



York Daily Record • Thursday April 18, 1985

Restart vote by June, says NRC's chief

□ Tests completed Wednesday at unit 1 show leakage in the plant's steam generators is below federal standards. 4A.
□ TMI's former operator pays a \$100,000 NRC fine under protest. 4A.

From staff and wire reports

The chairman of the Nuclear Regulatory Commission said Wednesday he expects the agency to vote before June on whether to permit Three Mile Island's unit 1 reactor to restart.

Chairman Nunzio Palladino made the prediction following a briefing in Washington in which the NRC staff told the five commissioners that problems with deteriorated tubes in the reactor's steam generators should not, by themselves, preclude reopening the unit.

Palladino's prediction was not a surprise to opponents of restart.

"It's what we anticipated all along," said Kay Pickering, a spokeswoman for the Harrisburg-based anti-nuclear group Three Mile Island Alert.

"They have been going full-steam — to make a pun, a bad pun — toward that," she said.

During the briefing, Darrell Eisenhut of the NRC staff told the commissioners that defective tubes have been taken out of service by plugging.

"We see that there is no licensing problem with the steam generators," he said.

If the undamaged unit 1 reactor is permitted to reopen, it would take about 90 days to bring it to full operating capacity, "assuming things went well after the restart order," said Thomas Murley, administrator of the commission's Northeast regional office in King of Prussia, Pa.

A timetable released by the NRC staff said unit 1 would be physically capable next month of heatup leading to criticality — the point in which a chain reaction in the core is initiated.

Asked when a restart vote would be taken, Palladino said, "I'd expect it before June."

Unit 1 was closed for routine refueling at the time of the March 1979 accident that crippled the adjacent unit 2 reactor.

The NRC has been conducting hearings on the request of TMI's owner, General Public Utilities Corp., that the commission lift its orders keeping unit 1 idle.

Restart opponents have charged that the reactor should not be permitted to operate because, among other reasons, of alleged continuing problems with deteriorating tubes in the steam generators, which change water to steam.

After plant operator GPU Nuclear Corp. repaired or plugged some 31,000 tubes discovered cracked or corroded in 1981, it found another 328 defective tubes last November. Those have now also been plugged.

The company said corrosion probably developed in 1981 when sulfur accidentally leaked into the cooling system.

While opponents to the restart maintain that the cause is uncertain, the NRC staff said Wednesday that whatever was causing the tubes to corrode "is no longer active."

A letter to the commission this month from the Union of Concerned Scientists said risks posed by the tubes "are unique to TMI-1 and arise from the inability of the steam generators in their degraded condition to withstand the forces that may occur following a steam generator tube rupture accident."

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Met-Ed pays \$100,000 fine, but under protest

By MICHAEL ARGENTO
Daily Record staff writer

Metropolitan Edison Co., the former operator of Three Mile Island, has paid a \$100,000 fine imposed by the Nuclear Regulatory Commission under protest.

When the company paid the fine late Tuesday, it asked the NRC to refund part of the fine, Met-Ed announced Wednesday.

The fine stems from a 1983 ruling by the NRC's Office of Inspection and Enforcement.

The NRC said a former TMI station manager and a supervisor had certified in 1979 that the supervisor met requirements to renew his license even though they knew he had used another person's work to complete qualification tests.

The former supervisor, James R. Floyd, was fined \$2,000 earlier this year and sentenced to two years' probation for cheating on licensing tests.

In July 1983, Met-Ed was ordered to pay the fine for making "material false statements" to the commission.

The NRC's investigation also revealed that some operators had cheated on company-administered quizzes. The NRC imposed a \$40,000 fine for that violation, which Met-Ed paid last August without protest.

Floyd J. Smith, the utility's president, said in a prepared statement that he was "unable to conclude that the specific violations alleged have been fully substantiated."

Met-Ed believed violations occurred but were not "willful," Smith said.

"We feel as a company that we did not willfully provide false information," Met-Ed spokesman Bruce McLean said. "It happened because of a lack of a formal certification program and administrative oversight."

McLean said the company was

responsible for having tighter control of the testing procedures for reactor operators. Since then, the NRC has instituted strict controls on the process.

"A formal certification program wasn't in place then," he said. "Now, one is in place."

Met-Ed was the operator of TMI in March 1979 when the accident occurred at the unit 2 reactor. The plant is now operated by another subsidiary of General Public Utilities Corp., GPU Nuclear Corp.

GPU Nuclear Corp., which became the licensed operator of the plant in January 1982, said corrective measures have been taken to avoid future violations of NRC regulations.

Those measures include changes in the training program for reactor operators and closer supervision of tests at the plant. The NRC has approved them and they are currently in effect.

C2—The Patriot, Harrisburg, Pa., Saturday, March 30, 1985

GPU changes plans on reactor tubes

GPU Nuclear Corp. yesterday told the Nuclear Regulatory Commission it will plug 226 steam-generator tubes containing small imperfections at its Three Mile Island Unit 1 reactor.

The corporation earlier had sought approval of modified criteria from the NRC to allow the tubes to remain unplugged.

"Our proposal for the [criteria] change is technically sound," said Philip R. Clark, president and chief executive officer of GPU Nuclear. "However, to separate the tube-plugging question from the restart of TMI-1 and to avoid further delay in final preparations for restart, we have decided to plug."

The plugging will take about two weeks and cost about \$700,000.

Doug Bedell, GPU Nuclear spokesman, said the corporation will continue to seek the criteria modification for use in the future.

Under the proposed criteria, GPU Nuclear would plug tubes with pits penetrating 70 percent of the way through the tubes and 0.2

inches long. Current NRC rules call for plugging tubes with pits of 40 percent or more, but which can extend up to the full, 2-inch circumference of the tube.

Clark said the current NRC criteria were established before new analytical techniques were discovered. The corporation proposed the criteria changes after examining the steam-generator tubes with specially developed electronic probes and using new analytical techniques in the field of fracture mechanics, Clark said.

"Although we are proceeding to plug the 226 tubes, GPU Nuclear intends to pursue the improved criteria with the intention of avoiding future unnecessary plugging of tubes, and thus maintaining the maximum steam generator efficiency without affecting safety."

The additional pluggings will raise to 1,535 the total number of tubes plugged at the Unit 1 reactor. Up to 3,000 of the 31,500 tubes may be plugged before the plant would be unable to run at full capacity, Bedell said.

The Patriot, Harrisburg, Pa., Tuesday, April 2, 1985

Advisory panel of TMI to meet

LANCASTER — The Advisory Panel for the Decontamination of Three Mile Island Unit 2 will meet at 7 p.m. April 11 in the Lancaster Council Chambers, 201 N. Duke St.

The meeting is open to the public.

Representatives from GPU Nuclear Corp., operator of the plant, will discuss distribution of fuel in the primary system, and the lifting of the reactor's plenum, which is set for May.

The Nuclear Regulatory Commission staff will provide a review of the potential for inadvertent "recriticality" — a nuclear chain reaction — during the defueling process, which begins in July.

The panel also will receive presentations from GPU Nuclear and the NRC staff on the occurrence and regulatory disposition of incidences of skin contamination to workers since the accident.

THE YORK DISPATCH, THURSDAY, APRIL 11, 1985.

20 Tons of Fuel Melted Twice In Accident

Up to 20 tons of nuclear fuel reportedly melted and resolidified twice during the accident at Three Mile Island.

Scientists at the Idaho National Engineering Laboratory in Idaho Falls announced this week that some uranium-dioxide actually melted twice.

The report was the most dramatic account yet of how close the TMI Unit 2 reactor was to a meltdown during the 1979 accident, the worst in the history of U.S. commercial nuclear power.

A meltdown is a term used to describe a hypothetical sequence of events in which fuel inside a nuclear reactor would become molten and then burn its way out of the reactor building and into the ground, thus causing massive radioactive contamination.

The Patriot, Harrisburg, Pa., Thursday, March 21, 1985

NRC drafting order on TMI restart

Washington Bureau

WASHINGTON — The Nuclear Regulatory Commission has told its legal and policy staffs to draft an order on the restart of the Three Mile Island Unit 1 nuclear plant, but set no date to discuss the order.

In a brief "status report" on its TMI-1 deliberations issued yesterday, the NRC said "the public will be informed well in advance" of a restart discussion meeting.

No deadline for the staff draft order was set. Wording of the report suggested that the NRC will not act on Unit 1 status prior to the sixth anniversary of the Unit 2 nuclear accident.

The proposed order will address whether the commission should lift an August 1979 shutdown order on TMI-1 in Londonderry Twp. that followed the March 28, 1979, accident at the sister TMI-2.

The commission's Office of General Counsel and Office of Policy Evaluation will base the proposed order in part on analyses of two issues on which an NRC licensing board has held hearings but issued no opinions. The issues are the adequacy of GPU Nuclear Corp.'s operator training program and the veracity of a 1979 report on reactor conditions during the Unit 2 accident.

The Patriot, Harrisburg, Pa., Wednesday

March 27, 1985

Not exploited

EDITOR:

I AM ONE of the "exploited" children who were used by the organizers of the "anti-nukes group." I would like you to know that, as a high school student, I am very much aware of the facts on Three Mile Island and I volunteered to wear the no-restart T-shirt. I wanted to express my feelings on the issue and I feel that everyone there felt that way, too. We were by no means "used" for visual effect. I wish everyone would get involved.

—Suzi Kline, Middletown

Let people decide

EDITOR:

TMI, TMI, who should be concerned? Of course you and I. Have you counted the cost, dear friends, already incurred? Have you thought of the future generation?

What is life? Have you counted the cost in health or monetary degree? Is it a real need, or is it greed? I'm thankful for electricity, but can't we find a better way to light up our city? A safer way?

TMI, TMI, who will take the waste? Neither you nor I, not below or in the sky. Earthquakes popping up everywhere, no one knows just when or where. Think of the future generation, not just on remuneration. Think, think!

Let us keep the "sweet land of liberty" with a vote from the people!
www.taka.org — Marguerite Wert, Harrisburg
Digitized 2018

Thornburgh will battle TMI restart

By Michael Sullivan
Patriot-News

Gov. Dick Thornburgh will make an 11th-hour appeal to block restart of the undamaged reactor at Three Mile Island when he appears before the Nuclear Regulatory Commission on May 22.

The NRC has scheduled a hearing on the proposed restart to gather final comments from the TMI operators, state officials and three anti-nuclear groups. The commission will vote in a second meeting on whether to restart the Unit 1 reactor on May 29. No public comment will be allowed at the second meeting.



Thornburgh

The governor is expected to tell the commissioners that the undamaged reactor should not be restarted until several more hearings are held on questionable safety issues. His comments will include the NRC's "obligation to openly address and resolve, prior to restart, all issues relating to the health and safety of the people who live near Three Mile Island, and all issues relating to the integrity of their environment," according to a statement from the governor's office.

Attorneys for the state, at Thornburgh's direction, had petitioned the NRC to hold additional hearings. At its meeting Thursday, the NRC, in 3-2 vote, ruled that "no further hearings are warranted," thus refusing Pennsylvania's petition.

A similar petition from the state was filed with the U.S. 3rd Circuit Court of Appeals in Philadelphia on April 25 and is still pending.

Thornburgh appeared before the NRC once before, on Aug. 15, 1984, when he urged postponement of a reportedly "imminent" restart vote until several outstanding issues had been settled. That vote was delayed at the time.

Arguments at the May 22 session will condense into a few hours the five years of debate that has produced more than 30,000 pages of official NRC records. Presentations by intervenor groups will be

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limited to about 10 or 15 minutes, according to Joanne Doroshov, attorney for Three Mile Island Alert, an anti-nuclear group.

Representatives from four recognized intervenors will speak at the May 22 meeting — GPU Nuclear Corp., plant operator; Three Mile Island Alert; Union of Concerned Scientists, and Norman and Marjorie Aamodt of Coatesville.

Besides Thornburgh, Rep. George W. Gekas, R-Harrisburg, whose district includes the Londonderry Twp. nuclear plant site, has said he also will ask to speak at the session.

Local groups, both for and against restart, have scheduled buses to take them to the NRC meetings in Washington.

Three Mile Island Alert has scheduled a news conference for Monday in the Dauphin County Courthouse. Local politicians and religious leaders opposed to the Unit 1 restart will speak. Among those scheduled to appear are Gekas and state Sen. John

Industrialists' restart plea miffs official

By FRANK LYNCH
Staff Writer

A request by state industry leaders that Three Mile Island's Unit 1 reactor be restarted has angered Dauphin County Commissioner Lawrence J. Hochendoner. "As a public official I am angered that the public interest in the end may be subservient to profit," said Hochendoner, commenting yesterday on the request and the apparent likelihood of a vote on restart by the U.S. Nuclear Regulatory Commission.

With the backing of the Pennsylvania Chamber of Commerce, a group representing 40 state companies this week asked Gov. Dick Thornburgh to ease his opposition to restart.

Further delay in the restart of the plant could force some companies to close or to leave the state because of the high cost of replacement energy costs, the group claims.

"I'm concerned that we could lose some industries for Pennsylvania," state Chamber President Clifford Jones said last week. The industry representatives told Thornburgh aides that they spent millions of dollars more for energy

Commissioner

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at the plant.

"Speaking in human terms, we have already spoken," he said, referring to a referendum three years ago in which county residents voted 2 to 1 against restart.

Thornburgh has held that Unit 1 should not be restarted until all safety issues are resolved. He recently asked the NRC to conduct more hearings before it takes a restart vote.

Meanwhile, Gordon Tomb, a spokesman for plant operator GPU Nuclear Corp., said the company has made efforts to generate inter-

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● NRC schedules briefing on Unit 1 generators — A2

est in restart of Unit 1, but that the utility was not involved in the industrialists' request for restart.

Hochendoner said that the utility was not involved in the industrialists' request for restart. "The chamber's position is, of course, a reasonable one from their perspective," Hochendoner said at a noon news conference at the courthouse. "Unfortunately, it is my conviction their perspective is the wrong one."

Hochendoner, a Democrat and the minority commissioner, did not dispute that operation of Unit 1 would reduce the cost of electricity to companies across the state. "But TMI is here, and we, not they, will have to live with the dangers of TMI."

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TMI insurance

EDITOR:

I SEE in The Patriot that a number of businesses have now come forward all in favor of a TMI #1 restart. I would assume we are all to believe that suddenly the management of GPU is bursting with new found integrity, honesty, intelligence and reliability; that the NRC now has their act together and overnight have become the technical experts we supposedly can expect to protect our safety and well being. Too, the reactor operators themselves are finally honestly qualified. But one question remains. If this nightmare called a power plant is so totally safe then why can't we buy low-cost nuclear disaster insurance backed by the federal government? After all, such insurance is available to protect losses from floods. There should be little risk for Washington, after all, their NRC says the plant is safe. Surely they can believe their own experts.

I personally would feel safer if the general corporate offices of the parent company of GPU were not safely in New Jersey but located on Three Mile Island. I would also expect all officers and executives of that company to be required to locate their families within five miles of the island and thus to share our risks to life and property. Maybe the profits would take a back seat to safety. And maybe safety would become more than another word in the dictionary for GPU.

—Charles W. Schoell,
Harrisburg

NRC rips restart proposal

By MICK ROOD

Washington Bureau
WASHINGTON — Doubts about the safety of steam generators at Three Mile Island Unit 1 caused Nuclear Regulatory Commission members to ask dozens of questions yesterday that conceivably could force the owners of the utility to produce a new accident analysis before Unit 1 restart is decided.

Two commissioners most critical of GPU Nuclear Corp.'s restart plans — James Asselstine and Frederick Bernthal — were joined by Chairman Nunzio Palladino. The chairman has been pushing for a restart vote, which he said Wednesday, was "expected" next month.

It was unclear how long such an accident analysis would take, or whether it will be required of GPU Nuclear. It could force the NRC to delay a restart decision past May, when the NRC technical staff has said the TMI Unit 1 plant in Londonderry Twp. would be physically ready.

The need for a safety report on potential accidents involving steam generator tube failures was raised by the Union of Concerned Scientists, an intervenor in the Unit 1 restart proceeding.

All of Unit 1's 31,000 generator tubes were repaired for chemical corrosion in 1982-83. Nuclear engineer Robert Pollard of the Union of Concerned Scientists said the weakened tubes would be unable to withstand the stress forced by a rapid cooldown of the reactor in a postulated accident. Under various scenarios, he predicted off-site releases were likely in the event of such accident where tubes in one or both of the generators ruptured.

Pollard also charged that GPU Nuclear was degrading plant procedures for handling generator-related accidents. If GPU Nuclear's claim that it has brought the generators back to their original condition was correct, lawyer Elynn Weiss of the Union of Concerned Scientists asked, "Why is GPU Nuclear asking to violate all these safety conditions?"

GPU President Philip R. Clark countered strongly that the revised procedures were "better," allowing operators more flexibility in handling potential accidents.

"They are not, let me repeat, are not the result of any special consideration for our steam generators," Clark said. "They do not violate applicable safety limits and they enhance our ability to protect public health and safety."

The Unit 1 steam generators, he concluded, are "suitable for operation in every respect."

While Pollard said no other Babcock & Wilcox-designed plants had altered accident procedures this way, Clark predicted that most of them would eventually.

Given that, Palladino insisted that GPU Nuclear provide some idea how long it would take to produce a safety analysis on postulated generator accidents of the kind that has not been done at TMI since the early 1970s but has been required at newer nuclear plants. GPU spokeswoman Lisa Robinson said the company probably would respond within several days.

"I'm left trying to balance it," Palladino said.

"I'm trying to get to your underlying motivation," added Commissioner Bernthal.

The meeting ended with that standoff, although Pollard rushed over to the press table after the meeting. He challenged Clark's assertion that GPU Nuclear had not proposed to change its accident procedures because of generator tube weaknesses the company contends have been adequately repaired.

The NRC has not scheduled further meetings on the steam generator question or on the restart of TMI Unit 1.

—The Evening News,
Harrisburg, Pa., Thursday, May 9, 1985

TMI restart decision day is May 29

By Mick Rood
Washington Bureau

WASHINGTON — The Nuclear Regulatory Commission will vote May 29 on lifting its August 1979 order closing the undamaged Unit 1 nuclear reactor at Three Mile Island.

NRC commissioners have speculated on when a vote would be taken several times since 1981, but

the May 29 date set in an order issued yesterday is the first specific one.

Even if the NRC votes, as expected, to lift the 1979 order, plant operator GPU Nuclear Corp. will not begin warming up the plant for full-scale operation unless the NRC staff has declared the plant physically ready.

But the May 29 vote here is considered by most veteran NRC observers as tantamount to a restart decision. Prior to the long-anticipated NRC action, the commission on May 22 will hear oral arguments reducing six years of restart controversy into a few hours. Both meetings, starting at 2 p.m., will be open to the public.

Arguments will be limited at the May 22 session to short presentations by intervenor groups which have been participating in the Unit 1 restart case. They are: GPU Nuclear, the NRC staff, the Commonwealth, Union of Concerned Scientists, Three Mile Island Alert and Norman and Marjorie Aamodt of Coatesville.

The commission also — as it has in the past — may agree to hear area congressmen if they ask to speak. Rep. George W. Gekas, R-Harrisburg, whose district includes the Londonderry Twp. plant, said he intends to ask for speaking time May 22.

The commission "will not entertain any requests to speak" at the May 29 voting session, it said yesterday.

(Coincidentally, an NRC appeals board yesterday ruled against a motion by Three Mile Island Alert to overturn an NRC licensing board's decision that Unit 1 steam generator tube repairs were safe. TMIA had contended that recently discovered defects in the generators had not been properly considered.)

TMI Unit 1 was down for refueling when the accident on March 28, 1979, damaged its companion reactor, Unit 2. By August of that year, the NRC had outlined in an indefinite shutdown order more than 100 equipment and staff improvements that GPU Nuclear had to make at Unit 1.

Gov. Dick Thornburgh and anti-nuclear intervenor groups have contended the NRC is about to act on the restart issue without holding adjudicatory hearings on several outstanding safety matters. The governor and the intervenors have asked the NRC to re-

NRC Unit OKs TMI's Training Of Operators

By Leslie R. Klein
Intelligencer Journal Staff

A Nuclear Regulatory Commission board Thursday approved Three Mile Island's operator training program, one of several issues that have blocked restart of the plant's Unit 1 reactor.

The Atomic Safety and Licensing Board said in a nine-page opinion that GPU Nuclear Corp. runs a "fundamentally sound" training program.

The board cautioned that some evidence must still be studied and at least one program "deficiency" will likely be noted by the board when it issues a more formal report on the training issue in the next two weeks.

But it concluded that the pro-

gram has "no defects that cannot be timely remedied."

Meanwhile, GPU Nuclear officials told a citizens' panel meeting in Lancaster Thursday night that defueling of the damaged Unit 2 reactor may be delayed one or two months.

The NRC's citizens' advisory panel on the TMI cleanup, chaired by Lancaster Mayor Arthur E. Morris, also learned that the containment building will be vented during removal of the plenum from the reactor vessel, planned for the last two weeks of May.

Operator training became a key issue before the NRC after allegations that Unit 1 operators cheated on licensing exams in 1981.

After an investigation in 1982, the licensing board concluded that plant management "failed to safeguard the integrity of its examination process."

James Floyd, former TMI operations supervisor, was convicted earlier this year of cheating on a licensing test.

In the opinion released Thursday, the licensing board said GPU Nuclear "has made an appropriate management response to the cheating incidents."

Restart opponents have argued the training program is inadequate and contend management integrity is still a major consideration in whether the NRC should keep Unit 1 closed.

The licensing board did report "that there is a very substantial possibility that we may find the TMI training program inadequate because of the lack of formal job-performance evaluations."

GPU Nuclear does not use periodic formal evaluations of on-the-job performance to revise its training program. The NRC staff has argued those evaluations should be required.

The licensing board said the company uses performance in such things as simulator exercises, drills and "on-the-job check-outs" to judge the success of its training.

But the deficiency can be eliminated by requiring GPU Nuclear to use job performance evaluations in studying its training program. The company has "implied that it could accept such a condition," the board wrote.

It added that evaluation of job performance is "almost by its very nature a function best performed after restart."

TMI nightmares

EDITOR:

THIS is the first letter I have ever written on this subject, but I feel that the time has come to make my feelings known.

I had another dream last night — no, not a dream, but a nightmare! I still occasionally have these dreams, and they are almost always the same. TMI! In these dreams, we are trying to gather all of our family together from scattered places, hurriedly trying to pack our suitcases and make a hasty retreat after a TMI accident. Only this time the dream was much worse. In my dream, the authorities were trying to distribute potassium iodide pills to the citizens of this area, but there weren't enough pills to go around. My family and I were together, but we just couldn't seem to get our suitcases packed fast enough, and we couldn't find the keepsakes we wanted to take with us in case we could never return to our home. When I awoke I just couldn't get this dream out of my mind. It was so vivid.

I am not a person given to hysteria. I am a mature, responsible adult who feels that our elected officials must prevent the restart of TMI's Unit 1. The people of this area have made it known by mandate that this is their wish.

I know this will be disputed by the pro-nuclear people and the friends of TMI. But as far as I am concerned, the credibility of the owners and operators of TMI is non-existent. I and a host of other people couldn't believe them even if they said that the sky is blue and grass is green. TMI's effects on the health of many of our citizens will continue to be swept under the carpet by some health officials.

If we had known how close to a meltdown TMI was six years ago, I shudder to think of the panic that would have arisen. When we left our home for another area during that fateful weekend following the accident, we didn't know whether we would ever be able to return to our home again, and I didn't know whether I would ever again see my sister or brothers and other loved ones.

If TMI is allowed to restart Unit 1, the people in this area will have been betrayed! To our elected officials: Please, please do not allow the restart of Unit 1! Let the clean-up of Unit 2 continue to its completion and then cover everything over with concrete, letting it stand as a memorial to all that has happened and to what could happen again. It's too late for us who have been exposed to TMI since it began operation, but for the sake of generations to come, please don't make the mistake of giving them a chance to again prove their incompetency and to subject the citizens of this area to another near disaster. The next time the disaster could be complete!

—Marie DeFrank,
Steelton

consider, and have petitioned the 3rd Circuit U.S. Court of Appeals to order more hearings.

But in a pivotal order Feb. 25, the NRC decreed no more hearings were "warranted." A 3-2 commis-

GPU says '79 emissions too small to bring harm

By MARY WARNER
Staff Writer

General Public Utilities Corp., responding to recent lawsuits stemming from the March 28, 1979, accident at Three Mile Island, says the radiation emitted that day was too small to harm anyone.

GPU attorneys made the statement in their answer to Dauphin County Court suits filed March 22 by 43 people, who blamed the accident for cancer, birth defects, heart ailments and other disorders. Since then, the number of people filing similar suits has topped 200.

The suits say the plaintiffs were emotionally distressed and were exposed to radiation during the accident at GPU's nuclear plant in Londonderry Twp. and the following cleanup.

But GPU's answer says any injury they suffered was "the result of natural forces or the conduct of other persons or entities" unknown to GPU and beyond its control.

"Emissions of radioactive gases from the TMI facility ... were not of such quantity or quali-

ty to have caused injuries or death to any persons," the answer says.

Government officials who studied data on releases during the accident said the largest dose anyone got was no higher than the normal variation in natural background radiation.

But some TMI critics have questioned the monitoring during the early hours of the accident. And the TMI Public Health Fund is financing a study of claims of high cancer rates in areas that were downwind from the plant that morning.

The recent flurry of lawsuits apparently was triggered in part by news in February that GPU's insurance companies had agreed to pay millions of dollars in settling some of the injury claims filed shortly after the accident.

The companies said they wanted to avoid the expense of trials and were not admitting liability.

GPU's answer to the recent suits says they are barred by the statute of limitations, which says generally that personal injury claims must be filed within two years after the plaintiff detected the injury.

Involving 4 Workers

TMI 'Poor Judgment' Won't Be Cited

The operator of Three Mile Island used "poor judgment" but will not be served with a violation notice for a December incident in which four workers inside TMI's Unit 1 reactor ingested a small amount of radioactive particles, the federal Nuclear Regulatory Commission has decided.

NRC radiation safety and safeguards director Thomas T. Martin wrote GPU Nuclear that "As was alleged (by workers) the findings of this inspection indicate poor judgement on the part of the licensee in evaluating the radiological hazards associated with the steam generator eddy current probe removal task..."

Sunday Patriot-News, Harrisburg, Pa., March 21, 1985 — A9

TMI: Six years later

Cleanup is costing more than plant's construction

By FRANK LYNCH
Staff Writer

By the time workers finish cleaning up after the accident at Three Mile Island Unit 2, GPU Nuclear Corp. will have spent \$1 billion.

That's about \$300 million more than it cost to build the plant, which went into commercial operation in December 1978.

Costs are so high, officials say, because technicians have never before faced a reactor in quite the same situation that Unit 2 is in. Tools and equipment used in cleanup need to be engineered and made from scratch. Many cleanup procedures are pioneering endeavors.

"The uniqueness of the situations makes it so expensive," said TMI spokesman Gordon Tomb. "In a lot of areas we are adapting new techniques. There is kind of an experimental nature to some of the stuff we're designing."

For instance, GPU Nuclear reported this month that 250 canisters are being assembled to collect and temporarily store damaged fuel from the reactor when defueling begins this summer.

Three types of the stainless steel canisters will be delivered to the island beginning this spring.

Two are designed for use in vacuuming small debris from the

reactor coolant system. One will collect gravel-sized material, and the other will gather particles smaller than 100 microns. (A micron is one-millionth of a meter.) A third type of canister will be used for removing large pieces of debris and will be loaded with long-handled, specially designed tools.

The price tag for the 250 drums is \$4.3 million, or about \$17,200 each.

All but \$38 million of the cleanup budget is in place, and Tomb said officials are confident the shortfall — which represents 4 percent of the \$987 million cleanup tab — will be secured. "While it's not an insubstantial amount, it [the \$38 million] is not considered that serious," Tomb said.

Currently, the company is installing fuel-transfer mechanisms that will transport the specially designed fuel containers from the reactor area to one of two of Unit 2's spent fuel pools.

Also, work is continuing on identifying possible locations in the reactor system where fuel debris may have accumulated outside the reactor vessel.

The next milestone in the cleanup process is the removal of the plenum — the supporting structure that guides the fuel rods into the reactor — scheduled for May. That will clear the way for

workers to begin taking fuel and debris from the reactor vessel and sealing it in the specially designed canisters.

Those canisters later will be loaded into specially designed shipping casks supplied by the U.S. Department of Energy. Next spring, the casks will be hauled to the Idaho National Engineering Laboratory for research.

The cleanup funding, as outlined in 1980 by Gov. Dick Thornburgh, relies on a patchwork of contributors. They are:

- ✓ GPU customers, \$246 million.
- ✓ U.S. nuclear power companies, through the Edison Electric Institute, \$153 million.
- ✓ U.S. Department of Energy, \$83 million.
- ✓ GPU corporate funds, \$82 million.
- ✓ Pennsylvania taxpayers, \$30 million.
- ✓ Proceeds of an out-of-court settlement resulting from a lawsuit GPU filed against Babcock and Wilcox Co., the designer of the plant, \$21 million.
- ✓ Japanese utility companies, \$18 million.
- ✓ New Jersey taxpayers, \$11 million.
- ✓ Insurance proceeds, which already have been spent, \$305 million.

TMI: Six years later

\$110 million in loss claims remain to be paid

By PETER KELLEY
Staff Writer

Even people who believe they were not injured by the 1979 accident at Three Mile Island have successfully sued the plant's owners and engineers for economic losses.

But six years later, \$110 million of their claims for lowered property values or lost business remain unpaid.

One anti-TMI activist, Kay Pickering of Harrisburg, has waited since August 1981 for \$40.61 that she claimed in accident-related expenses.

THE U.S. Middle District Court in Harrisburg recently reduced even that award, dismissing bills for her long-distance phone calls to relatives and leaving only what she paid a neighbor to take care of her cat while she left town — \$5.

Pickering still has not received the \$5.

Meanwhile, 76 attorneys who mounted a spate of lawsuits after the accident collected more than \$2 million in fees on a single date in December 1982.

"It's just a big game between big business and these attorneys and accountants, and the little people are going to lose out all the way around," is Pickering's prediction.

ALFRED WILCOX, a Philadelphia attorney who represents the plant's insurance companies, takes a different view.

"Priorities had to be established," Wilcox said. "Everyone's claims are settled. The question is how many will be allowed."

"Millions in claims — and fees — all stem from a lawsuit filed weeks of the accident, by dozens of residents of businesses.

the terms of the suit,

anyone within 25 miles of TMI who fled the area, lost business or could prove that the plant's notoriety had hurt property values could put in an insurance claim.

THE SUIT officially ended in September 1981, when the court approved a settlement proposed six months before.

The insurance pools that Wilcox represents — American Nuclear Insurers and Mutual Atomic Energy Liability Underwriters — agreed to set up a \$20 million settlement fund (with another \$5 million earmarked for "public health" projects and research).

Final word on payments from both funds was given to Judge Sylvia Rambo, in whose court the suit was heard.

Eventually, in February 1983, Rambo directed the fund to settle nearly 11,000 claims for transportation and lost wages. Checks totaling \$2.35 million went out. "The first priority was for evacuation expenses," Wilcox recalled.

BY FAR the largest claims, however, and the most thorny to settle, were the remaining 3,400 for lost property value, business or corporate good will. And while the settlement fund has steadily accumulated interest, there still is not enough money to go around.

"My impression is that there is something or, the order of \$15 million remaining, but more than \$100 million in claims," Wilcox said. Pickering's comment: "People will get a percentage, is what's going on now."

Apart from the years of frustration in following her own tiny claim, what irks Pickering and others she has talked to about the TMI settlement is that millions of dollars from the fund already have gone to pay attorneys and a Philadelphia accounting firm.

A REVIEW of fund records at the Federal Building in Harrisburg shows that the accountant, Heffler and Co. of 3 Penn Center Plaza, has been paid on a monthly basis ever since March 1982 to manage the fund.

The firm's total take in three years: more than \$385,000 (the amount of one bill paid is not recorded).

Meanwhile, the lead attorney for all those who joined the class action, David Berger of Philadelphia, collected \$1,389,006 as a fee on Dec. 9, 1982 — billing at rates of \$250 and \$260 an hour. His family firm got another \$176,056 for expenses and an additional \$20,112 for preparing time reports.

Other attorneys collected on that date, too, for a grand total of just over \$2.5 million including expenses. Their bills were whittled down, at Rambo's insistence, from an original \$4 million.

THE NEXT day, the judge got a letter from Sherly J. Togans Jr. of Oberlin. Togans wrote objecting to "any partial settlement" for his own bills, the court docket duly notes, and adjusted them to \$101.19 for lodging and \$95.12 for meals that he bought when he fled his hometown at the time of the accident.

Representing such clients and running the \$5 million "public health" portion of the fund has continued to be profitable for Berger's firm. The docket shows he was paid another \$182,000 in May 1983, \$111,000 in February 1984, and \$157,500 in September 1984.

In addition, Berger has been authorized to spend large sums on consultants — most recently, \$60,000 for the five-month period that ends next week.

Asked why, four years after its creation, the public health fund still holds an estimated \$5 million, Berger told the Sunday Patriot-News: "I have no intention of being bullied, bulldozed or shoved into any quick decisions."

HE PROMISED that by a deadline next year that Rambo set, "virtually all the money will have been spent" on research with

"worldwide significance."

The docket also shows that on April 15, 1981, Rambo ordered all funding requests sealed to the public until further notice — along with future orders containing her decisions.

Thus, not even Pickering — who says people call her Three Mile Island Alert office from all over the country with questions about their long-outstanding claims — can say which local businesses have filed the largest damage claims.

"By December of 1983 they [fund administrators] were supposed to have all these claims paid," she said.

"Meanwhile, they make lots of money off of all of us folks who think we're going to get a check in the mail sometime, one of these years."

The Patriot, Harrisburg, Pa., Friday, March 22, 1985

the FORUM PUC member signs off

EDITOR:

AFTER 9½ YEARS of continuous service as a PUC commissioner, my term, at last, will end March 31, 1985. Unless a successor can be nominated by the governor, examined by the Senate Committee and confirmed by a ¾ vote of the total State Senate, within days of my departure, the seat will remain vacant for weeks, months and possibly more than a year. That, however, will not be my problem.

The 9½ years have been painful for me — if not for other as well. I learned quickly that ratepayers could be, and were being abused, exploited and, I believe, ripped off by a system that is concerned only with how better the utilities can be treated.

I have voted against rate increases almost consistently — not because I wanted to be "the dissenter," but because I firmly believed that voting "yes" in those instances would have constituted a violation of my oath of office and of the law which governs regulation of investor-owned utilities.

I have filed many dissents. Recently, in a case patiently at odds with the law, I wrote an "Amicus Curiae" brief in support of those parties who had appealed a commission decision to the Commonwealth Court. This was the first time a commissioner had ever done so.

Why did I dissent so frequently? Not because I sought publicity and not because I coveted higher office. I did so because I believed that following the law and precedent faithfully was in the best interest of the public and that I was obliged to

defend the law.

My leaving the commission (not by choice — but by law) seems to have become a well-guarded secret in the media, with press, radio and TV ignoring it, as if it were a non-event.

Perhaps it is not newsworthy — perhaps the ratepayers do not want to be informed. It matters little at this point.

If you (the readers) had been of help to me during the years as I tried to be of help to you, I am grateful to you.

If it mattered not one bit to you how much more the ratepayers had to pay for utility service, that alone could be the reason why the rates have risen so wildly.

In any event, I'll pack my things and start for home. Being a commissioner has been a lonely experience — a lonesome journey. My best wishes to my successor and to all ratepayers.

—Michael Johnson, Harrisburg

TMI protest

EDITOR:

THIS IS in response to James B. Bogar's letter of March 11, criticizing "farmers" who "use" children in their front lines to grab headlines, as in the most recent gate march at TMI.

We marchers are not farmers, but we are afraid. A major accident at a nuclear facility — the thing we were promised was next to impossible — has become for us a daily reality.

Yes, we grab headlines, and we grab headlines for the children. Their safety and their right to live in a clean world, not profit margins or dividends, have always been our first concern.

—Cese Viti, Mechanicsburg

10 years of championing 'the little guy' end

Consumers lose ally

By GEORGE WEIGEL
Staff Writer

He's been called practically everything from a "living legend" and a "champion of the little guy" to names that are better left unsaid.

"Blunt" is the word that keeps coming up when people describe him.

Never one to hedge on his beliefs, he's the type of guy who will scrap with someone one moment and then turn around and bear-hug him the next.

HIS OUTSPOKEN, pull-no-punches nature has miffed many, but friends and foes alike respect him and need never doubt his honesty.

There's one point, however, on which most everyone would agree. When Michael Johnson steps down from the state Public Utility Commission at the end of this week, Pennsylvania consumers will be losing their foremost ally in the fight against higher utility rates.

Here's a guy who has repeatedly charged utilities with gouging consumers — but found himself helplessly on the short end of numerous 4-1 votes in opposing rate increases.

HE USES words such as "rip-off," "exploit" and even "rape" to describe what utility companies are doing to ratepayers.

Once, he even threatened to sue his fellow commissioners after Philadelphia Electric Co. was granted a \$221.7 million rate increase.

Those kinds of words and actions haven't exactly endeared him — at least publicly — to his colleagues and those in the utility industry.

But being the type who fights to the end for whatever he believes is right, Johnson has kept right on criticizing and voting no.

AS HE approaches the end of his 10-year term, the 72-year-old Johnson describes his tenure on the PUC as a "lonesome journey."

His biggest regret is not being able to have done more for the consumer.

"Justice for the little people," he says. "I never was able to accomplish that. I still don't think residential ratepayers, particularly senior citizens, are being treated justly."

Obviously, he places much of the blame on profit minded utility companies. But he also blames the system for letting it happen — in-

cluding the PUC bureaucracy, his fellow commissioners and the media.

FOR EXAMPLE, he says the law that places the "full burden of proof" on utilities to justify their rate increases is loosely followed, if at all.

"This commission's standard of what is a full burden of proof is appalling," he says.

And he's peeved that the commission regularly approves higher rate increases than that recommended by the PUC's own trial staff, whose job is to represent the public's interest in rate cases.

Commission 'convinced' Smith is impartial

NRC lists reasons for exonerating judge

By MICK ROOD
Washington Bureau

"Convinced" that Administrative Law Judge Ivan W. Smith is impartial, the Nuclear Regulatory Commission yesterday listed its reasons for not disqualifying him from presiding over the Three Mile Island Unit 1 restart case.

In a closed meeting March 26, the NRC voted 5-0 not to disqualify Smith but gave no justification for the decision at that time.

Attorneys for intervenors in the TMI Unit 1 case, including the state of Pennsylvania, had de-

manded that Smith step down after he wrote a federal judge to plead leniency for James Floyd.

Floyd, a former TMI supervisor, had been found guilty of cheating on an NRC operator licensing test and was awaiting sentencing when Smith wrote his letter to U.S. Middle District Judge Sylvia H. Rambo on Dec. 27. Floyd eventually was given a suspended sentence.

Attorneys for the NRC's technical staff agreed that Smith had shown the appearance of bias.

But the commission said yesterday that Smith had not violated provisions of the Judicial Code of Ethics. The judge had not exerted undue influence on a trial and had not officially testified for Floyd.

As to a judicial code provision directing judges to abstain from "public comment about a pending or impending proceeding in any court," the commission said it didn't apply. Smith was imparting specific information to another court, not making "general public comment."

Intervenor also had objected to Smith's sympathetic comments about utility employees caught up in TMI investigations. Even Commissioner James Asselstine, who disagreed with the way the NRC reached its vindication of Smith, said, "I cannot fault Judge Smith for being protective of due process rights."

Attorneys for Three Mile Island Alert Inc. had objected to Smith's treatment of them and their witnesses during Unit 1 proceedings.

"The right to an impartial adjudicator does not mean that favorable rulings must be divided equally between the parties, or that a judge may not occasionally use strong language toward a party or in expressing his views on matters before him," the commission said.

Although he agreed with the outcome, Asselstine said in separate views that Smith had violated the spirit, if not the letter, of the judicial code by writing the letter to Rambo. Asselstine called it "poor judgment."

the FORUM

GPU safety claims flawed

EDITOR:
 IN THE MARCH 17 "Washington Watch" column, GPU spokesperson Lisa Robinson accused me of making "scurrilous comments," of "fear mongering," and of "frightening the public" regarding my reaction to GPU's unprecedented request to allow certain damaged steam generator tubes to remain in service at TMI-1. I find such name calling deserving of little response. However, for the record, I believe certain facts should be stated.

When the TMI accident jolted this community six years ago, little did anyone know the full extent of misconduct in which GPU and its subsidiaries were involved, and in which they would be later implicated. But involvement in intentional, sometimes criminal wrongdoing, is not the only reason GPU should not be trusted to operate TMI-1.

The company is incompetent. In late 1981, GPU Nuclear "accidentally" contaminated Unit 1's steam generators by allowing a sulfur compound into the system. This sulfur compound caused extensive crack-

ing of the steam generator's tubes. In testimony before Congress, the NRC staff called TMI-1's steam generator damage the worst in the entire country.

Steam generator tubes, it should be noted, are among the most sensitive structures in a nuclear reactor. Each one of these 31,000 long, skinny (.034 of an inch thick) tubes acts to isolate from the outside environment the radioactive water which circulates around the reactor's highly radioactive core. If just one of those tubes ruptured, that containment is breached, and radioactive water and steam would likely be released directly into the environment.

Since 1981, the company has been trying to convince the public that all 31,000 tubes which were originally cracked have been fixed and are good as new. Common sense dictates that this can not be true. The facts support this as well. In the view of our technical experts, the risks to which the company and the NRC propose to subject this community by allowing operation with these band-aid repaired steam generators are enormous.

Now the company has requested an unprecedented relaxation in its requirement to plug and remove from service deteriorated tubes. Right now, GPU is trying to avoid plugging over 200 tubes which were recently shown to be further damaged. The company has already plugged 1,009 tubes in one of its generators. It may not operate

under current conditions with more than 2,250 plugged tubes in that generator. According to NRC inspector Richard Conte, "The NRC's safety concern is that with the additional blocking of tubes, you're going to lessen the reactor coolant system flow of water in the reactor."

What necessitated this request for change? Is GPU afraid they are approaching their plugging limit? It appears so. Is the company trying to avoid paying the \$800,000 to \$1 million they say it will cost just to plug these 200 tubes? Possibly.

In any event, one thing is clear. GPU's financial needs have blinded it to the health and safety risks to which it has subjected the TMI community. And it has been my experience that they give false and misleading statements on a regular basis.

If GPU's public relations representatives are so rattled by criticism that they feel it necessary to engage in name calling with individuals who know more about the facts of this case than they do, then that is sad. If they think it's going to intimidate anyone from speaking out against what is clearly an unsafe plant and incompetent management, forget it.

—Joanne Doroshow, Harrisburg
 The writer is an attorney for Three Mile Island Alert.

Letters to the editor, which must include a telephone number and address for verification, are welcomed from readers of Patriot-News publications. Address: P.O. Box 2264, Harrisburg, Pa. 17105.

the FORUM

TMI repair plan is sound

EDITOR:
ONCE AGAIN, in her letter in last Sunday's Patriot-News, Joanne Doroshow made reckless claims about the steam generator repair program at Three Mile Island Unit 1.

In her letter, Ms. Doroshow said, "In the view of our technical experts, the risks to which the company and the NRC propose to subject this community by allowing operation with these band-aid repaired steam generators are enormous."

A few points need to be made about that assertion. The steam generator repair and testing program is a \$50 million project, hardly a "band-aid." From the start, GPU Nuclear and the Nuclear Regulatory Commission's staff involved third-party review groups in assessing the safety of the steam generator program — all to insure that it represents no risk to the public.

GPU Nuclear's third-party group included experts from the Argonne National Laboratory, Lehigh University, MPR Associates, Babcock & Wilcox and the Electric Power Research Institute's Non-Destructive Evaluation Center. The NRC outside review group included experts from the Brookhaven and Oak Ridge national laboratories and the Franklin Research Corporation.

In addition, GPU Nuclear called on other organizations, including the Battelle Columbus Laboratories, Oak Ridge National Laboratory, the Massachusetts Institute of Technology,

just their logic that stinks so.
 The Patriot, Harrisburg, Pa., Friday, April 5, 1985

TMI critics
EDITOR:
 IT IS DIFFICULT to know how to respond to the letter by Evelyn Daniel that appeared on March 28 and the editorial, "TMI Plus 6," that ran the same day. Both the letter and the editorial reflect fervently held views that originated six years ago during the period of the accident at TMI-2.

We respect the concerns expressed in the letter and the editorial. Everything we have done at Three Mile Island during these six years has alleviated such concerns.

Yet Ms. Daniel writes that our only concern is "making a buck," and the editorial asserts that "absolutely nothing has been done" to meet the public's expectations of TMI.

These are incredible statements. A great volume of findings from Nuclear Regulatory Commission licensing and appeal boards and inspections of TMI-1 by the NRC staff, the Institute of Nuclear Power Operations and Admiral Hyman G. Rickover testify that the lessons of the Unit 2 accident have been fully applied at Unit 1 and that the plant will be operated safely.

It's difficult for members of the public to grasp the new reality of operations at Three Mile Island today, when they continue to be bombarded with timeworn perceptions that are no longer true. Today, there are more than 1,200 highly skilled, highly motivated people operating TMI in the manner that Ms. Daniel, The Patriot-News and the public say they expect of us.

TMI-1 will only be operated safely and properly.

—Douglas H. Bodell, Middletown
 The writer is manager of communications services for GPU Nuclear Corp.

Pennsylvania State University, Westinghouse, Gilbert Associates, Conam Inspection Services, NUS Corp., NWT Corp., Impell Corp., and Foster Wheeler to provide data and to test materials and assess elements of the overall program.

As the culmination of such appraisals, an NRC Atomic Safety and Licensing Board conducted public hearings and last October approved the steam generator repair process. Ms. Doroshow's organization, Three Mile Island Alert, sought those hearings, but provided no expert witness in support of its contentions.

It is easy to state in a letter that facts are thus and so. It is another matter to have the facts tested in cross-examination before an official hearing board. GPU Nuclear submitted its case in that manner; TMI Alert did not. The licensing board heard TMI Alert's arguments and rejected them.

As TMI Alert's attorney, Ms. Doroshow continues to press in the media a case her group lost before the licensing board. She continually misrepresents the nature of the steam generator work, then objects when GPU Nuclear seeks to set the record straight.

Tactically, Ms. Doroshow may feel her unending stream of charges serves TMI Alert's purposes in seeking to block the restart of TMI-1. Factually, however, the public needs to know what she is really doing.

—Lisa G. Robinson, Middletown
 The writer is media representative of GPU Nuclear Corp.

the FORUM

TMI restart no benefit

EDITOR:
 A RECENT letter to the editor entitled "TMI restart benefits all" failed to give an accurate economic overview and ignored a number of significant issues associated with restart.

The letter failed to clearly define the economic benefits area residents could expect from restart. Instead, the author dwelled upon the loss of revenue GPU has experienced in the last six years. Despite the cash drain, GPU remains solvent and financially healthy and has recently improved its bond/economic rating. (Wall Street Journal, Feb. 25, 1985). GPU insists on using "economic fearmongering" as a means of justifying restart even though their financial survival is not predicated on restart.

Most area residents are PP&L customers but those who are Met Ed customers can expect little or no financial relief from restart. Currently, Met Ed is asking the PUC for a \$26.7 million rate increase. A family that uses 500 KW per month can expect a \$41.13-\$51.73 increase in their bills. Even if TMI Unit 1 comes back on line, Met Ed residential customers will experience a substantial increase in their bills.

In fact, if GPU is successful in operating TMI Unit 1 at 30 percent capacity for 100 hours, they can include the plant in their rate base. This means that the ratepayers will be paying for the maintenance and operation of Unit 1 even if it should shut down (which is not a remote possibility taking into consideration the condition of the steam tubes and steam generators). Also note that ratepayers and taxpayers have been picking up a large part of the cleanup tab at Unit 2 which amounts to an indirect cash subsidy for GPU.

Those who maintain that the

opponents of restart and other like-minded activists are responsible for eroding Pennsylvania's economic competitiveness are simply wrong and misguided. The main obstacle hindering economic growth in Pennsylvania is the skyrocketing electric rates demanded by electric utilities. These grossly inflated rates are attributable to faulty construction and design, inept management, and cost overruns at nuclear power plants (Fortune Magazine, Feb. 11, 1985).

There are other factors beside economics that need to be weighed before a restart vote, i.e. leak-rate falsifications at Unit 1 and Unit 2, "whistle-blower" allegations, the objectivity of the ASLB Judge Ivan Smith, the Justice Department investigation of the NRC, and the physical and psychological impact on area residents. The integrity and competence of GPU is still in question and Governor Thornburgh, Senators Specter and Heinz, and Congressmen Walker, Gekas, and Goodling are not convinced that GPU possesses the requisite character necessary to operate Unit 1 without endangering the health and safety of local residents.

—Eric J. Epstein, Harrisburg

TMI critics qualified

EDITOR:
 GPU'S RECENT two-page ad was a very expensive attempt to further misinform area residents about the health hazards of their mismanaged clean-up of Unit 2. The ad, which was a response to a series of articles appearing in the Philadelphia Inquirer, alleged that "Inquirer experts have little credibility."

To support that claim they cite the opinion of a judge who heard the testimony of Drs. John Gofman and Karl Morgan. Since, apart from that judge's opinion, GPUN offers no evidence which taints the credibility of these two men, I think their credentials should be noted.

John Gofman holds a Ph.D. in nuclear chemistry as well as an M.D. degree, and is the former associate director of the U.S. government's Livermore Laboratories. Gofman discovered two isotopes of uranium and two isotopes of plutonium which make the chemistry of commercial nuclear fission possible. He isolated the first plutonium for the Manhattan Project during World War II. Gofman's medical research has resulted in him being awarded several lectureships, the Stouffer Prize for outstanding medical research and his selection by the American College of Cardiology as one of the leading cardiology researchers of the last quarter century.

Karl Morgan is the former director of the Health Physics Division of the Oak Ridge National Laboratory and is popularly regarded as the "father of health physics." He currently sits on the Safety Advisory Panel for PP&L's Berwick nuclear plant and the Advisory Panel for the TMI Public Health Fund.

I challenge GPUN to place the credentials of any of their employees beside those of these distinguished scientists.

It appears that we should add character assassination to GPUN's list of crimes. It is GPUN, and not these two noted scientists, who possess little credibility.

—Vera L. Stuchinski, Harrisburg

People still seek answers; get nukespeak

THE PERSPECTIVE of six years has not diminished the significance nor the impact of the accident at Three Mile Island. This is true despite the considerable efforts of the nuclear industry to downplay it. For industry, TMI was an event that killed no one and served to validate the technology's safety systems.

The industry's assertions about the relatively benign nature of the nation's worst accident at a commercial nuclear plant may be true, except that there are some curious actions suggesting otherwise. Recently TMI's insurers failed to contest in court nearly \$4 million in personal injury claims stemming from the accident. Involved were 73 individuals, mostly children but including four adults who subsequently died.

Meanwhile, TMI-owner General Public Utilities, at the instigation of the Nuclear Regulatory Commission, has spent \$100 million to modify Unit 1. This has been done despite the fact that Unit 1 was not involved in the accident and, presumably, was at least as safe as Unit 2 which performed so well, according to the industry, in nuclear power's toughest test to date.

COULD IT BE that the accident actually was more serious than the industry cares to admit? Over and over again the people of this area have been assured that there were no health implications associated with the accident, an assertion that has been independently corroborated on more than one occasion.

Yet, the industry — through its insurers — chose to avoid what in American society is the ultimate test of any claim of blamelessness — placing their case before the judgment of a court. The excuse that this tactic was taken solely to avoid the expense of a trial is either false or unbelievably stupid. This was a golden opportunity to put to rest the "mythology" that the accident produced a local epidemic of cancer.

Then we have the matter of NRC-ordered safety modifications that have affected not only TMI Unit 1, but virtually every nuclear plant in the country. If the accident demonstrated that nuclear-plant safety fea-

tures actually performed better than expected, then why is all this money being spent? And why, after six years and millions of man-hours of investigation and attention by its staff and officials, is the NRC only now on the threshold of deciding whether Unit 1 is sufficiently safe to restart? And finally, if the accident really wasn't worth all of the concern and commotion it has generated over the past six years, why is it costing the public something on the order of \$3 billion to deal with it?

THERE may be answers to these questions, but no one entity can answer them all authoritatively. That in itself is one of the more disturbing aspects in this entire drama because it reflects the continuation of a fragmented responsibility that was so much in evidence during the accident. It is one more indication that while there have been many surface changes surrounding TMI over the past six years, the fundamentals remain much as they were.

Normally, continuity is reassuring, but that is not true in this case. This is an element of the TMI scenario that neither the industry nor its regulators have managed to grasp. Industry was too busy convincing itself that the accident bordered on being a non-event, while the NRC wallowed in an overabundance of bureaucracy and regulations amid an absence of bold and determined leadership.

For the great majority of local residents, the TMI accident was an event that was inexcusably terrifying in its implications, if not in its actual impact. They expected, and rightly so, a degree of change equivalent to the impact of the accident on their lives. Instead they have gotten a countless number of useless legal exercises that may have satisfied some obscure NRC regulations. But absolutely nothing has been done to meet the expectations of a people whose once blind faith in nuclear power has been shattered.

As the NRC finally untracks from its bureaucratic inertia to approve restart there is a disturbingly familiar quality about it all, as if during the course of six years nothing of substance has really changed.

20% core melt cited, but no meltdown

50-50 meltdown

NRC findings press nuclear insurance reform

The Patriot, Harrisburg, Pa., Monday, April 11, 1985

From staff and wire reports
Up to 20 percent of the reactor core may have melted when Unit 2 overheated at Three Mile Island, scientists in Idaho say after coming up with a likely chain of events during the March 1979 accident.

But as a molten mass of uranium and metal flowed to the bottom of the bullet-shaped reactor, it cooled and solidified, leaving the stainless steel outer vessel intact.

And so despite core temperatures that reached 5,100 degrees Fahrenheit, there was no "meltdown," according to Harold Burton, TMI programs manager for EG&G Idaho, a federal contractor at the Idaho National Engineering Laboratory.

Scientists first announced in February that fuel had melted in the TMI accident. This latest research, paid for by the U.S. Department of Energy and announced yesterday, backs up their results.

It also gives the first detailed hypothesis of what actually happened inside the core when a valve outside stuck open and leaked vital cooling water.

The results carry meaning for the hundreds of cleanup workers who intend to start removing fuel debris this summer, a spokeswoman for the plant operators said yesterday.

"They'll be doing relatively less vacuuming [of small particles] and more removal of chunklike material," said Lisa Robinson of GPU Nuclear Corp.

Robinson added, "We don't expect the information released today will effect the length of time

— 1½ years — or the expected cost of defueling."

Engineers now are designing long-handled tools to handle the larger chunks.

Workers are expected to dangle the tools into the opened Unit 2 reactor from a platform, set on top of a water-filled tank resembling an above-ground swimming pool that was moved over the 38-foot vessel last summer.

Here's what happened in 1979, according to Burton:

It was about 6:30 a.m. on March 28, 2½ hours after the valve stuck open, that metal and fuel began to melt at the top of the core.

Parts of the core reached 5,100 degrees Fahrenheit, the melting point of uranium fuel and already much hotter than the melting point of the metal.

The liquid mass began to flow downward, perhaps through passageways normally traveled by the cooling water. Along the way, the molten substances may have damaged more of the metal core structure.

At 6:54 a.m., reactor operators let cooling water rush back into the core, which solidified the hot mix of uranium and metal. At the same time, the water caused the remaining upper portion of the core, which had become brittle, to crumble into a bed of rubble.

Some of the material again melted, and solidified at about 7:45 a.m., forming its own bed of rubble at the bottom of the vessel. Remote television pictures show the debris is piled about 3 feet deep.

WITH restart of Three Mile Island Unit 1 at hand, it isn't exactly reassuring to learn that the Nuclear Regulatory Commission estimates there is a 50-50 chance of a "severe core melt accident" occurring over the next 20 years. The estimate was made at the request of the House Subcommittee on Energy Conservation and Power which has jurisdiction over the NRC.

A partial melting of the nuclear-fuel core occurred during the TMI accident in 1979. The kind of accident postulated in the NRC estimate would likely be more serious than the one at Unit 2. The probability of a reactor-destroying accident occurring at any single nuclear plant in the country during the course of a year is one in 3,333, according to the NRC. The chance of an accident causing substantial damage beyond the plant is 10 times greater.

The NRC continues to consider the risks of nuclear power acceptable and plans no major efforts to reduce them. But it said that judgment was conditional on the completion of a study of severe accidents currently underway. Only Commissioner James Asselstine questions the wisdom of a public policy that finds it acceptable "to expect a 50 percent chance of another Three Mile Island or worse in the next 20 years." He believes the NRC should be doing more to prevent such

accidents. Few who live in the region surrounding TMI would disagree.

ONE CERTAIN consequence of a meltdown is that it is going to be enormously expensive. If nothing else, TMI has proven that. The cost of cleanup, purchase of replacement power and the repair or abandonment of the unit is estimated conservatively at \$3 billion. An accident at one of the newer and considerably more expensive nuclear plants could well prove to be twice as costly.

Yet, despite the experience of TMI and the possibility of another serious accident, there is not a nuclear plant in the country that is even close to being insured against all related costs. Since TMI, the NRC has raised the required coverage on a plant, but overall insurance protection against an accident remains far from adequate.

The implementation of appropriate safeguards against the financial fallout of future nuclear mishaps should have been accomplished long ago, either by the NRC or Congress. In the absence of federal action, the states should have moved through their legislatures or public utility commissions. This has not been done, which is just one of many indications that little was learned from the nation's first major nuclear accident.

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NRC refuses to revoke GPU's operating license

The Patriot, Harrisburg, Pa., Friday, April 5, 1985

By MICK ROOD
Washington Bureau
WASHINGTON — The Nuclear Regulatory Commission yesterday denied 4-1 a petition by a group of central Pennsylvanians proposing that the NRC revoke GPU Nuclear Corp.'s operating license on grounds that the utility lacks overall character.

Commissioner James Asselstine voted against the order denying the motion.

The commission denied the petition on a number of technical grounds, but primarily because it is the NRC's view that GPU Nuclear's character is being considered as part of the restart proceeding on the undamaged Three Mile Island

Unit 1. Yesterday's order noted the commission already has stated that:

"Whether there was one or many past improper acts, the issue today is whether adequate remedial steps have been taken to provide reasonable assurance that the plant can be operated safely. Any improper acts would need to be considered in the aggregate only if they still posed a current significant safety concern."

There was no discussion yesterday during a 60-second meeting called to affirm the order.

GPU Nuclear, in arguing the NRC should lift a 1979 shutdown

order of Unit 1, has stated repeatedly that its revamped staff and operating procedures at the nuclear plant mean it can be operated safely.

The petitioners had listed a long series of GPU Nuclear infractions in regard to TMI Unit 1 and the accident-damaged Unit 2. Included were the company's alleged "lying" about plant conditions at the time of the Unit 2 accident six years ago and subsequent operator cheating on license examinations.

"Its character is something which no organizational chart, policy statement, budget or plan can change," the petition said. "Character qualities are inherent, and they are paramount considerations because character qualities

permeate all acts and omissions of licensee."

Pennsylvania petitioners included state Sen. John J. Shumaker, state Rep. Peter C. Wambach Jr., Dauphin County Commissioner Lawrence J. Hochendoner, former Harrisburg City Councilwoman Jane Perkins and Three Mile Island Alert Inc., an intervenor in the Unit 1 restart case.

Petitioners from New Jersey, where General Public Utilities Corp. operates the Oyster Creek nuclear plant, included the Monmouth County Safe Energy Alternatives Alliance, the Essex County Women's International League for Peace & Freedom, the Essex SEA Alliance and the New Jersey SANE.

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