said they forced themselves to put the accident out of mind.

The report contained a cautionary note, however, by noting that it is possible that some of the respondents "consciously distorted their answers in hopes of affecting public policy toward Three Mile Island." It cited as an example that someone opposed to opening TMI might overstate symptoms or feelings experienced during the crisis.

About 60 percent of those living within five miles of the plant said at least one member of their household evacuated the area, and 51 percent of the respondents said they themselves had left. Polled again in January, 53 percent said they would leave "right" away if a similar accident occurred.

"The absence of reliable information did not lead to mass panic, nor to widespread denial that any threat existed," the report said. "Those who left did so primarily because of a desire to protect family members who seemed to be vulnerable (pregnant women and pre-school children), and because of a general feeling that, given the lack of information, a conservative approach would probably be best."

"Those who stayed were aware of the possibility of danger but seem to have concluded that the possibility of genuine harm was outweighed by the costs of leaving and the benefits of staying."

Nearly 70 percent of those who stayed did so because "whatever happens is in God's hands." The report said that since this reason was cited in the telephone survey and not in the personal interviews, it was probably a "secondary" motive.

Although there had been considerable publicity regarding the possibility of milk contamination, only 8.3 percent reported any change in their use of cow's milk. Of these, one-quarter stopped using milk altogether, with the others changing to powdered milk, or using milk from more distant sources.

As a consequence of the accident, there was a significant increase in political participation reported by the respondents.

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NRC Decides TMI Accident Not 'Extraordinary'

By MICK ROOD

Washington Bureau

WASHINGTON — The nation's most severe nuclear power plant accident, at Three Mile Island, was extraordinary all right — but not enough to declare it an extraordinary nuclear event under federal law, the Nuclear Regulatory Commission concluded unanimously Wednesday.

Had the NRC found that the accident could legally be defined as an extraordinary event, people filing damage suits against the TMI operator, Metropolitan Edison Co., could have more easily won claims in court under provisions of the 1968 Price-Anderson Act.

The act set up levels of radiation releases and physical damage resulting from a reactor accident that, if exceeded, would set up a no-fault insurance situation backed by up to \$560 million in government and industry funds with which to pay claims. With an extraordinary nuclear occurrence designation, a nearby resident claiming damages would not have to prove that Met-Ed had been negligent, among other things.

The commission did take special pains to concede the unprecedented scope of the March 28, 1979, accident.

"We note at the outset that, in ordinary parlance, the accident at Three Mile Island was 'extraordinary.' It resulted in heavy damage to the reactor itself, caused evacuation of some persons from the surrounding area, and generated concern and anxiety throughout the country. In our decision we do not in any respect intend to downplay the seriousness of this accident or its consequences," commissioners said in a 22-page finding they released without comment.

While the NRC decision was expected — especially in view of a strong staff recommendation against an ENO finding — Wednesday's finding was significant because the commission ruled only on the Price-Anderson Act provision setting thresholds for radiation releases. The commission declined to rule on the applicability of the second major Price-Anderson test for an ENO — that measurable and severe property damage or personal injury. Since both measures of severity have to be met to trigger Price-Anderson benefits for parties contending damages from a nuclear accident, the NRC dropped consideration of the injury provision since radiation exposure was felt to be well below thresholds established

in the act.

Consequently, the commissioners again avoided the question of whether Three Mile Island area residents suffered psychological stress sufficient to merit award of lawsuit damages or whether mental problems attributed to the TMI Unit 2 accident have been sufficient to warrant the closing of the undamaged Unit 1. The NRC has yet to instruct a licensing board now considering the restart of Unit 1 on whether the psychological stress issue should be considered — one reason why the restart proceeding could take much longer than at first thought.

Because of the peculiar nature of the TMI accident, which was anticipated by the Price-Anderson Act, the NRC recommended that Congress more carefully define what nuclear accident injuries are.

As for actual off-site radiation measurement on which the NRC made its decision, the commission said "it would be difficult to conceive of a more conservative method of calculating possible dose levels" than the method used by the NRC staff in rejecting the ENO. The highest estimated dose estimates found by the staff in the wake of the accident were from four to 25 times less than the levels cited as

"substantial" under the Price-Anderson Act, the NRC noted.

The commissioners rejected the notion raised by intervenors that thyroid damage to infants in the most extreme scenario imaginable should have been considered. One environmental group had contended the NRC staff should have considered the cancer potential of holding an infant downwind at the Unit 2 site boundary during the 43 days when radioactive iodine was emitted from the plant. The NRC called the possibility "unrealistic."

Finally, the NRC decided against waiting to make its ENO decision until the Unit 2 cleanup, which will result in further radioactive releases, is more substantially completed. Cleanup releases are distinct from the original accident under the Price-Anderson Act, and therefore not covered, the NRC said.

The NRC finding painted a grim picture for TMI-related damage claims now filed in federal district court.

Damages "... other than those directly associated with the evacuation (which have, for the most part, already been compensated) can only be ascertained after extended litigation," the commission observed.

Harrisburg, Pa., WEDNESDAY, April 9, 1980

Drilling at TMI Ordered by NRC

By RICHARD ROBERTS
Staff Writer

The U.S. Nuclear Regulatory Commission on Tuesday asked Metropolitan Edison Co. to drill more wells near the crippled Unit 2 reactor at Three Mile Island Nuclear Generating Station in an effort to pinpoint the source of leaking radioactive water.

Met-Ed officials revealed Monday that minute amounts of radioactive tritium and cobalt 58 were discovered in three of eight wells that had been drilled around the plant in the wake of last year's nuclear accident. The radioactivity levels are below federal standards for drinking water.

Gary F. Sanborn, NRC field public affairs officer, said the contaminated water was discovered late last week and that tests conducted during the weekend showed that radioactivity levels had returned to

normal levels in all but one of the wells.

Sanborn said the utility reported that tritium concentrations in the three wells were two to five times greater than the normal 2 millionths of a microcurie per milliliter. None of the contaminated water has been detected in the Susquehanna River, he said.

Meanwhile, Met-Ed has not decided whether to abide by the NRC's request to drill additional wells, according to utility spokesman David J. Delzingaro. Met-Ed technicians are continuing to test and evaluate water samples from the wells, he said.

Met-Ed officials believe the radioactive water is leaking from a tank near the Unit 2 reactor containment building that ordinarily is used to store borated water, he said. Borated water is a chemical solution used to cool nuclear reactors.

NRC Staff Gets License to Vent Some Krypton

By MICK ROOD

Washington Bureau

WASHINGTON — Nuclear Regulatory Commission staff members will be able to allow small releases of radioactive gas while taking preliminary decontamination steps at Three Mile Island Unit 2 without seeking commission approval, under a new set of rules adopted Monday by the NRC.

The new rules still bar larger releases of krypton-85 from the TMI Unit 2 containment building expected later in the cleanup, which would require formal NRC approval — as would processing of contaminated water from the containment building or release into the Susquehanna River of already-processed water from the adjoining Unit 2 auxiliary building.

The rules mark a departure from previous procedures, which prohibited on-site NRC staff from making virtually any cleanup decision involving a radioactive release — no matter how small. A special inquiry group appointed by the commission concluded several weeks ago that such a "zero release" policy had "paralyzed" decontamination efforts.

The loosening of controls would permit entry of the Unit 2 containment building, a critical step in cleaning up the site. But contrary to wire service reports Monday, NRC officials cautioned that containment entry was not implicit in the new rules. Richard Vollmer, head of the NRC's cleanup support team here, said the exercise would be subject to a full commission review before it could go ahead.

All five NRC members said they were confident the off-site emissions of Krypton-85 under the temporary criteria were safe, but they remained divided over how much deference to show TMI-area residents. When it was suggested that local government officials and residents be apprised of the change in policy before it was made effective, commissioner Joseph M. Hendrie snapped:

"I don't propose to put myself in a position where any county official in Pennsylvania who has a different view can block this commission's legitimate action."

Joining Hendrie, Richard T. Kennedy asked what the NRC would do if local officials object to adoption of the limited emission rules, saying: "I think they will ob-

ject to anything."

Although sympathetic to a public airing of the rules before approval, Chairman John F. Ahearne said "advisory" public hearings would be arranged on a county-by-county basis. Only Commissioner Peter Bradford wanted the proposal delayed until after TMI-area hearings were held.

"I think we would have been far better off if we had had local advisory groups six to eight months ago," Bradford said. "I don't disagree with the proposition that these are safe levels, but there's a night-and-day difference between deciding and consulting: . . . It would lower the distress level if we consulted the people first."

Under the rules approved Monday, radioactive releases could be executed without commission approval at least until a federal environmental impact statement is completed late this year. Provisions include:

- Allowing NRC site staff to permit Krypton-85 releases equaling 5 percent of the current federal safety standard for normally operating nuclear power plants. Operating plants can emit up to 3,000 curies per week of various radioactive isotopes into the air; Metropolitan Edison Co. could now release 150 curies of Krypton-85 in a week without a commission say-so.

- Letting NRC reactor regulation chief Harold Denton sanction release of 1,500 curies of Krypton-85 in a given week, which would still be well below federal health and safety standards.

The adjusted rules also call for public announcements of any planned radioactive release at TMI. Vollmer said the rules take effect immediately, but that no releases covered by the action are anticipated in the next several weeks.

Chairman Ahearne also said President Jimmy Carter's Council on Environmental Quality, which has in the past suggested that taking cleanup steps prior to completion of an environmental impact statement is illegal, would be consulted about the new rules. Vollmer said Monday that both the council and Pennsylvania state officials had given their verbal approval of the policy changes.

Commissioner Hendrie also successfully objected to any extensive prior consultation with the council over the eased restrictions.

basement or the containment building. The water contains an estimated 500,000 curies of a smorgasbord of radioactive fission products.

Even if an emergency arises, it is doubtful that workers, limited by their bulky anti-contamination clothing and breathing devices and restrictions on radiation dosage, could perform emergency repairs in the environment of the krypton gas.

To reduce the hazard to workers and expedite the cleanup of the plant, Met-Ed has asked the NRC for permission to vent the gas. The NRC staff has approved the plan, but the nuclear regulatory commissioners are awaiting further studies, including an independent analysis requested by Gov. Dick Thornburgh.

The entry Thursday by two persons will entail the release of about 25 curies of the krypton gas into the environment, Sanborn said. The gas will escape when the entry team completes its work and exit the structure through an airlock.

It will be the largest amount of radiation purposely vented from Three Mile Island since the accident last year, when about 13 million curies of radioactive noble gases and about 14 curies of radioactive iodine 131 were belched into the atmosphere.

But the release of 25 curies will be less than the 35 curies of radioactive gases routinely vented from normal operating nuclear power plants every day and will be well within NRC limits. The gas probably will not be detectable off site.

The gas release will be monitored by the U.S. Environmental Protection Agency, the NRC, Met-Ed and the state Department of Environmental Resources.

Under the worst possible weather conditions, such as an inversion, a hypothetical naked person positioned continuously along the plant's boundary in the "plume" of the gases would receive a maximum radiation exposure of seven-tenths of a millirem to the skin and eight-thousandths of a millirem to the body, experts contend.

That is equivalent to about one hour of exposure to natural background radiation in the Harrisburg area.

The exposure to the technicians who will enter the containment will be more severe, however, because of the presence of the krypton gas. They will be exposed to a radiation field of about 2,000-3,000 millirems per hour for about 20 minutes.

Although they will be wearing protective clothing and breathing gear, the workers will receive an exposure of about 1,000 millirems — more than 100 times greater than the maximum radiation dose received by the hypothetical naked person standing continuously along the plant's border during the accident last year.

Nuclear plant workers are allowed to receive no more than 3,000 millirems exposure during each quarter of the year.

TMI Accident Affects N-Policy

Utilities, regulatory agencies, and local governments grope their way through the "Accident Age of Nuclear Power" in this issue of ISLAND UPDATES, and we see how the accident at TMI affects N-policy for other plants as well.

In the area of technology, several sour notes were struck, not the least of which was NIOSH's recall of respirators designed to protect TMI workers from radiation during their hazardous entry into the hot containment building. Meanwhile, the NRC has proposed fining Babcock & Wilcox \$100,000 for negligence in failing to inform Met Ed of possible accident consequences. It is important to hold industry responsible for their life and death technologies.

But much of the technology of nuclear power is so complex that regulation is almost impossible. An advisory arm of the NRC has recommended that the operation of a power plant be left in the hands of the (bungling) utility in the event of an accident. In light of the overwhelming evidence that operator actions at TMI greatly increased the severity of that accident, this staff recommendation is like putting the responsibility for repair surgery into the hands of the malpracticing physician.

Political repercussions of the accident are likewise unhappy. Again and again, local residents have asked that all of the NRC commissioners be involved more fully in decisions at TMI. But the NRC staff at Middletown under Joseph Hendrie have been granted additional gas-venting decision power. When asked what the NRC would do if local officials objected to any venting, Hendrie said, "I think they will object to anything."

The lesson of TMI is that local outrage may slow down decision making, it may force officials into consulting with the people and holding public meetings, but in the end the NRC makes all the rules and all the decisions. And this is the same regulatory agency that trusts the operators to handle their own accidents. There is no question which side the NRC stands on. Shall we not hold them responsible also for their life and death technologies?

Finally, that the NRC ruled the accident at TMI was not an "extraordinary nuclear occurrence" wasn't surprising, although it will make it much more difficult for people filing damage claims against Met Ed. But the gravest consequence is that by failing to wait until the accident is over and the clean-up finished, the NRC leaves the public financially unprotected from future claims against Met Ed. The Price-Anderson Act doesn't cover "clean-up releases." Yet it will be when the crumbled core is removed that this area will face its greatest danger.

Will no one be responsible?

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Two men prepare for walk into TMI

Harrisburg, Pa., Tuesday, May 20, 1980

By MARY O. BRADLEY
Staff Writer

Their diving suits are ready, the airlock is purged and two engineers were undergoing final briefings today before they become the first humans to enter the Unit 2 containment building at Three Mile Island in nearly 14 months.

William H. Behrle III, 36, and Michael L. Benson, 27, are scheduled to enter the domed containment building at about 7 p.m. to get a first-hand — if somewhat limited — view of portions of interior.

In preparation for the entry, the Unit 2 airlock was purged of one-one hundredth of a curie of krypton-85 over a 24-hour period which ended at mid-morning, according to David Delzingaro, a spokesman for Metropolitan Edison Co., operator of TMI.

Clad in diving "dry suits" and several layers of anti-radiation clothing, wearing special breathing apparatus and equipped with two-

way radios and miner's lights, the two volunteers will pass through the Unit 2 airlock and enter the containment about 24 feet above the basement level.

They will walk single-file about 100 feet in and back on a concrete floor, which separates them from the 600,000 gallons of highly contaminated water in the building's basement, according to a projected scenario of the entry.

Benson and Behrle will not be able to see the reactor vessel, steam generators or the pressurizer which are surrounded by concrete at this elevation. They will see some air filtration equipment, cooling fans, electrical cables, an elevator and stairway and some minor instrumentation.

Delzingaro said today technicians have decided to use alternative airpicks which will shorten the team's staytime to 15 minutes. The entry mission was aborted last

month when federal officials would not recertify Met-Ed's preferred breathing equipment that would have allowed the team to remain inside for 20 minutes.

Robert C. Arnold, chief of recovery at TMI, said general radiation levels have been measured remotely in some areas and calculated for other areas, but entry is necessary for indentifying "hot spots" in initial cleanup work area.

Radiation level measurements near the equipment and in the stairwell and elevator areas will help clarify accessibility to the building for maintenance work and are needed to plan for future, more extensive entries, he said.

Behrle of Middletown and Benson of Bainbridge are engineers assigned to the Unit 2 cleanup. Both have experience in nuclear power operations at nuclear facilities owned by General Public Utilities Corp., parent company of Met-Ed.

HARRISBURG, PA., WEDNESDAY, MAY 21, 1980

Shut out

Technicians to scale down next Unit 2 entry attempt

By MARY O. BRADLEY
Staff Writer

Technicians at Three Mile Island will be "taking a smaller bite of the apple" when they plan the next manned entry into the Unit 2 containment building, the chief of the recovery operation said today.

"One implication" of Tuesday night's aborted entry is that the next mission probably will be undertaken on a smaller scale, Robert C. Arnold told a news briefing in Middletown.

He added the next entry might be restricted to "restoring" to "normal operating condition" the jammed door that caused the first mission to be terminated.

Meanwhile, the two TMI engineers who were frustrated in their efforts to open the inner door of the personnel access airlock said they want to try again.

"We're disappointed but we're ready to go again," said Michael L. Benson, the 27-year-old lead engineer at TMI Unit 2.

His partner, William H. Behrle III, said they were "sweating" and "very hot" in their multiple layer of anti-radiation clothes and gear.

While they were frustrated in not being able to open the door after three attempts, "the frustration was not overwhelming; we've been frustrated before" Behrle said.

Both engineers said they would volunteer again for the next entry.

"The door didn't budge at all," Benson said, despite his repeated attempts to shove it with his shoulder, "it was like hitting a wall."

Jim Langenbach, project engineer, said he ordered the mission aborted after the two volunteers had used 13 minutes of air. Arnold told reporters Tuesday night that when the two started trying to open the door they started using their bottled-air supply.

Arnold said that when the men left the entry airlock the integrity of the seal on the inner and outer doors were tested to ensure there was no air leak. He said the seal

passed the test.

Arnold said technicians will begin reviewing the material from the mission within the next several days to plan the next step in the cleanup process.

Arnold said the mission should not be characterized as an example of a "Murphy Law," referring to the axiom that if something can go wrong, it will.

"We undertook a first-of-a-kind effort, we had procedure that accounted for accomplishing the effort and providing contingency in the event the effort failed," he said.

Officials are speculating that the door was jammed because of rust caused by long exposure to the moisture-laden air inside the containment building.

Birthrate 'may suffer' in TMI stress

PHILADELPHIA (AP) — A sociologist believes psychic stress resulting from the nuclear accident at Three Mile Island may cut down on the area's birthrate.

Dr. Joseph McFalls Jr., a Temple University professor and author, says stress, whether caused by a nuclear accident or a cranky mother-in-law, increases the chances of a person being subfecund — a term to describe a below normal level of reproductive ability.

"It's quite possible that fertility will decline in the area," McFalls said Wednesday. "Not only was there a significant stress factor — it's ongoing. The worry about radiation is still preying on their minds.

"There's no doubt that psychic stress causes enough subfecundity to be of significance," he added. "The fact that it is responsible for most cases of impotence would be basis enough for this judgment without even considering its many other links to conceptive failure and pregnancy loss."

McFalls said psychic stress reduces reproductive capacity by filtering through either the nervous system or the endocrine system that produces hormones.

He said stress can lower men's capacity to impregnate by reducing either the quantity or the quality of sperm available for reproduction, and also contributes to premature ejaculation and ejaculatory incompetence during intercourse.

In women, he said, stress can suppress the development of the ovum, reduce the fertility of the ovum and alter cervical secretions. He said studies also have shown that psychic stress "is a major cause of amenorrhea — or the complete absence of menstruation and usually ovulation."

With pregnant women, he said, stress can cause the loss of the baby. "Acute emotional stress, such as a death in the family or a frightening experience like TMI, increases the risk of pregnancy loss," he said.

"There are many reports that women who experience this kind of stress are more likely to abort, to have a complicated pregnancy or delivery, or to deliver a stillborn child than are women not subjected to such stress."

McFalls has written a book on the subject entitled "Psychopathology and Subfecundity." He says the connection between stress and health is gaining acceptance in psychiatric circles.

"The psychiatrists were dealing with the stress, and the physicians were dealing with the reproductive disorders," he said. "But today, more and more medical and psychiatric professionals agree that the mind has a tremendous impact on the body."

HARRISBURG, PA., WEDNESDAY, JUNE 4, 1980

NRC aide denies 'rigged' comments

By MARY O. BRADLEY
Staff Writer

A staff member of the Nuclear Regulatory Commission denies there was any attempt to bolster the staff's position supporting the venting of radioactive gas from Three Mile Island by soliciting favorable comments from a select group of businessmen.

Dr. Bernard J. Snyder, program director in the office of Nuclear Reactor Regulation, also said the staff was aware the commission probably would extend the statement period on the venting issue at the request of Gov. Dick Thornburgh.

Therefore, letters and copies of the staff report that Snyder mailed to more than 100 Central Pennsylvania citizens were sent while the venting issue was open for public response, he said.

Further, Snyder said, the mailing list he used was given him by the Pennsylvania Capital Area "Forward" Task Force. This was a group formed after the TMI accident to help the area recover from any adverse economic effects caused by publicity about the incident.

"We haven't tallied the comments from that list," Snyder said in a telephone interview from his Bethesda, Md., office, but "I know of a number of individuals who asked for a report who commented unfavorably."

"In no way could anyone claim it was rigged" to weight the comments in favor of venting, Snyder said, referring to allegations by a coalition of anti-nuclear groups that Snyder "manipulated the public comment process" by his letters.

Three Mile Island Public Interest Resource Center Tuesday said Snyder's letters were sent April 21 but the comment period on the staff's initial "environmental assessment" on venting had closed several days before.

Of 800 comment letters received on the issue, 195 favored venting and about 500 were opposed, according to the NRC staff report.

On Monday the NRC staff reaffirmed its earlier recommendation that venting would be the preferred method of disposing of more than 50,000 curies of krypton-85 trapped in TMI Unit 2 containment building.

The NRC, which has final say in the matter, is expected to consider it at its meeting Thursday, but the TMI Resource Center has asked the decision be postponed pending a probe of its allegations.

Snyder said in early April the NRC "was in the process of acting on a request" from Thornburgh to extend the comment period until the governor received the results of a study on venting by the Union of Concerned Scientists.

"We already met with UCS and knew the study was going on. There was no question in my mind, at least, the commission ultimately would grant him (Thornburgh) the request," Snyder said.

On May 8 the NRC extended the comment period until May 16.

Snyder attended a meeting of the "Forward" Task Force in Harrisburg on April 11 with NRC Chairman John F. Ahearne and Harold R. Denton, director of the Office of Reactor Regulation.

"My conservative estimate would be that a dozen people requested a copy of the (staff's) report," but the NRC officials did not bring any to the session. He said he asked the task force chairman for a list of those invited to the meeting so copies could be sent to them.

Representatives of business and labor and government officials and community leaders attended the session.

Snyder said about 4,000 copies of the staff report were sent throughout the comment period.

The Patriot, Harrisburg, Pa., Tuesday, May 20, 1980—23

Baby Deaths Below Average In TMI Area

The infant death rate last year in a 10-mile radius of Three Mile Island was lower than the statewide average, according to the vital statistics report for 1979 issued Monday by the state Department of Health.

The report lists death rate figures on a month-by-month basis by comparing statewide figures to an area within 10 miles of TMI, but excluding the city of Harrisburg.

"When one compares figures within 10 miles of Three Mile Island to those of the entire commonwealth, you'll find very random variations," said state Health Secretary Dr. H. Arnold Muller. "The death rate figures are certainly significant, however, because each number represents the tragic loss of an infant or an unborn child whether that child be in Middletown, Milwaukee or Miami.

"After careful study of all available information, we continue to find no evidence to date that radiation from the nuclear plant resulted in an increased number of fetal, neonatal or infant deaths," Muller said. "That simply isn't the case."

The department figures show that the infant death rate (deaths under the age of one year) to be 11.5 per 1,000 live births within a 10-mile radius of TMI. The statewide figure for the same period was 13.3 infant deaths per 1,000 live births.

The 1979 neonatal death rate (deaths within the first 28 days of life) was 8.9 per 1,000 live births within the 10-mile radius, compared to 9.8 deaths statewide.

NRC asking testimony from 'TMI 5'

By JANIS L. WILSON
Staff Writer

The Nuclear Regulatory Commission is attempting to force five Metropolitan Edison Co. employees to comply with subpoenas to testify about the March 28, 1979, nuclear accident at Three Mile Island.

In a petition filed in U.S. Middle District Court Monday, the NRC says its investigation does not overlap with a grand jury probe launched here May 12 into allegations by former control room operator Harold Hartman that employees of TMI falsified test results.

The commission asks Judge Sylvia H. Rambo to conduct a hearing to determine whether the five should be ordered to honor the subpoenas.

The NRC has found Met-Ed liable for \$725,000 in fines but could order the utility to pay only \$155,000 because of limits which can be imposed in a 30-day period, according to the documents.

Additional sanctions could result from the NRC's continuing investigation. The commission is probing the calculated radiation dose rate of 10 rem an hour at Goldsboro, which would, if accurate, have indicated high airborne radiation releases off site.

The probe also includes the sudden increase in pressure in the containment vessel, which would have indicated a lack of cooling for the reactor, and the elevated core thermocouple readings, also pointing to lack of cooling and possible damage.

Named in the suit were control room operators Hugh A. McGovern and Lynn O. Wright, both of Middletown, and shift supervisors Joseph J. Chwastyk of Camp Hill, Brian A. Mehler of Palmyra and William Zewe. All were present on the day of the Unit 2 accident. They refused to testify at hearings late last month.

The NRC said its investigation differs from the possible criminal matters it turned over to the Justice Department. Victor Stello, director of the NRC's office of inspection and enforcement, said Hartman's allegations "are distinct from the subject covered by the subpoenas I issued, which relate to the reporting of events that occurred on the first day of the TMI-2 accident."

Stello said additional information is needed, so the commission "can decide whether further enforcement or regulatory action is necessary."

Met-Ed earlier asked the commission to quash the subpoenas, saying "the grand jury's investigation cannot be limited and the commission cannot in any event know the scope of the grand jury's investigation . . . Hence, it is impossible to contend that the subject matter taken up in response to the grand jury subpoenas will not overlap."

Lawyers for the Met-Ed employees pointed out that their "clients have been subjected to interviews, investigations, hearings, depositions and now grand jury appearances. The variety of investigations is unprecedented."

The Met-Ed workers asked that the commission subpoenas be quashed until the grand jury investigation was completed. "Until then, (there is) the risk that our clients' rights in the context of the criminal process will be compromised by ongoing, overlapping or redundant agency investigations," the attorneys said.

But the NRC refused to withdraw the subpoenas, saying "while we are sensitive to the fact" that the persons under subpoena have been questioned repeatedly, their information is needed for "possible civil enforcement actions."

Judge Rambo earlier agreed to question the newly empaneled grand jury about possible bias against the utility.

Harrisburg, Pa., FRIDAY, June 6, 1980

Equipment Woes Reported

Krypton Venting OK Near

By MICK ROOD
Washington Bureau

WASHINGTON — A majority of the Nuclear Regulatory Commission was poised Thursday to approve within a week a tightly restricted venting of radioactive gas from Three Mile Island Unit 2.

But there was evidence that deteriorating equipment inside the damp, accident-wracked containment building may inhibit Metropolitan Edison's system for releasing the gas.

During a three-hour meeting, Victor Gilinsky alone on the five-member commission continued to have serious doubts about the venting method of getting the gas out so the overall cleanup can proceed. The others, including Chairman John F. Ahearne, wanted to wait only until NRC attorneys prepare a carefully worded legal rationale for the venting.

Final action may come Tuesday, when the NRC meets next on the issue. If the commission approves venting before Friday as its staff has recommended, the 57,000 curies of krypton 85 would be gradually released within two months starting in the second week of July.

The schedule, however, could be hampered by equipment that has had no maintenance since the Unit 2 accident 14 months ago. Unsettling evidence of a tenuous situation surfaced almost unnoticed during Thursday's meeting.

In the midst of describing why the gas must be removed to prevent uncontrolled releases caused by failed equipment, NRC reactor regulation chief Harold R. Denton mentioned that Met-Ed had reported two valves needed for venting were stuck closed.

Following the meeting, both the NRC's on-site supervisor John Collins and Met-Ed executive vice president Robert Arnold confirmed the valves had failed to open during tests on Wednesday. The venting operation will depend on a dual system of fans and release valves. The contaminated air would be drawn out of Unit 2 through the "containment purge valves" in question. Three hours after the NRC adjourned, a Met-Ed spokesman said the valves had been opened Thursday morning unbeknownst to Denton, Collins and Arnold.

The incident served to highlight what senior NRC staffers have been arguing all along, that Met-Ed must be allowed to dispose of the krypton 85 promptly so workers can enter the containment building safely and begin the cleanup.

"Each day, there are things happening in there (the containment) that we can't account for," said William Dircks, acting executive director of operations.

"It's the unknown that bothers me, not the known," said Denton, in reference to the NRC staff's opinion that venting will not endanger the public safety or health.

The commission's decision has been slowed for months by its perception of negative public reaction and psychological stress expected to occasion the release of any significant amount of radioactivity. NRC members grappled the longest with the same subject on Thursday.

Donald Cleary, who assembled consulting psychologists' opinions about the stress placed on TMI area residents by cleanup uncertainties, told the commissioners that the experts agreed.

MAY 23, 1980

PUC upholds rate increase for Met-Ed

By MARY O. BRADLEY

Staff Writer

Faced with what one Public Utility Commission member called "no pleasant choices," the state regulatory body today approved \$111.4 million in rate increases for Metropolitan Edison Co.'s 350,000 residential customers.

By a unanimous vote, the four commissioners upheld a preliminary order handed down two weeks ago that also allows Met-Ed to retain its public utility certificate and removes Three Mile Island Unit 1 from the base rates of Met-Ed and its sister utility, Pennsylvania Electric Co. of Johnstown.

The commission took to task General Public Utilities Corp., Met-Ed's parent firm, and state Consumer Advocate Walter W. Cohen for certain activities they engaged in since the preliminary order was handed down.

Chairman Susan M. Shanaman said the commission "would be remiss if it did not thoroughly admonish" GPU for two letters it filed with its exception to the PUC order last Friday. One letter was from GPU Chairman William G. Kuhns to the commission and the other was a copy of a letter from GPU's bankers to the Parsippany, N.J.-based company.

"This conduct comes dangerously close to an ex parte violation of the law, if not the letter (of the law) thereof, then most assuredly the spirit of the law," Shanaman said. Both letters touched upon the financial constraints facing GPU and its subsidiaries should Unit 1 be removed from rate base.

Shanaman said the contents of both letters were "totally disregarded by this commission."

In the second matter, Commissioner James H. Cawley took exception to comments earlier this week by Cohen who charged the PUC's stand in the case "makes a mockery of due process of law."

Cawley said, "The consumer advocate knows, and certainly should know, the commission is fair game for cheap shots and demagoguery, the latter being variously defined as the practices of a leader who obtains power by means of impassioned appeals to the emotions and prejudices of the populace or of a speaker who seeks to make capital of social discontent."

"Whether we are correct in our decision today or not, I earnestly hope that the overall damage done to our public credibility is not too great, that such over-zealous rhetoric will stop, and that the general public will remember the many good things that the hard-working employees of this commission do every day for countless citizens of this commonwealth."

"If I had to summarize this unfortunate (Met-Ed's) case in one sentence, some words of Shakespeare would be most appropriate: 'there's small choice in rotten apples.' By that, I think he meant that in cases like this there are no pleasant choices."

"What reasonable choices did this commission have in this proceeding?"

Commissioner Linda C. Taliaferro said the commission "has met the test and risen to the occasion" of the demands posed by the landmark case.

Under the order adopted today, Met-Ed was granted \$111.4 million in additional revenues to pay for electricity purchased because of the outage of TMI Units 1 and 2.

That translates into about \$6.60 a month for an average residential user of 500 kilowatts of electricity a month. However, half of that amount has been in effect on an interim basis since March 1, and the PUC proposes making the 6.9-mill (\$55 million annual) increase permanent.

Although both Met-Ed and Penelec will receive compensating revenue increases to offset the excisement of Unit 1, the utilities fear removing the unit will have adverse effects in the banking community and financial markets.

Removing the unit from rate base means no costs associated with its construction or maintenance can be passed to customers. In dollar amounts, it will mean a loss of \$26.9 million in annual revenues to Met-Ed, but the commission proposes a 3.4-mill increase in fuel charges which will return the same amount annually to Met-Ed.

To recover \$90 million in deferred energy bills Met-Ed hasn't been able to collect from customers, the PUC proposes a 7.4-mill surcharge.

Although Penelec's financial ills are not as serious as Met-Ed's, the PUC has proposed a similar revenue-producing prescription: (1) A proposed 2-mill increase in Penelec's net energy charge will boost its revenues by \$21.9 million annually, compensating for the \$11.7 million loss of Unit 1's removal from base rate; (2) A one-half-mill surcharge for recovery of the deferred energy balance will result in additional annual revenues of \$5.2 million.

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Harrisburg, Pa., Wednesday, June 4, 1980

GPU's net income shows 63% decline

PARSIPPANY, N.J. — General Public Utilities Corp., owners of the Three Mile Island Nuclear Generating Station, Middletown, Pa., reported a 63 percent drop in net income for the first four months of 1980 compared to last year, a spokesman reported.

GPU's net income as of April 30 amounted to \$16.76 million, or 27 cents a share, compared to \$45.3 million, or 74 cents a share, for January to April of 1979. Revenues were \$594 million for the first four months of 1980 and \$500 million in the 1979 period.

For the 12 months ended April 30 GPU's profits dropped 50 percent from \$135.1 million, or \$2.23 a share, in 1978-79 to \$67.2 million, or \$1.10 a share, in 1979-80. Revenues of \$1.58 billion were reported in the recent 12-month period and \$1.37 billion in the 12-month period last year.

THURSDAY, MAY 22, 1980

Advocate raps rate bid

Metropolitan Edison Co. ratepayers are paying off the nuclear accident at Three Mile Island on a "blank check" approved by state regulators, Consumer Advocate Walter W. Cohen has charged.

Cohen said the tentative decision by the state Public Utility Commission that allows Met-Ed a \$111.4 million revenue increase makes a "mockery of the due process of law."

The PUC will render a final decision in the case Friday.

Cohen said if the preliminary order stands, the rates of Met-Ed residential customers will have increased 35 percent since the accident.

"We think that contrary to what the Public Utility Commission says, the commission has in fact written a blank check that ratepayers are being asked to pay because of the accident," said Cohen, who last week filed objections to the PUC preliminary order.

The \$111.4 million rate increase is to pay for purchased power, but Met-Ed already has indicated it also plans to seek a base rate increase. Cohen said the PUC's tentative OK of the \$111.4 million boost "encourages the company to return again and again. And when you do that, that's a blank check," Cohen told a press briefing Wednesday.

Credit line still open for GPU

By MARY O. BRADLEY
Staff Writer

A consortium of banks lending money to the owners of Three Mile Island have agreed to keep their lines of credit open to the financially troubled company.

But the 45 banks said any request to increase the \$292 million limit set for General Public Utilities Corp. of Parsippany, N.J., probably would not receive favorable consideration until "there is greater assurance as to borrowers' ongoing financial viability."

The banks also froze the limit available to Metropolitan Edison Co. of Reading, pending final action Friday by the state Public Utility Commission on the exclusion of the Unit 1 reactor from Met-Ed's base rate.

Since the credit agreement went into effect in June, GPU and its subsidiaries have borrowed \$260 million, Kenneth C. McKee, GPU spokesman, said.

The total available through the revolving credit agreement is \$412 million, but GPU and its subsidiaries each have specified sub-limits.

The bulk of the borrowed funds has paid for electricity bought by GPU to replace the capacity lost when TMI was shut by last year's nuclear accident.

William G. Kuhns, GPU chairman, said the GPU system's credit limit of \$292 million will remain in effect. The banks, however, restored Jersey Central Power & Light Co.'s ceiling to \$139 million, Kuhns said. It had been reduced to \$110 million.

The New Jersey Board of Public Utilities last week approved a \$60 million emergency rate increase for Jersey Central of Morristown, N.J., but the board denied its request to use customer receipts as collateral for additional loans.

Kuhns said the consensus reached by the banks was that the preliminary orders proposed by the state PUC and the \$60 million increase granted by the New Jersey board were sufficient to continue the availability of credit for the utility system without further collateral in the form of Jersey Central receipts.

Kuhns said Met-Ed, operator of TMI, will continue to be limited to \$105 million of credit pending the final PUC order Friday. On May 9 the PUC tentatively removed Unit 1 from the rate base of Met-Ed and Pennsylvania Electric Co. of Johnstown and gave rate increases of \$111.4 million to Met-Ed and \$15.4 million to Penelec.

The utilities' common stocks, some of their bonds and uranium owned by the companies are being used as collateral.

"While the banks have indicated they will focus further attention on Met-Ed's situation as a result of the PUC's apparent intention" to remove Unit 1 from base rates, "the credit available to GPU and its operating companies will, under our present expectations, be adequate to provide the system's needs at least through the balance of this year," Kuhn said.

Governor Voices Venting Support

By CARMEN BRUTTO
Staff Writer

Gov. Dick Thornburgh told the Nuclear Regulatory Commission on Friday that he is prepared to support the venting of radioactive krypton 85 from Three Mile Island Nuclear Generating Station, based on a "broad consensus" that the procedure is safe.

Thornburgh said that he shared concern over psychological stress that might affect the public as a result of the venting.

But he said he believed it best that the matter be resolved as quickly as possible.

Adding to the consensus on venting was a report delivered to Thornburgh on Friday by the National Council on Radiation Protection and Measurements, a congressionally chartered group that sets radiation safety exposure limits in the United States. The report said that risks were minimal and that maximum exposure to the released krypton over a five-day period would have no greater an effect on a person than 20 hours of exposure to sunlight.

"It is concluded that the exposures likely to be received as a result of venting are not a valid basis for concern with respect to health effects," the report, signed by Warren K. Sinclair, NCRP president, said.

Thornburgh made known his views on venting in a letter to NRC

Acting Chairman John F. Ahearne. Friday was the deadline the NRC set for accepting proposals about venting before the commission begins its own deliberations. Venting of the krypton is seen by Met-Ed and the NRC as a necessary step in the cleanup operation.

The governor said he had sought and received assessments of venting's potential health effects from the broadest range of knowledgeable sources possible, including his own staff, the NRC, the NCRP, the

Union of Concerned Scientists, the U.S. Department of Health and Human Services, and the state departments of Health and Public Welfare.

"Should you proceed with the venting proposal advanced by your staff, be assured that I am prepared to support that decision," Thornburgh told Ahearne. "To minimize stress, I also am prepared to commit all of the resources at my disposal to assure the residents of the area, as I am now persuaded, that this plan is, indeed, a safe one."

Thornburgh indicated he did not plan a public relations "blitz" to sell the safety factor, but rather that his office would handle concerns of the public as they arose. He also said it might be "counterproductive" for him to appear at local residents' meetings on the questions of venting.

Thornburgh told reporters that he approached the question of vent-

ing "from a neutral standpoint," and that he had no idea when the NRC would make a decision on venting.

Of his concern about potential psychological stress, Thornburgh said: "I am advised and believe that the sooner this matter is resolved, the sooner any stress related to it will be dissipated."

He said the UCS and NCRP, among others, have agreed that actual radiation exposure to the public, under the venting cleanup plan now before the NRC, would be "insignificant" and pose no health threat.

"The question of stress, as related to the venting plan, is directly linked to the question of its safety, and the consensus finding that the plan poses no radiation threat to public health should, in itself, substantially reduce any stress that might have accompanied it."

The governor also said:

"I should point out that the Union of Concerned Scientists feels that the psychological stress already experienced by many residents of this area since March 28, 1979, should seriously be considered in any decision you make with regard to the cleanup operation of Three Mile Island, and I agree with that."

"As you know, I previously instructed attorneys for the commonwealth to introduce stress as a legitimate factor for you to consider in other decisions growing out of this incident."

Thornburgh noted that the UCS had recommended to the NRC that two alternative plans for venting the krypton be considered. These were high-heat incineration to direct the gases high into the air; and channeling the gas through piping

held at an altitude of 2,000 feet by a tethered balloon.

"I am sure that you will give consideration to those recommendations," Thornburgh told Ahearne. "I do urge that any new assessments be completed as quickly as possible."

Thornburgh acknowledged that part of the delay "has been due to my effort to be assured of the safety of venting. I now have that assurance, and I feel that a safe cleanup plan should be implemented as quickly as possible."

"It has been said that some of the alternatives should have been considered as soon as the immediate crisis on Three Mile Island had ended," the governor said. "Recognizing that hindsight is an easy thing to employ, I do recommend that you begin now to identify all of the future problems and every possible solution to those problems that we may confront in other phases of the cleanup operation. I also recommend that you arrange to tap all potential sources of technical and scientific advice regarding those problems."

Met-Ed vs PUC

By RICHARD ROBERTS
Staff Writer

Metropolitan Edison Co. said Friday it "strongly contests" the state Public Utility Commission's preliminary decision to eliminate from the utility's rate base all costs associated with the undamaged Unit 1 reactor at Three Mile Island.

The PUC tentatively ruled May 9 that Met-Ed should continue to operate as a public utility and receive \$56.4 million in additional revenue to allow it to recover the cost of power already purchased to replace the output from Three Mile Island.

If finalized next Friday, the decision would make permanent a rate increase tentatively approved by the PUC in February that would provide Met-Ed with an additional \$55 million in annual revenue.

And although the PUC proposed to remove Unit 1 from the rate base at a loss to the utility of \$26.9 million a year, the commission would compensate for that action completely by increasing Met-Ed's energy charge by an additional \$26.9 million a year.

In a legal brief filed with the PUC Friday afternoon, Met-Ed said removing Unit 1 from the rate base would deny the company a financial return on its capital investment, recovery of its investment through depreciation and reimbursement for its operation and maintenance expenses.

Met-Ed suggested that the PUC's action is unconstitutional. The utility said it and its parent company, General Public Utilities Corp., have attempted to expedite the reactivation of the reactor but have been foiled by delays imposed by the federal government.

(The U.S. Nuclear Regulatory Commission has ordered that Unit 1 not be restarted until hearings are held. Those hearings, which were supposed to have been completed by April, have not yet begun because of procedural battles.)

Met-Ed said the Unit 1 reactor was built to serve the public and comply with PUC directives to provide additional generating capacity. During its operation, Unit 1 achieved an "exceptional operating record" and saved Pennsylvania ratepayers millions of dollars in fuel costs, the utility said.

In an letter accompanying the brief, GPU Chairman William G. Kuhns said the decision to remove Unit 1 from Met-Ed's rate base will mean the utility will not earn its preferred stock dividends this year and will have to pay those dividends out of retained earnings.

Further, Met-Ed will "barely" earn the full interest on its long-term debt, he said, adding: "This condition further impairs Met-Ed's access to the capital markets necessary to provide future service."

Three Mile Island Alert Inc., a Harrisburg anti-nuclear group, urged the PUC not to raise Met-Ed's rates "until some final determination is made as to responsibility for the accident."

"Assumedly, if this commission finds that the NRC has placed the fault for the accident on (Met-Ed), it may determine that all or a portion of the replacement power costs should be borne by (Met-Ed)," the group said.

The PUC erred, TMIA said, by not requiring Met-Ed to undertake "immediate, drastic" conservation measures and by not appointing an independent panel to assess "all the costs of nuclear generation" and the possibility of converting Three Mile Island to another fuel.

The state Office of Consumer Advocate filed a brief charging that the PUC's decision would "unfairly burden present ratepayers and shortsightedly commit this commission to a premature attempt to rehabilitate GPU, regardless of the ultimate cost to the ratepayer..."

BELOW AVERAGE from 2

Figures for fetal deaths (stillborn, miscarriages, or voluntary abortions after 16 weeks of gestation) showed a similar trend. The total death rate within the 10-mile radius was 11.1 per 1,000 live births, compared to a statewide rate of 23.0.

Excluding voluntary abortions, the state fetal death rate was 13.4 per 1,000 live births, while the 10-mile radius figure remained at 11.1.

"The October, November and December statistics reaffirm the findings for the first nine months of 1979," Muller said. "The last quarter of the year revealed a lower infant, neonatal, and fetal death rate within the 10-mile radius of TMI when compared to statewide figures."

Muller said the report did not include state residents who moved out of the state since the TMI accident. That data will be included in a later report.

THANK YOU, ANDREA

We of T.M.I.A. must say goodbye to Andrea Chesman, founding editor of "Island Updates". It's a happy as well as sad goodbye, however, Andrea has left the T.M.I. area for the Green Mountains of Vermont.

Thank you, Andrea, for giving this newsletter such a fine start. T.M.I.A. and "Updates" will miss you, but thanks to your training we will carry on.

Goodbye, friend, and good luck in everything you endeavor.

- Cathie Musser

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HARRISBURG, PA., TUESDAY, JUNE 10, 1980

NRC votes 5-0 to permit TMI venting

The Patriot, Harrisburg, Pa., Saturday, June 14, 1980

TMI Venting Starts June 28

By The Associated Press

The controlled release of krypton gas trapped inside the Three Mile Island nuclear power plant's damaged Unit 2 is scheduled to begin June 28, plant spokesman David Klucsik said Friday.

Klucsik said the venting is expected to last two to four weeks depending on weather conditions.

Release of the trapped gas into the atmosphere was approved Thursday by the Nuclear Regulatory Commission.

It is supported by Gov. Dick Thornburgh and has been judged safe by several scientific groups.

Klucsik said existing ventilation systems will be used in the venting, scheduled to be take place in two phases.

The releases will begin slowly and accelerate next month when a new pathway to the venting stack is completed, Klucsik said.

The entire procedure will be constantly monitored with a sophisticated computer system. Federal and state officials will be at the site, Klucsik said.

All public officials from surrounding communities have been invited to special meetings next week, where TMI officials will brief them on the procedures to be used, including community monitoring programs, Klucsik said.

The general public will be able to question TMI and state officials on June 24, during an hour-long call-in program on public television.

Also, Klucsik said a special telephone information center will go into operation on Monday, June 23, so plant officials can respond to public inquiries before and during the venting. The number will be announced next week.

W. GERMAN DISPUTES PRO-VENTING DATA

By EDWARD ROBY

WASHINGTON (UPI) — A German radiation biologist released a study today concluding that venting radioactive krypton from the Three Mile Island containment building is far riskier than U.S. officials acknowledge.

The study, done by the West German Institute for Energy and Environmental Research at Heidelberg, found only incomplete and sketchy research to bolster official claims that the venting poses little health risk.

Institute radiation biologist Bernd Franke told a news conference that the Nuclear Regulatory Commission and Metropolitan Edison issued bland assurances without considering the effects of 63 of the 71 exotic radioactive isotopes contaminating the reactor containment building.

The NRC and the utility have concluded that the noble gas called krypton 85 is the major radioactive isotope to worry about because it is by far the most prevalent. Krypton accounts for an estimated 57,000 curies of radiation in the containment.

But Franke said, for example, that even a small trace of more dangerous substances — like carbon 40, strontium 90, cobalt 60 or cesium 134 and 135 — could pose a far greater hazard than krypton.

"If just one curie (of carbon 40) was emitted during venting, the health effect would be at least five times higher than for krypton 85," he said.

Individual radiation doses from cobalt and cesium, the substances which the German study analyzed, "could be 50 times higher than the radiation limits set by NRC," he said.

Worse, said Franke, the U.S. agency seems unable to monitor the radiation threat from most of the exotic substances in the event venting takes place.

Franke, whose study was commissioned by two U.S. anti-nuclear groups, recommended that NRC explore safer alternatives for containment cleanup.

Harrisburg, Pa., Thursday, June 19, 1980

Nationwide fee to pay TMI costs being proposed

NEW YORK (AP) — Every utility in the country should have to help pay the costs resulting from the accident at the Three Mile Island nuclear plant, the chairman of the New Jersey Board of Public Utilities says.

George H. Barbour told the New York Society of Securities Analysts on Wednesday that he plans to meet with the New Jersey congressional delegation to seek support for such a surcharge.

The accident at the TMI plant has boosted electric bills in parts of New Jersey and Pennsylvania that are served by General Public Utilities Corp., which owns the crippled plant.

Barbour predicted that more than \$100 million a year could be raised through such a fee. He said the entire country should pay for cleanups from a nuclear accident because everyone would benefit from the technological lessons that will be learned from accidents such as the Three Mile Island incident.

Area people smoked, drank more after TMI

The state Health Department Wednesday released the first half of a report entitled "Health-Related Economic Costs of the Three Mile Island Accident."

The report, said Dr. George K. Tokuhata, director of the Division of Epidemiological Research, is an analysis of the short-term health-related costs of the TMI accident, with particular emphasis on factors underlying the decision of whether to evacuate, economic costs of evacuation, and excess costs to local residents for medical services, tranquilizers and sleeping pills, alcohol, and cigarettes immediately after the March 28, 1979, accident.

According to the study, about 50,000 households — or 150,000 persons — living within 15 miles of TMI evacuated during the following two weeks. The evacuations included about two-thirds of the population within five miles of the plant, one-half living between 6 and 10 miles, and one-third living between 11 and 15 miles.

Families that left tended to be younger and larger — the presence of young children or pregnant

women in families was given as a significant factor in the decision to evacuate — than those who stayed. The more highly educated tended to evacuate. In addition, the families that left had not lived in the area as long as those that stayed.

Evacuation costs were estimated at \$6.9 million, with an additional \$1.4 million in loss of pay. An earlier report sponsored by the Nuclear Regulatory Commission estimated the cost of evacuation to be about \$9.8 million, and \$6.7 million for lost income. Both reports estimated \$1.2 million in reimbursements from insurance companies to the 15-mile radius population.

The department said its figures are believed to be more accurate, as they take into consideration that most of the people who left stayed with friends or relatives, and only 8 percent stayed in hotels or motels.

In examining changes in consumption, the study found that 13 percent of regular drinkers and 32 percent of the smokers polled increased their daily consumption of alcohol and tobacco by four drinks

and half a pack of cigarettes, respectively. Further, the study found that the number of people taking tranquilizers or sleeping pills doubled during the accident. The cost of the excess consumption of all these items in the ensuing two weeks within 15 miles was about \$141,000.

About 1 percent of the 2,953 persons sampled reported visiting health professionals as a result of TMI, at an estimated cost of \$171,000.

The study cited two possible reasons for the visits: One was the psychological and emotional tensions which may have led people to consult with physicians to reduce their anxiety or to gain medical opinions about the possible effects of radiation. The second may have been physical discomfort resulting from psychological and emotional disturbances during the accident.

Tokuhata said a follow-up study will investigate in more detail the relationship between stress caused by the accident and physician visits so more accurate information regarding physical symptoms and health-related economic costs can be estimated.

The Evening News, Harrisburg, Pa., Thursday, June 5, 1980

27,000 TMI-related complaints

By JILL LAWRENCE

Associated Press Writer

The state Bureau of Consumer Services handled 27,000 protests related to the Three Mile Island nuclear accident last year.

In a report released Wednesday, BCS — an arm of the Public Utility Commission — also said it investigated more than 25,000 complaints and mediation cases in 1979.

Mediation cases — where the bureau helps work out payment arrangements for delinquent customers who have been threatened with service cutoffs — increased 27 percent from 1978 to 1979.

Complaints, involving problems with billing, service delivery, service quality, repairs, credit, deposits or terminations, fell 11 percent.

Complaint rates for Metropolitan Edison Co. and Pennsylvania Electric Co., part owners of TMI, rose by 17 and 25 percent respectively.

The moderate boosts "may

have in part been due to increased customer dissatisfaction following the TMI accident," BCS speculated.

West Penn Power showed the most significant improvement in the complaints category, with a 40 percent drop.

But BCS said Duquesne Light showed a 70 percent increase in complaints, from 504 complaints in 1978 to 859 in 1979.

The bureau said "serious system-wide accounting and billing problems" accounted for many of the complaints against Duquesne.

Charles Atkinson, financial vice president of the utility, attributed the problems to a mandated changeover from quarterly to monthly billing. He said the switch required rewriting more than 100 computer programs.

"We believe we have solved the problem. Our 1980 statistics to date seem to indicate a substantial improvement," Atkinson said.

"We have been giving this major management attention. After all, we live and die by our customer relations," he added.

Duquesne also experienced a 38 percent increase in mediation cases, although it had fewer delinquent customers in 1979 than in 1978.

Atkinson said the rise is closely linked to "the social problems of urban areas." BCS said the industry-wide 27 percent increase reflects "declining economic conditions."

Equitable Gas was the worst performer in the mediation category. BCS statistics indicate its mediation rate was more than twice that of any other major utility.

Pennsylvania Power & Light Co. also made a poor showing, almost doubling its mediation rate.

While complaints against gas companies fell 14 percent, BCS reported that National Fuel Gas of Erie experienced a 47 percent increase.



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German's Findings Rebutted

NRC Says Study Misleads

By MICK ROOD

Washington Bureau

WASHINGTON — The Nuclear Regulatory Commission moved quickly Wednesday to rebut a "misleading" preliminary study by a German scientist, who contends NRC experts failed to acknowledge in their Three Mile Island venting proposal the presence in the Unit 2 containment of 63 radioactive isotopes or variations.

Until now, attention had focused on an estimated 57,000 curies of krypton 85 the NRC has said needs to be removed from the Unit 2 reactor containment. The environmental assessment of the NRC staff — used to justify the June 12 venting decision — was devoted almost entirely to krypton, a relatively stable isotope most scientists believe poses a minimal health threat if released in small amounts and during favorable weather. Seven other isotopes believed present in the reactor were dismissed as below concentrations that would make them a factor in the reactor purge.

At a news conference here, Bernd Franke of the Institute of Energy and Environmental Research in Heidelberg, West Germany, said the NRC should have analyzed the possible escape of 63 other isotopes and their variations during the venting that Metropolitan Edison Co. wants to start on June 28, with the federal agency's blessing.

Franke, who admitted he based his assumptions on "worst-case" releases, claimed the venting could lead to exposures 50 times the federal standards that the NRC has pledged to stay within. Franke contended that exposure in turn would eventually lead to three additional

cancer deaths above current mortality rates within 50 miles of the nuclear plant and an additional death outside the area.

In addition, attorney Daniel Sheehan, who has been hired by the Three Mile Island Legal Fund, charged the NRC had 1) committed a "fraud" on TMI-area residents by ignoring evidence of a health threat greater than that posed by the release of krypton 85, and 2) violated federal law by not allowing a 30-day delay before venting, during which a public hearing could be held.

NRC officials, obviously disturbed by the Heidelberg study, Wednesday afternoon released a point-by-point rebuttal of Franke's study, which the German scientist conceded at the news conference was not conclusive.

Bernard Snyder, director of the NRC's special TMI Program Office, contended in a memorandum circulated to commissioners and top staff that all radionuclides in the containment were considered in the environmental assessment prepared several months ago. Snyder said the other forms of radioactivity would be "insignificant contributors" to off-site dose calculations.

The Heidelberg report, Snyder said, reached conclusions based "erroneously" on samples taken a year ago by Met-Ed that did not project the volume of contaminants present in the TMI containment. The samples used led to calculations a million times too high, he said.

Franke, whose Institute of Energy and Environmental Research has done studies for the West German government, lodged other charges, including the claim that radiological monitoring efforts

contemplated by the NRC during the two-month venting period were "inadequate." Snyder answered that the TMI monitoring program will be "the most comprehensive program ever developed for monitoring gaseous effluents from a domestic commercial nuclear power plant." Snyder said the more than 700 samplers to be used will give readings on site and off site on daily and up to quarterly bases.

Snyder also said the NRC had "not precluded" the possibility that venting would cause one more cancer death than normal. But the NRC staff stood by its estimate that the chances of such an added death were far from certain — one in 10,000.

Franke stressed his report was not the definitive answer, but that it raised questions the NRC should "deeply investigate" before allowing the purge. Attorney Sheehan was more emphatic.

"The bottom-line moral question is not a clash between research people (the NRC's and the Heidelberg institute's), but a passing in the middle of the night," Sheehan said in a reference to the commission's alleged negligence in refusing to judge the effects of isotopes other than krypton 85. "The bottom-line moral question is, 'Can the people of Three Mile Island demand another system (to remove the krypton or other radioactivity).'"

After conducting a near-theatrical news conference in which he acted out NRC Chairman John Ahearne's alleged lack of concern for venting health effects, Sheehan said his criticism of the NRC was "more a question of attitude than of whether they are lying."

HARRISBURG, PA., WEDNESDAY, JUNE 25, 1980

TMI foes set court date

Suit seeks to bar Saturday's venting

By MARY O. BRADLEY

Staff Writer

Anti-nuclear groups will go to federal court Friday to seek a temporary restraining order to halt the controversial venting of radioactive gas from Three Mile Island scheduled to begin Saturday.

People Against Nuclear Energy of Middletown and Steven C. Sholly of Mechanicsburg want to force the Nuclear Regulatory Commission to observe a 30-day comment period and to hold a public hearing on the venting.

Another group, Newberry Twp. TMI Steering Committee, also seeks a public hearing but a spokeswoman said today the organization would not attempt to block the start of the venting process if its request is denied.

The hearing on the restraining order has been scheduled for 10 a.m. in Federal Appeals Court in Washington, Sholly said.

The two groups and Sholly asked the NRC Monday to reconsider its decision

approving the venting. NRC spokesmen said the request is being studied.

The anti-nuclear activists said the NRC's June 12 orders permitting the venting provided for a public hearing but alleged the provision was "for show only."

Sholly said the orders provide that if a public hearing is scheduled it should be consolidated with other proceedings involving revision of technical specifications for TMI Unit 2.

A pre-hearing conference on the technical specifications' issue is scheduled for July 7 but given the normal bureaucratic delay in getting to the hearing itself, Sholly said, "I'm almost certain a (public) hearing would not be held before sometime in August."

"If we go with a two-to-four-week venting (procedure), it will be all over

before the hearing," he said, adding the NRC and Metropolitan Edison Co. could then argue the issue was not litigable since it was a "fait accompli."

"I feel (the NRC) has gone beyond the bounds of reasonableness in the way it set up the order," said Sholly, who also is an intervenor in the TMI Unit 1 federal restart proceedings.

"Left unchallenged," the NRC's venting orders will "establish several dangerous precedents for the rest of the cleanup," Sholly said.

The anti-nuclear activists said they decided to wage a legal fight against the venting after receiving the results of a study by a West German biologist which contended the NRC had not taken into account radioactive contaminants in Unit 2 other than krypton-85. There are more

Cont. p 4

Met-Ed workers' subpoena

By JANIS L. WILSON
Staff Writer

Further criminal investigation could grow out of testimony before the Nuclear Regulatory Commission if five Metropolitan Edison Co. employees are forced to comply with NRC subpoenas, an attorney for the utility said today.

Eugene R. Fidell is representing two control-room employees and three shift supervisors who were at Three Mile Island the day of the nuclear accident.

Fidell argued before U.S. Middle District Court Judge Sylvia H. Rambo that the employees were be over-burdened by having to testify before the NRC on matters which he said are being probed by a grand jury here. Rambo took under advisement his request to quash the subpoenas.

The NRC in April turned over to the U.S. Justice Department allegations by former Met-Ed employee Harold Hartman which "relate to events which occurred prior to the accident," Victor Stello, NRC director of inspection and enforcement, testified.

"The way leak-rate measurements were made and documented... the way feedwater tests were made and start-up tests" were falsified, Hartman has told officials. "The principal issue is the leak-rate measurement," Stello said.

Stello said the NRC would have continued investigating Hartman's charges if the Justice Department had not decided to conduct its own investigation. He said the NRC made no recommendation on whether the Justice Department should prosecute.

The NRC is probing how information was passed from Met-Ed to the commission after the accident, Stello said. The NRC is investigating the sudden pressure increase in

the containment, the elevated core thermocouple readings and off-site radiation releases.

The Justice Department also is aware of the NRC's investigation, he added. He said the civil and criminal investigations are separate and that the NRC is not forwarding additional information to Justice.

But Fidell said the grand jury empaneled here May 12 is investigating the same information as the NRC. He cited an affidavit by Met-Ed employee Edward R. Frederick, who said he appeared before the grand jury and was asked three times by the U.S. Attorney if his shift supervisor left the control room to investigate a leak after the accident. Fidell pointed out that the Hartman allegations involved events before the March 28, 1979, accident.

Fidell said that because the grand jury cannot be limited in its investigation, Met-Ed employees should not have to answer the same questions before the NRC.

Stello said if the NRC determines its regulations were violated regarding transfer of information, the utility could be fined, its license to operate could be revoked, or the licenses of individual operators could be revoked, he said.

"In my opinion, it (revocation) is the most severe enforcement action that can be taken," Stello said. However, Fidell said the Atomic Energy Act provides for criminal penalties and that a criminal prosecution is pending in Illinois on an unrelated case.

Further, Fidell read from a paper which he identified only as a court document saying, "failure to inform an alert was willful withholding from the NRC. Merely telling an inspector is not enough," Fidell said.

TMI FOES from 3

than 57,000 curies of krypton dispersed in two million cubic feet of air in Unit 2.

The NRC said the level of other radioactive elements is too small to contribute to off-site dose calculations. The NRC also said the figures used by the West German biologist were based on an erroneous analysis of the Unit 2 atmosphere.

Further, Met-Ed says its high efficiency filters will remove 99.9 percent of particulate matter before the air is released though the Unit 2 vent stack.

Coordinating the legal efforts is the TMI Legal Fund, a coalition of six citizen groups and several individuals involved in legal and administrative proceedings concerning TMI and the cleanup.

Providing weather conditions are favorable, Met-Ed plans to begin the venting process Saturday at 8 a.m. The utility contends purging the air in the containment building is a vital step in the long cleanup process from last year's accident.

Official's family to be at venting

By JILL LAWRENCE
Associated Press Writer

A senior Three Mile Island official, hoping to inspire confidence among area residents, is bringing his family to live near the crippled nuclear plant during a purge of radioactive gas.

Robert Arnold, senior vice president of Metropolitan Edison, the plant operator, said Thursday his wife and college-age son will live with him in a trailer near TMI throughout the venting, due to start June 28.

As for his daughter, also in college and presently working in North Carolina, "We have invited her to visit for the first weekend," Arnold told reporters at a briefing.

Several officials outlined environmental and technical precautions that will be taken to assure the safe release of 57,000 curies of krypton from the reactor containment building into the atmosphere.

The gas will be vented in 15- to 30-minute bursts, drawn out by a fan. The fan also will supply make-up air to the building, to make sure pressure inside doesn't fall too low.

TMI Project Manager Mike Morrell said the venting will take two to four weeks because the make-up air will steadily dilute the krypton inside the building.

The worst accident hypothesized by plant technicians would be a 30-minute, uncontrolled release at the outset — when the krypton is at its highest concentration.

"I believe the possibility (of such an uncontrolled release) is remote enough that we should discount it," Morrell said.

But if it did occur, he said, the offsite whole body dose would be less than federal limits on a whole body dose for one hour.

"So we believe even the most severe occurrence would certainly not cause health problems offsite," Morrell said.

Three factors — concentration of krypton, weather and terrain — are used to determine whether to vent.

Arnold said venting will not take place unless calculations show the krypton will be dispersed at a speed of at least 50 feet per minute.

The procedure will begin using a hydrogen control system with a flow capacity of 650 cubic feet. Later on, technicians will switch to a larger reactor building purge system with a capacity of 18,000 cubic feet a minute.

Before the krypton-laden air leaves the containment building, 99.9 percent of its radioactive particulate matter will be removed by two high-efficiency particulate

cont. p5

GPU won't appeal rate loss from TMI, but will seek increase

By MARY O. BRADLEY
Staff Writer

The owner of Three Mile Island does not plan to appeal a state regulatory decision stripping the undamaged Unit 1 reactor from the base rates of its two Pennsylvania subsidiary utilities.

The state Public Utility Commission removed Unit 1 from the base rates of Metropolitan Edison Co. of Reading and Pennsylvania Electric Co. of Johnstown May 23 because of the reactor's prolonged outage.

The action means the two utilities can no longer pass onto customers the cost of building and maintaining the \$400 million reactor. That translates into a \$26.9 million loss in annual revenues for Met-Ed and \$11.7 million for Penelec which must be absorbed by stockholders of General Public Utilities Corp. of Parsippany, N.J., the companies' parent firm.

"We don't have any plans to appeal to the court nor do we plan to petition the commission to reconsider" the status of Unit 1, Joseph M. Benish, a GPU spokesman, told The Evening News.

But, Benish added, Unit 1 will be included in the application for higher rates that Met-Ed and Penelec plan to file in early July.

The two utilities claim that inflation is eating away at revenues and they need a base rate increase to keep pace, but they have not released any figures on the amount they will seek.

The PUC gave Met-Ed a \$111.4 million increase in May to pay for electricity it must purchase to replace TMI Units 1 and 2. Penelec received \$15.4 million in increases for the same purpose.

Unit 2 was crippled March 28, 1979, in history's worst civilian nuclear accident. At the time, Unit 1 was off line for refueling and has never been restarted.

Benish said Unit 1 will be included in the upcoming rate application because it's presumed the reactor will go back on line sometime in 1981. Rate cases normally take six to nine months before a decision is rendered.

Further, temporary base rates set by the PUC in May and leveled fuel charges imposed in June 1979 after the first round of TMI-related hearings will both expire in December, Benish said.

GPU fought during six months of hearings before the PUC to keep Unit 1 in the base rates of Met-Ed and Penelec, arguing that the reactor was experiencing a temporary shutdown over which GPU had no control. Although Unit 1 was not damaged in last year's accident, the Nuclear Regulatory Commission is keeping it off-line until as yet unstarted public hearings are completed. Unit 1 has not generated electricity since February 1979.

In April the New Jersey Board of Public Utilities removed Unit 1 from the base rate of Jersey Central Power &

Light Co. of Morristown, N.J., the third GPU subsidiary. Both regulatory bodies stripped Unit 2 from base rates after last year's accident.

GPU said the loss of the Unit 1 will reduce earnings \$31 million or 51 cents a share on an annual basis, while the effect for calendar 1980 will be \$17 million or 27 cents per share.

Because of the accident, the financially strapped utilities have been trying to conserve cash. Met-Ed has slashed its tree-trimming budget, but outages attributed to tree limbs falling on its transmission lines have increased from 15 percent to 50 percent since 1970, according to Eric S. Ulrich, Met-Ed manager of forestry.

"The austere conditions we've faced over the past several years have resulted in cutbacks on our tree maintenance budgets," Ulrich said.

In May Met-Ed furloughed two-thirds of its contract tree maintenance personnel and pared its tree maintenance budget by \$1 million a year, he added.

As a result of the \$1 million reduction, 10,500 miles of Met-Ed's distribution lines will be increasingly threatened by trees and foliage. "There is little left in the budget for preventive maintenance. The contract tree maintenance people we do keep will spend about half their time providing clearance for new lines to serve additional customers.

"The rest of their time will be spent working on those trees that have already caused substantial damage to our lines," he added.

Ulrich said recent violent thunderstorms have provided a dramatic display of the effects trees can have on electric lines.

OFFICIAL FAMILY from 4

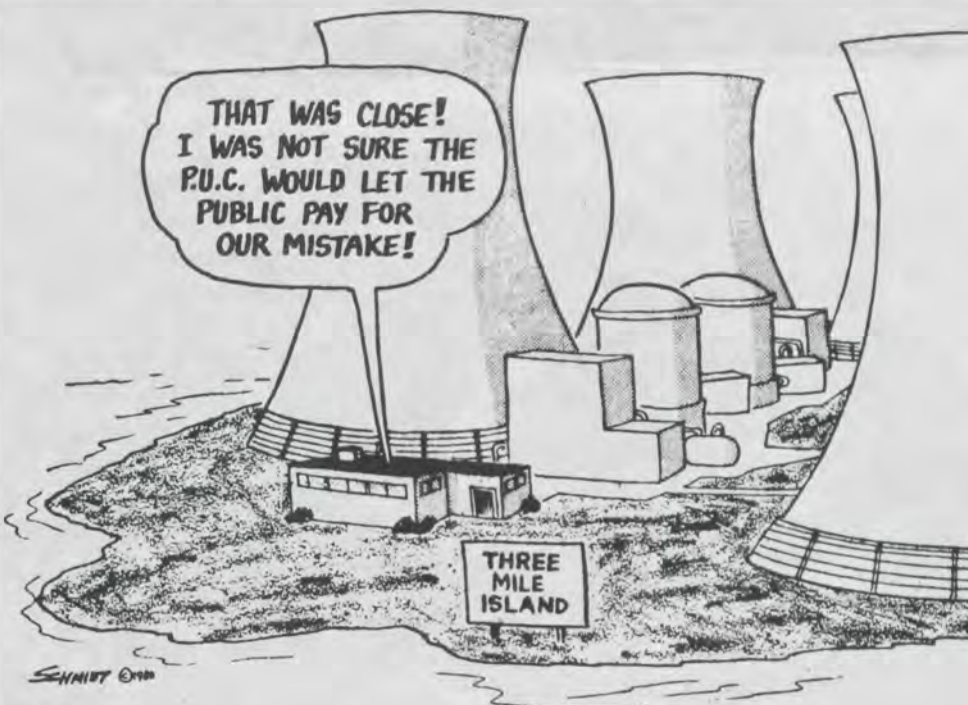
filters. It will be monitored as it comes out the stack, Morrell said.

Some 160 off-site monitoring stations will be manned during the venting by five groups that include two federal agencies, the state Department of Environmental Resources, community monitoring teams and Met Ed.

And Morrell said Met Ed has added three control-room personnel to each shift, one of whom will continually watch the radiation monitor.

A new computer terminal, connected to a central weather data computer in Rockville, Md., has been installed in the control room to keep operators up to date on changing weather conditions, Arnold said.

The terminal will automatically print out a new krypton flow rate every hour so operators can adjust the rate of the purge or halt it altogether.



Snag Requires Venting Tests

By MARY O. BRADLEY
Staff Writer

Technicians at the Three Mile Island Nuclear Generating Station were scheduled to resume testing of the krypton 85 venting system Sunday at 2 p.m. in an attempt to overcome problems caused by balky radiation monitors.

Four hours of controlled test venting were concluded Saturday at 10:06 p.m., but because of "unfavorable meteorological conditions technicians were unable to complete the full testing" program, according to TMI spokesman David Delzingaro.

Delzingaro said the "flow-rate" through the purge system was 95 cubic feet per minute when the test purging was concluded and that between 250 and 300 curies of krypton had been vented during the four-hour test period.

However, he said technicians had hoped to reach a flow-rate of 100 cubic feet per minute — the same level at which the full-scale purge was halted early Saturday morning. "Because of existing weather conditions, the flow rate could only be brought up to 95 cubic feet per minute," he said.

The snag in Saturday morning's venting occurred when two radiation monitors signaled that higher concentrations of particulate isotopes were being released than had been anticipated.

However, analyses of the monitors' chart and cartridge by the Metropolitan Edison Co., the plant's operators, and the Environmental Protection Agency indicated no abnormal amounts of particulates had been released, Robert C. Arnold, head of recovery operations at TMI, said.

Instead, he attributed the snag to incorrect instrumentation readings. Arnold explained that the portion of the monitoring devices that measure particulates reacted to the sudden surge of krypton. He said the particulate portion had been deliberately set at a low calibration so it would be "more sensitive."

Delzingaro said "a modification to the computer programming designed to help eliminate the false readings in the monitoring system was checked" during Saturday's tests. He said results of the tests were being analyzed and would be released at a news briefing Sunday at noon.

Harold R. Denton, chief of nuclear reactor regulation for the U.S. Nuclear Regulatory Commission, described the instrument phenomenon as "overshoot."

Arnold compared it to stepping on a bathroom scale, which "goes considerably beyond the point at which it (eventually) comes to rest."

Denton said "some of our staff did raise the question about 'overshoot' " before the start of the purge, "but we didn't think it was that significant."

Arnold said about 12 curies of the 57,000 curies of krypton trapped in 2 million cubic feet of air in the domed containment building had been released before the venting was halted at 8:04 a.m.

Denton said he told his family before he came to the plant there was "less than a 50-50 chance the thing (venting) would go smoothly at that star-crossed plant" because it is in a recovery mode from last year's accident.

He added, "I think there is a loss of public confidence when actions are forecast that don't go forward." But, he said, when there is a snafu NRC officials are more concerned with whether the procedures can be terminated safely than with the "ease of the operation."

The radiation monitors have two fail-safe alarms, registering "alert" and "high" modes before the radiation readings would reach the plant's technical specifications' limit. Arnold said Saturday morning's reading triggered the "high" alarm and the operation was manually aborted before the system's automatic shutdown was activated.

Radiation Readings

Radiation Detection: one spot reading of .095 mrem/hr (Beta) at intersection of Route 441 and Guyers Church Road at 3:50 p.m. during monitoring from 2 p.m. through 9 p.m.

— Met-Ed: No information available on Sunday readings before Monday morning.

Wind Speed and Direction: From S at 5-10 mph from 2 p.m. through 9 p.m.

Radiation readings throughout the area on Sunday:

— U.S. EPA: Various readings at TMI north gate after 3 p.m. reached a maximum of .209 mrem/hr (Beta) at 4:10 p.m. then subsided.

— State DER (citizen monitors): Within the range of natural background.

— Team from DER Bureau

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Island Updates

News Watch on the
Harrisburg Area

Vol 1 No 11

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The Evening News, Harrisburg, Pa., Wednesday, July 2, 1980

Slow cleanup at TMI a threat to vicinity

A congressional report

By TOM RAUM
Associated Press Writer

WASHINGTON — More than 15 months after the nuclear accident at Three Mile Island, the danger of accidental radiation releases to the surrounding Pennsylvania countryside is increasing rather than decreasing because of the slow cleanup operation, a congressional study concluded today.

The final report of the Senate Environment and Public Works nuclear regulation subcommittee said the crippled plant near Harrisburg remains extremely dangerous and the nation's most serious commercial nuclear accident is far from over.

The March 28, 1979, accident severely damaged the reactor core and left the plant highly contaminated.

Stiff legal, environmental and regulatory safeguards are slowing the \$200 million cleanup operation and preventing adequate protection to area residents, concluded the study by the panel chaired by Sen. Gary Hart, D-Colo.

"Both the surrounding community and, most immediately, the workers involved in the cleanup are at risk," said the 423-page report. "The longer it takes to remove the radioactivity from inside the plant, the more likely it is that further accidental releases of radioactivity will occur before workers can repair or remove deteriorating equipment."

Large quantities of radioactive krypton-85 gas and hundreds of gallons of radioactive water were released into the containment building during the accident.

Officials expect to take up to four more weeks to complete the process of releasing the radioactive gas before workers are able to enter the building for further repairs.

The Senate report said it may never be known precisely how much radiation was released in the early hours of the accident because "off-site radiation monitoring was both disorganized and insufficient."

But neither is there any "persuasive evidence" that enough radiation was released to pose any short- or long-term health problems, it concluded, adding that more recent accidental releases of radiation have not been large enough to pose a health hazard.

The report claimed that the Nuclear Regulatory Commission, the state of Pennsylvania and Metropolitan Edison — the utility that operated the reactor — were ill-equipped to cope with the emergency.

Especially harsh criticism was leveled at Pennsylvania officials, who the report said relied too much on "incomplete and often inaccurate information supplied by the utility."

Cont. p 4

Sunday Patriot-News, Harrisburg, Pa., July 13, 1980

Critics Due Day in Court

Krypton 85 Gone; Fear, Anger Remain

By MARY O. BRADLEY
Staff Writer

A year after Metropolitan Edison Co. first announced it wanted to vent radioactive gas from its Three Mile Island Unit 2 containment building as part of the monumental cleanup effort, the controversial project is finally over — ahead of schedule and with less off-site exposure to the public than expected.

Most residents who evacuated at the outset of the venting June 28 have returned; the small army of federal personnel sent to augment permanent TMI support staffs are packing up to go home; the network of environmental radiation monitoring equipment is being collected for analysis, and the special telephone information services — which no one dared dub "hot lines" — have been disconnected.

But for many residents, bitterness remains over what they perceive as the cavalier attitude of the Nuclear Regulatory Commission when it approved the purging plans on June 12.

And one group is still going to seek legal redress

"Even though the venting is over, we find it necessary" to pursue the legal action initially undertaken to prevent the purging, Don Konkle of Middletown, a board member of People Against Nuclear Energy, said Saturday.

PANE contends that the NRC violated its rules by waiving a 30-day waiting period and by not holding a public hearing before allowing Met-Ed to initiate purging. The citizens group was unable to get an 11th-hour injunction to stop the venting of krypton, a noble gas.

However, PANE will be granted its day in court in September to argue the issue, and Konkle said the group will be there because "we think it (NRC's action) was illegal. We don't want to set a precedent for whatever may become the next issue" in the cleanup.

"I think we're very pleased it (venting) went as quickly as it did," Konkle said, but "there's quite a bit of bitterness over the way the commission made its decision without a public hearing."

Cont. p 4

Unite, TMI Area Customers Urged

By CARMEN BRUTTO
Staff Writer

A coalition of local chambers of commerce ranging from Hanover to Easton have banded together to seek relief from the high cost of electrical energy coming after the Three Mile Island accident.

The group, calling itself the Coalition of Concerned Consumers, along with the state Chamber of Commerce and industrial users, is striving to unite all electrical power users in the General Public Utilities/Metropolitan Edison Co. system on the rate issue.

According to David Wauls, executive vice president of Lebanon Chamber of Commerce, the coalition, built around commerce groups from Lebanon, Hanover, York, Reading and Easton, has as its ultimate purpose rate relief not only for industrial users, but for business and residential customers as well.

Figures supplied by the state chamber show, for example, that in the period January through March of this year, Lebanon County users paid above-normal costs for replacement energy in this manner: industrial customers, \$1.54 million; commercial, \$1.1 million; residential, \$1.8 million. Coalition mem-

bers estimate that replacement power costs range from 50-75 percent above normal.

The increased costs result from the shutdown of both nuclear reactors on TMI, and the need for Met-Ed to purchase electrical power from other utilities in order to keep its customers supplied.

Wauls said the drive for rate relief is not aimed at reopening the undamaged TMI-1 unit.

Ironically, he noted that even should COCCO's action succeed, and lower costs are secured, they might not be reflected in monthly billings because Met-Ed already has indicated it will be seeking another rate increase to counteract inflation.

Wauls said COCCO had received a "very positive" reception from state government, which was impressed that business was asserting itself.

COCCO officials have conferred with Susan M. Shanahan, chairwoman of the state Public Utility Commission, and Clifford Jones, secretary of the state Department of Environmental Resources, as well as with top officials of GPU and Met-Ed.

"I thought it was an idea that had the possibility of direct relief of

ratepayers at Met-Ed," Shanahan said. "We discussed a suggestion already advanced that there be a national surcharge on all electric utilities which have nuclear power facilities, and use the money not only for the costs of cleanup but also replacement power, which is the biggest cost that is facing the ratepayers at this time."

She said the PUC has stressed strongly that the federal government has a responsibility in this area which it has not met, pointing

out that U.S. Nuclear Regulatory Commission officials have said the whole nuclear industry is learning from the experiences at TMI.

"It seems to me that there is a responsibility here, and the federal government ought to deal with the TMI situation as it did with Lockheed and Chrysler," Shanahan said.

Once the industrywide surcharge is in place, she said, and after the replacement power question is settled, there will be in effect a mechanism to deal with nuclear waste disposal which is "the real issue."

Wauls said that Jones told COCCO he would talk to Gov. Dick Thornburgh about "our particular issue."

The Evening News, Harrisburg, Pa., Tuesday, July 15, 1980

MET-ED ASKS 17% BOOST

By MARY O. BRADLEY
Staff Writer

Metropolitan Edison Co. today told the state Public Utility Commission it will file for a \$76.4 million base rate increase later this month.

In a "letter of intent" to the PUC, Met-Ed said the proposed annual increase would result in an estimated 17.2 percent average boost in customers' bills.

Met-Ed indicated in May it planned to seek an increase in its base rates, but today's letter is the first time the Reading-based utility has cited the dollar amount.

Met-Ed received \$111.4 million on May 23 to pay the mounting fuel bills it has incurred for purchased power since last year's nuclear accident at Three Mile Island.

Floyd J. Smith, a Met-Ed senior vice president, said nearly half the increase would cover the investment, operations and maintenance costs of the undamaged Unit 1 reactor. The state PUC struck Unit 1 from Met-Ed's rate base in May because the \$400 million reactor has been out of service since February 1979. Smith said Met-Ed will ask that Unit 1 be returned to rate base.

Met-Ed said today the excise-

ment of Unit 1 has depressed its "already low earnings which need to be bolstered, so that the company can obtain access to the capital market."

Smith said the effects of inflation on operation and maintenance costs are cited as reasons for a large portion of the proposed increase.

Smith said the company also will file a complaint challenging the temporary rates established by the PUC in May after Unit 1 was removed from rate base. He said the utility will ask that a portion of the proposed increase be put into effect no later than Sept. 1.

Met-Ed's last base rate increase — \$2.7 million — was granted in May 1978. A subsequent \$49.8 million increase had been granted in March 1979, just days before the TMI accident. That boost, however, was shelved by the PUC in the wake of the nuclear accident.

Met-Ed, which serves 350,000 customers in 14 counties in eastern Pennsylvania, owns 50 percent of the TMI plant.

A PUC spokesman said the commission has asked utilities to file letters of intent concerning major rate increases to facilitate scheduling by the regulatory body.

The Evening News, Harrisburg, Pa., Friday, June 27, 1980

TMI operator's name to change

United Press International

General Public Utilities Corp. has announced it plans to merge the names of the two operators of its crippled Three Mile Island nuclear power plant to Penelec.

In effect, GPU plans to drop the name of one subsidiary, Metropolitan Edison Co. of Reading, and put Met-Ed and Pennsylvania Electric Co. of Johnstown under one name.

Pennsylvania Electric Co. already is commonly referred to as Penelec.

GPU said Thursday the name change would be part of a corporate restructuring involving the combining of management of Met-Ed and Penelec.

GPU Chairman William Kuhns said the new organization would be headquartered in Reading and would be in place in a few months.

The two utilities would be financially independent, meaning that their customers' rates would be determined separately, Kuhns said.

GPU announced the reshaping of its corporate structure last January. William Verrochi, president of Penelec, will head the new merged company.

TMI cleanup 'will take' 2 years

By JILL LAWRENCE
Associated Press Writer

Engineers at the crippled Three Mile Island nuclear plant say they won't get to the hardest part of the cleanup, removing the radioactive reactor core, for at least two more years.

Recovery chief Robert Arnold said that's how long it will take to decontaminate 700,000 gallons of radioactive water and "millions of square feet" of surface area.

"Decontamination of the containment building will take until late 1982. Then we'll need the balance of 1982 and 1983 for fuel removal," Arnold said in an interview.

Radioactive Krypton gas escaped into the reactor containment building during a nuclear accident nearly 16 months ago, and was vented into the atmosphere in a two-week purge that ended Friday.

But the building still is flooded with radioactive water that spilled during the accident, the worst ever at a commercial reactor in the United States.

Arnold, a senior vice president of Metropolitan Edison Co., the plant operator, said the company plans three or four manned entries into the dark, humid containment structure within the next three months.

He said the entries will provide more details about cleanup operations for the next few years. But he said the utility doesn't expect to gain further insight into removal of the mangled core, which was partially melted during the accident.

"We'll need to have the water cleaned up before we can get to the core. And major areas of the building will have to have surface contamination removed," he said.

Surface decontamination, which has already been accomplished in much of the adjoining auxiliary building, involves scrubbing and vacuuming.

Arnold said a detergent solution was used in the auxiliary building and he hopes it will be effective in the containment as well. But he said efforts will be severely limited while the water remains.

"Surface decontamination will be pursued much more aggressively and with larger teams once the water is processed," he said.

The water contributes 1,700 millirems an hour to radiation in the areas where technicians would be working, he explained.

At those levels, in less than two hours an unprotected worker would receive more than the allowable whole-body dose for three months. The Nuclear Regulatory Commission's occupational exposure limit is 3,000 millirems a quarter.

To process the water, Met Ed is working on an \$8 million "submerged demineralization system" known as SDS. Arnold said the system should be ready by the end of the year and will process water through most of 1981.

SDS uses filters and ion exchangers to remove suspended and dissolved radioactive material. Arnold said it is being built in a "fuel pool," comparable to a

The Evening News, Harrisburg, Pa., Thursday, July 17, 1980

STEEL DOOR AT TMI UNIT 2 IS OPENED SUCCESSFULLY

United Press International

Three Mile Island officials say engineers have been successful in opening and closing a large steel door to the damaged Unit No. 2 reactor containment building in preparation for a manned entry.

John Fidler, spokesman for plant operator Metropolitan Edison Co., said Wednesday that technicians were in the airlock adjacent to the reactor building for about 30 minutes, but they did not enter the building.

Fidler said the technicians gathered data which indicated that general area radiation levels were as expected, about 700 millirems per hour inside the building.

The technicians, dressed in protective clothing, received about 20 millirems of whole-body exposure, Fidler said.

He said venting of the airlock area, the access to the building door, was not required.

Met-Ed Vice-President Robert Arnold said the manned entry probably would be scheduled for sometime next week. He said a firm date would be decided after a final review of the procedures.

The entry team is expected to take radiation readings to aid in further cleaning of the reactor building.

The Evening News, Harrisburg, Pa., Tuesday, July 15, 1980

TMI to have 'accident' — a practice one

There will be another "nuclear accident at Three Mile Island" Wednesday morning, but it will be only a "paper exercise" to test the response of state civil defense and emergency personnel in seven counties.

Oran K. Henderson, director of the Pennsylvania Emergency Management Agency, said the exercise will begin at 6:30 a.m. when a shift supervisor at TMI notifies Dauphin County and PEMA officials that the Unit 1 reactor has lost cooling water and is overheating. Unit 1 has been shut down since February 1979.

Hundreds of state officials from 16 agencies, local emergency personnel and Harrisburg and Community General Osteopathic Hospital will be mobilized. PEMA's bunker beneath the state Transportation and Safety Building on Capitol Hill will be staffed as the simulated accident moves from an "alert" to a "general emergency."

Participating counties will be Dauphin, Cumberland, Lebanon, Lancaster and York. Lycoming and Union counties will participate as hosts for evacuees.

The drill will end at 2:30 p.m. when the governor orders a hypothetical evacuation of 145,000 residents in the 10-mile radius around TMI.

emergency plan which is under review by the Federal Emergency Management Agency and the Nuclear Regulatory Commission. Those agencies require that states hold drills before an emergency plan is approved.

Henderson said Monday an assortment of up to 80 "problems" will be injected into the exercise to strain the agencies' ability to respond.

"We want to learn by our mistakes and improve existing emergency plans. We want to be in a better posture to protect the public," he said.

Henderson stressed that all precautions are being taken to be certain no one mistakes the test for an actual emergency. He added that the simulation will be duplicated later at other nuclear plants in the state.

A contingent of state and federal observers will judge how efficiently the emergency is being handled, Henderson said. On Friday a critique of the exercise will be given at the William Penn Memorial Museum.

The exercise also will surmount one of the remaining hurdles facing Pennsylvania's

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Slow TMI cleanup From 1

KRYPTON From 1

"As a result, the state, which has primary responsibility for ordering protective action, did not appreciate the serious need to consider such action," it said.

The report also criticized the NRC for doing little to help harness the accident while giving "incorrect and misleading" information to the White House and other federal agencies.

The new report follows by eight months the release of a study by President Carter's 12-member Three Mile Island commission chaired by John G. Kemeny, the president of Dartmouth College.

That report was sharply critical of the NRC and the nuclear-power industry, recommending fundamental changes in the way that reactors are constructed, operated and regulated.

As a result of the Kemeny report, Carter replaced then-NRC chairman Joseph Hendrie with John Ahearne and restructured the NRC to place commissioners in more of a policymaking role. Responsibility for day-to-day operation was given to the NRC staff.

The new congressional study, wrapping up the last of more than a dozen government inquiries into

the mishap, reached many of the same conclusions as the Kemeny report.

For instance, both concluded that the accident was a combination of malfunctions in plant equipment and human error.

The congressional study found that the immediate cause of the accident — the unintentional uncovering of the reactor core — was the overriding by plant operators of automatic safety equipment.

But it went on: "It is inappropriate and unfair simply to blame these personnel for the Three Mile Island accident.

"It should be emphasized that the utility, the reactor-vendor, the architect-engineer and the NRC were responsible for deficiencies in training, in control-room design, in instrumentation and equipment, in plant design and in emergency procedures. These deficiencies were the underlying cause of the accident."

Among "design deficiencies" cited in the report was "a system of 1,200 alarms, of which several hundred went off in the first minutes" of the accident, making it impossible to diagnose the problem and creating great psychological stress in the operators, the report said.

He said residents also are concerned over discrepancies in the number of curies trapped in the domed structure and in the periodic calculations of the amount of krypton released. The NRC and Met-Ed used a working reference number of 57,000 curies to estimate the amount of krypton in the reactor building.

However, on Thursday Met-Ed made a surprise announcement that the venting was over for all practical purposes. Robert C. Arnold, Met-Ed's chief of recovery operations, said the 43,000 curies already released were believed to have been the total inventory of krypton remaining in the building atmosphere from last year's accident.

He said the 57,000 was an overestimation to "insure a comfortable margin of safety." By Thursday morning the hourly estimate of krypton purged was about 34,000 curies — 9,000 shy of the new inventory figure. Arnold said this was due to "deviations inherent" in the monitors in the 160-foot venting stack.

Konkle said a residue of the "general distrust" residents felt toward Met-Ed and the NRC before the venting remains, and there's a "lingering feeling" that here's another example of "Met-Ed and the NRC not being able to do anything properly."

Patricia Smith of Newberry Twp. said she didn't breathe a "sigh of relief" when the venting was finished ahead of schedule. "I was thoroughly confused," she said, and "because of the miscalculations" wondering "did the public suffer again?"

Mrs. Smith said many of her friends and neighbors evacuated or took other precautions, like spending as many hours away from home during the day as possible or refusing to allow their children to play outdoors. "I got tired of running. I went to three different places in eight days," she said. "I felt like I was imposing on my family and friends.

"It's not going to be the last time. I fear we'll be evacuating in the near future," she said, referring to concern among some residents that more problems will occur during the cleanup process.

"I'm not the only who thinks so. Some people are thinking about getting apartments and cottages outside the areas. That way you don't have to impose all the time," she said.

Middletown Mayor Robert G. Reid said Saturday he thought the venting "went good," adding "I'm really glad it's over."

Reid said the U.S. Environmental Protection Agency — charged by President Jimmy Carter with overseeing the radiation monitoring program at TMI — did "an excellent job."

Reid also praised the contingent of citizen monitors who were trained by the state Department of Environmental Resources to take daily readings. The presence of both groups "helped to relieve the frustration and stress (during the venting) as far as the townspeople were concerned."

The fact the venting was over in 13 days "was good," Reid said, because "it wasn't something that was long and drawn out." Officials had estimated the purging could take 30 to 60 days.

Throughout the venting, off-site doses to the public consistently remained well below federal radiation standards and "were slightly less than everyone expected," according to Erich W. Bretthauer, who has been EPA project manager at TMI during the venting. This was "probably due to the lesser amount (of krypton) in the containment" than originally calculated, Bretthauer said Saturday.

Bretthauer also said "we detected nothing in the environment except krypton 85."

EPA brought in 24 staffers to augment its six-member contingent at TMI during the venting. Other additional federal personnel included three officials of the U.S. Public Health Service; a four-member helicopter crew from the U.S. Department of Energy and a crew to launch weather balloons at Harrisburg International Airport.

-The Evening News, Harrisburg, Pa., Tuesday, July 1, 1980

—Metro East, July 1-2, 1980



Q — One of my friends was boating recently and spotted a two-story building under construction on the west side of Three Mile Island. What is it and who's paying for it?

A — It's a \$2 million office building to house administrative personnel. And you're paying if you're a Met-Ed customer. A spokesman said the 46,000-square-foot building will be used to house about 340 administrative workers and contractors involved in the decontamination of Unit II. Although the contamination is, presumably, a temporary problem, the building is permanent. It's scheduled for completion near the end of September.

TWO YEARS From 1

deep swimming pool, in an adjoining fuel-handling building.

Once SDS is set up in the fuel pool, it will receive contaminated water from the containment building through pipes. The system will operate under water because water serves as a radiation shield, Arnold said.

The radioactive material filtered from the water will be collected in steel cylinders and temporarily stored in the fuel pool. Arnold said Met Ed is still working with the NRC on the ultimate disposal of the cylinders.

Utility officials have said initial estimates of a four-year, \$400 million cleanup were too low. Latest estimates indicate the operation will take until 1985 and will cost well over \$400 million.

Mock Accident At TMI Assessed

By RICHARD ROBERTS
Staff Writer

The confusion and contradictory official statements spawned by Wednesday's mock accident at Three Mile Island made it seem like old home week at the nuclear power plant.

In the words of one state official, the make-believe disaster was "screwed up early on."

The exercise got out of hand at about 7:30 a.m., when control room operators at Three Mile Island informed the state Department of Environmental Resources that the Unit 1 reactor had lost its cooling water.

DER officials immediately called the Pennsylvania Emergency Management Agency and recommended an evacuation of residents living within 10 miles of the island.

But PEMA ignored the warning. The scenario it had drawn up with the help of Metropolitan Edison Co. dictated that an evacuation would not be necessary until nearly seven hours later, at 2:15 p.m.

When Thomas M. Gerusky, director of DER's Bureau of Radiation Protection, urged the evacuation, PEMA officials complained that Met-Ed was "playing" the drill "too fast."

PEMA never told DER that its recommendation to evacuate was disregarded, he said.

"We didn't even know that they had not evacuated anybody after the 7:30 a.m. telephone call," Gerusky said. "If they disregarded it, it would have been nice to know. We didn't know what was going on this morning."

DER was forced to mobilize its radiation monitoring crews much earlier than anticipated. As a result, the teams sat in their cars for nearly eight hours, baking in sweltering heat while pretending to take radiation readings.

There was confusion over radiation reports, too.

"We had people out reporting numbers that were not consistent with Met-Ed's," Gerusky said. "They said they got the reactor core covered again, but we realized there was a heck of a big problem because it was uncovered for so long."

"But they said they weren't getting any leakage and offsite (radiation) levels. It was weird, it was really weird."

Later, at about 1:30 p.m., Met-Ed personnel called DER to say that they were "losing the core again." DER again urged PEMA to order an

evacuation out to 10 miles, he said.

That time, PEMA listened.

Gerusky blamed the foul-up on the accident scenario drawn up by PEMA and Met-Ed. "Everything was screwed up, time-wise," he said. "The scenario has got to be greatly improved across the board."

And, he said, part of the problem was a lack of communication.

"The information flow between us and the utility was great," he said. "We were feeding PEMA with everything we were getting. But we weren't getting anything back."

Meanwhile, at an afternoon press conference, PEMA officials did not mention the confusion over DER's evacuation recommendation, choosing instead to put a relatively happy face on the day's activities.

PEMA Director Oran K. Henderson said the simulated accident revealed only minor procedural problems and no major flaws. He called the exercise "extremely beneficial."

Henderson said he hoped the drill would "restore public confidence in state government to handle the real thing more effectively than we did on March 28, 1979."

He hinted that something had gone wrong, however, stating vaguely that PEMA might have "bit-ten off" more than it could chew. Next time, he said, the agency would conduct smaller-scale drills.

"We operated satisfactorily, but we didn't have an opportunity to halt the exercise and examine the problems," he said.

Some of the problems, he said, involved the failure of some participating county and state agencies to receive "timely" information, which he blamed on a lack of PEMA personnel and "internal staff procedures."

Henderson said those problems could be "readily" corrected.

One of the problems, not mentioned by PEMA officials, involved Lebanon County, where officials were not told for 2½ hours that a general emergency had been declared at Three Mile Island.

Civil defense officials in Dauphin and Cumberland counties reported that they also failed to receive certain teletype messages from PEMA and that some of the messages were received too late.

But on the whole, county civil defense officials rated Wednesday's exercise a success.

Congressional report urges NRC to return TMI unit to service

WASHINGTON (UPI) — A congressional report urges the Nuclear Regulatory Commission to decide quickly when the undamaged reactor at the Three Mile Island nuclear power plant in Pennsylvania can return to service.

The General Accounting Office's report Monday examined the undamaged unit as a factor in the utility's struggle to stay solvent as it attempts to decontaminate the damaged Unit 2 reactor.

Met-Ed cannot pay its share of the cleanup costs and maintain system reliability without large rate increases or some external financial assistance, the report concluded.

The NRC has refused to permit restarting of Three Mile Island 1, which was not involved in the nuclear accident that contaminated and damaged the core of Three Mile Island 2 beginning March 28, 1979.

As a result, Metropolitan Edison and its parent holding company, General Public Utilities, have had to purchase costly power from neighboring utilities to make up for the loss of both units.

The report called on the Energy Department, which is responsible for assuring reliable power supplies, to assess the financial status of the utility and come up with a plan to make sure it remains viable. And it called on the NRC to decide quickly when the undamaged reactor can return to service.

GAO estimated that replacement power will cost Metropolitan Edison \$325 million this year alone. But it said financial insolvency of the company is not imminent and power supplies are assured for the immediate future.

The General Public Utilities system has been able to recover only a small amount of its replacement power cost for 1979 through utility rates, GAO said. It said the system was forced to turn to a consortium of 45 banks to obtain \$292 million it needed to continue meeting current expenses.

General Public Utilities faces an estimated \$500 million to \$600 million bill for decontaminating the damaged reactor, the report said. The holding company also will have to find \$2 billion to \$3 billion for capital outlays needed to maintain reliable electric service to its customers in New Jersey and Pennsylvania, it said.

The GAO report was requested by Sen. Gary Hart, D-Colo., chairman of the Senate Subcommittee on Nuclear Regulation.

White House 'shirking' on TMI, PUC chief says

State Public Utility Commission Chairman Susan M. Shanaman today accused the Carter administration of "shirking" what she claimed was the federal government's responsibility of providing financial assistance for cleanup and recovery from the Three Mile Island nuclear accident which knocked out Unit 2 on March 28, 1979.

Shanaman said she was "keenly disappointed and distressed" over what she regards as "a wholly inadequate response" by the president, in a letter by Stuart E. Eizenstat, assistant for domestic affairs, which replied to an appeal for federal aid signed by the four state commissioners on March 19.

"Mr. Eizenstat's letter, sent at the president's direction, makes it appear that there is little willing-

ness by the Carter administration to help Met-Ed consumers faced with heavy replacement power costs," Shanaman said in a statement.

"The letter represents, in my view, a shirking by the federal government of a responsibility it should meet in sharing the accident costs. This is pointed up by the history of the federal government's involvement and support of the commercial nuclear power industry, especially as to its use for electrical generation, beginning with the 1954 Atoms for Peace Program and the Price Anderson legislation.

"Suggestions have been advanced for a national surcharge on all electric utilities with nuclear power facilities and use of the funds to cover cost of replacement power as well as plant cleanup expense. Mr. Eizenstat's letter does

not touch this proposal."

She said the surcharge idea surfaced at a time when a congressional study showed that some kind of "external assistance" may be needed to help the financial recovery of GPU Corp., parent of Met-Ed and two other TMI companies.

"The General Accounting Office, investigating the case for Congress, said the U.S. Energy Department should consider the responsibility the federal government might have in providing assistance in event of a nuclear accident such as TMI," Shanaman added.

"I see a distinct parallel between the TMI situation and the help the federal government gave the strapped Lockheed and Chrysler corporations. I regret the president's inability to see it the same way."

The Evening News, Harrisburg, Pa., Monday, July 21, 1980

Radiation tally on TMI 'lacking'

BALTIMORE (UPI) — Government officials do not know precisely how much radiation escaped from Pennsylvania's Three Mile Island nuclear plant in March 1979 and have not lived up to promises to study the accident's long-term impact, it was reported Sunday.

The Baltimore News American, in a copyrighted article, reported a three-month investigation showed federal and state agencies have failed in their response to last year's accident.

The newspaper charged:

—More than one year has passed and no government agency has been directed to investigate possible long-term environmental damage resulting from the accident.

—Requests by farmers for examinations of diseased and dead animals after the accident have been ignored.

—Despite his pledge to determine the consequences of the accident, Pennsylvania Gov. Dick Thornburgh is unable to name a single agency or person conducting any studies.

The News American also said federal and state officials acknowledge they cannot gauge precisely how much radiation escaped from the plant, located 45 miles north of Baltimore, because they did not have adequate equipment on hand when the accident occurred.

THREE MILE ISLAND ALERT
315 Peffer Street
Harrisburg, PA 17102

KRYPTON

From 4

Gathering weather data, Bretthauer said, involved a field crew in the TMI area and a nine-person computer support staff in California.

Since the EPA's Middletown office was open 24 hours a day during the venting, the office staff was increased with 13 senior citizens hired through a federally funded work program, Bretthauer said.

Bretthauer, who is responsible for the off-site monitoring program at the government test sites near Las Vegas, Nev., will return there later this week. He said the new EPA officer at TMI, Bill Kirk, will arrive Tuesday. Most of the other federal personnel brought in for the venting "will go back to their respective jobs," he said.

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Three Mile Island Alert

Island Updates

News Watch on the
Harrisburg Area

Vol 1 No 12

AUGUST 1980

THE PRESS AND JOURNAL Wednesday, July 23, 1980

Technicians Will Venture Into Containment Today

The manned-entry into the Unit 2 Containment Building at Three Mile Island has been scheduled for mid-morning Wednesday, July 23.

Metropolitan Edison technicians first attempted to enter the crippled Unit 2 reactor building on May 20 but their efforts were stymied by the inability to open the building door. That technical problem was solved and a test of the door's opening and closing mechanism conducted last week was successful.

Robert C. Arnold, senior TMI official said that radiological information collected will contribute significantly to additional plans for the Containment Building cleanup.

"Entry is necessary for verifying general area radiation levels and for identifying 'hot spots' in initial cleanup work areas. We also expect to obtain radiation measurements from around the building's cooling and ventilation equipment," commented Arnold.

He said radiation level measurements near the equipment and in the stairwell and elevator areas will help clarify accessibility to the building for maintenance work, and are needed to plan for future, more extensive entries.

The two technicians who will enter the Unit 2 Containment building are William H. Behrle III, 36, a senior engineer at TMI, and Michael L. Benson, 27, a TMI nuclear engineer. They will gather data using several instruments during their stay inside the building. Both volunteered for the entry assignment and both have experience in nuclear power opera-

tions at GPU nuclear facilities.

Arnold outlined the entry process as follows:

After passing through the Unit 2 airlock, the team will enter the building about 24 feet above the basement level. They will walk single file about 100 feet in and back on a concrete floor, which provides shielding from the contaminated water collected in the lower level of the building.

During this time the team will:

- Describe what they see to the Command Center;
- Take surface swipe samples for laboratory analysis;
- Take beta and gamma radiation readings;
- Take photographs; and
- Measure radiation readings in specific areas including a stairway, the building air coolers and any identified "hot spots."

The team will immediately exit the Containment Building if

- The total radiation exposure reaches a predetermined level;
- There is any physical injury to either member of the team,
- One man loses both portable lights;
- Breathing apparatus difficulty, or,
- Loss of communications with the Command Center.

The team will not be able to see the reactor vessel steam generators or the pressurizer which are surrounded by concrete at this elevation. They will see some air filtration equipment, cooling fans, electrical cables, a stairway and some minor instrumentation.

According to Met-Ed experts, radiation exposures to the team are expected to be less than one rem (1,000 millirems) to the whole body, significantly below the federal quarterly allowable exposure limit of three rems (3,000 millirems) to each individual.

Measurements taken from the Containment Building airlock last week indicated radiation levels of about 700 millirems per hour gamma and 3-5 rems per hour beta.

The team's exposures will be limited by a 20 minute stay time and by wearing protective clothing. They will not however, be required to wear a diving dry suit with the standard radiation protection clothing since the krypton has been removed from the building.

Instead, they will wear fireman's overcoat, pants and pull on boots over regular radiation protection clothing. Each engineer will use a self contained breathing apparatus rated for 30 minutes.

The team also will carry hand-held radiation detection instruments, one a telescoping probe, portable lighting and a camera.

The two engineers on the entry team have undergone extensive entry training including simulated entries utilizing the TMI Unit 1 Containment Building, which is similar to Unit 2. The training program also included classroom sessions covering equipment usage, radiological concerns and safety.

The team underwent thorough physical examinations.

The Evening News, Harrisburg, Pa., Wednesday, July 23, 1980

Met-Ed, Penelec list merger plan 'formally'

By The Associated Press

Attorneys for the Metropolitan Edison and Pennsylvania Electric companies have formally notified the Public Utility Commission of plans to merge the managements of the two utilities.

Under the proposal, Met-Ed will be called Pennsylvania Electric Co.—East and Penelec will be called Pennsylvania Electric Co.—West.

The two divisions will have a common board of directors and common corporate officers.

Attorneys for the two companies said Tuesday the move is expected to achieve "more efficient management, improved customer service, cost savings and heightened emphasis on conservation and load management."

They said the plan has been reviewed by Theodore Barry & Associates, a consulting firm hired by the PUC to do a management audit of the two companies.

The PUC and the Federal Energy Regulatory Commission must approve the proposal before it can be implemented.

GPU reports its first-ever loss, cites the lack of revenue from TMI

PARSIPPANY, N.J. (AP) — Adverse regulatory decisions and abnormal operating costs resulted in a second quarter loss of 14 cents per share for General Public Utilities Corp., the first loss in the company's history.

The firm that owns the stricken Three Mile Island nuclear reactor said Wednesday that the removal of both TMI reactors from its operating rate base contributed to the net loss for the second quarter of \$8.4 million, compared with net income of \$19.9 million in the second quarter of 1979.

Earnings of 33 cents per share were reported during the same period a year ago. Total revenues for the quarter were \$425 million, compared to \$335 million for the same period last year.

GPU Chairman William G. Kuhns said in a prepared statement the earnings were affected heavily by the loss of revenues associated with both TMI units.

The New Jersey and Pennsylvania public utility commissions denied the capital and operating costs from customers' rates for Unit 2 in the second quarter of 1979. Costs associated with undamaged TMI Unit 1 were removed during the second quarter of 1980.

The effect on net income of the absence of TMI-2 revenue is \$14 million or 23 cents per share for the second quarter of 1980. For TMI-1,

the effect on net income is \$4.2 million or 7 cents per share for the quarter, the company announced.

TMI-1 was removed from rates effective April 1 for GPU subsidiary Jersey Central Power & Light Co., and June 1 for GPU's other subsidiaries, Metropolitan Edison Co. and Pennsylvania Electric Co. On an annual basis, the loss of TMI-1 will reduce net income \$31 million or 51 cents per share.

Second quarter 1980 revenues also were affected by a write-off of \$4.6 million reflecting the Pennsylvania PUC decision regarding alleged 1974 overpayments for coal; by the cost of the extended outage of the Oyster Creek nuclear plant in New Jersey and by the effect on operating costs of a strike at Penelec, the company reported.

The results also were adversely affected by a 2 percent decline in kilowatt-hour sales from the second quarter of 1979 and higher interest expenses, the company said.

The figures also reflect only one month of the \$60 million annual emergency interim increase in base rates granted JCP&L in May.

Some \$113 million of the total JCP&L request remains pending before the New Jersey Board of Public Utilities.

All subsidiaries are contesting in court the removal of TMI units from rate base, the company said.

Sunday Patriot-News, Harrisburg, Pa., August 3, 1980

Grant Application Submitted to Foundation

Profs Want to Set Up TMI Information Hub

By JON HARWOOD
Staff Writer

Two Pennsylvania State University assistant professors are attempting to replace the bumper sticker polemics arising from Three Mile Island with a center designed to provide the nuclear plant's neighbors with "understandable, reliable and credible information."

Anthony J. Baratta and Barbara G. Gricar, both assistant professors of nuclear engineering, have submitted a grant application to the National Science Foundation for funds in excess of \$200,000 to support the first three years' operating costs for a "Public Service Science Center for the Three Mile Island Area."

The foundation recently informed Baratta and Gricar that their preliminary proposal warranted a more detailed presentation, and a final proposal is now being prepared, Baratta told the Sunday Patriot-News.

The proposed center represents a concept rather than a physical entity. The term center is a "misnomer," Baratta said. "Rather, it's more of an organization." There will be no major central facility, although activities may operate out of several locations throughout the TMI-affected area.

The "center's" function would be to organize and stimulate local input into energy decisions and to develop a more informed citizenry,

according to the Penn State proposal. In essence, it would expand on the efforts of groups such as Middletown's Community Nuclear Education Council and provide a solid factual foundation for regional meeting of the minds on Three Mile Island and other energy-related issues.

The area to be served is not specifically defined in the proposal, and Baratta said it is "hard to put a geographic boundary on it" because of the different issues involved. For example, he said, Lancaster County residents probably are going to be more interested in the effects of TMI water releases than residents of upstream communities.

After three years of federal support, the local communities would be expected to assume responsibility for the center. Also, TMI would be expected to provide a "logical initial focus" for the center's activities, but once the concept is established, "the center's efforts could be devoted toward other local or regional policy issues involving science and technology," the proposal states.

The project was spurred by the Citizens' Radiation Monitoring Program conducted earlier this year by Penn State. The program, which taught local residents how to read and analyze radiation-monitoring

equipment, was successful, Baratta said, several participants "kept asking us where they could get more information."

Based on those questions, it "quickly became evident that understandable, reliable and credible information on TMI energy and related issues were unavailable in the area," the Penn State proposal states. "People within the area also felt frustrated because of the lack of any network or process by which they could influence policy decisions affecting the cleanup of the TMI plant and future sources of energy for their area."

Local residents "are demanding sources of information of the highest credibility," the proposal states. "They want to influence what happens to TMI and to participate in future energy planning for the area. Hence, a mechanism to stimulate constructive problem-solving is needed."

Some of the center's possible activities, as outlined in the proposal, follow:

- Assess local community needs for "making more informed decisions on TMI and energy issues."

- Establish programs and information systems that "will encourage the involvement of citizens in deciding the complex issues that are involved in Pennsylvania's energy future."

- Organize television debates

NRC Group Will Discuss TMI Unit 1 Restart

A subcommittee of the Nuclear Regulatory Commission's Advisory Committee on Reactor Safeguards will hold a technical meeting on August 5-6 in Washington, D.C., to review Metropolitan Edison's request to restart Unit 1 of the Three Mile Island Nuclear Station.

The meeting, which is open to the public, will begin at 8:30 a.m. each day in Room 1046, 1717 H Street, N.W.

Specifically, the subcommittee will discuss Met-Ed's compliance with an NRC order of August 9, 1979, which identified short-term requirements before restart and, further, ordered reasonable progress on cer-

tain long-term requirements. Representatives of the NRC staff and Metropolitan Edison will participate in the meeting.

Although meetings of the ACRS are open to the public, they are not part of the NRC's public hearing process. The ACRS, as an advisory group to the Commission, conducts independent, highly technical reviews of safety considerations related to nuclear facilities. While members of the public may attend the meeting, the subcommittee will consider only oral or written statements limited to specific matters

set forth in a Notice of Meeting published in the Federal Register on July 21.

Persons wishing to submit statements regarding the agenda may do so by providing a reproducible copy to the subcommittee at the beginning of the meeting or by mailing it to Richard K. Major, Advisory Committee on Reactor Safeguards, Nuclear Regulatory Commission, Washington, D.C. 20555.

Persons may request an opportunity to make an oral statement in connection with their written statement.

Questions will be asked by members of the subcommittee and its consultants only.

Comments should be based on information on file for public inspection at the NRC Public Document Room, 1717 H Street, N.W., Washington, D.C., and the Government Publications Section, State Library of Pennsylvania, Education Building, Commonwealth and Walnut Street, Harrisburg, Pennsylvania.

ACRS meeting schedules are subject to change. Anyone planning to attend should confirm the schedule the day before the meeting by calling 202/634-1414.

Sunday Patriot-News, Harrisburg, Pa., August 3, 1980

TMI Cleanup Continues

Epicor II Is Nearing Current Task's End

By MARY O. BRADLEY
Staff Writer

The massive restoration project at Three Mile Island will reach another milestone this month as the Epicor II system finishes processing the hundreds of thousands of gallons of moderately contaminated water remaining from last year's nuclear accident.

Although the operation took longer than originally anticipated, it has resulted in significantly lower radiation exposures to employees working with the contaminated water and the radiation-saturated "spent" resin filters, according to Richard J. McGoe, manager of process support at TMI.

Technicians "are proceeding expeditiously" to find a solidifying agent for the organic resins being stored in concrete modules at the site, McGoe said in an interview.

Since the resin-filtering system was activated in late October, nearly 441,500 gallons of water stored in tanks in the plant's auxiliary building have been processed, McGoe said.

That's 1 1/2 times as much water as the inventory when the project started. The additional water accumulated from leakages in the Unit 2 system and from water used in cleansing contaminated surfaces at the site.

Originally expected to take two or three months, the processing schedule was later revised to six months, but it has taken 10 months. "Once we got into the operation we realized how critical it was to process the water in a safe manner and be as conservative as possible," McGoe said.

The three-tank system — which operates much like a household water softener — removes radioactive particles using filtration and ion exchange. The dominant radioactive isotope in the water is cesium.

Epicor does not remove radioactive tritium, but officials said that, after dilution, the processed water could be safely discharged into the

Susquehanna River. However, under the terms of an agreement with the City of Lancaster, no water is being released into the river, the source of drinking water for Lancaster.

Initially, the operation of the \$5 million Epicor II was "performing extremely well," McGoe said. "We established extremely critical standards for water cleanliness" because the processed water is used in decontamination efforts.

"We did go through a period" when "the water was not as clean as we desired" and about 7,000 gallons had to be reprocessed, an amount McGoe describes as "reasonably small" in this type operation.

McGoe said further analyses of the contaminated water were done and the content of the filtering resins was adjusted in late January. "We have not had to recycle any water since then," he said, adding that a new processing schedule was drawn up in January calling for a mid-August completion. "Since January we have been on schedule," he said.

The workers involved in processing the water and handling the "spent" resins underwent a rigid training program, McGoe said, including written, oral and operational tests given by Metropolitan Edison Co. and the U.S. Nuclear Regulatory Commission.

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The Evening News,

Harrisburg, July 30, 1980

Thornburgh defends study of TMI effects

By United Press International

Gov. Dick Thornburgh says he still has confidence in a criticized study conducted by the Pennsylvania Agriculture Department that concluded few central Pennsylvania farmers were experiencing problems because of the Three Mile Island nuclear accident.

The Baltimore News-American, in a copyright story last week, suggested that the survey was shoddy and inaccurate. The newspaper said some of those surveyed by the state were listed as having no crop or animal problems when in fact they had some.

Thornburgh, questioned about the News-American report at a news conference Tuesday, said he was uncertain the department survey was 100 percent thorough, but remained confident that the findings were accurate.

He suggested the News-American's story was "Monday morning quarterbacking of the problems created by TMI."

"I have been satisfied," said the governor, "from (Agriculture) Secretary (Penrose) Hallowell's report to me that there are no unusual occurrences that can't be medically explained."

"And, perhaps more importantly, that there is absolutely no evidence of any radiation-induced problems on farms in this area."

to "focus on specific energy issues, disseminate technical information, and inform viewers of the available option on a given issue."

— Provide a "credible source of information to local journalists."

— Establish a community library for information on TMI and other energy issues.

— Organize teams of scientists, public officials, engineers, residents, and others to work with neighborhood groups.

— Develop a system that will enable the teams to "interact informally with small neighborhood meetings to develop an understanding of technical and scientific information relating to energy issues and TMI and to provide a basis for community confidence in the center."

Another possible activity, Baratta suggested, is the establishment of a "local technical advisory group," somewhat akin to the Union of Concerned Scientists, that would "provide input into the process of deciding environmental issues."

(The Union of Concerned Scientists advised Gov. Dick Thornburgh on the venting of radioactive krypton gas from TMI.)

Another role model for the proposed center is Middletown's Community Nuclear Education Council, formed earlier this year by borough Mayor Robert G. Reid.

The council consists of Reid, the

borough Civil Defense director, a high-school youth, borough residents, and representatives from pro- and anti-nuclear forces, borough council, the media, and Metropolitan Edison Co., the utility that operates TMI.

The group meets on the third Tuesday of each month to discuss different aspects of either the nuclear plant or nuclear energy in general. Reid has said the group's sessions have been successful, and Baratta, who attended one of the meetings, agrees.

"We're very impressed with what the mayor and the people have done there," Baratta said. The council is an "excellent start," and "we want to expand it to embody a regional concept," he said.

He does not expect the National Science Foundation to take final action on the grant proposal until early next year, but "we do hope we can convene a group of people before we submit the (final) plans."

This "steering committee" would comprise a "mixture of participants," including scientists, engineers, housewives, local officials and state officials, he said.

With Baratta and Gricar acting as "co-principal investigators" for the project, Penn State initially will take an active role in setting up, operating and managing the center. After the concept is well established, Baratta said, the Penn State staff will "let the people run it themselves and act as a resource."

The Evening News, Harrisburg, Pa., Tuesday, July 29, 1980

TMI power-replacement rate may be cut

WASHINGTON (AP) — The owners of the Three Mile Island power plant would get the lower rates they want for replacement energy under a tentative settlement reached with a tri-state power pool, it has been learned.

Three subsidiaries of General Public Utilities Corp. have been paying about 35 percent above cost for replacement energy purchased from the Pennsylvania-New Jersey-Maryland power pool.

Under an agreement worked out last week by the utilities which make up the PJM pool, the GPU companies would be charged only 10 percent above cost.

The agreement was circulated over the weekend among several parties which had asked to intervene in a case which GPU had filed with the Federal Energy Regulatory Commission.

A copy of the proposed agreement was obtained Monday by The Associated Press.

In exchange for the rate concessions, the agreement would impose a harsh penalty on GPU should it default on payments to the power pool. A defaulting partner would lose its vote in PJM matters, according to the agreement.

The proposal also makes it clear the revised price structure applies only to the GPU group and only for a limited time.

The agreement would remain in effect until the non-damaged nuclear unit at Three Mile Island begins operating at no less than 70 percent of its rated capacity or Dec. 31, 1981, whichever is sooner.

The GPU subsidiaries — Jersey Central Power & Light Co., Metropolitan Edison Co. and Pennsylva-

nia Electric Co. — own the two nuclear reactors at Three Mile Island. One of the reactors was out of service when an accident damaged the other on March 28, 1979. The undamaged reactor has not been allowed back in service.

Without the power those reactors would have produced, the three subsidiaries have been forced to buy replacement power from other utilities.

GPU felt the PJM rate structure gave those selling replacement power an excessive profit.

The corporation went to the FERC asking that the price structure be adjusted and arguing that the rates were designed for short-term rather than long-term power outages.

Other members of the PJM network, including Potomac Electric Power Co., said they sympathized with the GPU plight but defended the price system.

The case has been referred to a hearing officer who has scheduled a meeting Thursday to discuss the proposed settlement. The proposal must be approved by the FERC.

According to a PJM analysis of the impact of the proposed settlement, GPU would have saved about \$18 million if the proposed rate system had been in effect from July 1, 1979 through June 30, 1980.

JCP&L has been particularly hard-hit in the aftermath of the nuclear accident. It recently requested its sixth rate increase in 18 months to help pay the extra costs of buying replacement power.

JCP&L serves 670,000 customers in New Jersey.

Wednesday, July 23, 1980

TMI re-entry 'successful and safe'

By MARY O. BRADLEY
Staff Writer

The first human re-entry of the Three Mile Island Unit 2 containment building lasted 20 minutes and was completed "successfully and safely."

William H. Behrle III, 36, a senior engineer at TMI, and Michael L. Benson, 27, a TMI nuclear engineer, entered the darkened building at 10:06 a.m., after spending nearly two hours getting dressed in anti-radiation gear and conducting last-minute checks on communications equipment.

The key opened the door from an airlock into the containment building without trouble. A jammed lock in that door had aborted the first entry attempt May 20, but technicians had corrected the problem.

David Klucsik, spokesman for Metropolitan Edison Co., said the volunteers returned from the building to the airlock at 10:26 a.m. and immediately began removing their layered protective clothing.

"The program went completely according to schedule — successfully and safely," Klucsik said.

Benson and Behrle were scheduled to discuss their mission at a news conference this afternoon.

The purpose of today's mission was to gather radiological information to assist in the cleanup of the facility which could take up to four years, according to Robert C. Arnold, chief of recovery operations at TMI.

The engineers wore a fireman's coat, pants and pull-on boots over regular radiation protective clothing and self-contained breathing equipment. Because the krypton gas has been vented from the structure, the team did not have to wear diving drysuits.

They maintained contact with the personnel stationed outside the containment building by two-way radios. They carried hand-held radiation detection instruments, a telescoping probe, portable lighting and a camera.

After passing through the Unit 2 airlock, the team entered the structure about 24 feet above basement level. They walked single file about 100 feet in and back on a concrete floor, which provides shielding from the 700,000 gallons of highly contaminated water on the basement floor.

The duties of the team were to give a visual description of the interior to the command center; take surface swipe samples for laboratory analysis; take beta and gamma radiation readings; take photographs and measure radiation readings in specific areas including a stairway, the building air coolers and any identified "hot spots."

Radiation exposure to the team was expected to be less than one rem (1,000 millirems) to the whole body. Federal standards limit exposure to 3 rems to each individual quarterly.

Measurements taken from the containment building airlock last week indicate radiation levels of about 700 millirems an hour gamma and 3 to 5 rems an hour beta.

Although general radiation levels have been measured remotely in some areas and calculated in others, entry is necessary, Arnold said, to verify the general readings and to identify "hot spots" in initial cleanup work areas.

TMI monitors upgraded, but problems linger

By PATRICE FLINCHBAUGH
Of the Daily Record

Three Mile Island upgraded its radiation monitors after the 1979 accident to meet new U.S. Nuclear Regulatory Commission standards.

But radiation protection specialists say four problems linger:

- TMI technicians cannot interpret the new devices, which tripped June 28's false alarm.
- TMI's state-of-the-art monitors are "too new" to be constantly reliable.
- TMI lacked permanent back-up monitoring systems during the recent krypton purge.
- No monitor could have measured accurately the small, controlled releases anyway.

These thoughts bother nuclear power foes like Kathy Manfred, of TMI-ALERT, which cannot afford to double-check TMI's data. A \$240,000 price tag hangs on one type of sophisticated radiation reader, for example.

"But never was so much equipment used to measure so little," said Margaret Reilly, of the state Bureau of Radiation Protection, about the venting.

The U.S. Environmental Protection Agency alone ran 19 air monitoring stations near the plant.

Preliminary reports said all emissions were below acceptable limits to radiation exposure.

But Ms. Manfred's concern was about the quality of work inside the plant.

After some informal research on monitoring, she was confident agencies could detect off-site contaminants. She was skeptical about TMI's equipment, given the plant's track record.

Inoperable instruments at TMI blocked getting accurate information quickly during the 1979 crisis, according to the President's Commission on the Accident at TMI.

Thursday, at the 25th annual meeting of the Health Physics Society in Seattle, Andy Hull, of Brookhaven laboratory, said radiation levels exceeded what the monitors could measure. It was impossible to predict probable population doses, he said.

Authorities backed up in-plant monitors with natural indicators like cow's milk, he added.

Utility officials quickly replaced faulty and accident-damaged monitors with "state-of-the-art technology," as one Metropolitan Edison Co. health physicist termed Particulate-Iodide-Noble Gas (PING) detectors.

In fact, one Albuquerque, N.M., supplier flew an instrument to Middletown by Air Force jet a few days after the accident.

Met-Ed uses about 15 PINGs to monitor all potentially radioactive plant air, said company health physicist Paul Ruhter. That includes containment building vents and the main vent stack, he said.

The basic measuring principle of PING is about 30 years old, said Eric Geiger, a health physicist at Eberline Instruments, manufacturer of TMI's PINGs. But the latest versions do not have a lot of history, he said.

In a PING, air flows through three lead-encased, steel canisters where filters trap particles and monitors measure their radioactivity.

The first chamber contains a highly efficient filter to catch particulates. Its monitor detects beta radiation. Most radioactive materials at TMI, including krypton, are beta-emitters, said Ruhter.

The second chamber forces air through a silver dollar-sized charcoal filter, designed to absorb iodides and other dangerous gamma-emitters. A special monitor over the charcoal can be programmed to watch for all gamma isotopes or just certain ones.

The air's last stop is a chamber, where a beta monitor calculates how much inert gas is present. Inert, or noble, gas does not mix chemically with other elements.

That third chamber was responsible for July 8's temporary halt in the venting schedule. Technicians dismissed it as routine equipment failure.

Andy Hull, air monitoring specialist at Brookhaven, said PING's first chamber stops about 90 percent of all particulates going through.

Eberline's Geiger declined to suggest what the entire machine's efficiency rating might be.

The particular PING model used during krypton venting at TMI is only one year old, but Geiger said the purge could have been spared June 28's false alarm had operators understood the instrument better.

Henry Kendall, founder of the Union of Concerned Scientists, agreed. He said it wasn't technologically impossible to monitor the process.

"It was clear they (Metropolitan Edison Co.) had not thought the thing through.

"Fortunately, there were no serious consequences, but it was just another indication of incomplete preparation at TMI... the sort of thing which led up to the accident in 1979," he said.

The scientist's group had been commissioned by Gov. Dick Thornburgh to study possible schemes for ridding the plant of krypton gas, said to have been a barrier to further decontamination.

But as Geiger noted, Met-Ed should have anticipated what large volumes of krypton would do to the PING's particulate detector in the first canister. It triggered an alarm set too low just four minutes after venting began June 28.

He said that was the first time high volumes of inert gas passed through a PING. The operator had to know how to use the machine's intricate capability, he said.

Although Met-Ed boasts state-of-the-art in radiation monitoring, Geneva Douglas of the U.S. Environmental Protection Agency, suggested nuclear engineers should be more content with the "old reliable."

"The things you want to count on routinely may not have enough history behind them to work without constant attention," she said.

Example: Gauges on EPA's gas bottles at five krypton sampling stations had to be watched during the venting for possible leaks.

Despite the two monitor-related delays in krypton venting, Ruhter said the utility has not had to commit personnel to extensive PING debugging.

Brookhaven's Hull said he was surprised TMI did not have a dual monitoring system as a standby or in parallel for the purge, considering the high level of public concern.

Met-Ed senior TMI official Robert Arnold did not think duplicate air monitors were necessary. He said public reassurance should have come from off-site EPA tests.

NRC recommended duplicate systems last year in other areas of nuclear design, prompted by the 1979 TMI incident. NRC decided Babcock & Wilcox-designed plants were particularly sensitive to upset conditions. So the nuclear regulator ruled B&W operators need more than one source of data.

Regardless of the number of monitors used, some scientists say they cannot measure low-level radiation accurately, anyway.

"Background", or naturally occurring radiation, is the basis on which monitors brand emissions safe or hazardous.

But Met-Ed's Ruhter said it's impossible to calculate "background" for a broad region because it varies wildly between points just a few feet apart.

Even so, nuclear plant monitors are typically geared toward measuring low-level radiation, he said. During an accident, the equipment is then off-scale, he said.

PING-III, which is just now going into production, is supposed to correct that problem, said Geiger. It was designed specifically with TMI-type accidents in mind, he says. TMI uses PING-2-A, which was state of the art a year ago, he said.

The President's Commission found nearly half of TMI's monitors were off-scale during the 1979 accident. Gloria Davis, York author of a post-accident book, wrote, "NRC told us we'll never know the amount of radiation we received, because the stack monitors went off-scale."

Ruhter said it's too dangerous to calibrate high-range monitors. Near-lethal radiation sources must be used.

Eberline calibrated PING III using krypton-85, the gas Met-Ed vented from TMI, Geiger said.

Epigor II FROM 3

"We went through very particular steps to design a system and hardware to handle waste that would have reasonably high radiation levels associated with it."

The handling and storing of the resins has been "just excellent" and resulted in "minimal exposure" to workers, McGoeys said. "This is something we are extremely pleased with."

The exposures for the operation have been "less than originally estimated," he said.

Contaminated resins are stored inside concrete modules containing 60 "cells." Two concrete modules have been built, measuring 57 feet wide, 91 feet long and 19 feet high with a 3-foot-thick base and 4-foot-thick walls. The top of each cell is a 16 ton concrete lid.

Only one of the modules contains spent resin liners. There are plans for four more modules to be built.

When the NRC approved the Epigor II system, it specified that Met-Ed had to solidify the resins before shipping them to a burial site. "At the time of the (NRC) order we did not have equipment or the ability to carry out the order," McGoeys said, explaining that, before the TMI accident, utilities were not required to solidify resins before shipping.

"We are now well into testing to determine a suitable solidification agent," McGoeys said, with cement apparently the leading candidate.

"It's not our intent to retain the (resin) liners at TMI any longer than necessary. The waste should be placed in a long-term storage facility."

When Epigor II is finished processing the accident-generated water and in-leakage water, it will continue in operation, McGoeys said, to handle water resulting from decontamination scrubdowns of equipment, walls and floors in Unit 2.

"Epigor will continue to be in service for some time."

A Lancaster-based anti-nuclear group has challenged the use of Epigor II, contending that it is resulting in a buildup of radioactive wastes at the site where potential exists for flooding. The Susquehanna Valley Alliance also contends that cement will not be an adequate sealing agent.

But, McGoeys said, adequate precautions have been taken to protect the spent resins against flooding. Besides being placed behind the station's flood dikes, the modules are made of steel and concrete to prevent any in-leakage of moisture.

He further said cement has been used as a solidifying agent in Sweden, but Met-Ed technicians are continuing tests to determine its suitability.

The next major water-processing project at TMI will be the decontamination of 700,000 gallons of highly contaminated water in the basement of the Unit 2 containment building. TMI technicians hope to get NRC approval to use a submerged demineralization system to clean the water.

The so-called "SDS" process is similar to Epigor except it will use inorganic zeolite resins and will operate under water in the Unit 2 fuel-handling pool.

Installation of some of the components for the SDS has started, but the water-cleaning system is still under review by the NRC. McGoeys said Met-Ed expects to have the SDS constructed by the end of 1980, but the NRC review process may not be completed until early next year.

PROBLEMS LINGER from 2

Eberline needed a New Mexico state license to use the gas, but Geiger felt company workers faced no unusual risks while working with krypton.

Although final reports and an environmental impact study of the krypton venting at TMI are not complete, federal officials say all releases were small and safe.

That's not much comfort to Kathy Manfred who calls low-level radiation dangerous. The state Bureau of Radiation Protection says any radioactive release into the environment poses some health risk.

But some scientists deem the possible hazard a small price to pay for the quality of life they say nuclear power affords the nation. Reverting to only coal or oil-produced power would not be feasible, they add.

The requirement for power is too large to exclude nuclear sources, said one scientist.

"Besides, the risk of exposure from nuclear plant radiation is small compared to what we live with from medical and dental x-rays.

"But, I'm told we have the healthiest teeth in the world," he added.

The Evening News, Harrisburg, Pa., Tuesday, July 29, 1980

Met-Ed, Penelec file for rate boosts

By MARY O. BRADLEY
Staff Writer

Metropolitan Edison Co. of Reading and Pennsylvania Electric Co. of Johnstown today filed for base rate increases that will boost average residential customers' bills by \$5.95 and \$4.20 a month, respectively.

In separate filings with the state Public Utility Commission, Met-Ed asked for a \$76.5 million boost and Penelec requested a \$67.4 million increase. The utilities cited the effects of inflation on operation and maintenance costs.

Met-Ed released these average monthly increases for three groups of its residential customers: \$5.95 for a customer using 500 kilowatt hours without electric water heating; \$10.75 for a customer with electric water heating using 770 ki-

lowatt hours, and \$14.75 for an all-electric home using 1,550 kilowatt hours.

A Penelec spokesman said the utility's 14.4 percent boost will mean average monthly increases as follows: \$4.20 for a residential customer without electric water heating who uses 394 kilowatt hours a month; \$5.10 for a customer with electric water heating who uses 772 kilowatt hours a month, and \$8.40 for a customer with all-electric homes using 1,582 kilowatt hours a month.

Met-Ed said it needs \$35 million

of its proposed increase for "emergency relief" effective Sept. 1. Penelec has assigned a Sept. 27 effective date to its proposal.

Both utilities want the PUC to reinstate the undamaged Three Mile Island Unit 1 reactor into their base rates. The PUC stripped Unit 1 from the two base rates in May — a \$26.9 million loss for Met-Ed and a \$15.4 million loss for Penelec.

Met-Ed's won a \$49.8 million base rate increase just days before the TMI nuclear accident in March 1979, but the PUC shelved it in the wake of the accident.

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Anti-TMI group has trouble raising funds for its work

By MARY O. BRADLEY
Staff Writer

After nearly a year of preparation, the area's oldest anti-nuclear group says it may not be able to participate in upcoming federal hearings on the reopening of Three Mile Island Unit 1 because of financial constraints.

Three Mile Island Alert Inc. said it must raise \$10,000 by Sept. 19 or it will have to drop out of the restart hearings that the Atomic Safety and Licensing Board will convene Oct. 15. The deadline for intervenors to file written testimony they will present is Sept. 19.

Joel Roth, TMIA chairman, said the money is needed to pay legal fees and expert witnesses.

TMIA has been preparing to argue two contentions: (1) That Metropolitan Edison Co. is incompetent to operate Unit 1 because its policy of "deferred maintenance" created a health and safety hazard and (2) that Met-Ed is financially unable to operate the facility because of the huge cleanup bill for the Unit 2 reactor.

TMIA's problem is symptomatic of the plight facing citizen intervenors who must bear the cost for lawyers, witnesses and the reams of documents that are exchanged among all participants.

People Against Nuclear Energy, a Middletown-based group, said it has incurred "a debt of about \$8,000 in legal fees" in preparing its case that restarting Unit 1 will have an adverse impact on the psychological well-being of residents.

PANE has retained the services of several prominent psychiatrists, sociologists and psychologists. However, the group is working under a shadow of uncertainty because the Nuclear Regulatory Commission has not yet ruled that psychological stress is a litigable issue in the restart hearings.

Citizen intervenors continually have argued at the prehearing conferences that they are facing a double, and in some cases triple, financial burden. Besides their own expenses, the intervenors say they pay the federal costs through their tax money, while those who are customers of Met-Ed said they help subsidize the utility's expenses through their monthly bills.

The intervenors have been unsuccessful in getting approval for federal financial assistance.

He said volunteers have made the bulk of the analyses of computer summaries, tapes and other documents on Met-Ed's maintenance program, but "expert witnesses are still necessary to help TMIA's counsel in preparing this data."

One nuclear safety engineer who may be a TMIA rebuttal witness discussed some of his preliminary assessments of Met-Ed's maintenance program at a news conference Wednesday.

Richard B. Hubbard, a member of the consulting firm of MHB Associates in California, declined to cite specific examples of deferred maintenance but said the analyses uncovered "numerous instances" where "priority one" work orders were delayed more than one year.

The Evening News, Harrisburg, Pa., Friday, August 29, 1980

GPU aide predicts service cuts, layoffs

By MARY O. BRADLEY
Staff Writer

A top official of General Public Utilities Corp. said he was "surprised" and "shocked" after the state Public Utility Commission denied \$35 million in emergency relief to the operator of Three Mile Island.

Fred D. Hafer, GPU vice president of rates administration, predicted that current and future customers of Metropolitan Edison Co. will notice immediate effects ranging from layoffs to cutbacks in service as the Reading-based utility pares its operating budget to make up for the lost income.

Hafer said he did not know if Met-Ed would exercise its statutory right to file another petition for financial aid. "Refiling doesn't seem fruitful if the commission's mind already is made up," he said, after the regulatory body unanimously rejected the initial request Thursday.

ly unexpected as an administrative law recommended denial, contending the utility failed to substantiate its claim that it needs an immediate influx of cash to continue reliable service.

Somewhat unexpected, however, was the commission's rejection of its staff position that the proceeding involving Met-Ed's \$76.5 million base rate increase should be expedited. The commission agreed with the judge's observation that a "short-cutting in procedure could result in short-cutting either Met-Ed or its customers."

Met-Ed sought to put the \$35 million increase into effect Monday. It would have been an "advance" on the \$76.5 million boost the company asked for July 29. The full case is still being examined by the commission staff but it is likely it will be suspended until public hearings are held.

"I'm surprised and shocked, if you will, that the commission

didn't see the emergency nature of the request," Hafer said. "I don't know how much clearer the need could be or the testimony" could have been during recent hearings. He said upwards of 1,000 jobs are in jeopardy, "including a substantial number at the TMI site."

Hafer said Met-Ed also is facing reductions in its maintenance and operation budgets which will be noticed by current and new customers who can't get the type of service they want.

In a statement released late Thursday, William G. Kuhns, GPU chairman, said the loss of the interim funds could lead to the following:

—Limiting new customer hookups to those who do not need line extensions and to those who need electricity only for very basic needs, thus reducing by 40 percent the number of new customers Met-Ed could potentially serve.

—Leaving Met-Ed vulnerable to a prolonged coal strike by necessitating a reduction in coal stock piles.

—Seriously undermining the reliability of Met-Ed's service, resulting in prolonged outages for Met-Ed customers in the event of severe storms.

Kuhns further said the reductions in the TMI workforce "would seriously limit Met-Ed's ability" to return the undamaged TMI Unit 1 to service "at the earliest date," and would delay the cleanup and dewatering efforts at TMI Unit 2.

"It is unfortunate that the commission did not recognize the tremendous and serious impact the absence of emergency rate help would bring to Met-Ed and its customers," Kuhns said.

GPU's financial picture improved slightly in July as its revenues began to reflect the \$111 million fuel charge increases that

Cont. p4

Met-Ed's credit limit drops

HARRISBURG (AP) — A consortium of 45 banks has reduced the credit available to the operator of Three Mile Island, forcing increased cutbacks, the utility's parent company said Friday.

William Kuhns, chairman of General Public Utilities, said Metropolitan Edison's credit limit has dropped from \$105 million to \$91 million, and in six months will be down to \$74 million.

The \$91 million figure represents the value of Met Ed uranium pledged to the banks (set at \$20 million) plus \$71 million in deferred energy costs.

However, the deferred energy costs are gradually being repaid by the company's 360,000 Pennsylvania customers and are expected to decline to \$54 million by March 1.

Kuhns said the bank actions stemmed from a recent Public Utility Commission decision denying Met Ed an immediate \$35 million infusion of emergency cash in the form of an interim rate increase.

The interim relief was part of \$76.5 million rate increase now

pending before the commission. The panel has until the end of April to decide the case.

"We are disappointed by this action of the banking group," Kuhns said in a statement.

"It was not unexpected since officers of the lead banks had testified before the Pennsylvania commission that a continuation of the present lack of earnings by Met Ed would require a reduction of bank credit," he added.

Kuhns said the banks indicated they would reconsider the new limit if additional assets could be pledged to them.

In light of that, he said Met Ed will ask the PUC for permission to pledge its accounts receivable (revenues billed but not yet collected) to the banks. He said Met Ed needs the additional credit to meet its nearterm capital needs.

Meanwhile, he said the utility will proceed with contingency plans for laying off employees and reducing construction, maintenance and operations — steps he said will be "severe to both our employees and our customers."

PUC reviews GPU management reshuffle

By MARY O. BRADLEY
Staff Writer

A management reshuffling plan designed to give the Pennsylvania owners of Three Mile Island a facelift was scheduled to come up for final review today before the state Public Utility Commission.

Proposed in January and officially filed in July, the plan would merge the managements of Metropolitan Edison Co. of Reading and Pennsylvania Electric Co. of Johnstown and establish a separate entity — GPU Nuclear Corp. — to operate TMI and GPU's Oyster Creek nuclear plant in Lacey Twp., N.J.

The commission also was to consider a fiscal request from GPU aimed at increasing the bank credit available to financially strapped Met-Ed. GPU wants to pledge Met-Ed's accounts receivable as a third form of collateral for the revolving credit agreement GPU has with a consortium of 45 banks.

GPU announced earlier this month that the consortium had reduced the credit available to Met-Ed because the PUC denied the utility a \$35 million emergency rate boost. GPU said Met-Ed's credit would be reduced gradually from the current \$91 million level to approximately \$74 million in six months.

But the consortium indicated the "credit could be increased if additional liquid assets could be pledged with them."

As of July 31, Met-Ed had \$25 million in accounts receivable, which would entitle it to an additional \$20 million credit, GPU said. Met-Ed already has pledged as collateral \$20 million in uranium and the unamortized balance of its deferred energy account.

Without additional credit, GPU said Met-Ed's needs would exceed its resources next month.

The management merger is aimed at streamlining the operations of Met-Ed and Penelec and could result in an \$18 million annual savings, GPU said. Under the merger, Met-Ed would be called Pennsylvania Electric Co.-East and Penelec, Pennsylvania Electric Co.-West.

The two divisions would have identical boards of directors and officers, and the corporate headquarters would be in Reading.

GPU said the reorganization has been reviewed "favorably" by Theodore Barry & Associates, a New York-based consulting firm hired by the PUC to do a management audit of GPU, Met-Ed and Penelec.

GPU Nuclear Corp. will assume responsibility for the five-to-seven-year cleanup at TMI Unit 2, the operation of TMI Unit 1 and the Oyster Creek plant, and the completion of GPU's Forked River nuclear plant — if construction of the 1,100-megawatt station is resumed.

Joseph M. Benish, a GPU spokesman, said the U.S. Securities and Exchange Commission approved the formation of GPU Nuclear on Sept. 5. He said GPU will apply to the Nuclear Regulatory Commission for an amendment to the operating licenses of TMI and Oyster Creek to recognize the transfer of responsibility.

The Patriot, Harrisburg, Pa., Saturday, Sept. 13, 1980.

Limit Hookups

Met-Ed Plans To Cut 700 Jobs

By The Associated Press

The cash-poor Metropolitan Edison Co. said Friday it will limit new hookups, reduce coal inventories and cut 700 jobs — including 500 at the disabled Three Mile Island nuclear plant.

Herman Dieckamp, president of Met-Ed's parent company, General Public Utilities, said the economy measures would take effect within a few days.

"We deeply regret taking these steps since these actions will have a direct impact on our customers. We are already operating at minimum levels and these additional cuts will force a deterioration of services," Dieckamp said in a statement.

He said the measures stem from the recent Public Utility Commission decision denying the company a \$35 million emergency rate increase, and the subsequent reduction in bank credit to Met-Ed.

Met-Ed, the operator and 50 percent owner of TMI, expects to

save \$34 million through cutbacks, which include reducing new customer hookups by one-third.

Some 500 positions are scheduled to be eliminated at Three Mile Island, where about 1,900 workers are cleaning up in the wake of the nation's worst commercial nuclear accident. The March 1979 accident crippled the plant and contaminated it with radiation.

"While the clean-up operation will be reduced to about 50 percent of the present level of activities, there will be no reductions made in those areas affecting public health and safety," Dieckamp said.

Both GPU and the Nuclear Regulatory Commission have stressed that a speedy cleanup is vital to ensuring the health and safety of the public.

GPU spokesman Ken McKee said the TMI layoffs won't affect the current pace of the cleanup, but "have the potential for delaying (it)."

Ease users' burden, Met-Ed told

By MARY O. BRADLEY
Staff Writer

Continuing its commitment to the policy that customers should not have to pay for the accident at Three Mile Island, the state Public Utility Commission has ordered the operator of TMI to cease using rate-payer revenue to clean up the TMI Unit 2 reactor.

In a 4-0 decision, the PUC further put Metropolitan Edison Co. on notice that it intends to exercise "some control" over the disbursement of whatever revenues Met-Ed may obtain at the conclusion of its upcoming \$76.5 million base rate case.

The PUC took the action Thursday because it said Met-Ed's cost-cutting proposal to furlough 700 employees and curtail customer services "clearly" raises

the "issue of the company's intent to provide reasonable and adequate service as required by the Public Utility Code."

The PUC said it "will not permit service to deteriorate at the prerogative of corporate management."

The PUC approved Met-Ed's plan to shore up its sagging credit position by pledging its accounts receivable as collateral in order to secure \$20 million in additional bank credit.

But the state regulators nixed quick approval of a plan to reshuffle the managements of Met-Ed and its sister utility, Pennsylvania Electric Co. of Johnstown. Rather, the proposal will be consolidated with a separate PUC investigation of the companies' corporate and financial management capabilities.

The PUC said prepared testimony — submitted to support the utility's unsuccessful attempt to get \$35 million in emergency funds — indicates that during the period of July 1980 to July 1981, Met-Ed will spend \$25 million for cleanup costs above insurance payments. The testimony also indicated that "cleanup expenditures are being funded in part by monies generated through revenues specifically authorized by the commission to enable the company to amortize the deferred fuel expense account."

The PUC said it permitted Met-Ed to collect from customers the cost of replacement power for the shut-down nuclear plant on the presumption that the banks that provided the money to buy the power would be repaid. "The banks are not being repaid; rather, the company, according to its own testimony, appears to be using these funds to some extent for cleanup costs," the PUC said.

The PUC said it "must now undertake to police the matter in order to ensure that ratepayer monies are not being used, either directly or indirectly, to pay cleanup expenses."

The PUC said the uninsured cleanup costs are "the responsibility of the company's stockholders and/or the federal government."

The commission's authorization permitting the accounts receivable to be used as collateral followed a heated debate over how much control this would give to the banks in the daily operations of the utility.

The Evening News, Harrisburg, Pa., Thursday, September 18, 1980

Carter 'betrayed' vow on TMI, coalition says

By DON SARVEY
Staff Writer

A coalition of anti-nuclear groups today claimed that President Carter had "betrayed" a pledge to make the health and safety of the public the paramount consideration in the cleanup of Three Mile Island Unit 2.

Beverly Hess, president of the TMI Public Interest Resource Center, said at a Capitol news conference that a number of groups had asked to meet with Carter to express their concerns about the cleanup project.

"We learned late yesterday that the president has refused to agree to such a meeting," she said.

The formal letter of request went to the president Wednesday, but Steven Sholly, research director for the resource center, said the request for the meeting initially was submitted "earlier in the week" in a "brief letter" from Coral Ryan, a Washington-based representative of the Nuclear Information and Resource Service.

Sholly said word of the rejection was received in Washington and he didn't know specifically from whom it came.

The formal letter to the president focused on four "basic flaws" in the Nuclear Regulatory Commission's draft environmental impact statement for the cleanup, and took issue with the NRC's position that a public-comment period will suffice in place of public hearings on the cleanup.

"If the NRC will not hold those hearings, we will be in court very shortly," Sholly said.

Hess said the coalition has "received money from national foundations to pursue our litigations." She said the amount of the contributions was "slightly over \$85,000" but declined to name the foundations. "I don't think it would be appropriate," she said.

Sholly said the anti-nuclear groups still can't muster financial resources on a par with Metropolitan Edison Co., the operator of TMI. He said he had "confidential information" that Met-Ed is spending \$72,000 a month in legal fees to one out of six attorneys working on the restart of Unit 1.

The letter to Carter claimed that:

—The NRC has given "inadequate" consideration to "the problem of where and how to dispose of the wastes" from the Unit 2 accident. The anti-nuclear groups said there is "no assurance that any waste site will accept the low-level waste in the amount postulated"

—That the NRC should not have dismissed the question of whether Unit 2 will be decommissioned or restarted, in that "in reality the methods of cleanup are very dependent on the decision"

—That the lack of cost estimates in the draft environmental statement in effect excludes the

matter of costs from the public-comment period.

—And that the NRC is wrong in simply assuming that the release of cesium and strontium in processed water from the plant won't affect the "marketability" of Chesapeake Bay seafood.

Kenneth May, a spokesman for the Maryland Ad Hoc Committee on TMI, said at the Capitol news conference that such release would "shatter public confidence" in Bay fishery products.

Michael Musser, spokesman for the Susquehanna Valley Alliance, said the draft environmental statement doesn't deal adequately with the "final disposition" of processed radioactive water.

He said Met-Ed is being permitted to spend large amounts of money on a submerged demineralizer system for possible processing of the highly contaminated water in Unit 2, a move which could "prejudice the NRC's decision as to which alternative" for cleanup of the water is desirable.

Other anti-nuclear groups represented in the Capitol were Three Mile Island Alert, People Against Nuclear Energy, the Newberry Twp. Steering Commit-

tee, the Environmental Coalition on Nuclear Power and the Anti-Nuclear Group Representing York. A similar news conference by other groups was staged simultaneously in Washington.

Sholly claimed that an advisory panel being created by the NRC for the cleanup project was an "artificial, bureaucratic creation" and that local citizens groups had not been consulted about the panel's makeup.

Further, he labeled as "manufactured need" Met-Ed's position that venting of krypton gas from the containment building was necessary to facilitate interior maintenance.

Sholly said that "not one bit of maintenance has been done" since manned entry into the building two months ago. "If it was so pressing a need, why hasn't something been done?" he said.

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Public being shortchanged on TMI cleanup decisions, NRC is told

By MARY O. BRADLEY
Staff Writer

A Mechanicsburg man today asserted that the public is being shortchanged in decisions concerning the cleanup of Three Mile Island nuclear power plant.

"We're really an afterthought," Timothy Lyng told federal and state officials at a briefing on the draft environmental impact statement on the TMI cleanup prepared by the Nuclear Regulatory Commission.

"We will be an addendum" in the final report expected to be completed in December, he said, contending that the public's concern is "not really a serious consideration" to the NRC and that the comment procedure is "more of a sham as far as I'm concerned."

Lyng said he wants to see a citizens' panel formed to oversee the cleanup operations. Dr. Bernard J. Snyder, director of the TMI program office for the NRC, said federal legislation has been introduced authorizing the formation of an advisory panel.

He told Lyng it would consist of three representatives each from state government, local government, the scientific community and the public. Lyng sparred with Snyder over the makeup of the panel and the fact its duties would be only advisory.

Snyder said the legislation was sponsored by "your local legislators," to which Lyng replied, "I'm not impressed by that at all."

Snyder refuted Lyng's contention that the comment procedure is a sham. "We are trying to do our best, following the law," he said.

Said Lyng: "It's high-time we get away from proceeding as we have in the past. It (TMI accident) will not be the only nuclear accident," but it will set "precedent about how things are done."

Beverly Hess, president of the TMI Public Interest Resource Center, called for an extension of the comment period from 45 to 90 days. She said it is "ludicrous" to expect thoughtful comments in 45 days on a study that took "eight or nine months to prepare."

"It is not in the public interest to confine the comments to 45 days," she said, noting that the public was given the same length of time to comment on the krypton 85 venting and Epicor II water cleanup system. Those were "just segments" of the cleanup process, she said.

The draft study outlines the impact on the public of the TMI cleanup, including social, economic and radiation-health effects, all of which are expected to be minimal.

The cumulative whole body off-site dose to the public from the cleanup is calculated to be 1.6 millirem, which poses a cancer risk of 2.2 in 10 million, Snyder said. Current national health statistics indicate that one person in five will die of cancer caused by other sources.

Snyder said the NRC feels "it's imperative" that the plant be cleaned up as expeditiously as possible whether it's restored and returned to service.

Snyder said the chances of the 700,000 gallons of highly contaminated water in the containment building leaking into the Susquehanna River are "essentially zero." He said test wells are being constantly sampled to detect any traces of contamination in ground water.

Snyder said the NRC estimates the cleanup will take five to seven years, calculated from April 1979, one month after the accident.

The Evening News, Harrisburg, Pa., Tuesday, September 16, 1980

Tritium found in soil near TMI

Concentrations of radioactive tritium 10 times greater than previous findings have been analyzed in a soil sample obtained near the Three Mile Island Unit 2 reactor, according to a Nuclear Regulatory Commission official.

Analysis of the soil sample taken 22 feet below ground level found tritium concentration of 10,100 picocuries per liter. That is 10 times greater than the average amount found in water samples from nearby test wells, but 100 times lower than the maximum concentration allowed by the NRC in drinking water.

Ronald R. Bellamy, chief of the NRC's technical support section at TMI, said the high tritium concentration is an "isolated" case and does not threaten the environment.

Bellamy said the NRC believes the tritium is leaking from a tank used to store boric acid water and not from the Unit 2 reactor containment building which contains 700,000 gallons of highly contaminated water from last year's accident. (Boron is used to stop the nuclear process.)

Tritium is a hydrogen isotope that cannot be filtered from water.

Bellamy said it is unlikely the tritium would leach into the Susquehanna River, but, even if it did, it would not pose a health hazard.

Boric acid water tanks are "habitual leakers" and that this one probably had been leaking prior to the Unit 2 accident. He said the high level of tritium "simply is the peak concentration that we would have been expecting" and does not indicate additional leakage.

Bellamy said the NRC and Metropolitan Edison Co. are working to plug the leaks in the tank and install a catch basin under it.

YORK DAILY RECORD • TUESDAY, SEPTEMBER 16, 1980

Met-Ed to fight for hike

Metropolitan Edison Co. is resuming its fight for a rate increase.

The battle begins at 10 a.m. Sept. 22 with a pre-hearing conference. It will continue for several months with testimony about why Met-Ed needs the \$76.3 million hike it asked for July 29.

The company also will try to prove its charges that the temporary rate increase granted May 23 by the Public Utility Commission is "unjust and unreasonable and (does) not provide for company operating and capital costs."

PUC Administrative Law Judge Joseph P. Matuschak will hear the case. He recently denied Met-Ed's request for a \$35 million emergency rate hike.

Met-Ed's sister, Pennsylvania Electric Co., also will face Judge Matuschak with the same charges and a request for a \$67.4 million hike.

In a separate set of ongoing hearings, Pennsylvania Power and Light Co. (PP&L) is trying to prove it needs a \$123.9 million hike.

GPU from 1

went into effect June 1. The company had reported a second quarter loss of 14 cents per share, the first loss in its 34-year history.

But for the seven months ended July 31, it reported earnings of 16 cents per share, an 84 percent drop over the \$1.02 per share posted for the same period in 1979. According to a financial statement released Wednesday, earnings were \$10 million in the seven-month period, compared to \$62.1 million in the 1979 period.

Takes case to Supreme Court

GPU seeks ruling review

By MARY O. BRADLEY
Staff Writer

The owners of Three Mile Island have asked the United States Supreme Court to review a federal appeals court ruling in a case involving the controversial Epicor II water decontamination system.

General Public Utilities Corp. and its subsidiaries contend that if the appeals court decision stands it will result in "a chaotic overlap" between the Nuclear Regulatory Commission and the courts.

In its petition GPU argued that the Third Circuit Court of Appeals "is clearly in error" when it said that a Lancaster-based anti-nuclear group was not required to exhaust its administrative remedies available from the NRC before seeking court relief.

The court of appeals "in a single stroke has now effectively emasculated this established principle of judicial restraint," GPU argued. If the ruling stands, "it threatens to flood the federal courts with a wave of duplicative litigation in-

volving highly technical and complex issues heretofore regarded as properly reserved for agency review in the first instance.

"With the current caseload of our federal judiciary already reaching staggering proportions, this court can ill-afford to allow so serious an erosion of the exhaustion doctrine to go unrepaired."

GPU said the appeals court ruling "creates unwarranted and unnecessary interruption of established administrative processes. The practical result of this decision is to create a chaotic overlap between the NRC and the courts."

"The Third Circuit has decreed that the NRC, the district court and the court of appeals will now all exercise concurrent jurisdiction over the same claims at the same time," GPU said in the petition filed Tuesday by GPU's Washington attorney Mark Augenblick.

The case began when the Susquehanna Valley Alliance filed suit in May 1979 in U.S. Middle District Court against the NRC and

others to prevent Metropolitan Edison Co., operator of TMI, from treating moderately radioactive water from the March 1979 accident. SVA also sought to stop Met-Ed from dumping the processed water into the Susquehanna River.

SVA said NRC approval of Epicor violated the National Environmental Policy Act, the Clean Water Act and the Atomic Energy Act. But, in October 1979 Middle District Judge Sylvia Rambo held that appeals court in May. In June SVA filed an updated complaint in Middle District Court contending Epicor II was generating highly radioactive waste that would be stored at TMI.

Epicor II has processed more than 400,000 gallons of water since it was put into service last October. With the cleansing of the accident-generated water effectively finished, Met-Ed plans to use Epicor to process water resulting from decontamination work in Unit 2.

The Evening News, Harrisburg, Pa., Tuesday, September 9, 1986

Venting at TMI, without public hearing, is questioned by judges

By MICK ROOD
Washington Bureau

WASHINGTON — The venting of radioactive gas from Three Mile Island has been finished for nearly two months, but a federal-court panel may not rule for six months on whether the Nuclear Regulatory Commission was legally correct in permitting the controversial procedure to be held without a public hearing.

If their legal reasoning follows their line of questions at a hearing Monday, the U.S. Circuit Court of Appeals' judges could restrict the NRC from unilaterally lifting the suspension on Metropolitan Edison Co.'s operating license to allow for radioactive releases from Unit 2 during the cleanup.

The judges heard arguments for nearly an hour Monday on a petition to stop the venting filed by Steven C. Sholly of Mechanicsburg and People Against Nuclear Energy, a Middletown-based anti-nuclear group. On June 26, the circuit court denied Sholly's attempt to delay NRC approval of the venting plan, but the judges agreed they would hear the issue on the long-term merits.

The petition did not concentrate on the relative dangers of radioactivity released during the venting, but, rather, on alleged NRC procedural irregularities.

An "adjudicatory" hearing is normally required if the NRC amends the nuclear reactor operating license of a utility. NRC Solicitor Stephen Eilperin told the court the commission did not consider its krypton venting order to be an amendment to Met-Ed's license. So the NRC on June 12 ordered the venting approval immediately effective without calling for a 30-day waiting period and formal public hearing.

Eilperin said the commission had felt that informal public meetings and the "reams" of public comment the NRC received in the TMI case were sufficient. He described a "painstaking process" of gathering public input.

Further, Eilperin said the NRC doesn't have to hold adjudicatory hearings on allowing radioactive releases in excess of those normally allowed when no "significant hazards" are involved.

Attorney Robert Hager, who represented Sholly and PANE, said that wasn't good enough. The commission, he predicted, will use the no significant hazards clause to avoid public hearings and judicial review throughout the Unit 2 decontamination process.

"They're going to do it again and again over the next five to 10 years," said Hager, promising

that every time NRC tries the hurry-up procedure, "we'll be back here (in court)."

Under questioning by Judges J. Skelly Wright, Abner J. Mikva and Harry J. Edwards, NRC attorney Eilperin couldn't say whether the commission will try to avoid future public hearings. Cleanup steps involving radiation releases will be approached on a "step-by-step basis."

Chief Judge Wright told Eilperin that he had felt "imposed upon" when petitioners Sholly and PANE were forced to file an 11th hour suit to delay the venting approval on June 26.

"I had only two hours to make a decision," said Wright, who wondered what will happen if the NRC decides all future cleanup actions are not significant hazards.

Wright, Mikva and Edwards all questioned the NRC's assumption that lifting the Met-Ed license suspension and temporarily changing release limits could be seen as something other than a license amendment requiring notice and hearing. At one point, Judge Wright called Eilperin's distinctions "a lot of verbiage." Judge Mikva said the spirit of the law requires notice and hearings on "a matter of highest concern."

Task force deadline set on Met-Ed woes

By MICK ROOD
Washington Bureau

WASHINGTON — A congressional task force has set Dec. 1 as its deadline for proposing a federal solution to address Metropolitan Edison Co.'s financial difficulty.

After the task force's first meeting today, Chairman Allen E. Ertel, D-Montoursville, said the ad hoc group of eight House members from Pennsylvania hoped to have a "unified position" in three months' time.

The state Public Utility Commission asked the lawmakers to step in last week. PUC members had concluded that only some form of federal subsidy could spare Met-Ed ratepayers the whole burden of Three Mile Island Unit 2 decontamination and replacement power costs.

Ertel said the task force would be guided by two objectives, regardless of whether Met-Ed goes bankrupt because of the estimated \$1 billion cost of cleanup. They are: (1) To ensure adequate and uninterrupted service for Met-Ed customers and (2) a reasonable rate structure. Proposed answers to the TMI financial dilemma range from a massive federal subsidy, totaling hundreds of millions of dollars, to doing nothing, he said.

The task force will use as its staff: Tom Moss, staff director of the House science, research and technology subcommittee; two "loaned fellows" from the American Association for the Advancement of Science; Jim Connors, director of intergovernmental relations for the state PUC, and Jim Kunder, from Gov. Dick Thornburgh's office.

If special consultants are required, the task force members tentatively agreed today to contribute jointly a portion of their congressional payrolls.

Similar studies on Met-Ed's financial condition are being conducted by the Nuclear Regulatory Commission staff and for the PUC by Theodore Barry & Associates, New York utility consultants. Their reports are due within the next several weeks.

The task force includes five House Democrats — Ertel, Peter Kostmayer of Solebury, Don Bailey of Greensburg, Gus Yatron of Reading and Eugene Atkinson of Aliquippa; and three Republicans — William F. Goodling of Jacobus, Robert Walker of East Petersburg and Don Ritter of Coopersburg.

NRC OKs increase in comment period on Unit 2 cleanup

By MARY O. BRADLEY
Staff Writer

The Nuclear Regulatory Commission has extended to 90 days the public comment period on the draft impact statement on the cleanup of Three Mile Island Unit 2, an NRC official said today.

The 45-day extension pushes the new deadline for public comments from Oct. 6 to Nov. 20, according to Oliver Lynch, environmental project manager for the staff's Programmatic Environmental Impact Statement.

The extension will mean a delay in the issuance of the final statement, Lynch said, adding, "it definitely will not come out in calendar 1980."

Meanwhile, Metropolitan Edison Co. announced plans to hold another "mini-venting" at Unit 2 Friday beginning at 10 a.m., but release of the 25 curies of krypton-85 "will cause no adverse health effects to workers or the general public."

In June about 43,000 curies were purged from Unit 2, but officials said minor ventings would be required for several months to release the krypton as it diffuses from materials inside the domed structure.

Gov. Dick Thornburgh last week joined citizens' groups in seeking a longer comment period in order to give the two-inch document "the thorough examination it deserves."

Lynch said "a few" comments already have been received, but "we wouldn't expect to receive a lot of comments until the end of the first (original) 45-day period. Now, that people have 90 days, we expect a lot as we approach the due date."

Noting that previous NRC documents about the accident and cleanup have brought many public comments, "I don't doubt the PEIS will engender a tremendous amount of comment."

He urged residents to submit their comments as soon as possible "so we can start working on them."

* Those who know the truth are not *
* the same as those who love it. *
* *
* Confucius *
* *

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Three Mile Island Alert

Island Updates

News Watch on the
Harrisburg Area

Vol 2 No 1

OCTOBER 1980

The Evening News, Harrisburg, Pa., Tuesday, October 7, 1980.

Hearing is postponed on Met-Ed/PUC case

A hearing on Metropolitan Edison Co.'s attempt to block a Public Utility Commission decision that forbade the use of customer funds to clean up Three Mile Island Unit 2 has been postponed indefinitely at the request of both sides.

A spokesman for U.S. Middle District Court Judge R. Dixon Herman said the hearing, scheduled for Wednesday, has been continued and the judge's Sept. 26 ruling denying a temporary restraining order remains in force.

Met-Ed filed suit, alleging the PUC's ruling that prohibits the utility from spending customer revenues for the uninsured portion of the cleanup cost is an unconstitutional interference with interstate commerce.

The utility's lawyers also asserted that the PUC ruling runs counter to a Nuclear Regulatory

Commission requirement that the damaged reactor be cleaned up as soon as possible.

However, Herman refused to issue a temporary restraint of the PUC ruling, saying Met-Ed had not met the requirement of showing it would be irreparably and immediately damaged if the ruling took effect.

Instead, Herman scheduled a full hearing to determine whether the PUC decision is unconstitutional and whether preliminary and permanent injunctions should be granted.

Joseph Benish, a spokesman for General Public Utilities Corp., Met-Ed's parent company, said the hearing was continued on the grounds that "informal discussions on the matters involved in the hearing are in progress with the PUC staff." He would not specify the nature of the talks.

PUC Chairman Susan Shagman said she was unaware of any discussions between her staff and Met-Ed. "The only thing I have heard so far is that the company is going to present this commission with some sort of petition," she said.

"If that would be their feeling, that if the commission would grant whatever is in the petition, they would then withdraw some of the outstanding suits. As far as I know, this is strictly company-initiated. It certainly has not been initiated at a commissioner level. I'll wait and see what gets filed with us."

Meanwhile, NRC general counsel Leonard Bickwit said the commission had no plans to intervene in the controversy. Even if the NRC were to file as a third party in the case, he said, "it is unlikely we would intervene in behalf of GPU/Met-Ed. Our interests are rather separate and distinct."

The Evening News, Harrisburg, Pa., Friday, September 26, 1980

YORK DAILY RECORD • WEDNESDAY, OCTOBER 1, 1980

IBEW protests Met-Ed layoffs

Electrical workers charged Tuesday that Metropolitan Edison Company's scheduled layoff of 127 employees "will further reduce the already curtailed service to the general public."

In a statement issued by William Ort, president of Local 1261, International Brotherhood of Electrical Workers (IBEW), the union said the layoffs "will substantially increase the likelihood of power shortages and decrease the ability to hook up new customers."

The layoffs "would severely hamper Met-Ed's ability to respond during emergency storm troubles," the union said.

IBEW is urging consumers to protest the layoffs to the Public Utility Commission, which recently denied Met-Ed's request for an emergency rate increase. The utility is cutting manpower in a move to cut expenses.

'Devil's advocate' for TMI lacks funds

By MARY O. BRADLEY
Staff Writer

After playing the "devil's advocate" in the Three Mile Island story for six months, the TMI Public Interest Resource Center may be forced to close its doors next month for lack of operating funds.

The center, sponsored by a coalition of six area anti-nuclear groups, has been in the forefront of procedural battles with the Nuclear Regulatory Commission over the cleanup at TMI Unit 2 and the restart of the undamaged Unit 1 reactor.

"I think there's a need for an alternative viewpoint," said Steven C. Sholly, project director. "I'm a firm believer in somebody playing the devil's advocate."

"I see a strong part of our role in keeping everyone honest — not that they are dishonest. But when everyone gets in a frame of mind where everyone is agreeing, you need somebody to say, 'Hey, let's take a look at it before we go ahead.'"

"We've been trying to keep an eye on agency decisions so that the public is involved when it's supposed to be," Sholly said.

"I think we've been effective in raising the consciousness level" of the public, so that residents "are aware of what the PEIS (the NRC's Programmatic Environmental Impact Statement) is or NEPA (National Environmental Protection Act) is or how the hearing process works."

"If we had had more money, we could have done more," Sholly said. "I had great visions of issuing fact-sheet after fact-sheet" for the public explaining the cleanup and the contentions to be litigated at the Unit 1 restart hearings.

"But, a big chunk of time the last month has been trying to find funding to keep going."

Although opened last spring, the visibility of the Resource Center soared this summer during the venting of radioactive gas from TMI, Sholly said. "We received hundreds and hundreds of calls from all over the country."

Located at 1037 Maclay St., the center was founded by the Three Mile Island Alert Inc., People Against Nuclear Energy, Newberry Twp. TMI Steering Committee, Anti-Nuclear Group Representing York, Environmental Coalition on Nucle-

Cont. p 5

Washington Watch

TMI Task Force Achieves Little

By LUCILLE CRAFT
And DAN HAAR
States News Service

WASHINGTON — The Three Mile Island task force here has so far been about as useful as its namesake these days.

Formed last month, the task force is composed of several Pennsylvania congressmen and state officials who want to help Metropolitan Edison pay the estimated \$1 billion cost of cleaning up its disabled nuclear power plant at Three Mile Island.

Though the group has been meeting every week since then, hoping to come up with recommendations by Dec. 1, it has little to show for the effort. Members have not yet analyzed detailed financial information on TMI compiled by the state Public Utility Commission; and in fact have not even seen the material. Nor has the group met with officials from Met-Ed to discuss their predicament.

The task force has had problems gathering outside expertise as well. At its most recent meeting

last week, for example, the Nuclear Regulatory Commission said it could offer little help.

"All we got from NRC was basically negative, what they could not do," complained Rep. Allen Ertel, D-Mountoursville, chairman of the task force.

"What we found out is that the NRC is not able to handle the situation and is not designed, nor do they have any plans, on how to handle it.

"They hadn't thought out their position in the event that Met-Ed were to go bankrupt or that their financial insolvency caused them operating problems," he continued.

"They (NRC officials) were going to go back to the U.S. Congress for more money in the event there was a problem."

The task force has gotten the same reaction from the PUC, which told the group at the beginning that it did not think Met-Ed's problems could be solved through rate hikes or other measures that could be taken by the PUC.

Like the NRC, it suggested legislation that would grant money straight out to Met-Ed. Some of the task force members, most notably those from the PUC and the governor's office, contend that such a bail out may be the only solution.

At least one congressman, Rep. William Goodling, R-Jacobus, agrees. Goodling tried to set up an emergency fund soon after the TMI accident in March 1979, but found resistance on the Hill.

As Goodling observed, "It (TMI) is not in everyone's backyard."

Goodling remains a supporter of government aid, contending that it is the only way to clean up after the accident and keep Met-Ed intact so it can continue to serve its Pennsylvania customers.

But Ertel has so far frowned on such aid, preferring instead that the company raise money on its own by selling off its interests in two coal companies and two subsidiaries in the state.

Whatever the task force may decide, it is clear they have a long way to go before deciding it.

The Evening News, Harrisburg, Pa., Friday, October 3, 1980

TMI cleanup bill will face hurdle

By MICK ROOD
Washington Bureau

WASHINGTON — There will assuredly be a bill introduced early next year to subsidize the ghastly expense of the unprecedented radiation cleanup of the Metropolitan Edison Company's Unit 2 at the nuclear power station on Three Mile Island.

After four meetings held by an ad hoc task force of eight Pennsylvania congressmen who are exploring what kind of aid package they can support, that much is clear.

"No utility can bear that kind of cost," Rep. Don Bailey (D-Greensburg) said after one session this week. The cleanup may cost more than a billion dollars and it is possible Met-Ed's insurance and resources will be exhausted sometime next year, as much as \$500 million short of the project cost. Pennsylvania Public Utility Commission members and virtually everyone else quickly add that Met-Ed's ratepayers should not have to pick up such a tab.

Short of bankrupting Met-Ed, whose successor would be uncertain and similarly strapped, or saddling consumers with a one-time failure of nuclear energy, which has been foisted on them by federal policies, the government will apparently be left holding the bag of last resort.

First, however, the commonwealth's federal lawmakers will have to convince Congress to grab the bag and run.

Two painful truths are emerging from the task force's early meetings, which are expected yield definite proposals in December.

They are:

—No matter what antipathy remains toward Met-Ed in the wake of the accident, or what sense of responsibility for the accident may be placed at the utility's doorstep, it will be hard to exact a price from the company as a part of any cleanup subsidy legislation.

—Any subsidy package, simply because it is much more narrow in scope than the Chrysler Corp. "bailout" of last year, will be extremely difficult to get approved by Congress.

On the first point, acting Met-Ed President Herman Dieckamp has told task force chairman Rep. Allen Ertel (D-Mountoursville) the company doesn't want to appear "inflexible" about making some sacrifice toward a federal subsidy.

Such an understanding of the utility business, which is much different than the car industry, is hard to come by. Congress will not be able to extract concessions from Met-Ed management and labor they way it did from Chrysler. Although it can claim \$2 billion in assets, most of its equity is tied up in equipment necessary to provide a vital public service.

"We don't," an official of Met-Ed's parent firm, General Public Utilities, said this week, "have the option of shutting the door on plants like Chrysler did."

Instead, Met-Ed has jeopardized its state mandate to serve customers by cutting back such things as routine plant maintenance, tree-trimming and transmission work,

which is vital to hooking up new customers. It has also potentially jeopardized its nuclear plant operating license future by cutting back the decontamination activities at TMI by one-half.

Worse, utilities more than any other business, perhaps, depend on borrowing to keep up their generation and transmission capability. GPU and its three subsidiary utilities, including Met-Ed, can no longer borrow. With TMI Units 1 and 2 producing only costs and no income, the ratepayers are the only place to turn. The PUC will not allow that to happen, where cleanup costs are concerned.

Met-Ed argues the blood has been drawn from common stockholders, who have had no post-accident dividends and who have seen the value of their stock drop by 80 percent or more. If part of the \$43 million preferred stockholders receive annually were withheld and channeled into the cleanup, it wouldn't be nearly enough and would, in Met-Ed's judgment, "rapidly deteriorate" the firm's position with creditors and investors.

On point two, the political future of a Met-Ed subsidy bill, the Pennsylvania lawmakers have sympathy for Pennsylvania and New Jersey ratepayers, plus a strong argument that the federal government should partially pay for the consequences of the energy it pushed.

As far as horse-trading goes in the House of Representatives, the Pennsylvania delegation can point out that it voted 19-5 and 16-8, respectively, in favor of the Chrysler

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PUC Is Upheld On Met-Ed Rule

Compiled From Staff Reports
And Wire Dispatches

U.S. Middle District Court here rejected a petition Friday by Metropolitan Edison Co. for a temporary order that would have let it use customer funds to clean up the Three Mile Island nuclear plant.

Met-Ed asked for the restraining order in a suit it filed Friday against the Public Utility Commission.

PUC Chairman Susan M. Shanaman reacted to the ruling by saying, "Obviously I am pleased at the result, although I feel that's an inadequate word to use."

"It's an indication that initially the company has not met its burden of proof before the judge in its allegation that our order would create immediate irreparable harm," she said in a telephone interview. "The judge obviously felt it would not."

Met-Ed Senior Vice President Robert C. Arnold he is "very disappointed" with the court's decision.

"I think all the elements to demonstrate the need for a stay of the PUC's order were presented," he said in a telephone interview. "But since the decision was negative, I'd have to conclude that we didn't present it as persuasively as we needed to."

Asked if clean-up work at Three Mile Island would slowly grind to a halt, he said, "I'll have to work over this weekend to try to understand, within the responsibilities we have to both the PUC and the NRC, what way they're going to be going."

In a Sept. 18 order, the PUC barred the utility from using the

customer revenues to cover uninsured costs of the TMI cleanup, following the nation's worst commercial nuclear accident last year.

The suit followed by one day the PUC's refusal to back down from that order.

The four-member regulatory panel has insisted that shareholders, insurance companies or the federal government foot the clean-up bill, and not the ratepayers of Met Ed.

Met-Ed went to court "simply to maintain its ability to continue the minimum program required to ensure public health and safety during the period necessary to develop alternative supplementary sources for funding the 'clean-up program,'" said William Kuhns, company chairman.

In a complaint to the federal court for Pennsylvania's middle district, Met-Ed attacked the PUC order as unconstitutional, said the order deprived it of property without due process and said the PUC was trying to usurp the regulatory powers of the federal government.

Lawyers for the PUC did not prepare a formal response but appeared at a hearing and cross-examined Met Ed witnesses.

U.S. District Judge R. Dixon Herman turned down the request for a temporary order blocking the PUC action.

"I'm sure the company is not going to be immediately and irreparably harmed by not getting a temporary restraining order tonight, so I deny," Herman said.

However, he set an Oct. 8 hearing date at which Met Ed may seek a preliminary injunction.

'Who pays the bill' halts entry

By MARY O. BRADLEY
Staff Writer

With a scheduled manned entry of the Three Mile Island Unit 2 containment building already canceled because of it, the state Public Utility Commission today held firm on its order that prohibits the use of ratepayer revenues for uninsured cleanup costs.

The four commissioners unanimously turned down a Metropolitan Edison Co. request that the order be postponed two weeks so the company could prepare arguments against it.

Met-Ed, operator of TMI, argued that it could not obey the PUC order without halting cleanup operations of the crippled nuclear plant, thereby violating both federal and state law.

Three health physicists and two maintenance employees had been scheduled to enter the domed structure at mid-morning today to perform a mixed bag of jobs, including unlatching a second portal into the building, but plant spokesman David J. Delzingaro late Wednesday said the mission had been scrubbed.

Also postponed was the venting of the atmosphere inside the structure, a procedure aimed at reducing the interior temperatures to make them more comfortable for the entry team. The venting was to have started Wednesday night and continued through noon today.

The PUC last Thursday issued the cease-and-desist order to ensure "that ratepayer monies are not being used, currently or in the future, either directly or indirectly to pay cleanup expenses." The PUC said uninsured cleanup costs are the responsibility of the stockholders and/or the federal government.

Delzingaro said officials of General Public Utilities Corp., Met-Ed's parent firm, were attempting to "clarify" the ruling to determine its effect on the manned entry program.

Met-Ed's estimates — considered by many to be conservative — place the tab for the five-to-seven-year cleanup and restoration at \$760 million. Insurance of \$300 million will cover portions of the cleanup costs through 1981.

This is the third time a mission inside TMI has been aborted. The first attempt in April was canceled when the team's breathing apparatus failed to get federal certification. In May, the entry had to be scrubbed when technicians could not open an airlock door.

Today's mission was the most ambitious since some maintenance work was to have been done for the first time since the March 1979 accident put the building off limits.

ISLAND UPDATES STAFF:
EDITORS: Cathie Musser
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Gail Shuey

The Evening News, Harrisburg, Pa., Friday, September 26, 1980

Collins to leave NRC job at TMI for post in Texas

John T. Collins Jr., chief of Nuclear Regulatory Commission support operations at Three Mile Island, will leave that post in November for a job in Arlington, Texas, the NRC announced today.

Collins will become deputy director of the Office of Inspection and Enforcement in the NRC's Region 4 office. The office oversees nuclear facilities in 14 southwestern states.

"John Collins has been a key figure in the NRC's activities at Three Mile Island since the accident," said John F. Ahearne, NRC acting commissioner. "He accompanied Harold Denton to the site on March 30, 1979, and has been there ever since that time. (Denton was sent as a personal representative of President Carter.)"

"He has done an outstanding job in handling many difficult regulatory tasks involving the cleanup of the TMI Unit 2 reactor," Ahearne added.

At TMI, Collins has directed a staff of 20 NRC professionals and clerical workers. Under his direction the NRC opened a storefront office in Middletown, its first ever near a nuclear plant.

TMI cleanup: 'Cost more than it's worth'

By PATRICE FLINCHBAUGH
Of the Daily Record

Cleaning up Three Mile Island is bound to cost more than the plant is worth, said John Collins, a U.S. Nuclear Regulatory official, speaking Thursday before a group of Yorkers at a local union hall.

Collins was in town because NRC has given citizens an extra 45 days to comment on its analysis of what cleaning up TMI will do to the environment.

That means public comment will be received until Nov. 20. Then the staff analysis goes to the NRC commissioners for approval, which could come in late February 1981, Collins said.

NRC then will review any cleanup method Metropolitan-Edison, the plant's operator, picks in light of this environmental impact statement. The document evaluates most methods, but it does not suggest which should be chosen.

Some of the Yorkers said they didn't care how much the five- to seven-year cleanup costs, they just want the safest methods used.

"People could care less about Met-Ed's financial health," added one man. "Why hasn't a national disaster been declared to get federal aid?"

Collins reminded the group that officials are looking at ways to enlist federal aid.

The NRC staff concluded in the

impact statement, issued in August, that methods exist or can be suitably modified to perform all the necessary cleanup tasks with minimal releases of radioactivity to the environment.

The staff stresses the cleanup must be done to insure health and safety of the surrounding communities.

Collins agreed with one citizen that final disposal of radioactive solid waste is the most serious problem facing operators of the crippled Middletown plant.

"In fact it is the most serious problem facing the nuclear industry across the nation," he said.

"There should have been planning (for disposal) before these things were built," one Yorker retorted.

Collins said the NRC and the U.S. Department of Energy have been discussing the possibility of putting high-level radioactive TMI wastes in a military burial site. The nation's three licensed commercial nuclear burial sites may not accept high-level wastes, according to NRC regulations. Military sites can.

Collins implied the prospect of such burial is politically touchy. "It's not possible to commingle military and commercial nuclear wastes under the existing federal permits... I will say it's technically possible."

Study: TMI has serious defects still

HARRISBURG, Pa. (AP) — A Nuclear Regulatory Commission study found what it called 37 serious deficiencies in the control room of the undamaged Unit 1 at the Three Mile Island nuclear plant.

But, Metropolitan Edison Co., the operator of the plant, said Friday it has already begun to correct the problems.

The study, conducted in July by the NRC's Human Factors Engineering Branch, found 87 problems with control design and layout, ranging from meters set too high on the panel to controls that could be inadvertently activated.

Of the deficiencies, 37 were listed as having "serious potential safety consequence," 26 could have a moderate safety consequence and 24 were listed as "other concerns."

The report will be part of the testimony the NRC staff presents to the Atomic Safety and Licensing Board, which begins hearings next month on Met Ed's petition to restart the reactor that was not damaged in the accident at the plant in March 1979.

Met Ed spokesman David Klusick said the company conducted a similar study that came up with the same results.

"In most cases, those items have already been or are being addressed," he said.

He said the NRC study just listed conditions as the inspectors found them without mentioning planned revisions.

The Evening News, Harrisburg, Pa., Wednesday, September 24, 1980

PUC staff proposes restart of TMI-1

By JILL LAWRENCE
Associated Press Writer

The Public Utility Commission staff has put its parent agency on the hot seat by advising the panel to encourage the restart of the undamaged Three Mile Island nuclear reactor.

The legal staff said in a memo that reopening the idle Unit 1 would, among other things, give the cash-poor plant operator a much-needed shot in the arm.

"TMI-1 has a very good operating record, it is proven, economical generation, and its return to service is crucial to Metropolitan Edison's long-term financial viability," said the memo, signed by deputy chief counsel Steven McClaren.

"The prompt, safe return to service of TMI-1 is in the public interest, and ... this commission should foster that return," McClaren concluded.

Further, he said the staff believes Met Ed should be allowed, if necessary, to charge customers for whatever it costs to prepare Unit 1 for a return to service.

The PUC is studying the staff proposal and is not expected to act on it immediately.

Steven Sholly, project director for the local TMI Public Interest Resource Center, said his group disagrees with the staff recommendation but he "fully expects" the PUC to adopt it.

"It reflects the PUC's narrow regulatory scope," he said. "They are not required to evaluate safety or emergency preparedness or a myriad of other issues. They are looking strictly at the company's ability to provide service."

Unit 1 has been idle since last year, when the neighboring Unit 2 reactor was crippled in the nation's worst commercial nuclear accident.

Though Unit 1 was not damaged, the U.S. Nuclear Regulatory Commission ordered it shut down until safety hearings could be conducted. The hearings are expected to begin next month.

Sholly said the resource center and nine other anti-nuclear groups are preparing testimony that will be presented at the NRC hearings.

Among other things, the groups allege that there are design problems with the plant; emergency planning has been inadequate; Met Ed has let plant safety deteriorate through a policy of deferred maintenance; and there is a risk that cleanup activities at the contaminated Unit 2 could affect operations at Unit 1.

Met Ed officials are projecting that the undamaged unit will be back on line by July 1981. In the meantime, the company's 359,000 customers are not being charged for operation, maintenance and construction costs associated with Unit 1.

NRC Insists Its Orders On TMI Are Paramount

By RICHARD ROBERTS
Staff Writer

The U.S. Nuclear Regulatory Commission said Friday that its responsibility to ensure the safe decontamination of Three Mile Island Nuclear Generating Station must override the state Public Utility Commission's authority to ban the use of ratepayers' money for that purpose.

In a Sept. 18 order, the PUC barred Metropolitan Edison Co. from using customer revenues to cover uninsured costs of the Three Mile Island cleanup. The cost of that work is expected to exceed insurance coverage by several hundred million dollars, according to utility officials.

The NRC's "statement of policy," issued late Friday afternoon, said, "We take no position on whether the acts by the PUC create an irreconcilable conflict with Nuclear Regulatory Commission requirements which have been imposed on Met-Ed or which may be imposed in the future.

"We wish to state clearly, however, that in the event of any such conflict, NRC health, safety and environmental requirements must supersede state agency requirements that result in a lesser degree of protection to the public.

"In short, the NRC will not excuse Met-Ed from compliance with any order, regulation or other requirement imposed by this commission for purposes of protecting public health, safety or the environment."

PUC Chairman Susan M. Shanaman was undaunted by the NRC's attempt to undermine her agency's stand.

"I would say the NRC is well within its bounds, and the (Public Utility) Commission is well within its bounds," she said in a telephone

interview. "It may well end up at some point in time that there may be jurisdictional issues that may have to be further decided.

"This commission didn't say to Met-Ed that 'you shall not comply with any NRC regulations.' Basically, we said that the company shall not use certain funds to provide certain activities, which is well within our jurisdictional responsibilities."

Asked whether the PUC's order would amount to a de facto halt to clean-up activities because of Met-Ed's lack of funds, Shanaman said, "The question is, do they have other funds?

"It would be our position that we said ratepayer monies, as opposed to any stockholder monies or any insurance recoveries, shall not be used for cleanup."

She suggested that the utility could borrow more money from the banks.

Asked whether she thought Met-Ed now was stuck "between a rock and a hard place," Shanaman said, "We may, all of us, at some time or another, be in that position.

"The company, I would trust, has quite a few bright employees to be able to comply with the regulatory orders of all agencies it must comply with."

Some observers have suggested that the PUC's order is aimed at pressuring the federal government to help pay for the cleanup. Asked whether she agreed with that assessment, Shanaman said, "I think that is a conclusion that could be drawn."

Met-Ed Senior Vice President Robert C. Arnold said the NRC's policy statement "highlights the difficulty we have — being squeezed between two government organizations."

In a telephone interview Friday night, he said the NRC position is "not very helpful" because, "Tell-

ing us that we've got to protect public health and safety and that we're responsible for what happens here (Three Mile Island) is nothing new to us."

The NRC should have specified why clean-up work is important to protect the public, he said. "I think the public around here must undoubtedly be concerned as to what the impact would be of not conducting any clean-up activities.

"Had they (the NRC) identified some minimum list of clean-up activities that they felt was essential to fulfilling our obligations, that would have been certainly a better reference point for us, the public and the Public Utility Commission in terms of judging what really was going to be done."

Asked whether Met-Ed considers the PUC's order unreasonable, Arnold said, "We agree with the PUC that the burden of paying the (cleanup) cost should be spread across a larger group than just GPU's ratepayers." (General Public Utilities Corp. owns Met-Ed and two other utilities.)

But he added that Met-Ed "finds it difficult to know what constitutes compliance with the PUC's order."

How long can Met-Ed hold out with its remaining funds?

"In effect, we don't have any funds in the kitty," Arnold said. "The order says not to use operating revenues, directly or indirectly, for uninsured costs.

"Other than insurance, there are no funds that are not either coming from customers' revenues or are supported by customer revenues. Even with our bank borrowing, the interest payments are paid out of revenues. So that's an indirect use, as a broad interpretation of the (PUC) order implies."

The PUC prohibition against the use of customer receipts for the clean-up places Met-Ed in a "Catch-22" predicament: The utility can't recover insurance money unless it spends money from operating revenues to proceed with the decontamination, Arnold said.

TMI Clean-up from 2

and New York City bailouts. That may gain some friends in the Northeast. Beyond that, it's tough going.

There aren't Chrysler's half million jobs or billions of dollars in business around the country at stake with Met-Ed's viability. Your friendly local nuclear salesman can't drop in on practically every member of Congress to outline how many jobs and contracts would be lost in his or her district.

Further, Ertel is worried that passions about the efficacy of nuclear power will muck up the debate about the narrower question: Why should Met-Ed customers pay for the accident at Three Mile Island?

ADVOCATE from 1

ar Power and Susquehanna Valley Alliance.

In addition to participating in the Resource Center coalition, the groups have been waging legal battles of their own. PANE, for instance, is trying to get the issue of psychological stress included in the TMI Unit 1 restart hearings, while SVA is keeping an eagle eye on the radioactive water treatment facilities at TMI.

While these groups have been "doing a good job," Sholly believes "it would be a real loss if we close down."

TMI Alert plans Washington lobbying

By MARY O. BRADLEY
Staff Writer

Harrisburg area residents have become lost in the bureaucratic maze erected to manage last year's accident at Three Mile Island, a local anti-nuclear group charged today.

"It's ironic that this election year we found a very sluggish response" from Washington, said Edward L. Nielsen, a member of the Three Mile Island Alert Steering Committee, referring to efforts by the group to get officials from Washington to come to Harrisburg to discuss the restart of TMI Unit 1 and the cleanup of Unit 2.

Waiting for the Nuclear Regulatory Commission and the state's congressional delegation to do anything "has been fruitless," Nielsen said. "A great number of the politicians have found it convenient to avoid TMI" until after the election, Nielsen told a Capitol Hill news conference held to announce plans for a TMIA-sponsored lobbying trip to Washington on Wednesday.

A busload of TMIA representatives plans to meet with NRC Commissioners Peter A. Bradford and Victor Gilinsky, and U.S. Reps. Allen E. Ertel, D-Montoursville, William F. Goodling, R-Jacobus, and Robert Walker, R-East Petersburg.

The group hopes to meet with White House aides "but who... is a subject of confusion at this time," Nielsen said.

TMIA members are angry because top NRC officials did not attend a public meeting on the TMI cleanup plan last week in Swatara Twp.

"The economics of TMI and the nuclear energy seem to have become paramount in the decision-making process," Nielsen said. Officials "are not taking the citizens into account. Economics are being placed well above the concerns of citizens," he added.

John Murdoch, also a committee member, said the state Public Utility Commission staff has en-

dorsed the restart of Unit 1. (The staff said Unit 1 is "crucial to Met-Ed's long-term viability.")

"If the PUC staff has information that it would be safe to reopen Unit 1, we would like to know where they got it. This is completely contradictory to the information we have collected" during the past months.

Committee member Pat Street said "we are the victims of the accident but we are also taxpayers. The NRC is not there when we need it. It has not come to our rescue." She added, "We are definitely lost in the crowd. You get very minimal response from anyone you approach."

She said the NRC and Met-Ed are using "our money to convince us we need TMI. Yet we find after we pay our taxes and pay Met-Ed we don't have any money to fight them."

Nielsen said a five-point program will be presented to Washington officials:

- The permanent closing of TMI as a nuclear facility.

- Intervenor funding for groups involved in the NRC hearings.

- Public meetings for all people to understand the Unit 2 cleanup proposals "and to question the experts on concerns pertinent to us."

- The development of a "citizen advisory panel" to ensure that the concerns of the citizenry are foremost in the cleanup process.

- To address the critical issue of waste disposal from TMI and who will bear that burden.

Meanwhile, a study by the NRC staff has found that the Unit 1 control room has 37 deficiencies serious enough to pose "potential safety consequences."

The study — based on an inspection by the NRC's Human Factors Engineering Branch — also identified 26 "moderate" deficiencies and 24 "other concerns." The group checked the room's layout and observed Met-Ed employees at work. Deficiencies were ranked on the likelihood they would cause

"operator error during performance of a critical activity."

Among the problems cited in the report were: Knobs that can be activated unintentionally because they are located too close to the edge of the control panel; valve position signals that cannot be seen from the main console; lack of color coding to indicate whether the valves are closed or opened; weak radio communications between the control room and outside technicians; lack of emergency breathing equipment for control-room operators, and lack of a meter to indicate whether water is flowing through a backup cooling system.

COMING NEXT:

NRC HEARINGS BEGIN

IS MET-ED COMPETENT?

WILL PSYCHOLOGICAL STRESS
BE ALLOWED AS A CONTENTION?

CAN MET-ED AFFORD TO OPERATE
UNIT 1 SAFELY?

WILL UNIT 1 BE PERMITTED
TO RESTART?

Atomic Safety and Licensing
Board Hearings start
Wednesday, October 15

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Island Updates

News Watch on the
Harrisburg Area

Vol 2 No 2

NOVEMBER 1980

The Evening News, Harrisburg, Pa., Monday, October 13, 1980

NRC covers new ground

By JILL LAWRENCE
Associated Press Writer

The Nuclear Regulatory Commission ventures into uncharted territory this week, with the start of hearings to determine what will become of the undamaged Three Mile Island reactor.

The financial stakes are high for the three plant owners and their 1.6 million customers in New Jersey and Pennsylvania.

The outcome may also indicate to the nuclear industry whether business will continue as usual.

The six-year-old, \$380 million Unit 1 reactor has been idle since March 28, 1979, when the nation's worst commercial nuclear accident crippled the twin Unit 2 reactor.

The accident raised doubts about Metropolitan Edison Co.'s ability to operate a plant safely, and the NRC ordered Unit 1 shut down pending safety hearings conducted by its Atomic Safety and Licensing Board.

The prolonged shutdown, extended by an unexplained eight-month delay in the hearing process,

has been a financial drain on General Public Utilities Corp. and the customers served by its three subsidiaries.

A recent management audit of General Public Utilities Corp. said customers of GPU's three subsidiaries will have paid \$300 million by the end of 1980 for power to replace what is normally generated by Unit 1.

The auditors, Theodore Barry & Associates, contend that Unit 1 must reopen if Met Ed is to avoid bankruptcy. If Met Ed collapses, the audit says Jersey Central Power & Light Co. and even the relatively healthy Pennsylvania Electric Co. will probably follow suit.

Lining up with the auditors is the staff of the Pennsylvania Public Utility Commission, which has urged the regulatory panel to encourage the unit's return to service.

On the other side of the fence, the Union of Concerned Scientists and others are challenging the adequacy of safety systems and radiation monitors at the plant.

And several anti-nuclear citizens groups, reluctant to trust Met

Ed after last year's crisis, contend the company is incapable of operating a safe nuclear plant.

Meanwhile, GPU has been modifying and modernizing Unit 1, hoping to prove that the plant is safer than ever.

Did Met Ed operate the plant safely before the accident? Are the old safety standards safe enough? The answers will come from a three-member board sitting several times a week for a period that could stretch to six months or more.

Ivan Smith, a Washington lawyer and fulltime member of the licensing board, is the chairman of the panel. The other members are Dr. Walter Jordan, a retired physicist from Oak Ridge, Tenn.; and Dr. Linda Little, president of an environmental consulting firm in Raleigh, N.C.

The board has listed certain issues it wants to examine, including plant modifications; emergency preparedness; onsite waste storage facilities; Met Ed management capa-

Cont. p 3

YORK DAILY RECORD • , OCTOBER 16, 1980

TMI restart hearings

By PATRICE FLINCHBAUGH
Of the Daily Record

HARRISBURG — After about four hours of technical and procedural haggling, federal hearings opened Wednesday to decide whether Three Mile Island's Unit 1 should be reactivated.

About 10 intervenors are attempting to dissuade the federal panel from reinstating the Unit 1 operating license. Part of the confusion Wednesday was because many of their cases and contentions are still developing.

The financial futures of Metropolitan Edison Co., the idle reactor's operator, and possibly two other General Public Utilities subsidiaries ride on the outcome of the four to six-month hearing, according to Met-Ed spokesman Dave Kluscik.

The utility would view a restart denial by the three-member U.S. Atomic Safety and Licensing Board as a severe setback, but not necessarily a death knell, said Kluscik.

Met-Ed has not been allowed to include Unit 1 in its base rate calculations levied

on customers since the U.S. Nuclear Regulatory Commission ordered cold shut-down of Unit 1 after Unit 2's accident in March 1979.

"But there are several factors we're not solely in control of," said Kluscik, "It would depend on what the Pennsylvania and New Jersey utility commissions decide to do (if Met-Ed's operating license for TMI-1 is not restored.)"

Kluscik said Met-Ed does not deny it is responsible for both units, including cleanup of the damaged TMI Unit 2, despite the specter of bankruptcy.

Kluscik said cleanup operations will continue to be financed by the utility's \$300 million insurance policy throughout the hearing. He said about half of those funds have been expended on such activities since the 1979 incident.

"The policy money will take us through 1981 into early 1982 cleanup activities," he said.

Kluscik said the company has been encouraged by lawmakers' recent efforts to secure federal financial assistance for the cleanup. He said he believes their direc-

tion has been taken more seriously than election-year timing may indicate.

Kluscik said Met-Ed must show at the hearing that it has the ability to run TMI-1 safely.

But TMI-Alert, an anti-nuclear citizens group, was first on the hearing docket, a position its attorney said meant the burden was implicitly on TMI-A.

"We go forward today under protest," said TMI-A attorney Theodore Adler in his opening statement, "knowing that our case is weakened by the board's ruling and by TMI-A's lack of resources."

"No, their problem has been a lack of compliance with board orders," responded Ernest Blake, a Met-Ed attorney. "They continue to make general allegations . . . no specifics have been heard . . . now we will hear them for the first time and we will answer them," he told the board.

Chairman Smith had ordered TMI-A to go first to settle a pre-hearing dispute over the appropriateness of TMI-A's case.

The group contends Met-Ed deferred safety maintenance for economic reasons

Cont. p 6

Transcripts dispute marks TMI hearing

By DON SARVEY
Staff Writer

A sharp clash over the availability of transcripts marked the beginning of the second day of hearings today on the possible restart of the Unit 1 nuclear generating facility at Three Mile Island.

It appeared for a moment that the Nuclear Regulatory Commission's chief attorney would be ejected from the proceedings for refusing to heed an order from Ivan W. Smith, chairman of the Atomic Safety and Licensing Board.

A Washington reporting service apparently delivered fewer than expected copies of the inch-and-a-half-thick books containing the verbatim account of Wednesday's opening session.

Smith told NRC attorney James A. Tourtellotte that the NRC had been given two copies by mistake and directed that he give one of them to the attorney for Three Mile Island Alert, an intervenor opposing the restart of the power plant.

"Well, I'm not going to do it," Tourtellotte shot back.

Smith replied, "Then you may be excused from this hearing room."

Tourtellotte began to object, but Smith cut him off. "First comply with the order, then argue," Smith said.

Tourtellotte, glowering, grabbed a copy of the transcript and sent it sliding down the table to where an attorney from TMIA sat.

The NRC attorney said his agency was to have received two copies "on contract" from the reporting service.

Smith said, however, the two copies that had been placed before Tourtellotte had been delivered to the board and the board had mistakenly given both to the NRC.

"I understand now that I was in error and I apologize," Tourtellotte said.

TMIA opened its case Wednesday, contending that the maintenance procedures followed by Metropolitan Edison Co., operator of the plant, were inadequate and the company was "not competent" to operate the facility.

Attorney Theodore A. Adler spent most of Wednesday after-

noon questioning Daniel Shovlin, maintenance superintendent of Unit 1, but early today the hearings once again returned to debate over procedural issues.

Larry Selkowitz, another TMIA attorney, said a Met-Ed nuclear plant engineer was expected to be called this afternoon to testify as TMIA continues to "lay the groundwork" for what will be its later efforts to "demonstrate" that Met-Ed is incompetent.

Selkowitz said TMIA doesn't have sufficient funds to hire its own experts and must "elicit" the information it needs "from their (Met-Ed's) experts."

George F. Trowbridge, attorney for Met-Ed, said he foresees that the board eventually will have to decide whether Unit 1 should be required to meet the standards of an operating reactor or, whether it should be held to the standards of a completely new plant.

The initial session on Wednesday in the hearing room under the Walnut Street Garage was jammed, but today there were far fewer reporters and hardly any spectators.

The Evening News, Friday, October 17, 1980

NRC rules out Met-Ed's past as test for competency today

By DON SARVEY
Staff Writer

What happened in Three Mile Island's Unit 1 before the 1979 accident at its sister reactor is "largely irrelevant" to deciding Metropolitan Edison Co.'s present-day competence, an attorney for the Nuclear Regulatory Commission said today.

Dan Swanson told the Atomic Licensing and Safety Board that the NRC staff "places a higher premium" on the "presently proposed or presently existing management structure" of Met-Ed, the operator of TMI, than on "whether it was qualified to manage" TMI "prior to the accident."

Swanson made the statements shortly after Board Chairman Ivan Smith refused a request that the NRC be "disqualified" from further participation in the hearings on the proposed restart of Unit 1.

The reactor was shut down for refueling at the time of the March 28, 1979, accident at Unit 2, the worst ever involving a commercial nuclear reactor. Unit 1 subsequently was ordered to stay closed pending the outcome of the board's inquiry.

The request for disqualification came from Larry Selkowitz, an attorney for Three Mile Island Alert, an anti-nuclear group that is trying to persuade the board that Unit 1 should not be reopened because Met-Ed isn't competent to run a nuclear plant.

Selkowitz claimed that the NRC was failing to carry out its function of protecting the public interest in the board proceedings. He said the NRC staff's job is to "help the board develop a full and complete record. It is not to help the licensee."

Smith, ruling on behalf of the board, said, "We don't have any jurisdiction to grant your motion, so it is denied."

Selkowitz replied, "I feel very strongly about it and intend to pursue it."

The request for disqualification developed after Swanson said the NRC staff would object to the introduction of any evidence from TMIA unless TMIA could show a "link" to systems that Met-Ed has "proposed or has in place" at present.

Selkowitz said the NRC should have staff people "who will take an objective look at what lay people are trying to do and assist, instead of continue to make things more difficult."

Smith agreed that the board was interested in "what is the management competence situation now, today."

But Smith also indicated if TMIA were to be able to make an argument that Met-Ed was incompetent in the past and "continues to be bad," then "somebody's going to have to disabuse the board of that impression."

Swanson said the NRC staff has "not yet completed its review" of Met-Ed's competency. He said it is "far more relevant" to look at what exists at present "than to dwell on an obsolete system that isn't in place anymore."

Today marked the third day of hearings on the restart of Unit 1. TMIA is expected to take to the end of the month to finish its presentation. Overall, the hearings are expected to go on for another six months or so.

Met-Ed says probe backs Unit 1 work

By MARY O. BRADLEY
Staff Writer

Metropolitan Edison Co. today said federal investigators have found no basis for charges criticizing its management competence and maintenance program at Three Mile Island Unit 1.

Met-Ed released two reports based on recent inspections by the Nuclear Regulatory Commission's Office of Inspection and Enforcement which found "no items of noncompliance with regulatory requirements and no facts to substantiate the allegations."

Met-Ed said the NRC's investigations dealt with accusations made by Three Mile Island Alert Inc., a local anti-nuclear group. TMIA is trying to keep TMI Unit 1 closed because it contends Met-Ed is not competent to operate a nuclear plant. The allegations investigated included improper testing of equipment, improper maintenance of seal pumps, delays in performance of maintenance work, inadequate quality control surveillance and other alleged maintenance inadequacies.

TMIA has made the allegations in evidence submitted at hearings being conducted by the NRC's Atomic Safety and Licensing Board in the ground-floor hearing room of the Walnut Street Parking Garage.

The NRC reports on Unit 1 were based on inspections conducted July 1 to Aug. 18 and Sept. 10-30, as well as an examination of Met-Ed records and interviews with present and former TMI employees.

Meanwhile, in a related matter, the project director of TMI Public Interest Resource Center said it is "outrageous" for the NRC staff to take the position that the past management practices of Met-Ed are "irrelevant to the consideration of

whether the company is qualified to restart" Unit 1.

Steven C. Sholly was referring to a statement made by an NRC staff attorney at the Oct. 17 hearing that the NRC staff "places a higher premium" on the presently existing management structure of Met-Ed than on whether Met-Ed was "qualified to manage the facility prior to the accident."

"The pervasive management problems revealed in the Kemeny (Commission) and (Mitchell) Rogovin reports on the (Unit 2) accident and the NRC's own investigations make it clear that there is a heavy burden on Met-Ed to prove that its problems have been solved and that it is now capable of safely operating a nuclear power plant.

"The burden is even heavier when one considers that the utility is proposing to operate Unit 1 while cleaning up Unit 2," Sholly told a news conference.

The Public Interest Resource Center released summaries of reports on the Unit 2 accident con-

taining 71 specific findings on management issues, which Sholly allege "demonstrate quite clearly the depth and seriousness of the management issues raised by the accident."

Even though these report were based on Unit 2 accident, Sholly noted that facets of the management program were "equally applicable to both units."

Sholly said Public Interest Resource Center is calling for a thorough examination of the past management practices of Met-Ed by an independent third party. "In view of the staff's apparent bias on the issue, it is inconceivable that they will conduct such an investigation of their own."

The hearing board has indicated it believes that past management practices of Met-Ed are relevant to the relicensing procedure. A Met-Ed spokesman said today that Met-Ed plans to address the issue of its past management practices when it presents its case later in the federal review process.

MET-ED LAYOFF PLAN FACES UNION ATTACK

Metropolitan Edison Co. has been directed to respond to a complaint that the planned layoff Friday of 37 service employees is in direct violation of an order not to use any operating revenues for cleanup or restoration of Three Mile Island.

Five local unions of electrical workers filed the complaint Monday, referring to the Public Utility Commission's Sept. 18 order that ratepayers not be charged for the March 28, 1979, accident at the nuclear generating station.

PUC Chairman Susan M. Shanahan said the normal period for reply in this instance was cut in half to 10 days, "in view of my concern and that of the other commissioners in the level of service provided by Met-Ed." A copy of the complaint was due to be sent to the utility this morning.

Under normal PUC procedure, Shanahan said, a public utility is required to answer a complaint within 20 days after receipt, and the case is then assigned to a commission administrative law judge.

New Ground from 1

bilities; GPU resources, financial and otherwise, to operate Unit 1 while carrying out the extensive Unit 2 cleanup; and the effect of that decontamination proceeding on Unit 1 operations.

The NRC has not yet decided whether to consider the charged issue of psychological stress — a highly significant factor to some people who live near the plant.

"There has never been a case where an issue not relating to physical health or environmental protection has been raised. These are the only kinds of issues the NRC believed it had the authority to consider under the law," said NRC spokesman Karl Abraham, adding the eventual decision will set a precedent.

The hearings are expected to open with a tangle of procedural matters. The first party to present evidence will be Three Mile Island Alert, a Harrisburg group that contends Met Ed is not qualified to operate Unit 1 "without endangering the health and safety of the public."

The group charges that, before the accident,

Met Ed deferred safety-related maintenance and repair beyond its own deadlines; proposed a drastic cut in the maintenance budget; used supervisory personnel to perform maintenance; and downplayed safety in other ways.

Robert Arnold, the senior GPU official in charge of onsite operations, disputed the charges at a briefing Friday.

"I have complete confidence that we'll be able to demonstrate that we did maintain the plant safely and we do have the capacity to do that in the future," Arnold said.

He was not confident, however, that Met Ed could counter the blast of publicity he said was sure to accompany TMIA's "dramatic statements," because the group has not yet supplied answers to Met Ed questions.

"Frankly, I think a lot of assertions will be made and a lot of conclusions drawn about maintenance ... Unfortunately, we will not be able to respond in as timely a way as we'd like to because we have not been able to obtain from TMIA information about their contentions," he said.

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Met-Ed cost hearing delayed

HARRISBURG (AP) — Metropolitan Edison Co. customers will have to wait a little longer to find out whether they will be charged for the uninsured cleanup costs stemming from last year's Three Mile Island accident.

A federal judge has granted a request by Met Ed, the nuclear plant operator, to delay indefinitely a hearing on the issue. The hearing had been set for Wednesday.

"We're reviewing our case and considering all of the options available to us," said Pat Dool, a spokesman for General Public Utilities Corp., the plant owner and Met Ed's parent company.

Met Ed had planned to seek a preliminary injunction against a Sept. 18 Public Utility Commission order. The order bars the use of customer payments for uninsured cleanup costs, which are expected

to total some \$700 million over the next few years.

GPU asked U.S. District Judge R. Dixon Herman for the delay, saying it is involved in discussions with the PUC staff on the funding issue.

Dool said he did not know how long the delay would last, but added, "It's nothing that we want to see dragged out." The plant was filled with radiation during the accident, and is considered a health risk until it is decontaminated.

PUC Chairman Susan Shanaman said she was not aware of any discussions and said there are no settlement negotiations in progress.

Meanwhile, GPU said Tuesday that the major TMI cleanup contractor, Bechtel Northern Corp., will send its management team home by the end of the month.

The 30 Bechtel employees "were responsible for planning, supervising and managing several major construction activities in conjunction with the cleanup," GPU said in a statement.

"Most of these activities will be delayed until late 1981 at the earliest," GPU said.

The company said a number of cleanup cutbacks are underway in response to the PUC's Sept. 18 ruling, as well as an earlier order denying Met Ed a \$35 million emergency rate hike.

Earlier, it announced plans to eliminate 500 cleanup jobs at the contaminated plant site.

The Evening News, Harrisburg, Pa., Thursday, October 23, 1980

Stockholders of GPU vow to protect dividend rights

By MARY O. BRADLEY
Staff Writer

The president of a utility shareholders' group said stockholders of General Public Utilities Corp. would consider legal action if any federal bailout of the Three Mile Island cleanup tab is conditional on withholding GPU dividends.

Dr. James R. Spang said the American Society of Utility Investors takes "the position that the return on equity is a matter of right and law and not a matter of convenience."

Spang said that "if no one else" picks up the tab, ratepayers, not shareholders "in the final analysis, will have to pay for the cleanup." He noted that GPU shareholders already have suffered financially because they received "no dividends the last three quarters and before that they were reduced."

Spang made his comments at a briefing Wednesday in the Federal Building held by U.S. Rep. Allen E. Ertel, D-Montoursville, chairman of a congressional task force trying to determine what economic assistance — if any — should be forthcoming from the federal government to help in the multimillion dollar cleanup job at Unit 2.

The Camp Hill-based group has 3,200 memberships, Spang said, which translates into about 5,500 individual members, all of whom are GPU stockholders. He said membership in the society is open to shareholders of other utilities.

In an unrelated TMI matter, anti-nuclear forces opposed to the restart of the undamaged Unit 1 reactor received a setback Wednesday when the Atomic Safety and Licensing Board rejected six exhib-

its on the maintenance program at TMI.

While the "board has no trouble seeing the relevance" of the exhibits, "we do not believe" they are "reliable, probative and substantive" as required by the rules of evidence, Ivan W. Smith, board chairman, said at the session in the ground-floor hearing room of the Walnut Street Parking Garage.

However, Smith said, the questions raised by the exhibits proved to the board "the need for further inquiry" into the issue. He said the board wants evidence entered into the record concerning Metropolitan Edison Co.'s maintenance program and told the parties to agree on a period of time prior to the March 1979 accident as the test year for gathering the data.

The exhibits were entered by Three Mile Island Alert Inc. to support its contention that Met-Ed is incompetent to operate TMI Unit 1 because its maintenance practices are slipshod and pose a danger to the public.

The exhibits have been a subject of dispute between TMIA and Met-Ed for several sessions. Met-Ed has argued that the summaries do not solely concern maintenance on nuclear-safety components at the plant. TMIA countered that the

exhibits show a pattern of lax maintenance practices that affect the safe operation of the facility whether or not they are nuclear-related.

John Murdoch, a TMIA officer, told The Evening News the board's ruling cancels out some 1,000 man-hours of work by three dozen volunteers who pored through Met-Ed computer printouts to extract the data. He said "If TMIA can find the funding, it's probable we will appeal the decision."

At the congressional briefing also attended by panel member U.S. Rep. William F. Goodling, R-Jacobus, Ertel asked Spang what would be the effect on GPU stockholders if the federal government proposed a bailout plan contingent on withholding dividends for the foreseeable future. That stipulation was cited by a Securities and Exchange Commission staff member Monday when he said Met-Ed might need only a \$60-to-\$70 million federal loan guarantee to clean up the plant.

The shareholders' "only recourse might be a legal one," Spang responded, "and that is a resort to the PUC (state Public Utility Commission) in the first instance and the courts in the second."

Spang said the society believes the payment of dividends is a matter of law because the PUC recognizes that in order to provide adequate service a company must obtain a return on its investment sufficient to attract investors. If the shareholders had not "put up the original equity" for TMI, the burden would have fallen on the taxpayers.

Anxieties linger with mothers living near TMI

By MARY O. BRADLEY
Staff Writer

A major study on the mental health of residents near Three Mile Island has concluded that mothers of pre-school children have suffered residual effects of depression and anxiety since the March 1979 nuclear accident, the study's director said today.

The report, portions of which were released in Pittsburgh, also found that mothers living within five miles of the plant experienced more symptoms of depression and anxiety during the year after the accident than their counterparts living near the Shippingport plant in Beaver County.

Further, 19 women who were pregnant when the accident occurred had a more difficult time in the year after the accident than women of similar backgrounds.

The study was conducted under a \$375,000 contract from the National Institute of Mental Health, an agency of the U.S. Department of Health and Human Services. It was based on 1,040 face-to-face interviews of mothers of pre-school children, workers and mental health clients — 694 in the TMI area and 346 in area of the Shippingport plant. The interviews were conducted at the beginning of 1980 and at the first anniversary in March.

Dr. Evelyn Bromet, who devised and directed the study, said the most surprising finding was that for mothers "there are clearly some long-term effects of living in the TMI area." She noted the President's Commission on the Accident at TMI had concluded "there were short-term (health) effects," from the accident, but "our data shows, at least for mothers, there are long-term effects."

Bromet, who is associated with the University of Pittsburgh's Western Psychiatric Institute and Clinic, said "there was a very small mental health difference in the workers" at the TMI and Beaver County plants, but the difference existed before the accident. She said TMI workers had "slightly higher rates of psychiatric problems," but they were "more positive about their jobs" than Shippingport employees.

Mental health clients in the TMI area who believe it is dangerous living near TMI or any nuclear plant "had much more anxiety" than clients who expressed no misgivings about the plant's safety, Bromet told The Evening News.

Symptoms of depression and anxiety include crying easily, feeling hopeless about the future, having no interest in the future, worrying a lot, nervousness, trembling, fearfulness and tenseness, Bromet said.

Among mothers near TMI, there was an "excess risk of experiencing these clinical episodes of anxiety and depression during the year after the accident," Bromet said. "One of the reasons this is so striking is that before the accident the mothers in the two areas were equal."

The interviews conducted on the first anniversary of the accident found "TMI mothers still had more symptoms of stress and depression than Beaver County mothers."

Compared to women of similar backgrounds, the 19 pregnant mothers at the time of the accident "had a worse time in the year after the accident." She said they experienced more episodes of stress and depression than normally attributed to post-partum reactions.

She said mothers living within five miles of Three Mile Island had more symptoms than those outside that radius. She added that mothers who "had relatively good support from friends and neighbors seemed to have less symptoms."

Bromet said a supplemental study has been funded to allow for re-interviews of the mothers and workers in the fall of 1981 and the fall of 1982. She said a third test area — the site of a coal-fired generating plant — will be added to the subsequent studies.

Meanwhile, a poll conducted by a San Francisco research group has found that residents within five miles of TMI are about evenly split on whether TMI's twin reactors should reopen.

But, the poll commissioned by General Public Utilities Corp., Met-Ed's parent company, found that better than 80 percent of residents agreed that "if repairs are not made to the damaged (Unit 2) reactor, there could be further equipment failures which could cause new dangers," according to a GPU news release.

The poll found that 56 percent of the residents strongly or somewhat approved of restarting the Unit 2 under improved safety standards, while 46 percent disapproved. The Field Research Corp. also found that 51 percent approved and 49 percent disapproved restarting Unit 1.

On the question of who should pay for the Unit 2 multi-million dollar cleanup, 45 percent of residents said Met-Ed stockholders should pay all or part, while 68 percent said the federal government should assist. Seven in 10 said ratepayers should not bear any costs.

Almost half of the residents — 46 percent — rated TMI as the most serious problem facing their county. Of 10 information sources on TMI, Met-Ed was rate the least reliable.

The poll was based on 2,033 interviews conducted in late June and 816 in September. The Field group said trends should not be considered unless there is at least a 7-point difference in percentages.

The Evening News, Harrisburg, Pa., Tuesday, October 21, 1980

Revised TMI cost data eyed

By MARY O. BRADLEY
Staff Writer

U.S. Rep. Allen E. Ertel has asked the U.S. Securities and Exchange Commission for "documentation" to backup its analysis that Metropolitan Edison Co. will need only \$65 million in federal loan guarantees to clean up the Three Mile Island Unit 2 reactor.

Taken at face value the SEC's analysis would indicate Met-Ed "does not require the tremendous sums of money" to clean up Unit 2 as has been previously estimated, Ertel told a news conference in the Federal Building today.

The Montoursville Democrat said the SEC analysis was done by Grant Guthrie, associated director of the SEC's Division of Corporate Regulation. The results were presented to Ertel, chairman of a congressional task force on the Unit 2 cleanup, and to U.S. Rep. William F. Goodling, R-Jacobus, a task force member.

Ertel said Guthrie based his analysis on two key assumptions: (1) That the undamaged TMI Unit 1 will be restarted by early 1982 and (2) Shareholders of General Public Utilities Corp., Met-Ed's parent firm, receive no dividends "for the foreseeable future."

According to Guthrie's analysis, Met-Ed's share of the \$100 million cleanup cost next year would be \$50 million, based on its 50 percent ownership of the plant. Insurance payments would cover approximately 60 percent of the \$50 million.

Met-Ed faces \$50 million in carrying costs on the plant so the total amount needed by the company in 1981 would be \$70 million.

Met-Ed spokesman David M. Klucsik said today he was "surprised" at the SEC's analysis. He said Guthrie "used figures we have not used ourselves."

Klucsik said the SEC assumes insurance payments would keep pace with the cleanup and that the state would refund taxes paid by Met-Ed on purchased power. These "assumptions are pretty serious ones."

Klucsik said company officials are meeting with Guthrie to "reconcile the differences where they exist to see where his assumptions are valid and where others are optimistic."

Previous reviews of Met-Ed's financial condition by consultants for other state and federal agencies have said the federal burden for the cleanup would be much heavier.

Ertel said the apparent discrepancy might have occurred because the SEC is looking at the cleanup on an annual basis and previous studies (including those by Met-Ed) have viewed it in aggregate terms.

'Lower' radiation level allows a longer visit inside TMI reactor

MIDDLETOWN (UPI) — Lower-than-expected radiation levels in the building housing the damaged Three Mile Island nuclear reactor allowed a five-man team the longest stay inside the facility since the March 1979 accident, according to officials.

After entering the contaminated concrete structure Thursday, the technicians performed the first maintenance task in the building since the accident caused the reactor to part melt-down.

Officials of the plant operator, Metropolitan Edison Co., termed the mission "a very successful entry" in which the men completed all of their planned tasks.

The technicians spent more time in the building than planned, with two remaining for 90 minutes and three others for 56 minutes. It was the longest stay in the facility since the accident.

Met-Ed officials originally planned for two men to leave the building after 25 minutes while the others were to stay in for about an hour.

"All five were able to stay longer than planned because radiation levels inside the building were lower than anticipated," said Met-Ed spokesman David Delzingaro. "That appears to be an encouraging sign for future entries."

Plant officials said readings taken inside the plant indicated radiation levels measured 200 to 500 millirems on the ground floor of the plant and 150 millirems on the next highest elevation.

Radiation doses absorbed by the men ranged from 200 to 450 millirems. The federal limit for nuclear workers is 3,000 millirems every three months.

Delzingaro said Met-Ed technicians Guy Wise, 45, and Richard Croll, 28, managed to unlock an airlock door leading to an equipment hatch in the first maintenance task performed in the building housing the reactor since the accident. The door had been jammed shut since the accident.

"This gives us a second way into the building," said Delzingaro. "Plus this airlock is big enough for equipment that we'll eventually be taking in for the cleanup."

As in the other manned entries on July 23 and Aug. 15, the team collected radiation data, primarily in the upper levels of the containment building, and took photographs.

Restart Hearings from 1

and completed essential maintenance during overtime hours to maximize profits and cut "downtime."

"We would not be pursuing this case if we felt that Met-Ed had come to grips with its management problems. But we feel they have not done this," Adler said.

Kluscik told the Daily Record that Met-Ed will testify it can safely operate a nuclear reactor by listing various technical improvements made to the reactor since the accident plus personnel and management changes.

The four-part TMI-A case, expected to take two weeks to present, relies heavily on testimony from Met-Ed witnesses.

First to testify Wednesday was Daniel Shovlin, maintenance superintendent of Unit 1. Shovlin outlined plant operations, maintenance procedure, and overtime policy.

Adler said the next section of TMI-A's case will focus on examples of high priority items the group contends "went unfinished for unreasonable lengths of time."

Kluscik said a high priority item can be labelled such by anyone, "including those who may have the least perspective of overall maintenance."

Outside the hearing room, an

anti-nuclear activist, his wrists trapped in a colonial wooden stock, urged lunchtime strollers to sign petitions urging the permanent shutdown of TMI.

Inside, several members of People Against Nuclear Energy, a Middletown group, wore gags and signs that challenged the ASLB to consider psychological stress they say area residents have endured from TMI.

ALRB has not yet decided whether to include psychological stress as an issue in the restart hearings.

Meanwhile, across the aisle, pro-TMI activists sported bumper stickers reading "I Love TMI" and "Will there be enough electricity without TMI?"

Said Ellen Hydrick, a member of Friends and Family of TMI, "We need TMI — the sooner the better . . . I'm from right on top that reactor . . . I'm not afraid of it — in fact I'm for it. I'm in good health, and I don't glow in the dark."

Data Eyed from 5

If the \$60 million is all that is needed to get Met-Ed "over the hurdle," getting congressional approval might be easier, Ertel said. "It's easier to sell my colleagues" on loan guarantee than a grant.

Ertel and Goodling's meeting with Guthrie was one of a series being held by the task force members to gather data on the economic effects of the accident and cleanup. Ertel said he will meet with the utility's investors and Met-Ed's industrial customers Wednesday at 2:30 p.m. in the Federal Building. He said the congressional panel will meet with Met-Ed and other groups before the panel makes its recommendations.

Across the street from the Federal Building, a federal probe of the future of Unit 1 moved into its fourth day today with Joseph Colitz, manager of plant engineering at Unit 1, on the witness stand. Colitz was called to explain the function of emergency feedwater system at Unit 1.

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Harrisburg Area

Vol 2 No 3

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The Evening News, Harrisburg, Pa., Monday, November 17, 1980

TMI's lessons aren't learned

By JESSICA TUCHMAN MATHEWS
Washington Post

FOR ABOUT a year after the accident at Three Mile Island, even minor issues of nuclear safety commanded instant public attention. The recommendations of the Kemeny Commission, the Rogovin Commission and numerous congressional and Nuclear Regulatory Commission task forces were widely read and discussed. But when the krypton gas at Three Mile Island was finally safely vented and clean-up of the damaged reactor began, interest evaporated.

Since then, back in its familiar shadows outside the glare of public scrutiny, the NRC has made at least one decision suggesting it has succumbed to the pressures to get the nuclear industry moving again even before safety problems brought to light by Three Mile Island are solved. The controversial decision involves an operating license for a reactor in Tennessee called Sequoyah-1, whose containment is so thin that it could not have withstood the pressures that were actually generated at Three Mile Island.

Nuclear reactors are surrounded by a huge containment vessel designed to keep the radioactivity inside in all circumstances short of a full-scale core meltdown. During the 1960s, competition led the companies that sell reactors to look for ways to lessen the expense of these enormous shells. At the time, the only thing thought likely to break open a containment was steam pressure caused by a failure in the reactor's cooling system. Therefore, the thinking went, if ways could be devised to remove steam, the containments did not need to be nearly so strong and so expensive. Both General Electric and Westinghouse came up with such designs.

The catch is that no one anticipated what actually took place at Three Mile Island when the metal cladding that protects the nuclear fuel reacted with water, producing large amounts not of steam but of hydro-

Cont p 5

The Evening News, Harrisburg, Pa., Monday, November 10, 1980

Met-Ed turns off TMI equipment to test 'natural' cooling method

Active cooling equipment has been turned off at Three Mile Island Unit 2, to determine whether the reactor can be sufficiently cooled by heat loss to the air in the containment building, a Metropolitan Edison Co. official announced.

Technicians hope to demonstrate through the test sequence, called "losses-to-ambient-cooling," that the current "steaming-to-condenser" cooling mode is no longer needed to remove residual heat in the reactor.

Steaming-to-condenser has been used to cool the crippled reactor since April 27, 1979, when pumps forcing coolant water through the reactor were turned off and flow by "natural circulation" was initiated.

In this mode, heat is removed by sending water through the steam generator so that it produces steam which, in

turn, goes to the condenser. In the condenser, the steam is cooled and the heat is ejected through the cooling towers.

By closing a valve to the condenser, technicians expect to demonstrate in the test sequence that cooling afforded by the condenser is now unnecessary.

"We intend to isolate the nuclear steam supply system from all active cooling modes and demonstrate that this is acceptable," Gale K. Hovey, Met-Ed vice president and director of Unit 2, said.

With the valve to the condenser closed, the reactor will be cooled by heat losses from the system to the air inside the containment building, now at a temperature of about 70 degrees Fahrenheit.

Hovey said the decay heat produced by the radioisotopes in the reactor has continued to decrease since the accident. The decay heat now is 62 kilowatts —

Tritium level up near TMI

MIDDLETOWN, Pa. (AP) — Three Mile Island technicians reported an increase in radioactive tritium Friday at monitoring stations at the crippled nuclear plant, but said the levels are not dangerous.

"The slight increase in tritium levels at the on-island monitoring stations represents no danger to the environment or to the public, and does not affect off-site drinking water supplies," the Metropolitan Edison Co. said in a statement.

Met Ed said technicians believe tritium found at several points is coming from leaky pipes in a borated water storage tank.

It attributed the higher levels to extensive pumping tests performed during late August. The levels are expected to return to their previous range as the disturbance subsides.

According to TMI, the leaking pipes have been repaired and additional equipment is being added to collect water from future leaks.

equal to the heat produced by 62 home steam irons, he said.

Hovey said the current core temperatures, averaging about 140 degrees Fahrenheit, are not expected to deviate significantly from that point with the valve to the condenser closed.

The test sequence was initiated Thursday and is expected to continue another 10 days. Hovey said the Nuclear Regulatory Commission has approved the trial period.

A decision on whether to continue with the loss-to-ambient cooling will be made after test data is evaluated, he added. (Ambient means surrounding.)

In preparation for the coming winter, technicians also have begun placing heaters in liquid storage tanks to prevent freezing and checking heating and ventilation systems at the plant, he said.

Shareholders demand more support

By MARY O. BRADLEY
Staff Writer

Shareholders of General Public Utilities Corp. have criticized Metropolitan Edison Co.'s request for a \$76.5 million base-rate increase because it is "too modest to provide for a resumption of dividends."

In a complaint filed with the state Public Utility Commission, the American Society of Utility Investors said Met-Ed's request is not large enough to provide for a return on stockholders' common equity.

The Camp Hill-based group also filed two complaints charging that the PUC's denial of \$35 million in emergency rate relief for Met-Ed in July was contrary to law because the regulatory body failed to consider and provide for the shareholders' fiscal well-being.

Dr. James R. Spang, society president, said the group also views the PUC's removal of Three Mile Island Unit 1 from Met-Ed's rate base as an unlawful confiscation of shareholders' property.

A PUC spokesman said the two complaints against the PUC have been referred to the PUC chief counsel for review. The complaint against Met-Ed has been assigned to Administrative Law Judge Joseph P. Matuschak for consolidation with the \$76.5 million rate case. Matuschak is conducting evidentiary hearings on the rate case. Sessions were planned for today and Thursday.

Because of financial constraints, GPU

reduced its common stock dividend after the March 1979 accident and eliminated all dividends for 1980.

Spang decried the 3,300-member society as a "buffer between the shareholders (and) the utility companies, the regulatory agencies, the consumer advocate's office and all other offices, agencies, groups and individuals who might deliberately or inadvertently reduce or destroy the rightful, just and legal rights of shareholders."

He added, "The shareholders will no longer be quiet bystanders and see their rights twisted, traded and often totally

ignored in the political market place. Instead, the shareholders via the American Society of Utility Investors will be active participants at every step of the way."

Spang said, "The politicization of the nuclear initiative has been horrendous. Unfortunately, everybody loses — the company, the shareholders, the ratepayers, and, most of all, the American people."

"The time for street rallies, civil disobedience and mob justice is over. From here on in, we expect reasoned counsel, fair hearings and equitable decisions. Nothing less is acceptable."

The Patriot, Harrisburg, Pa., Saturday, Nov. 8, 1980

Our Readers Write

GPU's Middletown Opinion Poll

EDITOR:

SO THE MOST recent poll conducted in the Middletown area presumes one out of two residents favors TMI's Unit-1 being started up (and hence, Met-Ed continuing their dubious and costly operation). Curious, since my family and neighbors live exactly on the three mile circumference (remember those three, five and 20 mile circles the Civil Defense people created, designating probable contamination zones?) and we were never surveyed.

But it's academic — being canvassed or not, opposed or not. What's paramount here is how quickly that many have forgotten March 28, 1979: the parents who fearfully took their children out of schools; families who fled their homes and jobs in any direction (preferably upwind) with foremost in their minds, not that possibly they could never return, but how much of a dose they'd received; the five days to weeks the NRC struggled to determine anything about the accident; and pompous Met-Ed's reluctance or absolute silence on informing its patrons.

Undoubtedly, a discernable

number of Middletown inhabitants work — or have friends or relatives — at TMI and their paycheck allegiance would tally favorably on a pollster's clipboard. Still, 50 percent is reciprocal, and certainly not the people's wish.

The near-daily barrage in the media makes no mention anymore of the undeniable health hazards caused by radiation and Met-Ed's "delayed maintenance." Now, it's concerned only for fiscal secondaries: Met-Ed going bankrupt, Met-Ed laying off, Met-Ed buying expensive outside power, Met-Ed unable to provide standard customer service, GPU stockholders not earning profitable returns . . . Personally, as eight-year Met-Ed patrons, we have constantly been slammed with costly electricity and perpetual rate increases — long before Unit II got hot. All of us who have experienced Met-Ed's inexplicable, spiraling charges and surcharges for years know their rates will never decline simply with the shaky activation of another unit.

Historically and logically, it is a falsehood.

— Jeff and Barb Feehrer,
Middletown

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YORK DAILY RECORD • SATURDAY, NOVEMBER 15, 1980

Animal study near TMI to go on

HARRISBURG (AP) — The U.S. Nuclear Regulatory Commission says it will continue to investigate reports of animal and plant abnormalities near Three Mile Island, although so far it has found no links between reported animal deaths and last year's nuclear accident.

"No reasonable connection could be made" between livestock and pet health problems and the March 28, 1979 accident, the NRC said in a study released this week.

"Nonetheless . . . the staff of the NRC will continue to investigate reports of unusual problems experienced with plants and

animals," the report said.

The NRC study was prompted by complaints from local farmers about birth defects, stillbirths, abortions, miscarriages, sterility and deaths among their cattle, horses, sheep, goats, cats, dogs and rabbits. There was also one report of a "glowing fish."

Funky Winkerbean



Citizens panel threatens to disband if NRC doesn't listen to its advice

A 12-member citizens panel formed by the Nuclear Regulatory Commission to advise it on the cleanup of Three Mile Island threatened to dissolve if the NRC doesn't listen to its advice.

At its first meeting the group also challenged the agency to take positions on several controversial issues.

"I know they'll hear our views but will they adhere to our views?" asked Middletown Mayor Robert G. Reid. "The panels and commissions I've served on were almost nothing. They shouldn't even have existed."

The group, chaired by John Minnich, chairman of the Dauphin County Board of Commissioners, met Wednesday before an audience of about 200 in the Forum Building. Its first report to the NRC is due by the end of January.

To much applause, Minnich said the

NRC should take positions on whether or not the reactor should reopen, and what will be done with 700,000 gallons of radioactive water after treatment.

The water flooded the reactor containment building last year, when the nation's worst commercial nuclear accident crippled the plant and shut it down.

"I don't see the independence when every line goes back to the NRC. I just have a feeling the deck may be stacked," said Joel Roth, a member of the anti-nuclear TMI Alert Inc.

In a related matter, a federal study said that radiation from the TMI accident is not responsible for animal deformities, barnyard stillbirths and a "glowing fish" reported in the area.

The NRC analysis issued Wednesday was based on a review of animal

health problems reported at 22 farms and the alleged stunted growth of vegetation following the accident. The agency blamed the deformities on "nutritional deficiencies and infectious diseases."

Worst-case radiation exposures calculated by health officials after the accident were "less than one-thousandth of that which might have caused clinically detectable effects in the animal population" within 20 miles of the reactor, the report said.

Even if radiation releases were greater, it said, reports of animal health problems would have occurred in a different pattern. "There would have been many anemic animals ... more frequently, in the path of the radioactive plume (from the damaged plant); this was not the case," the report stated.

The Evening News, Harrisburg, Pa., Friday, November 14, 1980

Film shows damage to Unit 2 interior

By MARY O. BRADLEY
Staff Writer

Metropolitan Edison Co.'s first color home movie of the interior of the Three Mile Island Unit 2 containment building showed clear effects of the tremendous heat generated during last year's accident.

Among visible damage shown in a six-minute film released today were a withered yellow high-radiation sign, curling insulation on pieces of non-heat-resistant cable and a partly melted desk telephone. One corner of the high-radiation sign, which is made of paper laminated with plastic, was blackened.

Gale K. Hovey, Unit 2 director and a member of Thursday's entry team, said the damage can be attributed to the high temperatures and radiation caused when the reactor overheated in March 1979.

Hovey said that technicians believe that air temperatures inside the 210-foot containment building reached 200 degrees Fahrenheit. By contrast, the temperature during the entry Thursday was 69.

"Western Electric Co. (telephone manufacturer) tells us that if a phone was subjected to some 200 degrees that's what it would like like," Hovey told a news briefing in Middletown.

Also shown on the videotape were brownish deposits of rust and chemical residues on the floor of the concrete domed structure.

Hovey said the condition of the stain-

less-steel piping in the building is "good," but any instruments or pipes made of unpainted carbon steel showed "high rust deposits."

Hovey said he and the other 11 men who participated in the fourth entry mission found "no surprises" during the project, which spanned three hours and 40 minutes.

Because of the lower-than-expected radiation levels, decontamination may not be so difficult as originally projected after the accident, Hovey said. However, Hovey said, Met-Ed wants to clean up the 700,000 gallons of highly contaminated water in the reactor building basement before sending full decontamination crews inside. Regulatory approval has not yet been received for the water-processing system — called a submerged demineralization system.

Hovey said Met-Ed recently extended its cleanup timetable because of anticipated regulatory delays in this and other phases of the cleanup.

He said the one-hour video tape would be used for training purposes and to document conditions inside. He said Met-Ed plans to install closed-circuit cameras as the cleanup progresses.

Hovey said for the first time technicians were inside a shield around the primary pump and the steam generators on the operating level.

A check of electrical circuits by technicians Thursday on the operating level found that they are still energized, Hovey said.

The Patriot, Harrisburg, Pa., Saturday, Nov. 22, 1980

Former Director Charges NRC

By The Associated Press

The Nuclear Regulatory Commission is disregarding the lessons of the Three Mile Island accident in hearings on whether an undamaged TMI reactor should reopen, a former NRC project director charged Friday.

"The NRC is more interested in protecting the health and safety of the nuclear industry than the public," said Dr. Robert Pollard, who resigned from the NRC four years ago and joined the Union of Concerned Scientists.

In hearings before an NRC Atomic Safety and Licensing Board on whether to restart the idle TMI Unit 1 reactor, the UCS has criticized plant safety and offered suggestions on how to improve it.

But Pollard said the NRC believes there will never be a recurrence of the March 28, 1979 accident that crippled the TMI Unit 2 reactor, and believes the UCS proposals are unnecessary.

The NRC was unavailable for comment.

"Our position is that you ought to have safety systems that can at least cope with accidents that have already happened. To say it can't happen again is not in touch with reality," he said.

Pollard said all of the UCS proposals are technically feasible.

"The reluctance, I suspect, stems a lot from financial considerations. If the NRC had a safety-first attitude instead of a restart-first attitude, I think they would adopt some of them," he added.

"During the accident, the operator shut off the safety system when it was still needed to protect the public," Pollard said. "Our position is that the plant ought to be designed so that the operator cannot make a mistake by turning it off too soon."

GPU considering suit against NRC for cleanup aid

By MICK ROOD
Washington Bureau

WASHINGTON — Under initial pressure from Congress to show all remedies except federal assistance have been exhausted, General Public Utilities Corp. officials have on at least two occasions said the firm is considering a lawsuit against the Nuclear Regulatory Commission for its role in the severity of the nuclear accident at Three Mile Island.

Executives of GPU, whose subsidiary Metropolitan Edison Co. operated TMI-Unit 2 when it leaked excessive radioactivity 19 months ago, don't volunteer their legal intentions to establish liability for the accident.

But for the second time recently, utility spokesmen responding to questions from a congressional task force made it clear this week a suit against the NRC is not out of the question.

"We're contemplating suing the NRC ... " GPU board chairman William G. Kuhns said Thursday. "We'll assert all legal rights we have and anything we get will go into that (Unit 2 cleanup) pot."

Kuhns was responding to questions from Rep. Eugene Atkinson, D-Albany, a member of a seven-member House of Representatives task force now trying to draft a federal bill to help finance an estimated \$700 million for decontamination of Unit 2. Atkinson was trying to find out what other resources were available, aside from \$300 million in nuclear accident insurance GPU has been drawing down on.

With rate revenues restricted by the Pennsylvania Public Utility Commission to paying for normal operations and private borrowing ability stilled by the firm's financial crisis, Kuhns and other GPU officials could offer few options aside from some form of federal legislative help.

One of the few options remains a lawsuit against the same government regulatory agency with which GPU must work more closely than usual during

what could be a seven-year cleanup process and financial test.

"It's still in the developmental stage," Kuhns said after the task force met on Thursday. "It isn't just about to be filed or anything. It is a serious step we don't take lightly. This (the NRC) is a group we have to work with. Litigation doesn't normally enhance a working relationship."

In its only other attempt to spread the burden of liability for the accident, GPU and its three utility subsidiaries including Met-Ed sued The Babcock and Wilcox Co. last March. The utilities contended B&W, which supplied the steam supply system and some auxiliary equipment for TMI-2, had given Met-Ed defective equipment and inadequate procedures for operators at Unit 2. B&W has denied liability for the accident.

GPU spokesmen doubt the complex, slow-moving case will go to trial before 1982, but it provides a glimpse of what the utility might contend if it sued the NRC. In their comments to the congressional task force, GPU officials have suggested NRC was lax in its regulation of safety procedures and operator training requirements.

Those statements find their roots in the conclusions last year of the President's Commission on the Accident at Three Mile Island, which GPU generally praised. The Kemeny commission was especially harsh on the NRC after finding evidence of a TMI-type nuclear plant transient at a B&W-supplied plant in Ohio that went unheeded until after the TMI accident. The same loss-of-coolant incident at the Davis-Besse plant in September 1977 was cited in the GPU suit against B&W.

The congressional task force first elicited GPU's potential lawsuit against the NRC two months ago, when the firm answered a simple, "Yes," to one in a series of questions. The question was: "Is the corporation considering taking any legal action against the NRC?"

GPU on TMI

The Patriot, Harrisburg, Pa., Saturday, Nov. 8, 1980

Longer, Costlier Cleanup Is Seen

By CARMEN BRUTTO
Staff Writer

General Public Utilities Corp. told the U.S. Nuclear Regulatory Commission on Friday that Three Mile Island's cleanup will take longer and cost more than previously estimated, and that the damaged nuclear core will not be removed until mid-1985.

GPU, parent firm of Metropolitan Edison Co., TMI operator, submitted the revised preliminary schedules as part of extensive comments on the NRC's draft Programmatic Environmental Impact Statement (PEIS), which deals with plans for decontaminating and

disposing of radioactive wastes from the March 28, 1979, accident at TMI-2.

Earlier this year, the projected date for removal of the damaged core was April 1983. Core removal would be the final, significant milestone needed to reduce the level of risk for any new emergency. In the PEIS comments Friday, that milestone date was extended to August 1985.

In a statement released Friday, a GPU spokesman said the base schedule, originally developed in late 1979 and early 1980, is expected to be extended two to three years. This reflects delays that

have already occurred as a result of regulatory constraints from government agencies and the company's limited financial resources, as well as expectations that those circumstances will continue, the spokesman said.

Last November, an NRC policy statement called for completion of a PEIS before authorizing major cleanup efforts on TMI-2. The draft of that report is currently available for public comment and is not expected to be finalized until the end of next March. Faced with this and related regulatory decisions, the spokesman said, the company two months ago announced a substan-

NRC in error in TMI venting without hearing

WASHINGTON (UPI) — A federal appeals court has ruled that the Nuclear Regulatory Commission erred in failing to hold a hearing concerning objections to the release of radioactive gas from the Three Mile Island nuclear plant.

The U.S. Court of Appeals for the District of Columbia held Wednesday that the NRC's orders allowing Metropolitan Edison Co. to release radioactive gas into the atmosphere were made without a notice and hearing as required by statute.

Three months after the nation's worst commercial nuclear accident on March 28, 1979, the NRC ordered Metropolitan Edison's to shut down the disabled reactor and said it would issue a "safety evaluation" in 30 days to determine the licensing conditions for the unit.

The commission did not issue the evaluation, but on Nov. 21, 1979, issued an intent to prepare an environmental impact statement to study the decontamination and disposal process.

In that assessment, the commission staff concluded that venting radioactive gas into the atmosphere would "not constitute a significant environmental impact" and did not issue a separate environmental-impact statement.

In June 1980, the commission issued, without a hearing, final orders to permit the utility to release radioactive gas from the reactor building at a faster rate than previously allowed.

After the appeals court refused to block the venting, it was allowed to begin June 22.

People Against Nuclear Energy and two individuals, Steven Sholly and Donald Hossler, asked the appeals court to bar the venting, but were turned down. Metropolitan Edison completed releasing the gas by July 11.

In an unsigned opinion, a three-judge appeals court panel held that the NRC is required to hold a hearing on license amendments "whenever interested parties request one."

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gen. Before Three Mile Island, the NRC thought that this oxidation reaction might affect 1 percent of the metal. Allowing a conservative margin of safety, its design criteria therefore specified that reactors must be able to withstand 5 percent oxidation. But at Three Mile Island somewhere between 30 percent and 60 percent of the metal was oxidized.

The NRC staff's estimate, based on recent calculations by the reactor's designer, is that, though designed to meet only the 5 percent criterion, the Sequoyah containment could withstand pressures caused by up to 25 percent oxidation, still below the lowest possible estimate for Three Mile Island. Yet the NRC staff recommended, and the commission has now granted, a license to begin operating the plant.

The Sequoyah reactor does contain a system of burners to remove hydrogen, but the system is new, controversial and completely untested. Serious doubts have been raised by independent experts that it will work. Incredibly, the NRC has also decided not to change the criterion that requires plant designers to plan for only 5 percent metal oxidation.

The justification for these decisions is that the technical fixes introduced since Three Mile Island make a repeat of that accident such a low probability as not to be "credible." The NRC and the nuclear industry can and have spent years arguing about what constitutes a credible accident scenario. But in the words of Victor Gilinsky, the only commissioner to oppose the granting of Sequoyah's license, "whatever 'credible' means, if it happened last year it's credible."

Gilinsky isn't the only one to question the Sequoyah decision. The Nuclear Safety Oversight Committee, appointed by President Carter on the recommendation of the Kemeny Commission, raised the issue in its first report to the president. Arguing that the NRC has reverted to a "business-as-usual mind-set" in granting licenses based solely on the expectation that Three Mile Island could not happen again, the committee concluded: "We do not share such judgment; any system should presumptively be at least good enough to deal with accidents that have actually occurred." The committee's report is still secret; the White House has neither responded to nor released the text.

Sequoyah-1 is not the only thin-shelled reactor. Two other Westinghouse reactors of the same design are already operating. The question has not even been raised whether their operating licenses should be suspended until a reliable system to prevent the accumulation of hydrogen is developed. Seven other reactors of this type are in some stage of construction, as are 20 more General Electric plants of a similar design.

The Sequoyah decision reeks of the kind of thinking that led to Three Mile Island in the first place. During the endless debates of the past 20 years over unsolved safety issues, industry would argue that its engineers' calculations were "conservative," that safety margins had already been allowed for and, if the numbers still didn't work, that the postulated accident was extremely unlikely in the first place — hardly reason enough to deny a license to a plant on which so much money had already been spent.

The NRC would respond by deciding that the problem was not a problem because it was just too unlikely to happen. Many of those things happened at Three Mile Island. Now, precisely the same arguments are being made about Sequoyah and the still unsolved hydrogen issue has been dealt with by ruling out the likelihood that Three Mile Island, or a similar sequence of unanticipated events, will happen again.

For a while it seemed as though Three Mile Island was a blessing in disguise. The shock would force the industry and the NRC to clean up their act without a single life having been lost. Sequoyah and its 29 thin-shelled relatives force the question whether Three Mile Island taught any lasting lessons.

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tial reduction in the level of effort for the cleanup.

In August, the company estimated that cleanup costs would total about \$500 million for 1980 through 1985, if the base schedule could be followed, and without any allowance for inflation. The company expects the two-to-three-year schedule extension to increase cleanup costs by about \$150 million. That gives a new total of \$750 million, without adjustment for inflation, and including the 1979 expenditures of \$100,000. The spokesman said given an assumed inflation rate of 10 percent per year, costs would grow to about \$1 billion.

TMI wastes may stay on island

MIDDLETOWN, Pa. (AP) — Officials at Three Mile Island said Sunday their facilities to store low-level radioactive wastes from the damaged nuclear power plant will be exhausted unless the federal government steps in.

The problem, according to plant spokesman Philip Fine, came to a head last Tuesday when Washington state voters adopted a referendum closing the Hanford Federal Reservation to out-of-state, non-medical nuclear waste shipments, beginning July 1, 1981.

Hanford is one of three licensed disposal sites for low-level wastes in the United States and the only one that accepts shipments from TMI.

The wastes currently shipped to Hanford from TMI include work clothes, tools and other low-level wastes contaminated by radioactivity, and dried resin beads from the filtration system used to decontaminate radioactive waste water from the plant.

Some of the wastes, which are trucked to Washington three times a week, are temporarily stored on the island in 120 concrete crypts built after the March 28, 1979 accident, the worst in commercial nuclear power history.

The two, 60-unit interim storage modules, the first completed in the fall of 1979 and the other finished last spring, are presently "somewhat less than half" full, Fine said. "There are no plans as of now to build additional ones."

"While we can safely accommodate temporary storage of waste material, it needs to be permanently disposed of as soon as possible," said Robert C. Arnold, senior vice president of Metropolitan Edison Co., the plant operator.

"The disposal problem is an industry-wide problem that will require federal and state action to resolve," Arnold said.

"We've got a lot of acres on the island, so we could keep storing the waste material here for up to, say 15 years," said another Met Ed spokesman, Doug Bedell. "Given the current financial condition of the company, it's not the sort of expense that could be handled well," Bedell added.

Fine pointed out that high-level wastes from the cleanup — as well as spent fuel from normal operations of the plant before the accident — have always been stored on the island.

"Nobody has any place to ship that to," Fine said, explaining that the high-level wastes are stored temporarily inside the reactor building in special containers for spent fuel wastes.

"We do not want or propose long-term storage of those wastes either," Fine said.

Task force eyes U.S. purchase for TMI cleanup

By MARY O. BRADLEY
and MICK ROOD
Staff Writers

A congressional task force is considering formation of a federal corporation to purchase the Three Mile Island nuclear plant to spare ratepayers the \$1 billion cleanup tab.

That was one of four key alternatives discussed by the task force at a private meeting in Washington Wednesday. The task force, which has a goal of introducing a bill in January when the new Congress convenes, had a "free-wheeling discussion" of eight potential options for financing the cleanup costs, according to U.S. Rep. Allen E. Ertel, D-Montoursville, task force chairman.

According to the purchase proposal, a newly created federal corporation would buy TMI Unit 2 at market value and Unit 1 at salvage value. The sale is contingent on the willingness of General Public Utilities Corp. stockholders to forego dividends until the company achieves a 2-1 earnings-to-interest ratio.

Utility bondholders also would have to forego interest due until Unit 1 is returned to service. Such a purchase would have to be approved by state and federal regulatory bodies. The government corporation would be run by nine state and federal directors and could borrow from the U.S. Treasury to finance the TMI operation.

This proposal may run into a snag, however, as an organization of GPU stockholders already has told the task force it would consider legal action if any federal bailout plan is conditional on withholding GPU dividends.

Among other alternatives the task force discussed were:

—A \$305 million federal loan

guarantee that would back new borrowing by GPU of \$50 million the first year, \$40 million in both the second and third years and \$25 million in each of the next seven years.

—Federal guarantee of half of special bond issues floated by Pennsylvania and New Jersey. GPU would have to dedicate rate revenue toward retiring the bonds, which also would be guaranteed by Pennsylvania (37.5 percent) and New Jersey (12.5 percent).

—A national nuclear property insurance corporation, which would be set up to cover losses in the event of severe damage at any nuclear power plant. While the government insurance corporation would be self-sustaining by charging utilities premiums, it would get a \$10 million federal grant for start-up costs. GPU's predicament would be "grandfathered" into the legislation, but TMI insurance would be covered by an added surcharge to be levied on GPU "over a suitable period."

Meanwhile, the 90-day comment period for the Nuclear Regulatory Commission's draft statement on the TMI cleanup ends today, and the NRC staff said it has received 60 letters from the public.

Oliver Lynch, an environmental project manager in the TMI Program Office, said the written comments came from groups, agencies and individuals. "We haven't had the opportunity to try to categorize — statistically — who's replying to what," Lynch said in a telephone interview from his Bethesda, Md., office.

He said no analysis will be made of the ratio of pro versus con positions in the letters. "We take each and every comment and respond (to it) in the final statement.

We put every written comment in the statement and respond to all substantive comments."

The NRC's Programmatic Environmental Impact Statement was issued in August for public comment. The original 45-day comment period was extended because of the size of the proposal and its highly technical nature.

The 1½-inch thick document outlines the steps in the decontamination of the plant, alternative methods of carrying them out and the anticipated environmental impacts.

Although some state agencies have submitted comments on the proposal, no specific formal reply will be forthcoming from Gov. Dick Thornburgh, according to Deputy Press Secretary Roland J. Page. Page said the NRC has indicated that "whenever the governor wants to raise something, they will certainly be ready to listen."

The NRC also has conducted numerous meetings to explain the proposal and gather public input. The last session — held Wednesday night in Middletown — was attended by NRC Commissioner John F. Ahearne and about 100 area residents.

Michael Horgan of Harrisburg accused Ahearne and the other panelists of treating residents near the plant as statistics. "We try to look at people as people," Ahearne said. "The decisions we make are very difficult. If we were looking at people as statistics, they wouldn't be hard at all."

Many of the speakers called for a shutdown and dismantling of the nuclear plant. "I think we're trying to move carefully and deliberately," Ahearne said, in response to a question about why the NRC has not moved more quickly on the cleanup.

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