To: Jim Mehl, ERU Supervisor

From: Zack Clayton, Rad Coord

Subject: March Monthly Report

Date: April 5, 2009

Beans:

Training: 1
Drills 0
Meetings: 2
Technical Assistance: 2
Public Assistance: 2

Web Page Hits: There were 85 RAD hits in March.

Coming Attractions:

Working Group 4/1
URSB 4/6
RAT Steering 4/7
DB Drill 4/14
MMRC Group 4/16
BV Refueling 4/20

Facility Updates:

Davis Besse Nuclear Power Station

Davis Besse operated at full power for March. There were no event reports.

Perry Nuclear Power Plant

Perry plant started and ended March in a refueling outage. This month the plant took a computer system offline for maintenance and extended the time period needed several times. This computer communicates with the state and NRC in several ways that are considered safety related. See event notice #44905.

On March 30th, at approximately 18:43 hours, Perry reported a loss of power affecting communications, in-plant computer systems, Computer Aided Dose Assessment Program (CADAP), and Emergency Response Data System (ERDS). A relay actuation resulted in the

supply breaker tripping and all supplied loads being de-energized. All information provided by the data systems affected can be relayed by voice in plant and to offsite agencies and NRC. See event notice #44945.

Beaver Valley Unit I

Beaver Valley Unit I operated at full power for March. There were no event reports.

Beaver Valley Unit II

Beaver Valley Unit II operated at full power for March. There were no event reports.

Fermi II

Fermi operated at full power until March 6 when it started to coast down for a refueling outage which started March 28.

Portsmouth Gaseous Diffusion Plant

There were no reported incidents in March.

Activity:

3/12 Davis Besse Offsite Systems Training class.

3/31 NEPAC meeting in Strongsville. Ohio EMA presented a new modular training program that will allow tailoring the contant to specific training needs for classes while still maintaining consistency of content across the various classes.

Office Issues:

March 10 Toledo Edison reported elevated alpha activity of 50 pCi/l in a new well in Sandusky County. DDAGW is working this report as it exceeds drinking water standards. Contact is Wendy Sheeran.

NRC Reports and Statistics:

March operating power levels

Date	BV1	BV2	DB	Fermi2	Perry	
1	100	100	100	100	0	
2	100	100	100	100	0	
6	100	100	100	99	0	Fermi – coastdown to refueling outage
9	100	100	100	98	0	

16	100	100	100	95	0	
23	100	100	100	93	0	
28	100	100	100	0	0	Fermi – refueling outage
30	100	100	100	0	0	
31	100	100	100	0	0	

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PDF version of IN 2009-02, Biodiesel In Fuel Oil Could Adversely Impact Diesel Engine Performance, dated February 23, 2009 (ML083450280) , that has been posted to the NRR GCC Web, along with the URL for Web access to generic communications files on the NRC Homepage:
http://www.nrc.gov/reading-rm/doc-collections/gen-comm/info-notices/2009/ .

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The staff published a draft RIS titled " IMPLEMENTATION OF NEW FINAL RULE, PROTECTION OF SAFEGUARDS INFORMATION" in the Federal Resiter for public comment. The Federal Register notification for this is 74FRN10786. The draft RIS may also be located on the NRC Website under Documents for Comment, Other, Draft Generic Communications section:
http://www.nrc.gov/reading-rm/doc-collections/gen-comm/docs4comment.html

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PDF version of Information Notice 2009-03 , Solid State Production System Card Failure Results in Spurious Safety Injection and Reactor Trip, dated March 11, 2009 (ML083080368) , that has been posted to the NRR GCC Web, along with the URL for Web access to generic communications files on the NRC Homepage:
http://www.nrc.gov/reading-rm/doc-collections/gen-comm/info-notices/2009/

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PDF version of Information Notice 2009-05, Contamination Events Resulting From Damage To Sealed Radioactive Sources During Gauge Dismantlement And Non-Routine Maintenance Operations, dated February 3, 2009 (ML090370785), that has been posted to the NRR GCC Web, along with the URL for Web access to generic communications files on the NRC Homepage:
http://www.nrc.gov/reading-rm/doc-collections/gen-comm/info-notices/2009/

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Perry Nuclear Power Plant, Unit No.1 - Request for additional information related to inservice testing program requests in support of the third tenyear interval. This document is available and will be accessible via the public web site Electronic Reading Room in the Agency Document Access and Management System (ADAMS), http://www.nrc.gov/reading-rm/adams.html

To access this document use the ADAMS number ML090650529

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Beaver Valley Power Station, Unit No. 1 - Relief Request No. 1-TYP-3-IWB-2412 Regarding the Third 10-Year Interval Inservice Inspection Plan (TAC No. MD9733). The document is publicly available and will be accessible via the public web site Electronic Reading Room in the Agency Document Access and Management System (ADAMS), http://www.nrc.gov/reading-rm/adams.html
To access this document use ADAMS Accession No: ML090700255

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PDF version of Federal Register Notice on the Proposed Revisions to the License Renewal Interim Staff Guidance Process and Regulatory Issue Summary 2007-16 (ML082180299), the Comment Period ending April 27, 2009, that has been posted to the NRR GCC Web, along with the URL for Web access to generic communications files on the NRC Homepage: http://www.nrc.gov/reading-rm/doc-collections/gen-comm/docs4comment.html

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Beaver Valley Power Station, Unit No. 2 - Issuance of Amendment Re: The Use of Containment Accident Pressure in Determining Available Net Positive Suction Head of Recirculation Spray Pumps (TAC No. ME0098)
The document is publicly available and will be accessible via the public web site Electronic Reading Room in the Agency Document Access and Management System (ADAMS), http://www.nrc.gov/reading-rm/adams.html
To access this document use ADAMS Accession No: ML090270068

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Beaver Valley Power Station, Unit No.2-Extension Request Approval Letter RE: Generic Letter 2004-02, "Potential Impact Of Debris Blockage On Emergency Recirculation During Design Basis Accidents At Pressurized Water Reactors, "(TAC No. MC4666)
The document is publicly available and will be accessible via the public web site Electronic Reading Room in the Agency Document Access and Management System (ADAMS), http://www.nrc.gov/reading-rm/adams.html
To access this document use ADAMS Accession No: ML090900193

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NUCLEAR WASTE: Chu defends plan to abandon Yucca Mountain *(03/05/2009)*

Ben Geman, E&E senior reporter

Energy Secretary Steven Chu today defended the Obama administration's decision not to proceed with the Yucca Mountain, Nev., nuclear waste repository, saying waste can be stored safely at reactor sites while a "comprehensive" program is developed.

"The nuclear regulatory agency [commission] has said that solidification of the waste and storage at the current sites is a safe short-term option, short-term meaning years, decades, but certainly not long-term, hundreds of years, millions of years," Chu told reporters.

"The important point is, that does give us time to formulate a much more comprehensive and thorough policy in how we deal with the waste," he said. "The environment is not in danger. Security is such that we believe the loss of material is not an issue."

DOE plans to convene experts this year to develop a longer-term approach, Chu said. He also noted that understanding of geological sites has improved.

"It is a new administration, and a fresh look is really in order," he said.

Chu spoke after testifying at a Senate Energy and Natural Resources Committee hearing on DOE research and development programs. During that session, the Yucca decision was criticized by Sen. Lisa Murkowski of Alaska, the panel's top Republican, and Sen. John McCain (R-Ariz.), who cited the billions of dollars that have already been sunk into the project.

Murkowski said the decision to begin looking for a new long-term solution to replace the Yucca plan could harm industry efforts to build new U.S. nuclear power plants.

"If I were looking to advance a new nuclear facility, these comments from the administration that we are starting the process of finding a better solution would be very disconcerting," she said, alleging that it creates a period of "limbo."

But Chu said the administration is working as fast as possible on plans to provide loan guarantees for new reactors, which industry is seeking to build after a decades-long lull.

He also noted advancements in technology, including the prospect of fast reactors that can lower amounts of waste. "It is prudent to step back and say, 'Let's develop a comprehensive policy toward how we reduce the amount of nuclear waste, how we store it.'"

Moreover, he said, research into waste recycling could alter the nature of repositories needed.

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NUCLEAR POWER: Panel examines U.S. plant safety 30 years after Three Mile Island accident *(03/23/2009)*

Katherine Ling, E&E reporter

A panel of the Senate Environment and Public Works Committee on Tuesday will receive an update on safety at nuclear power plants 30 years after the worst nuclear accident in U.S. history.

Given pending applications to build new reactors across the country, Sen. Tom Carper

(D-Del.), chairman of the Clean Air and Nuclear Safety Subcommittee, is holding the hearing to learn more about the nuclear power industry's current safety policies and protocols.

"We must continue to be vigilant on safety," Carper said in a statement. "With a strong, safety-focused nuclear industry, America can reap the benefits associated with clean, safe nuclear power. Without a safe nuclear industry, there will be no nuclear industry," he said.

Still clouding any discussion on nuclear power plant safety is the 1979 accident at a reactor at the Three Mile Island power plant near Harrisburg, Pa. The accident involved a partial meltdown of the reactor core that resulted in the release of radioactive material into the atmosphere -- causing panic in the local population -- and the flow of 700,000 gallons of radioactive cooling water contaminating two buildings at the plant, one of which held the reactor.

The accident was "a combination of equipment failure and the inability of plant operators to understand the reactor's condition at certain times during the event," according the Nuclear Energy Institute, the policy arm of the nuclear industry.

The nation has 104 nuclear reactors -- including one reactor still working at the Three Mile Island plant that is now owned by Exelon. There are currently 17 applications for 26 more reactors being reviewed by the Nuclear Regulatory Commission, with the possibility of five more applications for seven reactors in the next few years.

In a hearing before the Senate Energy and Natural Resources Committee last week, Dale Klein, the chairman of the Nuclear Regulatory Commission, said regulators and the industry have significantly improved safety since the accident.

"I believe we are a much better regulator today. We have a much more rigorous reactor oversight program," Klein said. "We all learned lessons and all implemented those lessons. And I think the record speaks for that. The operational efficiencies are higher and the safety issues that we see are less."

Klein said NRC and the industry recognize that safety issues are extremely important. On that note, he pointed to the creation of the Institute of Nuclear Power Operations by the industry to provide safety evaluations and safety training, calling the effort "one of the most significant aspects" of the industry's respect for the importance of safety.

"The thing that we all need to watch is that we can never become complacent; we have to keep high standards," Klein said.

Klein will testify along with the three other NRC commissioners, the NEI president, a former NRC commissioner, the director of NRC's nuclear reactor regulation and the former Pennsylvania governor at the time of the accident.

Though some of the witnesses, including the NEI representative, will argue that the nuclear industry has one of the best safety records of any industry in the United States, nuclear watchdog groups warn that NRC oversight and the industry safety culture is not sufficient.

There have been several alarming incidents at nuclear power plants in the past decade, including serious damage to a reactor vessel head at the Davis-Besse nuclear plant in Ohio and long outages to repair overdue safety hazards at the Millstone nuclear plant in Connecticut. In the past two years, there have been several security incidents involving sleeping guards at the Peach Bottom plant in Pennsylvania and sabotage at the Turkey Point unit in Florida.

"The United States has strong nuclear power safety standards, but serious safety problems continue to arise at U.S. nuclear power plants because the Nuclear Regulatory Commission (NRC) is not adequately enforcing the existing standards," the Union of Concerned Scientists said in their 2007 report "Nuclear Power in a Warming World."

Thomas Cochran, senior scientist at the Natural Resources Defense Council, says an independent commission should be created to assess and report on ways to improve NRC's safety culture.

"This commission should investigate failures to enforce regulations, staff deferral of safety inspections and upgrades so as not to impinge upon reactor operating schedules,

pro-nuclear bias in the selection of commissioners, senior NRC staff management and advisory committee members, the revolving door practice of NRC staff being hired from the industry it regulates and industry hiring of NRC staff, the curtailment of public's ability to engage in discovery and cross-examination during reactor licensing hearings," Cochran told the House Science and Technology Committee last year.

Witnesses: Dale Klein, chairman, NRC; Gregory Jaczko, commissioner, NRC; Peter Lyons, commissioner, NRC; Kristine Svinicki, commissioner, NRC; Peter Bradford, adjunct professor, Institute for Energy and the Environment, Vermont Law School; Harold Denton, former NRC employee; Dick Thornburgh, counsel, K&L Gates LLP; and Marvin Fertel, president and CEO, Nuclear Energy Institute.

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NUCLEAR POWER: Former regulator warns against pressure to speed up licensing process *(03/25/2009)*

Katherine Ling, E&E reporter

A push to speed up and streamline the nuclear plant licensing process occupied Congress when the worst nuclear disaster in U.S. history happened -- a lesson for lawmakers today, a former federal nuclear regulator warned a Senate Environment and Public Works subcommittee yesterday.

Almost 30 years ago, a fuel core at the Three Mile Island nuclear power plant in Pennsylvania had a partial meltdown that resulted in a release of radioactive emissions, followed by the cancellation of numerous power plants and a near-abandonment of the U.S. nuclear industry.

Peter Bradford, a commissioner at the Nuclear Regulatory Commission at the time of the accident, told the Clean Air and Nuclear Subcommittee that the rush to license and build nuclear reactors without regard to safety and economics was the real culprit for the end of the nuclear boom in the United States, not just the accident.

"Among the lessons of [Three Mile Island] is that nuclear power is least safe when complacency and pressure to expedite are highest," said Bradford, currently an adjunct professor at the Vermont Law School. "That is why within a decade of the TMI accident we had a landscape dotted with nine figure cost overruns, a nine-figure accident, eight-figure cancellations and eight-figure mishaps in such areas as steam generator tubes, pressure vessels, seismic design and quality assurance," he said.

Bradford said around the time of the partial reactor meltdown at Three Mile Island in March 1979, lawmakers were berating NRC for shutting down five nuclear power plants because of a computer code error discovered in the agency's review of plant piping and were questioning then-Energy Secretary Jim Schlesinger on ways to expedite the nuclear licensing process.

"The nuclear regulatory problem illustrated by the accident at Three Mile Island was not ... that the U.S. had licensed too many plants too slowly," Bradford said. "It was that we had licensed -- and made large financial commitments to -- too many plants too quickly."

Bradford warned the same type of constant questioning and pressure on NRC by lawmakers to speed up the current round of 17 new reactor license applications could be similarly hazardous.

Sen. George Voinovich (R-Ohio) said Bradford's assertion was incorrect. The subcommittee had continued to prioritize the importance of safety to NRC, if Bradford had cared to read over the transcripts of previous hearings, he said.

New license review

While senators at the hearing generally asked about improvements in safety made by NRC and the industry since the accident and the need to be vigilant against complacency, there were several questions about the expected five-year licensing review NRC is estimating for the new reactors.

EPW Committee ranking member James Inhofe (R-Okla.) and other lawmakers asked members of NRC how the licensing process could be shortened. Sen. David Vitter (R-La.) asked whether standardizing the power plant technology could improve the efficiency of licensing and regulating the plants.
NRC Chairman Dale Klein said reactor standardization would help the commission in licensing and regulating the plants but that it should not be made a mandatory part of the safety process as the U.S. nuclear industry is based on free enterprise. NRC encourages standardization by reviewing those applications faster, he said.
Commissioner Gregory Jaczko said NRC should consider prioritizing applications to help concentrate agency resources that could result in a faster, more efficient review process. Applications could be prioritized by issues such as robustness and completeness, the use of approved reactor designs and previous site approval -- as was originally envisioned for the new one-step licensing process.
Prioritizing license reviews could be a good solution for the balance of speed and safety of the licensing process, Bradford said. "There really is a need to prioritize. We need to pay attention to the pace the NRC can license and the public can pay for plants ... the limits of what the process can handle rather than what the industry would like," he said.

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NUCLEAR POWER: Yucca shift fuels state debates over reactor bans *(03/25/2009)*
Phil Taylor, E&E reporter
President Obama's plan to slash funding for and seek alternatives to the Yucca Mountain, Nev., nuclear waste dump has emboldened opponents of nuclear power who are fighting efforts to lift individual state bans on new reactors.
Nuclear power opponents say the federal government and the nuclear industry have failed to find a workable solution for spent nuclear fuel. More than $10 billion has been appropriated to the federal Office of Civilian Radioactive Waste Management since 1983, yet no long-term solution exists.
"Yucca appears to have been an empty promise," Katie Nekola, executive director of Clean Wisconsin, told a Wisconsin state legislative hearing this month.
But proponents of nuclear power say Yucca is a non-issue as states look for sources of power that emit few or no greenhouse gases.
"We're trying to convince the world to embrace clean coal technologies, but at the same time we're not showing the same flexibility toward nuclear power," said West Virginia state Rep. Brooks McCabe (D), who is sponsoring a bill to lift his state's moratorium on nuclear reactors. "Nuclear power could be a bridge to cleaner coal technologies."
Eight states have moratoriums that prohibit new reactors from being built until a federal repository opens to safely and permanently store the waste.
Lawmakers in five of those states -- Wisconsin, Kentucky, Illinois and California as well as West Virginia -- have proposed legislation that would lift those bans and take the first steps in welcoming a new generation of nuclear reactors.
But those bills may face tougher obstacles now that Yucca has encountered its latest setback.
"The projected dates for Yucca to open have slipped again and again, and President Obama's draft budget removes almost all funding for it," Nekola told state lawmakers at the hearing. "None of this waste is going anywhere."
The $410 billion omnibus spending bill for fiscal 2009 that Obama signed into law last month cut funding for Yucca by 40 percent, down to $288 million from $366 million.
Wisconsin placed a moratorium on new nuclear reactors in 1983 but has recently seen several pushes from lawmakers who would like to see that ban lifted. A bill introduced by state Rep. Mike Huebsch (R) to lift the moratorium was approved last year by the state Assembly but died in the Senate.
The state is now considering recommendations from the governor's Task Force on Global Warming to ease its restrictions on new nuclear reactors by eliminating

requirements for a federal repository. That measure is meeting a familiar, if not elevated, chorus of opposition over what to do with the radioactive waste.

The debate over nuclear waste has also intensified in traditional coal states like Kentucky.

"I don't think it's too much to ask for an industry to have a disposal strategy for its waste," said Tom FitzGerald, legislative director for the Kentucky Resources Council, which is lobbying against efforts to lift the state's ban on new reactors.

A bill sponsored by independent state Sen. Bob Leeper to lift the state's 25-year-old moratorium was passed out of the Kentucky Senate in February but has stalled in the full House. FitzGerald said the recent setbacks to the Yucca project point to the difficulties over spent fuel storage.

"It certainly underscores the uncertainty of statements that the government will take care of these radioactive materials," FitzGerald said. "The government, after all these years and all this money, doesn't seem to have an answer."

Kentucky opened a low-level radioactive waste dump in the 1960s at Maxey Flats in the northeastern part of the state as part of a program to encourage investments from the nuclear industry. But the 280-acre site was contaminated after trenches containing nuclear waste caved in and leached radionuclides into the surrounding environment. No commercial nuclear reactors have ever operated in Kentucky.

FitzGerald reminds nuclear proponents that Maxey Flats was once considered a state-of-the-art disposal facility. Without a federal repository, nuclear reactors in the state would have to store spent fuel on site and pass along the bill to Kentucky ratepayers.

"The concern is that new facilities would take title to the waste and have to find their own disposal," FitzGerald said. "Ratepayers in Kentucky would pay to keep the waste at new plants, not the DOE. From a fiscal standpoint, it would be very irresponsible."

Disagreement over role of Yucca in nuclear revival

Those who support lifting state moratoriums say the recent Yucca decision by the Obama administration and Congress should not affect state-level debates over nuclear power.

The Nuclear Energy Institute, an industry trade group, said that rulings by NRC have found that spent fuel can be stored safely at reactor sites for at least the next 100 years using today's technology.

"Commercial used fuel is being stored safely at nuclear power sites, and it can be stored there safely for decades," said John Keeley, a spokesman for NEI.

Keeley said state-level discussions to re-examine nuclear power are centering more on the capital costs of building new plants and the merits of having a diverse fuel portfolio. He said delays at Yucca should not be interpreted as an indication that the federal government is turning away from nuclear power.

"Apparently, the administration wants the scientific and technical question answered," Keeley said. "We just came off a presidential campaign with both nominees agreeing that nuclear has to play a part in our energy future going forward."

McCabe, the West Virginia representative sponsoring legislation lifting the state's moratorium on new reactors, says the administration cannot weigh future deployment of advanced technologies such as commercial-scale carbon capture and storage while also denying the future potential for technologies to safely store or reprocess nuclear waste.

"We tout ourselves as an energy state, and yet we have a ban on nuclear power plants," McCabe said. "Do we want other states to ban the use of coal until we effectively solve all the issues with CCS? I would hope not."

At the recent hearing on nuclear power in Wisconsin, state lawmakers asked Patrick Moore, who co-founded the anti-nuclear group Greenpeace before becoming a proponent of nuclear power himself, how the state should react to the recent cut in funding for Yucca.

"In some ways, the canceling of the Yucca Mountain repository, which has made news lately, may have a good silver lining to it," said Moore, who now co-chairs the Clean and Safe Energy Coalition. "Now we have to go back and rethink this thing over again."

Moore said the backpedaling on Yucca will force the government to reconsider technologies banned since the 1970s to recycle and reprocess nuclear waste. He said he hopes the government will examine ways to store fuel in dry casks at two or three regional sites until the country is ready to resume a recycling program.
"The logical thing to do in the United States is not to take this stuff and bury it 1,000 feet deep in a mountain range right away but rather to establish interim storage sites," Moore said. "Even if we don't recycle this nuclear fuel in our generation, the next generation will use it because it has all this energy in it."

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NUCLEAR POWER: Three Mile Island still haunts U.S. reactor industry
(03/27/2009)
Peter Behr, E&E reporter
Inside a nuclear power plant 10 miles southeast of Harrisburg, Pennsylvania's capital, the first of a series of pumps supplying vital cooling water to the reactor unaccountably "tripped," or shut down, at 36 seconds after 4 a.m. on March 28, 1979.
The tense, sometimes terrifying week that followed, marked by official confusion and "surreal" misstatements about the crisis's severity, became known forever as the Three Mile Island accident, named after the reactor site on the Susquehanna River.
When the accident occurred, movie theaters nationwide were showing the movie "China Syndrome" about a nuclear plant meltdown. After engineers finally got inside the stricken Three Mile Island Unit 2 after the accident, they learned how closely reality had closed in on fiction.
With the initial loss of cooling water, portions of the 100 tons of radioactive uranium fuel quickly began to heat up. A chain reaction of multiple equipment failures and control room operators' mistakes followed. Before the damage was brought under control, nearly half of the reactor core with its fuel had melted down. A bubble of hydrogen gas exploded inside the reactor, and fears of another explosion gripped the Harrisburg area for several days.
The accident stopped the U.S. nuclear power industry in its tracks.
No more nuclear plants were ordered in the United States following the accident and none started after 1974 were completed, former nuclear regulator Peter Bradford notes.
"The credibility of an industry was lost," Bruce Williams, a vice president of Exelon Nuclear, which now owns the Three Mile Island station, told a Pennsylvania newspaper in 2004.
Thirty years later, the U.S. nuclear power industry is attempting a revival, citing reactors' ability to generate electricity without the climate-threatening carbon emissions that spew from coal-fired generators.
The Nuclear Regulatory Commission, overseer of the nation's 104 civilian nuclear power plants, is reviewing industry proposals to build a new generation of reactors. The industry is asking the Obama administration and Congress to guarantee loans to pay a majority of construction costs of the first round of new plants, whose price tags today are estimated at $5 billion or more for each 1,000-megawatt reactor.
With nuclear power on the threshold of a possible revival, the industry, its regulators and its critics draw markedly different conclusions from the Three Mile Island accident.
In Senate testimony this week, NRC Chairman Dale Klein stressed his agency's actions since the accident to tighten safety regulation across the board.
Industry leaders note that nuclear plants have logged more than 20 million hours of operations since the 1979 accident without an emergency of that magnitude. With today's higher electricity prices, the existing nuclear plants are big moneymakers, and the last thing their operators want is a prolonged plant shutdown because of safety issues, the Nuclear Energy Institute says.
Nuclear plant design requirements have been expanded and strengthened, Klein said. Control room monitors and controls have been improved. Simulators give control room operators "what if" training in emergencies. The commission has two of its inspectors

working full-time at each nuclear plant. The barrage of misinformation about the Three Mile Island plant's condition, which fed public panic and compromised evacuation planning, led to the creation of the Federal Emergency Management Agency.
Other actions to protect plants followed the Sept. 11, 2001, terrorist attacks.
"Changes resulting from the accident have significantly reduced the overall risks of a future serious accident. Today, reactors are operating far more safely and reliably than ever," said Harold Denton, the retired NRC official who commanded commission operations at Three Mile Island at the peak of the crisis.
But some leading nuclear-power critics say the industry still does not go far enough to insure safe reactor operations, or troubleshoot for possible breakdowns in materials in today's aging nuclear plants.
"We think there is overconfidence on the part of the industry and NRC that has led to complacency," said Ed Lyman, senior staff scientist at the Union of Concerned Scientists. "The absence of a severe accident doesn't tell you how likely it is that one could occur tomorrow."
"There are still surprises that are being encountered in operating reactors," he said, citing new evidence about the vulnerability of critical control wiring in the case of reactor fires. "The approach to solving this problem is creeping along at a very slow pace."
NRC and the nuclear industry "continue to make decisions based on risk assessments with incomplete knowledge," Lyman said.

Complacent regulators

Despite improved safety regulations, critics contend that there are troubling parallels between today's environment and the complacency about safety that preceded the Three Mile Island accident.
Investigations of the 1979 accident put the initial blame on the plant's four control room operators, whose frantic struggles to understand the fast-moving pre-dawn calamity still make chilling reading.
The initial "trip" of the water supply pump to the reactor was probably related to a faulty valve -- a problem that had happened at least twice prior to the accident. It was known but was not remedied, according to the Carter administration's Three Mile Island investigation headed by then-Dartmouth College President John Kemeny.
Two emergency water pumps automatically started to put more water into the reactor core, and 14 seconds into the accident, an operator noticed the pumps were running. But he did not see the control panel lights that indicated another set of valves were closed, preventing that water from flowing to the reactor. One light was covered by a maintenance tag. The other was simply missed.
As water surrounding the reactor fuel rods became superheated and steam built up, a pressure relief valve on top of the reactor (and inside the reactor's surrounding containment structure) opened as it was supposed to. But instead of closing automatically as pressure fell, it was stuck open and remained so for 2 hours and 22 minutes, draining vital cooling water inside the reactor.
Although the reactor shut down, the heat buildup was enough to melt the top of the fuel assembly. The operators did not detect that the pressure valve had failed and made no corrections. If any of these failures had been averted, the accident "would have remained little more than a minor inconvenience" for the plant owners, the Kemeny investigation concluded.
But the Kemeny panel said stopping the critique with the operators' failures would miss the larger, more systemic problem involving the industry and NRC, its regulator. The investigation said that an overmatched NRC staff could not keep up with the pace of nuclear plant construction in the 1970s prior to the accident and was critically dependent upon the nuclear power companies to monitor their own compliance with safety standards during construction.
The panel cited the case of an NRC regional inspector named James Creswell, who learned of water pump problems at the Davis-Besse reactor in Ohio in 1977. He believed it signaled a potentially serious design safety flaw in nine similar plants -- including

Three Mile Island.
Creswell could not get the company or his own superiors to respond to his warnings. Finally, he took his concerns privately to Bradford and a second NRC commissioner. They met on March 22, 1979. "The Three Mile Island accident was six days away," Bradford said.
Creswell told the Kemeny investigators after the accident, "within the decision-making structure of the NRC [there is] a reluctance to come to grips with very serious safety issues." The commission was more interested in promoting nuclear power than regulating it, the panel concluded.

2002 breach at Ohio reactor

Hopes that the lessons of Three Mile Island had been learned throughout the nuclear power industry were floored in 2002 by a potentially devastating breach of a reactor vessel at Ohio's Davis-Besse plant, the same one that had prompted Creswell's unheeded warnings three decades earlier.
This emergency was caused by extended leakage of acid-laden cooling water through cracks in a sleeve the top of the steel reactor vessel, which ate away a football-sized cavity in the vessel. It threatened the same emergency loss of cooling water that doomed Unit 2 at Three Mile Island.
The NRC staff had previously been alerted to possible boric acid corrosion issues at Davis-Besse and plants of a similar design. It notified plant operators that they would have to shut down for a safety inspection of the issue by Dec. 31, 2001, unless they had already done so.
Dominion, the Richmond-based power company, voluntarily idled two nuclear units to make the inspection, winning NRC's praise. But FirstEnergy Corp., owner of the Davis-Besse plant, "fought and clawed every inch of the way," to extend the December deadline, according to an NRC investigator's interview with a NRC inspector. The early shutdown would cause unacceptable costs, FirstEnergy said.
A NRC review body voted to overrule the inspectors, and Davis-Besse was given until mid-February 2002 to do the shutdown and inspection. "At a meeting like that, with your boss and your boss's boss presiding, it takes something to raise your hand and say, 'I think, you know, we should shut them down,'" the unnamed NRC inspector later said.
The football-sized cavity was discovered in March 2002 when the plant was finally closed for inspection, six months after the NRC staff's initial alert. A possible reactor vessel rupture could have been weeks away.
Following investigations, FirstEnergy paid a record $33.5 million in fines to settle civil and criminal complaints. A Davis-Besse engineer and supervisor were convicted of felony charges of willfully giving NRC false information about safety inspections, receiving fines and probation.
"The real lesson of Davis-Besse or even [Three Mile Island] is that we must never get complacent," NRC Commissioner Gregory Jaczko said this month. "Neither event was thought to be probable, or significant, until the very moment when they happened."

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!!!!! THIS EVENT HAS BEEN RETRACTED. THIS EVENT HAS BEEN RETRACTED !!!!!	
Power Reactor	Event Number: 44811
Facility: FERMI Region: 3 State: MI Unit: [2] [ ] [ ] RX Type: [2] GE-4 NRC Notified By: GREG MILLER HQ OPS Officer: JASON KOZAL	Notification Date: 01/28/2009 Notification Time: 12:16 [ET] Event Date: 01/28/2009 Event Time: 07:30 [EST] Last Update Date: 03/11/2009
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(3)(v)(D) - ACCIDENT MITIGATION	Person (Organization): PATTY PELKE (R3)

Unit	SCRAM Code	RX CRIT	Initial PWR	Initial RX Mode	Current PWR	Current RX Mode
2	N	Y	100	Power Operation	100	Power Operation

Event Text

HIGH PRESSURE COOLANT INJECTION SYSTEM INOPERABLE

"On January 28, 2009 at 0730 the Division 2 Emergency Equipment Cooling Water System (EECW) was declared inoperable due to a blown control power fuse in the bucket for the P4400F604 - Div 2 EECW Supply to Control Rod Drive (CRD) pumps. This is a normally open valve and is required to close upon EECW initiation to remove non-essential loads. The blown control power fuse would have prevented this action from occurring. The ECCW System cools various safety related components including the High Pressure Coolant Injection (HPCI) System Area Cooler. An unplanned HPCI inoperability occurred due to the Division 2 EECW inoperability based on a loss of the HPCI System Area Cooler. A 14 day Limiting Condition for Operation (LCO) was entered for HPCI per LCO 3.5.1. The control power fuse was replaced, EECW and HPCI were declared operable, and LCO 3.5.1 exited on January 28, 2009 at 1025. This report is being made pursuant to 10CFR50.72(b)(3)(v)(D) as a condition that at the time of discovery could have prevented the fulfillment of a safety function needed to mitigate the consequences of an accident, based on loss of a single train safety system.

"The NRC Resident Inspector has been notified."

* * * RETRACTION FROM JIM KONRAD TO DONALD NORWOOD AT 1449 ON 3/11/09 * * *

"The As-Found condition of the Division 2 Emergency Equipment Cooling Water (EECW) Control Rod Drive (CRD) Pump Supply Valve and High Pressure Coolant Injection (HPCI) System Room Cooler were evaluated.

"The HPCI System Room Cooler was operable with P4400-F604, Division 2 EECW to the CRD supply valve open. Based on an Engineering evaluation of EECW flow during a Loss of Coolant Accident (LOCA) and Non-LOCA conditions with the valve open, there is adequate flow margin in the EECW system.

"The HPCI Room Cooler had adequate cooling flow to perform its design function. The HPCI room temperature would have been maintained below the HPCI equipment room high temperature isolation setpoint. Additionally, plant procedures provide directions for bypassing the HPCI equipment room high temperature trip. Consequently, there was no loss of HPCI safety function. Declaring HPCI inoperable was conservative and based on initial considerations. Therefore, event notification 44811 is retracted."

The Licensee notified the NRC Resident Inspector.

Notified R3DO (Lara).

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Power Reactor	Event Number: 44905
Facility: PERRY Region: 3 State: OH Unit: [1] [ ] [ ] RX Type: [1] GE-6 NRC Notified By: TOM MORSE HQ OPS Officer: VINCE KLCO	Notification Date: 03/13/2009 Notification Time: 00:42 [ET] Event Date: 03/13/2009 Event Time: 00:25 [EDT] Last Update Date: 03/13/2009
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(3)(xiii) - LOSS COMM/ASMT/RESPONSE	Person (Organization): JULIO LARA (R3)

Unit	SCRAM Code	RX CRIT	Initial PWR	Initial RX Mode	Current PWR	Current RX Mode
1	N	N	0	Refueling	0	Refueling

Event Text

PARTIAL LOSS OF PLANT COMPUTER FOR SCHEDULED MAINTENANCE TAKING ERDS OOS

"The Perry Nuclear Power Plant has taken a portion of the Plant Computer out of service for scheduled

maintenance. This has resulted in a portion of ERDS being out of service. From 0025 hours EDT on March 13, 2009 for approximately 36 hours, personnel will be performing maintenance activities which result in a partial loss of the Plant Computer. During this planned maintenance, portions of the Safety Parameter Display System (SPDS) and the automatic mode calculation of the Computer Aided Dose Assessment Program (CADAP) will be unavailable.

"In the event of an emergency, plant parameter data will be orally transmitted to the facilities through the Status Board Ring Down circuit with back-up by the Private Branch Exchange, Off Premise Exchange, and various redundant intra-facility circuits throughout the emergency facilities. The dose assessment function will be maintained during the out of service time period by manual input of data into CADAP and, if required, by manual calculation. The ability to open and maintain an 'open line' using the Emergency Notification System will not be affected and will be the primary means of transferring plant data to the NRC as a contingency until the ERDS can be returned to service during the period of unavailability.

"This event is being reported in accordance with 10CFR50.72(b)(3)(xiii), as a condition that results In a major loss of offsite communication capability. A follow-up notification will be made when the maintenance activities are completed and the equipment is restored."

The licensee notified the NRC Resident Inspector.

* * * UPDATE AT 1132 ON 3/14/2009 FROM TONY JARDINE TO MARK ABRAMOVITZ * * *

The plant has extended the expected plant computer outage time by 60 hours (ending 3/16/2009 at 2400).

Notified the R3DO (Lara).

* * * UPDATE AT 1907 EDT ON 3/16/2009 FROM TOM STEC TO BILL HUFFMAN * * *

The licensee has extended the expected outage time for the plant computer maintenance by an additional 24 hours. Repairs are now expected to be completed by 2400 EDT on 3/17/09.

The licensee will notify the NRC Resident Inspector. R3DO(Ring) notified.

* * * UPDATE AT 1723 EDT ON 3/17/2009 FROM ANTHONY JARDINE TO BILL HUFFMAN * * *

The licensee states that that the plant computer and all associated functions (SPDS, CADAP, and ERDS) were returned to service at 1313 EDT on 3/17/09. The licensee has notified the NRC Resident Inspector.

R3DO(Ring) notified.

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Power Reactor	Event Number: 44942
Facility: FERMI Region: 3 State: MI Unit: [2] [ ] [ ] RX Type: [2] GE-4 NRC Notified By: G. MILLER HQ OPS Officer: DONALD NORWOOD	Notification Date: 03/28/2009 Notification Time: 03:45 [ET] Event Date: 03/28/2009 Event Time: 01:46 [EDT] Last Update Date: 03/28/2009
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(2)(iv)(B) - RPS ACTUATION - CRITICAL	Person (Organization): HIRONORI PETERSON (R3)

Unit	SCRAM Code	RX CRIT	Initial PWR	Initial RX Mode	Current PWR	Current RX Mode
2	M/R	Y	24	Power Operation	0	Hot Shutdown

Event Text

REACTOR SCRAM DUE TO MODE SWITCH BEING PLACED IN SHUTDOWN FOLLOWING HIGH VIBRATION ON MAIN TURBINE #1 BEARING

"At 0146 EDT 3/28/09, the reactor mode switch was taken to shutdown in response to high vibration levels on the Main Turbine #1 bearing. Reactor power was at its reduced level in preparation for entry into Refueling Outage #13 which was scheduled to begin at 0300 EDT. All control rods fully inserted into the core. The lowest reactor

vessel water level reached was 162 inches. HPCI & RCIC did not initiate. No safety relief valves (SRV) actuated. Reactor water level is being controlled in the normal band using the Control Rod Drive (CRD) system. All isolations and actuations for reactor vessel water level 3 occurred.

"The cause of the high main turbine vibrations is currently under investigation. There was no maintenance or testing in progress that would explain the high turbine vibration levels. At the time of the scram all ECCS systems and Emergency Diesel Generators were operable. This report is being made in accordance with 10CFR50.72(b)(2)(iv)(B), any event that results in actuation of the reactor protection system (RPS) when the reactor is critical."

The Licensee notified the NRC Resident Inspector.

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Power Reactor	Event Number: 44945
Facility: PERRY Region: 3 State: OH Unit: [1] [ ] [ ] RX Type: [1] GE-6 NRC Notified By: TOM STEC HQ OPS Officer: JOE O'HARA	Notification Date: 03/30/2009 Notification Time: 23:04 [ET] Event Date: 03/30/2009 Event Time: 18:43 [EDT] Last Update Date: 03/30/2009
Emergency Class: NON EMERGENCY 10 CFR Section: 50.72(b)(3)(xiii) - LOSS COMM/ASMT/RESPONSE	Person (Organization): STEVE ORTH (R3)

Unit	SCRAM Code	RX CRIT	Initial PWR	Initial RX Mode	Current PWR	Current RX Mode
1	N	N	0	Refueling	0	Refueling

Event Text

EMERGENCY RESPONSE DATA SYSTEM (ERDS) OUT OF SERVICE

"On March 30, 2009, at approximately 1843 hours EDT, the control room reported a loss of power to non-safety 480 volt busses F1C and F1D. Initial investigation revealed an instantaneous ground over-current (50G) relay had actuated. This relay actuation resulted in the supply breaker tripping and all associated loads being de-energized. This resulted in a loss of 120 VAC non-essential electrical power to a portion of the Emergency Response Data System (ERDS).

"In the event of an emergency, plant parameter data will be orally transmitted to the facilities through the status Board Ring Down circuit with back-up by the Private Branch Exchange, Off Premise Exchange, and various redundant intra-facility circuits throughout the emergency facilities. The ability to open and maintain an open line using the Emergency Notification System will not be affected and will be the primary means of transferring plant data to the NRC as a contingency until the ERDS can be returned to service during the period of unavailability.

"This event is being reported in accordance with 10 CFR 50.72(b)(3)(xiii) as a condition that results in a major loss of emergency offsite communications capability. A follow-up notification will be made when the equipment is restored.

"The NRC Resident Inspector has been notified."

The unit is currently defueled.

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