

# **CHRONOLOGY of PROBLEMS at the SUSQUEHANNA STEAM ELECTRIC STATION**

This chronology does not include the cost to the rate payer to build Susquehanna-1 and -2. PP&L asked the Public Utility Commission (PUC) for \$315 million to recover the cost of building Unit-1. The PUC granted \$203 million on August 22, 1983, or a 16% increase to the customer. The company asked for \$330 million for Unit-2 but was allowed \$121 million in April, 1985; an 8% increase to rate payers. In addition, PP&L consumers have “contributed” approximately \$4.6 million annually (since 1985) to the decommissioning fund.

(Also, refer to May 15 and August 13, 1998, for information on “stranded costs” passed on to “hostage” PP&L rate payers.)

Moreover, in the Winter 1999/2000, PPL unilaterally devaluated the combined PURTA and Real Estate tax assessments for the SSES. Prior to the Negotiated Settlement, the nuclear power generating stations were assessed by PP&L at approximately \$1 billion. PPL is now claiming that the the SSES is only worth \$74 million or the same amount as the valuation of the Columbia Hospital. If PPL prevails, the Berwick School District and Luzerne County will experience revenue shock. PPL is not paying or escrowing any moneys they owe to Luzerne County and the Berwick School District.

(See April 23, 2001 and July 13, 2003, for related development).

The Susquehanna Steam Electric Station is owned by PP&L (90%) and the Allegheny Electric Cooperative (10%). The Allegheny Electric Cooperative (AEC) is responsible for 10% of the cost of decommissioning. PP&L's consultant, TLG, estimated PP&L's decommissioning share to be \$724 million. Therefore, the AEC is responsible for the remaining 10%, or \$79 million, of the \$804 million projected funding "target" for nuclear decommissioning.

At the Susquehanna Steam Electric Station, projected costs for decommissioning have increased by 553% since 1981-1993. In 1981, PP&L engineer Alvin Weinstein predicted that PP&L's share to decommission SSES would fall between \$135 and \$191 million. By 1985, the cost estimate had climbed to \$285 million, and by 1991 the cost in 1988 dollars for the "radioactive portion" of decommissioning was \$350 million. The Company then contracted out for a site-specific study which projected that the cost of immediate decommissioning [DECON] would be \$725 million in 1993 dollars. The 1994 cost estimate remained steady at \$724 million, but the market value of securities held and accrued in income in the trust funds declined, and thus the estimate reflected another increase in decommissioning costs.

PPL's share to decommission the SSES is projected to be \$936 million in 2002 dollars (2002, Annual Report).

- September 22, 1982 - An emergency was declared at the plant. (UPI, September 22, 1982.)

- August 6, 1982 - UPI reported PP&L announced it was investigating nuclear plant allegations; however, the utility initially denied the complaints on December 29, 1981. (UPI, December 29, 1981.)

- January 21, 1983 - UPI reported, "Another spill at the Susquehanna nuclear plant."

- March 29, 1983 - UPI reported, "Nuclear plant workers evacuated, Berwick, Pa."

- June 9, 1983 - Unit-1 went commercial. The plant was at 100% power in February, and has been operating at full-power since May 23, 1983. (AP, June 9, 1983).

- June 14, 1983 - Susquehanna was forced to shut down. The incident was termed "minor." (UPI, June 14, 1983.) However, the Company later admitted "the reactor shut down when an usually high degree of radiation was detected..." (AP, June 25, 1983).

- June 25, 1983 - Susquehanna automatically to shut down due to an electrical problem inside a transformer.

"Eight hours after the shut down, workers were still trying to determine the nature of the malfunction, spokesman Ira Kaplan said. He said the plant would not be restarted until the transformer is repaired." (UPI, June 14, 1983.)

(Please reference the following dates for a list of chronic electrical problems at the SSES: "1986"; September, 1988; February 6, 1990; July 23, 1997; June 8-16, 1999; April 8, 2004; and, April 12, 2005.)

- The SSES provides **20%** of the commercial power PP&L supplies to its customers. (See September 5, 1989, for new figures.)

- April 26, 1984 - “Nuclear plant water discharges studied” (UPI, April 26, 1984.)

- July 26, 1984 - An “unusual event” was declared. (UPI, July 26, 1984.)

- August 9, 1983 - The New Jersey Public Utilities Board refused to pass on excess costs to rate payers as a result Atlantic City Electric’s purchase of 125 megawatts (almost 6% of the SSES output) from PP&L. ACE has refused to take any power from the Susquehanna Steam Electric Station. The power agreement was valued at \$30 million.

- 1985 - 1994 - PP&L cut 1,600 jobs over this period. (Please refer to November 14, 1995 and June 19, 2002, for more terminations.)

- 1986 - PP&L reported safety violations to the NRC “after it discovered that a number of cable splices and electrical terminals did not meet new standards passed in 1985. We did have some of those terminal blocks and splices in service beyond the date were were supposed to be in compliance” according to PP&L spokesman, Herb Woodeshick. (UPI, September, 1988. (See September, 1988, for information on a **\$50,000 fine.**)

(Please reference the following dates for a list of chronic electrical problems at the SSES: June 25, 1983; September, 1988; February 6, 1990; July 23, 1997; June 8-16, 1999; April 8, 2004; and April 12, 2005).

- September 23, 1987 - A “low-level emergency ” was declared when an “800-pound steel plug fell out of steam line during a test.” (AP.)

- October 1, 1987 - Prior to the contamination of four PPL employees (See below), “a relief valve opened in Unit 1 pump room, allowing about 1,300 gallons of contaminated water to spill onto the floor.” Company spokesman Ira Kaplan quipped, “We’re no precisely sure what happened. The valve opened and when it did the water spilled out on the floor” (UPI, October 1, 1987.)

- October 1, 1987 - “Four workers contaminated, Berwick, Pa.” (UPI, October 1, 1987.) After the workers were decontaminated, PPL spokesman Ira Kaplan observed, “It is not unusual to have people contaminated, especially during an outage. (AP.) (See August, 1989 and January 19, 1992, for related incidents.)

- September, 1988 - The NRC leveled a **\$50,000 fine** against Pennsylvania Power & Light for not properly testing electrical equipment. (See “1986” for background information).

(Please reference the following dates for a list of chronic electrical problems at the SSES: June 25, 1983; “1986”; February 6, 1990; July 23, 1997; June 8-16, 1999; April 8, 2004; and April 12, 2005).

- August, 1989 - The NRC reported that a contracted employee received “a significant exposure” to radiation. NRC Inspector Jim Stair stated that the Commission is reviewing the incident and levy a fine. (Patriot News, September 15, 1989.) (See October 1, 1987 and January 19, 1992, related incidents).

- September 5, 1989 - The SSES provides about **30%** of the commercial power PP&L supplies to its customers. (See June 25, 1983, for initial figures.)

- April 11, 1989 - An “unusual event” was declared at the plant. (UPI, April 11, 1989.)

- February 6, 1990 - “A short circuit Saturday that temporarily cut off cooling water to the Unit 1 reactor at the Susquehanna Nuclear plant...has been traced to a failed insulator, according to the unclear Regulatory Commission.” (“Patriot News”, February 6, 1990.)

(Please reference the following dates for a list of chronic electrical problems at the SSES: June 25, 1983; “1986”; September, 1988; July 23, 1997; June 8-16, 1999; April 8, 2004; and April 12, 2005).

- November 28, 1990 - “The Nuclear Regulatory Commission Wednesday fined Pennsylvania Power & Light \$25,000 for failing to promptly certify that components at its Susquehanna nuclear power plant would continue to function during an accident. The Allentown-based utility said it would not contest the fine.” (UPI, November 28, 1990.)

- March 5 and 9, 1992 - PP&L received \$55 million in a settlement with General Electric over the Mark II containment structure. (“Electric Utility Week” and “Nucleonics Week.”) The rate payers received a \$55 million amortized rebate over five years beginning on April 1, 1992 and ending March 31, 1997. The arrangement was approved by the PUC as part of a Special Base Rate Credit Adjustment. (Docket # P91052). Customers rates decreased by .59%.

- July 30, 1992 - Federal regulators say that a safety mechanism used by three Pennsylvania nuclear power plants [including Susquehanna] might fail to alert operators about a drop in the water level -- a condition which could lead to a nuclear accident.” (States News Service, July 30, 1992.)

- January 19, 1992 - PP&L Shareowners’ Newsletter, February 3, 1992: “One of our employees was injured in a small hydrogen explosion and contaminated with radioactive material. He suffered burns to his chest and face...A second employee was examined and released after complaining of ringing in the ears after the explosion.”

“The accident occurred in the basement of the plant’s turbine building during work on an out-of-service recombiner -- equipment that combines hydrogen and oxygen to make water. A review team has found that a leak in a valve on the system allowed the hydrogen gas to build up in the pipe where the employee was working with a grinding wheel. New work procedures have been put in place to more clearly label hazards, and to institute safeguards aimed at preventing such incidents in the future.” (See October 1, 1987 & August, 1989, for related incidents.)

- December 31, 1992 - Two PP&L engineers charged that Susquehanna's highly radioactive spent fuel pools are unsafe and that if emergency cooling systems fail, a meltdown of spent fuel elements could occur. They told the NRC they reported their concerns to PP&L in March, 1992, and the company dismissed the matter and then tried to fire the engineers. The engineers, Donald Prevatte and David Lochbaum, are consultants for several companies. PP&L's spent fuel pool design is utilized by 1/3 of the nation's 109 nuclear power plants. (See October 1, 1993 for follow-up, February 9, 1996 and 1998 for similar patterns of harassment.)

- March 7, 1993 - PP&L backed a reduction in nuclear power plant drug testing. According to the Times-Leader, "Only four employees at the Susquehanna nuclear power plant tested positive for drugs and alcohol in 1992, fewer than the previous year."

- May 26, 1993 - PP&L "determined that the 'C' EDG level indicating instrument had drifted in a nonconservative direction." (LER, 93-003.)

- July 1, 1993 - An INPO inspection "pointed out some areas for improvement at the plant, and we're taking appropriate action." (Shareowners' Newsletter, July 1, 1993.)

- July 12, 1993 - While Unit -1 was operating at 100% power, a reactor scram occurred when the Main Turbine tripped. (LER, 93-008.)

- July 12 to August 1, 1993 - Mechanical problems forced Unit-1 out of service for seven weeks. "The unit shut down automatically July 12 when vibrations caused two large turbine blades to break loose, damaging the turbine and other non-nuclear components of the unit." (PPL, Shareowners' Newsletter, October 1, 1993.) (Refer to July 1- 15, 1999, for related problems).

- September 10, 1993 - Power at Unit-2 was reduced to 40% for “control rod sequence” and “reactor recirc motor generator set brush change outs.”

- September 24, 1993 - A power reduction was initiated at Unit-1 due to the inoperability of RHR instrumentation; power was held at 26%. (Refer to February 28 and August, 1999, for related problems).

- October 1, 1993 - During an NRC presentation, David Lochbaum and Donald Prevatte postulated that failure in spent fuel pool cooling could possibly lead to safety-related equipment failure and a full core meltdown. (See July 30, 1992.)

- October 28, 1993 - At Unit-1, “PP&L suspended [fuel] loading after experiencing three fuel-loading problems in a 36 hour period” (“Patriot,” February 2, 1994.) Unit-1 was due to be back on line by November but not return to service until January 22, 1994; four days after a record demand for electric. (See July 1 and August 1994 for follow-up.)

- January 1, 1994 - “Unit-1 at our Susquehanna nuclear plant, out of service since Sept. 25 for refueling and maintenance, is expected to resume operation in early January. Its return was delayed by a series of problems with our fuel-loading operations...In an unrelated development, we further extended the refueling outage to replace metal support beams for pumps that circulate water inside the reactor. We took the action after problems developed with the components at a similar nuclear plant in Mississippi [Grand Gulf]” (PPL, Shareowners’ Newsletter, January 1, 1994.)

- January 22, 1994 - Unit-2 tripped and created further problems for the PJM depleted grid. (Refer to June 28, 2000, for reliability related problems at the SSES.)

(Also, see May 9, 2000 & January through March, 2001, for PJM problems related to PPL. Refer to June 14, 2002, October 19, 2002, and June 19, 2003, for incidents involving PPL’s manipulation of the PJM grid).

- July 1, 1994 - “The extended refueling outage at Unit-1 last October resulted in two citations from the NRC, but the agency decided that a fine was not appropriate, noting the prompt and effective actions we took to prevent future fuel-handling problems...The citations dealt with violations of certain NRC requirements during portions of the refueling outage” (PPL Shareowners Newsletter, July 1, 1994.) (See October 28, 1993 and August 1994 for related incidents.)

- August, 1994 - “Safety is our first priority at Susquehanna, and the NRC evaluation [SALP] reflects our continuing emphasis on it. It also points out some areas where we can improve, including refueling activities and corrective action programs” (PPL, Connect, August 1994.) (See October 28, 1993, and July 1, 1994 for related incidents.)

- September 29, 1994 - “Thermal Science Inc. and its president, Rubin Feldman, were indicted September 29 by a federal grand jury on seven criminal charges, including willful violations of the Atomic Energy Act, a decade-long conspiracy to defraud the US government, false statements, and more. The charges are the culmination of a nearly two-year grand jury investigation of the company, which manufactures Thermo-Lag, the ineffective fire barrier material used in more than 70 nuclear reactors [including Susquehanna]” (The Nuclear Monitor, October 17, 1994.)

(For related incidents, see April 14, 1995 and October 1, 1996.)

- December 1994 - PP&L joined a consortium of 33 nuclear utilities actively pressuring the Mescalero Apaches to accept high-level radioactive waste.

- January 1 through December 31, 1995 - Unit-1 complied 18 Licensee Event Reports (LER) and one Severity Level III violation. Susquehanna 2 listed 17 LERs and one Severity Level III and IV violation. (Nuclear Regulatory Commission.)

- March 16, 1995 - PP&L agreed to pay the PUC **\$300,000** to settle alleged violations of customer service requirements. The Settlement is the result of an informal PUC Bureau of Consumer Services investigation concluded in October, 1994. (See June 28, 1999, for related behavior.)

- April 14, 1995 - "Documents obtained by NIRS under the Freedom of Information Act indicate that Pennsylvania Power & Light (PPL) conducted its own tests of Thermo-Lag in 1981 prior to its installation at Susquehanna. Under standard testing criteria, the Thermo-Lag failed the tests. But PP&L used it anyway. (For related developments see September 29, 1994 and October 1, 1996.)

"The Problem was discovered by the NRC's Office of Inspector General in 1992, and the NRC staff investigated the issue. The staff found other fire protection violations as well, but issued no fines and did not even cite PP&L for the Thermo-Lag violation." (The Nuclear Monitor," April 10, 1995.) (See September 29, 1994.)

- April 15, 1995 - Unit-2 scrambled. The uninterruptible power supply failed during recovery. (See June 6, 1995 for related incident.)

- June 6, 1995 - Unit-2 was at 100% power when a loss of instrument AC at panels 2Y218 and 2Y219 occurred due to the failure of uninterruptible power supply (UPS) 2D240." NRC, MR Number 1-95-0081. Dockets: 50-238, BWR/GE-4.) (See April 15, 1995 for related incident.)

- August 22, 1995 "...while performing a fuel shuffle from the Unit 2 fuel vault to the fuel preparation machine, a new fuel bundle fell into the fuel preparation machine in the spent fuel pool when the grapple separated from the hoist cable. The bundle was being lowered into the machine at the time of the event and the bundle fell approximately 15-20 feet through water until it impacted the lower carriage support plate." Morning Report-Region I, August 23, 1995.)

(See February 1, 1999 & August 5, 2002, for related events).

- November, 1995 - PPL **rebuffs** two efforts by PECO to acquire PP&L in a **hostile acquisition**.

- November 14, 1995 - **PPL cut 300 jobs** or 4.5% of its work force in an attempt to cut \$671 million in operating costs. (See “From, 1985 - 1994” and June 19, 2002, for more job cuts.)

- December 11, 1995 - A nonconservative error was reported in core thermal power calculations for both units. As a result, “Both units were reduced in power by 2 MWe to account for the discrepancy.” (“Licensee 24 Hour Report,” December 11, 1995.)

- 1996 - New Accounting Standards, SFAS 121 adopted on January 1, 1996. Previous standards relied on SFAS 71. (Refer to **2002** for a related development.)

- January 1 through May 31, 1996 - Susquehanna 1 listed nine Licensee Event Reports (LER) and two Severity Level IV violations. Unit 2 compiled two LER’s and and three Level IV violations. (Nuclear Regulatory Commission.)

- February 9, 1996 - The NRC informed PP&L that the Company would be **fined \$100,000** for disciplining a security officer for raising safety concerns in 1992. In October, 1995, the United States Department of Labor found that the security officer was “subjected to adverse action” for raising concerns about the the administration of security requalification exam. (See October 1, 1993, February 9, 1996 and 1998 for similar patters of harassment.)

- June 12, 1996 - “A third alleged violation which was cited but for which no fine has been proposed involved a non-licensed operator’s failure to follow administrative procedures for controlling the status of equipment associated with the Standby Liquid Control System. The system’s purpose is to shutdown the reactor during an emergency by injecting a neutron-absorbing

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solution into it via the core spray system. On June 12, 1996, the operator repositioned a breaker switch, resulting in the de-energization of heat tracing for an operable standby liquid control pump for 34 hours.” (NRC Press Release, July 23, 1997.)

- July 30, 1996 - “...a containment isolation valve valve was opened and deactivated for 24 hours, rendering the valve inoperable. The valve had been deactivated for preventive maintenance work but without the proper actions taken to comply with the plant’s technical specification requirements.

“The problem was significant because PP&L’s incorrect interpretation of requirements would have allowed the valve to remain inoperable and open indefinitely. A fine of \$50,00 has been proposed for that alleged violation.” (NRC Press Release, July 23, 1993. (See July 23, 1993 for more complete date from the NRC.)

- September 5, 1996 - The Company joined a consortium of electric utilities exploring the use of MOX, or weapons grade plutonium left over from the Cold War, as a fuel source.

- October 1, 1996 - The Nuclear Regulatory Commission fined Thermal Sciences, Inc., \$900,000 for “deliberately providing inaccurate or incomplete information to the NRC concerning TSI’s fire endurance and ampacity testing programs.” James Lieberman, NRC, Director of Enforcement.

The fine was the largest assessed against a nuclear contractor, and the second highest in NRC history. In 1992, the NRC declared TSI’s fire barrier, Thermo-Lag, “inoperable.” (For background data please refer to September 29, 1994 & April 15, 1995.)

- November 5, 1996 - The Class 1E 4160 VAC Switch gear failed to pass seismic qualification testing at Unit-1 & Unit-2. PP&L reported an “outside design basis” (#31279) event. (See August, 1999, for more information.)

- July, 1997 - The NRC “found that the load limit setting on one of the [emergency diesel] generators had been positioned at approximately 35 percent, when it should have remained at 100 percent. The misalignment, which was subsequently determined to have occurred sometime between June 16 and July 11, could have resulted in the governor not starting within the required time and not being able to provide sufficient emergency backup power during an accident. Furthermore, the operation of the generator at a lower-than-normal speed could have damaged emergency core cooling system motors.” (See January 12, 1998, for information on the NRC’s enforcement actions.)

- July 23, 1997 - “The Nuclear Regulatory Commission has proposed a **\$210,000 fine** against Pennsylvania Power & Light Co. for several alleged violations of agency guidelines at the utility’s Susquehanna nuclear power plant in Berwick, Pa. The alleged infractions fall into two major areas: the misalignment of a circuit breaker for an emergency diesel generator that left in operable, and plant operators’ repeated failure to detect this problem; and the improper deactivation of a containment isolation valve:

“...All told, the generator was out of service for almost three weeks. However, in their equipment test records, the operators incorrectly reported that the circuit breaker was in the appropriate position.

“Further, alarm tests that were supposed to have been done during rounds by the non-licensed operators were listed as having been performed when in many cases that did not occur. The operators failed to perform the required panel tests on approximately 157 occasions between January and June 1996.

“Given the number of individuals involved, the actual and potential impact in equipment, the duration of the problem and the lack of management and supervisory oversight that resulted in the failure to detect this widespread condition, the NRC is classifying these alleged violations in the aggregate as a Severity Level II problem, which constitutes a very significant regulatory concern. ...*Continued on the following page...*

“According to the NRC, “[t]his case represents particularly poor license performance, as evidenced by 1.) the nature of the violations associated with the Severity Level II problem, including the inoperability of the diesel generator for almost three weeks and the number of employees involved; 2.) the extensiveness of the problem with inaccurate records; and 3.) the management and supervisory failures demonstrated by these violations.” (NRC Press Release, July 23, 1997.) (See June 12, 1996 and July 30, 1996; April 8, 2004; and April 12, 2005 for other incidents cited in this violation.)

(Please reference the following dates for a list of chronic electrical problems at the SSES: June 25, 1983; “1986”; September, 1988; February 6, 1990; and, June 8-16, 1999.)

- September, 1997 - “...Reported earnings for the quarter and year-to-date were influenced by several one time adjustments. First, a windfall profits tax in the United Kingdom based on PP&L Global’s equity interest in a U.K. utility reduced earnings by about \$40 million or 24 cents per share.” (“Quarterly Review: PP&L Resources, Inc.”, September 1997). (Please refer to February 4, 2000, **2002: PPL kills expansion; earnings projections slashed** and, April 26, 2003, for related developments).

- October 22, 1997 - Unit-1 and Unit-2’s suppression pools were identified as having the potential for bypass during a loss-of-coolant-accident. PP&L reported an “outside design basis” (#33131) event. (See August, 1999, for more information.)

- January 12, 1998 - “The Nuclear Regulatory Commission staff has proposed a **\$55,000** fine against the operator of the Susquehanna nuclear power plant for a violation of agency requirements involving a misaligned emergency diesel generator at the facility...

“In a letter to PP&L announcing the enforcement action, NRC Region I Administrator Hubert J. Miller said that the failure caused ‘important safety-related equipment to be inoperable for an indeterminate period, thus degrading the plant’s capability to respond to accidents.

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“Further, the NRC is concerned that you failed to implement effective controls for the alignment of the Woodward governor controls despite the fact that multiple events involving the functioning of the Woodward governors have been identified in the industry between 1985 and the present,’ including three at Susquehanna.”

Mr. Miller also noted that the “NRC is concerned that your investigation of the event could not preclude tampering as a cause and that the investigations revealed at least two other recent instances of unexplained misalignment of out-of-service EDG’s (emergency diesel generators) similar to the misalignment of the ‘A” EDG.” (NRC Press release, January 12, 1998.) (See July 11, 1997 for more on this incident.)

- March 13, 1998 - “Earnings for 1997 were \$296 million, or \$1.80 per share of common stock, compared with \$329 million, or \$2.05 per share in 1996.” (PP&L Resources, Inc., *A Common Sense Guide to Competition*, 1997 Summary Annual Report.)

- April 5, 1998 - Unit-2 was shut down manually due to a leak on the non-nuclear side of the water cooling system. (Lancaster Sunday News, April 5, 1998.)

- May 15, 1998 - The PUC gave tentative approval, by a 5-0 vote, to a plan for PP&L’s restructuring that could save rate payers 10% on monthly bills. The Commission slashed the amount of stranded costs PP&L may recover to \$2.864 billion. The company had sought \$4.5 billion and PUC administrative law judge [Kashi] suggested \$4 billion.” (“The Patriot News”, May 15, 1998.)

- August 13, 1998 - The Pennsylvania Public Utility Commission adopted a tentative order approving PP&L’s restructuring case. Provisions include a 4% rate decrease for all customers in 1999, allows PP&L to recover \$2.97 billion in “stranded expenses” over 11 years, and grants PP&L the opportunity to “securitize up to \$2.97 billion in transition costs with 75% of the associated savings returned to rate payers.

- September 4, 1998 - "Standard & Poor's last week assigned its Triple B-plus rating to PP&L Inc." (Dean Witter Reynolds Inc. and Standard & Poors Value Line, September 4, 1998.)

- 1998 - The Company was forced by the U.S. Department of Labor to rehire Donald Ranft, manager of the nuclear system engineering department. PP&L paid Mr. Ranft over **\$100,000** in back pay and legal fees. Mr. Ranft was forced out of his job after safety concerns he raised were not addressed. PP&L also pressured Mr. Ranft, a ten year veteran of the nuclear industry, not to report his safety concerns to the NRC. (See February 9, 1996, for a similar incident.

(See October 1, 1993, February 9, 1996 and 1998 for similar patterns of **harassment**.)

- December 27, 1998 - "For the 12 months that ended Sept. 30, PP&L reported a net loss of \$3.51 a share, compared to earnings of \$1.81 a share the year before." (Patriot News from Dean Witter Inc. and Standard & Poors Value Line.)

(See April 1999, for related development.)

- February 1, 1999 - PP&L announced the arrival of dry storage casks designed by Trans Nuclear (Vectra) for spent fuel storage. The NRC approved the license and design of the casks scheduled to be operational by in the summer of 1999. Construction for this project resumed after a cessation of activity in fall 1998. PP&L has moved the scheduled operational date back to "late 1999." (PP&L, May 12, 1999.)

(See August 22, 1995 & August 5, 2002, for related events).

- February 28, 1999 - The Company reported an "outside design basis" event (#35423) relating to a valve stem in the RHR. (See August, 1999, for more information. Refer to September 24, 1993, for a related incident).

- Mid-March until the end of April, 1999 - Extended refueling outage for Unit-2. However, the potential for problems with the main transformers were not discovered. (See June 7-8, 1999.)

- April 1999 - "PP&L Resources reported a 1998 loss of \$3.46 per share, reflecting \$948 million of charges to net income related to the settlement of PP&L, Inc.'s restructuring case before the Pennsylvania Public Utility Commission and another other competition-related case before the Federal Energy Regulatory Commission." (PP&L Resources, Inc., Shareowner News.)

"The utility's dividend payout ratio was 64 percent on Dec. 31, 1998, compared with 82 percent on Dec. 31, 1997." (Patriot News from Dean Witter Reynolds Inc. and Standard and Poors Value Line.) (See December 27, 1998, for earlier announcement.)

- March 13 to April 28, 1999 - Unit-2 was shut down for a planned refueling outage.

- May 29-June 5, 1999 - Unit-1 was manually shut down. A change out celluloid valve in one of the steam lines was the root cause of the problem. Unit-1 was put back on-line from June 5-6, 1999.

- June 7-8, 1999 - Unit-2 tripped due to a problem with one of the main transformers. PP&L plans to replace the troubled unit. (See "Summer 2000.")

- June 8-16, 1999 - Unit-2 was shut down to replace "three main electrical transformers..." ("News Release(s)", PPL, June 8 & 16, 1999.)

(Please reference the following dates for a list of chronic electrical problems at the SSES: June 25, 1983; "1986"; September, 1988; February 6, 1990; and, July 23, 1997.)

- June 28, 1999 - PP&L was assessed a \$125,000 fine by the Attorney General relating to the Company's electric competition advertising and bill-stuffing. (See March 16, 1995, for related behavior).

- July 1- 15, 1999 - Unit-1 was shut down automatically after one of the four main steam valves failed.” The line carries steam from the reactor to the turbines...” (“News Release(s), PPL, July 1 & 15, 2000.) (Refer to July 12 to August 1, 1993, for related problems).

- August, 1999 - “If a utility has operated the reactor outside of the safety parameters established in its operating license, i.e., “outside design basis,” it is required to document it in a daily event report filed with the NRC. The more event reports filed by a nuclear reactor, the less certain that the reactor and its safety systems will operate as designed.” (James Riccio, Public Citizen, August 1999, *Executive Summary*.) (Refer to November 5, 1996; October 22, 1997; and, February 28, 1999.)

- August 26, 1999 - Both Units were operating at 100% power, “with the ‘B’ loop of emergency service water (ESW) out of service for scheduled maintenance. During testing on the ESW system, with all ESW pumps in service, it was identified that the ‘C’ and ‘D’ ESW pumps’ discharge check valves were closed. The ESW flow surveillance was performed, and the ‘C’ and ‘D’ ESW pumps failed to achieve the required flow and were declared inoperable. Concurrently, the ‘B’ loop of ESW was returned to service.

“During the time the ‘B’ ESW loop was inoperable, the ‘A’ ESW pump was the only one operable ESW pump. This constitutes a serious degradation of the plant in that it is a condition which is outside of a design basis and, therefore, reportable...requiring a 1-hour notification.” (PP&L facsimile.)

- September 6, 1999 - PPL “planned to initiate the first fuel transfer to the storage location the week of September 6, 1999, but problems developed and the transfer has been delayed for a few weeks.” (Office of Nuclear Reactor Regulation).

- December 19-24, 1999 - Unit-2 was shutdown to make “repairs [replace] to a pipe” connected to the “water pressure on a recirculation water pump”. this system is part of the plant’s primary containment structure. (News Release, PPL, December 24, 1999).

(See August 17-25, 2000, for a related problem at Unit-1).

- December 27, 1999 - The NRC acceded to industry pressure to keep information about nuclear plant shutdowns and restarts “confidential” unless the licensee “waives the right.” “In the past, the NRC would supply information about most aspects of nuclear licensees’ affairs, but with the move toward market competition, it became evident that the policy was having an effect on wholesale prices...The NRC’s Mindy Landau said, ‘We have seen shutdown information directly affect the prices on the spot market for electricity. ‘ “(The Energy Report, December 27, 1999.)

- Winter 1999 - 2000 - PPL unilaterally devaluated the combined PURTA and Real Estate tax assessments for the SSES. Prior to the Negotiated Settlement, the nuclear power generating stations were assessed by PP&L at approximately \$1 billion. PPL is now claiming that the the SSES is only worth \$74 million or the same amount as the valuation of the Columbia Hospital. If PPL prevails, the Berwick School District and Luzerne County will experience revenue shock. PPL is not paying or escrowing any moneys they owe to Luzerne County and the Berwick School district.

(See April 23, 2001 and July 13, 2003, for related developments).

- February 4, 2000 - “PP&L Capital Funding Inc.’s new \$500 million 7 3/4% issue of medium term notes (MTN) due April 15, 2005 is rated /BBB+’ by Fitch IBCA, Inc. PP&L Capital is a wholly-owned subsidiary of PP&L Resources, Inc. (Resources) and the funding conduit for Resources and its non-regulated subsidiaries, which invest in domestic and international energy projects...Resources has investments and

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commitments to invest about \$2.6 billion in distribution, transmission and generation facilities in the US, UK, Bolivia, Peru, Argentina, Peru, Spain, Portugal, Chile, and El Salvador. Resources also plans to add about 8,000 megawatts (MW) of merchant generation over the next four to five years through acquisitions and/or new construction. The growing exposure to emerging markets and merchant generation will increase business risk.” (PP&L, Company Press Release, February 4, 2000.)

(Please refer to September, 1997, **2002: PPL kills expansion; earnings projections slashed** May 4, 2000, and March 4 & 18, September 23 & October 24, 2001, January 6, 2002, and April 26, 2003, for related developments).

- May 4, 2000 - “One thing cushioning the blow to stockholders is GPU’s annual dividend, raised this year to \$2.18 a share. That is considerably higher than Allentown-based PPL Corp.’s dividend, which was raised last week to a \$1.06 share. PPL stock is trading less than GPU shares.” (Patriot News, Business, B9, May 5, 2000.)

(Please refer to February 4, 2000, and March 4 & 18, September 23 & October 24, 2001, for related developments).

- May 5, 2000 - Unit-1 returned to service after a planned outage.

- May 9, 2000 - “The Pennsylvania-New Jersey-Maryland (PJM) power pool implemented a five percent voltage reduction on May 9 to ease pressure on the distribution system.

(See January 22, 1994 and January through March, 2001, for PJM problems related to PPL. Refer to June 14 & October 19, 2002 and June 19, 2003 , for PPL’s manipulation of the PJM grid).

“The action was taken to avoid emergency rolling blackouts where power is interrupted for short durations - typically 20 to 30 minutes.” (Update, The Department of Environmental Protection, May 12, 2000, p. 2)

- May 16, 2000 - The electric utility industry predicted a 17% difference between supply and demand this summer for consumers stretching from Virginia Beach to Detroit.

“The all-time maximum PJM demand of 51,700 MW occurred on July 6, 1999.” (PECO Energy Company, Form 10-K/A, p.7). (Refer to June 14 & October 19, 2002, for PPL’s manipulation of the PJM grid).

- June 28, 2000 - “This summer, (residential customers) probably have fewer choices than they did a few months ago, and the choices they do have are more expensive than they were...Combine strong economic growth with hot weather and the bad luck of having things like a number of power plants being shut down at the same time because of outages, and you certainly have problems.” (Irwin Popowsky, Consumer Advocate, Investor’s Business Daily).

(See July 12 to August 1, 1993, January 1,1994, January 22,1994, July 1, 1994, April 15, 1995, Mid-March until the end of April, 1999, May 29-June 5, 1999, December 19-24, 1999, and August 17-25, 2000 for data relating to SSES’s reliability.Refer to June 14, 2002, and June 19, 2003 for PPL’s manipulation of the “Grid”).

- August 17-25, 2000 - Unit-2 was shut down to make repairs on a “small leak in the instrument line [inside the primary containment area]...on a large water pump”. (“News Release(s),” PPL, August 17 & 25, 2000.) (See December 19-24, 1999, for a related problem at Unit-1.)

- October 30, 2000 - PPL petitioned the NRC to increase the capacity of SSES by 100 megawatts. (See April 23, 2001, for follow-up.)

- January through March, 2001 - PPL manipulated the Installed Capacity Market (ICAP) of the Pennsylvania-Jersey-Maryland (PJM) Grid. PPL, identified as "E 1" in PJM and PUC investigations, **manipulated the ICAP market** during the first quarter of the 2001, but ICAP prices remain volatile. PPL's exercise of unilateral and documented abuses of its market power in the PJM capacity credit market during the first quarter of 2001 dramatically and artificially increased credit capacity markets to the economic detriment of Pennsylvania consumers.

(Refer to November 30, 2001, for a follow-up investigation. Also see June 14 & October 19, 2002, and June 19, 2003, for PPL's manipulation of the PJM grid.)

- March 4, 2001 - "PPL stock was raised from 'hold' to 'buy' by...Argus Research Corp." (See March 18, 2001, for a related development). (Sunday Patriot News, March 4, 2001).

(Please refer to February 4 & May 4, 2000, and March 18, September 23 & October 24, 2001, and January 6, 2002, for related developments).

- March 18, 2001- "PPL stock was downgraded from 'strong buy' to 'buy' by analyst Paul Patterson at Credit Suisse First Boston." (See March 4, 2001, for a related development) (Sunday Patriot News, Business, March 18, 2001).

(Please refer to February 4 & May 4, 2000, September 23 & October 24, 2001, and January 6, 2002, for related developments).

- April 23, 2001 - PPL announced it would petition the NRC to increase the capacity of SSES by 100 megawatts, while decreasing the properly value of the plant. "The \$120 million of improvements at the Susquehanna plant are expected to add to earnings as soon as they go into operation" (Reuters, April 23, 2001). (Please refer to Winter 1999 - Winter 2000, for background information).

(Please see July 17, 2001, for follow-up data.)

- July 17, 2001 - The NRC approved PPL's capacity expansion request. Unit 1 will be increased this month while the upgrade at Unit 2 is planned for Spring, 2002, after the planned refueling outage. (See October 30, 2000 & April 23, 2001, for background information).

- August 23, 2001 - An "unusual event" was declared "after plant security apprehended a man inside a vehicle access area at one of the plant's gates." The man was not armed, but scaled one security fence. (PPL Susquehanna LLC, Press Release, August 23, 2001).

- September 17, 2001 - TMI-Alert filed a Petition for rule making with the NRC requiring the Agency to mandate armed security guards at the entrance to all nuclear power plants. A final decision is expected in November 1, 2002. The Nuclear Energy Institute, PPL's "voice in Washington, "recommended" that the Petition be "denied."

- September 23, 2001 - After trading resumed on September 17, 2001, PPL closed down -\$5.10 at \$37.00 ABN Amro rated the stock as "hold" and the "target price range is \$49 to \$50. a share." ("Sunday Patriot News", Business, September 23, 2001.

(Please refer to February 4 & May 4, 2000, and March 4 & 18, October 24, 2001, and January 6, 2002, for related developments).

- October 6, 2001 - After the September 11, 2001 terrorist attacks on the World Trade Center, the Pentagon and a downed airliner in Somerset County, Pennsylvania, the NRC has issued a "Security Advisory", and required 13 "prompt actions which are "safeguarded" and "classified."

(See October 17, 2001, for a related incident.)

- October 17, 2001 - Due to a "credible threat" against Three Mile Island, the Harrisburg and Lancaster airports were closed for four hours, air travel was restricted in a 20-mile radius, a fighter jets were scrambled around TMI (See October 6, 2001, for a related event.)

Through the Freedom of Information Act, the York Daily Record (December 21, 2003) found a "twofold" challenge when a threat against Three Mile Island caused the Harrisburg and Lancaster airports to close for four hours: Air travel was restricted in a 20-mile radius and fighter jets were scrambled around TMI.

Officials struggled with whom to call first, next and last. Officials struggled with notifying state and local officials. And officials struggled with when and whether to notify the public...One NRC official had difficulty reaching senior management at TMI...No one contacted enforcement officials in York County about the threat...[PEMA] officials had to push plant officials to staff their emergency operations facility

[in Susquehanna Township which was later relocated to Coatesville].

- October 24, 2001 - Wachovia downgraded PPL Resources from "strong buy" to "market perform." (Also see March 18, & September 23, 2001.)

(Please refer to February 4 & May 4, 2000, and March 4, and October 24, 2001, and January 6, 2002 for related developments).

November, 2001 - PPL filed a pre-notification letter with the NRC announcing plans to extend Susquehanna's operating licenses for Units 1 & 2. To date, the NRC has approved every license extension before the agency. A similar affirmation at the SSES would extend the license for Unit-1 from 2022 to 2042 and Unit-2 from 2024 to 2044.

- November 2, 2001 - Governor Mark Schweiker reversed an earlier decision, and ordered the National Guard to Pennsylvania's nuclear power plants. The Commonwealth joins over a dozen states with National Guard and/or Coast Guard detachments deployed to protect nuclear facilities against terrorist attacks (See October 6 & 17, 2001, January 30, 2002, and May 22, 2003 for related incidents).

- November 30, 2001 - The PUC ordered an Investigation into PJM's ICAP market manipulation. (See January to March, 2001, for data relating to ICAP market manipulation. See December 6, 2001, for "market response", and PUC follow-up on June 16, 2002. Also, refer to January 6, 2002 & October 19, 2002, for plant cancellations and a revised earnings forecast.)

- December 1, 2001 - PPL stated that the collapse of Enron may cost the Company \$40 million for energy already purchased. Enron also owns 45% of power plant in New England operated by PPL. (Philadelphia Inquirer, **Business**, December 1, 2001.)

Earlier, on November 28, 2001, Exelon Power Team stated that the collapse of Enron will cost the Company "less than \$10 million. The current direct exposure (i.e., for current energy sales from Exelon to Enron) is less than \$20 million. (Exelon Corporation, Press Release, November 28, 2001.)

(Please refer to February 4 & May 4, 2000, and March 4 & 18, September 23 & October 24, 2001, for related developments).

***PPL's stock fell by 3% due to events surrounding  
PPL's ICAP market manipulation.***

(See January to March, 2001, for data relating to ICAP market manipulation. Also, please refer to November 30, 2001, January 6, 2002 and June 19, 2003)

- January 6, 2002 - "PPL lowered its 2002 earnings forecast a second time and canceled plans for six new power plants, citing a continuing drop in wholesale energy profit margins and fallout from the Enron bankruptcy." ( Sunday Patriot News, **Business**, January 6, 2002).

PPL's stock closed at \$32.34 on Friday, January 4, 2002. Its 52-week high was \$62.36. (Please refer to November 30 and December 1, 2001, for related developments.)

(Please refer to February 4 & May 4, 2000, and March 4 & 18, September 23 & October 24, 2001, for related developments).

**2002: PPL kills expansion; earnings projections slashed**

Citing Enron Corp.'s bankruptcy and plans to cancel construction of six new power plants, PPL Corp. slashed its earnings forecasts for 2001 and 2002. In a filing with the Securities and Exchange Commission, the Allentown, Pa.-based utility said it's scaling back its generation-expansion program as a result of continuing declines in wholesale energy prices. PPL previously announced plans to develop an additional 4,605 megawatts of generating capacity. It cut projects that would have produced 2,100 megawatts of power. (One megawatt heats about 600 homes.) Though PPL said it still sees a need for new generating capacity, market prices and regulatory conditions deterred it from building six new power plants, five in Pennsylvania and one in Washington state.

The cancellations of \$1.3 billion worth of projects will cause PPL to take its biggest charge in its 2001 earnings. In addition, Houston-based Enron's bankruptcy filing caused some PPL subsidiaries to end electricity and gas agreements. PPL now expects 2001 earnings per share of \$3.35 to \$3.45, down from an initial projection of more than \$4 per share, with flat growth for 2001.

Market researcher Thomson Financial/First Call had released a consensus estimate of \$4.13 for 2001 and \$4.16 for 2002. PPL's earnings estimate includes a 60-cent charge for canceling its order of 22 turbines from General Electric Co. for the mixed power plants. PPL's revised estimate also includes a 14-cent charge from the Enron-related write-off of Western Power Distribution, its United Kingdom affiliate, and a 6-cent charge from other Enron-related items. PPL had a 51 percent interest in Western Power. Brazil's drought and poor economic conditions also will hurt the earnings from PPL's Latin American operations, the company said.

In addition, a change in the accounting rules for goodwill could hurt PPL's earnings, though the company said it can't yet quantify such an impact, if any.

(Refer to **1996** for a related development.)

- January 9, 2002 - A well-armed, disgruntled former employee at the San Onofre nuclear power plant in San Clemente was arrested for making threats against the plant. (See October, 6, 2001, and January 30, and December 10, 2002, for related incidents.)

- January 29, 2002 - PPL notified the Nuclear Regulatory Commission (NRC) that it intended to file for renewal of the operating licenses for SSES Units 2 and 3. If approved, Unit 1's license would be extended from 2022 and Unit 3's from 2024 for an additional 20 year period.

The Nuclear Regulatory Commission is expected to take two years to review the license renewal application. The total cost of obtaining the renewed licenses for Peach Bottom will be about \$18 million, including the NRC review, or about \$8 per kilowatt hour.

- January 30, 2002 - President Bush's State of the Union Address including a warning that nuclear power plants may be targeted for a terrorist attack.

(See October 6 & 17 and November 7, 2001, and January 9, 2002 for related events.)

- March 28, 2002 - The NRC admitted that and the the SSES and the nation's 102 nuclear power plants could not withstand an impact of airplane the size of those that crashed into the Pentagon and World Trade Center on September 11, 2001.

(March 28, 2002, *Patriot News*.) (See October 6 & October 17, 2001 and January 9 and 30, 2002, for related incidents.)

- April 3, 2002 - “Two men and a male juvenile from Mexico face possible deportation after attempting to enter an unprotected area of the Peach Bottom Atomic Power Station. All three remained in INS custody Wednesday.” (*York Daily Record*, April 4, 2002.)

(See October 6, 2001 & October 17, January, 9 and 30, 2002  
for related incidents.)

- April 29, 2002 - At PPL’s annual shareholder meeting, Bill Hecht told the audience the Company is “agile and robust” and predicted above average earnings. Hecht noted that he was navigating PPL through the most volatile period in the history of the electric industry.” (*Restructuring Today*, April 29, 2002.

- May 5, 2002 - PPL stock was rated ‘hold’ by UBS Warburg. ’ (*Sunday Patriot News*, May 5, 2005).

- May 8, 2002 - The NRC found PPL’s emergency preparedness plan for the SSES lacked adequate staffing. In 2001 the Commission documented under staffing on several different occasions. PPL submitted a compliance plan on May 13, 2002. (*Philadelphia Inquirer*, May 8, 2002).

- May 15, 2002 - “A foreign intelligence service recently warned that a nuclear power plant in the Northeast could be the target of a July 4 terrorist attack...Published reports suggested that the target could be Pennsylvania’s Three Mile Island, but a second US official with knowledge of the information said no specific facility had been named.” (Knight Ridder, May 15, 2002.) (See January, 2001, October 6, 2001 & October 17, January, 9 and 30, 2002, and March 21, for related incidents.)

- June 12, 2002 - The Bio-Terrorism Bill signed into law on June 12, 2002 mandates KI stockpiles out to 20 miles.

- June 14, 2002 - The Pennsylvania Public Utility Commission accused PPL of gaming the capacity market in the PJM grid in early 2001, but asked state regulators and federal authorities to investigate.

“The Pennsylvania PUC has evidence that allegedly shows PPL withheld electricity to create an artificial power shortage in the market for extra capacity where utilities buy credits to meet PJM reserve requirements.

“Such alleged activity drove up prices when the capacity price shot up from \$5/mwh to a \$177/mwh on average for more than three months.” PPL denies the charges. (“Restructuring Today”, Friday June 14, 2002.) Refer to January through March, 2001 background information, and further October 19, 2002, for additional legal action. Also, see January 22, 1994, for PJM-related problems. Refer to June 19, 2003, for results from the PA AG’s investigation.)

- June 17, 2002 - PPL traveled to Wall Street to assure investors the Company “has long-standing policies to ensure that, across the company, the actions of our marketing operation are ethical and legal, John R. Biggar, CFO, (Philadelphia Inquirer, June 18, 2002.)

- June 19, 2002 - PPL cut its work force by 7%. On June 1, 2002, "Public Utilities Fortnightly" published a list of highest paid electric CEO's. PPL's William Hecht was ranked 31 at \$1,197,500. (See "From, 1985 - 1994" and November 14, 1995, for more on job cuts.)

- August 5, 2002 - The NRC issued a Severity III Violation for a "mix- up of gases in a spent fuel storage cask at Susquehanna last summer, and the company said it would not contest finding...", and pay the \$15,000 base civil penalty. PPL spokesman Herbert Woodshick said: "We have cooperated with the NRC throughout its investigation of this matter, and we respect the commission's decision in determining that the incident constituted a level III violation" (*Nuclear Fuel*, February 3, 2003).

(See also August 22, 1995 and February 1, 1999).

- September 5, 2002 -- Three Mile Island Alert filed a formal Petition for Rulemaking with the Nuclear Regulatory Commission to include day-care centers and nursery schools in emergency evacuation planning. The proposed rule would affect all 103 operating nuclear plants in the United States.

- September 9 , 2002 - Standard & Poor's downgraded PPL's rating.

- September 10, 2002 - The Office of Homeland Security announced that the "yellow" warning had been increased to a heightened state of alert or an "orange" upgrade at 1:00 pm... ( Exelon Public Relations.)

- October 3, 2002 BERWICK, Pa. (AP) - A **fire** broke out early Thursday at PPL's Susquehanna nuclear power plant and was quickly put out, officials said.

The fire, detected at around 2:30 a.m., was confined to a startup transformer on Unit 2, according to a company news release. An automatic system extinguished the flames, and the transformer will be replaced with a spare on site, PPL said.

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The fire apparently was caused by an internal failure, company spokesman Herbert Woodeshick said. He could not give a monetary estimate of the damage.

The incident was classified as an "unusual event," the least serious of four federal classifications of power plant emergencies.

PPL Corp. is a global energy company based in Allentown. The plant is in east-central Pennsylvania. ( <http://www.pplweb.com>)

- October 19 , 2002 - Fourteen boroughs brought **suit against PPL** for alleged **market manipulation**. The boroughs include: Blakely, Catawissa, Duncannon, Haven, Kutztown, Landsdale, Lehighton,

Mifflinburg, Olyphant, Perkasio, Quakerton, Saint Claire, Schuylkill, and Watsontown.

(See January 22, 1994 and January through March, 2001, for PJM problems related to PPL. Refer to September 9 & June 14, 2002, and June 19, 2003 for PPL's manipulation of the PJM grid).

- November, 2002 - " Governor Schweiker "directed the National Guard to join State Police in a joint security mission at the state's nuclear facilities." In December, the Governor extended the joint mission of the National Guard and the State Police at the Commonwealth's five nuclear generating stations until March 4, 2002. (DEP, *Update*, December 6, 2002.)

(See October 6 & 17, 2001, January 30, 2002, November 2, 2002 and May 22, 2003 for related incidents).

- December 13, 2002 - "At 1450 EST on 12/13/2002, Susquehanna LLC Main Control Room received a request for additional information from the Pennsylvania Emergency Management Agency (PEMA). PEMA received rumors that a HAZMAT team had been dispatched to Susquehanna in response to a spill associated with a potential sabotage event.

- December 13, 2002 - A security challenge occurred at the SSES nuclear facility on the Susquehanna River:

"At 1450 EST on 12/13/2002, Susquehanna LLC Main Control Room received a request for additional information from the Pennsylvania

Emergency Management Agency (PEMA). PEMA received rumors that a HAZMAT team had been dispatched to Susquehanna in response to a spill associated with a potential sabotage event.

"At 1158 EST a delivery truck at the owner controlled entrance gate was identified to have a saddle tank leak which resulted in a spill of approximately 10 gallons. The diesel fuel was contained by site personnel, and is in the process of being cleaned by site personnel. None of the oil reached a waterway, and therefore does not meet the requirements for a reportable spill. The delivery company contacted their contracted spill response team, and they responded to the site. They were subsequently released without performing any of the cleanup activities. The minor spill was not due to sabotage. This information has been provided to PEMA. "This report is being issued due to the involvement of other government agencies, and reportable under 10CFR50.72(b)(2)(xi)." (US NRC).

- January 29, 2003 -An Unusual Event was declared due to an airborne release containing Cesium-138. An hour later, monitor readings returned to normal. (See March 4 and , 2003 for related radioactive events.)

- February 23, 2003 "PPL Corp. stock is rated "overweight/neutral" in new coverage by Daniel F. Ford at Lehman Brothers. The target price is \$39 a share."

- February 29, 2003 - "PPL reported 2002 earnings from core operations of \$3.54 a share, compared with \$4.22 a share in 2001.

“Sunday Patriot News”).

***Radioactivity found on two GE workers at Pa. nuke***

- March 4, 2003 “ Two contract employees reported to the Susquehanna nuclear power plant in Pennsylvania with low levels of radioactive material on their clothing, owner PPL Corp. ((PPL.N)) said on Tuesday. Highly sensitive monitoring equipment at the plant detected the radioactivity on Monday as the General Electric Co. ((GE.N)) contractors were leaving an area inside a security fence, the company said in a statement.

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“The radioactive material is believed to have originated at another facility, and not at Susquehanna, the company said, and the level of radioactivity was very low. This type of event is rare but not unheard of at the nation's nuclear power reactors. But since the Sept. 11, 2001, attacks, all incidents of possible public exposure to radioactive materials receives increased scrutiny. PPL plant personnel began investigating and conducting additional radiological surveys immediately, said Joe Scopelliti, spokesman for the Susquehanna plant.

" ‘At no time was the health and safety of the contractors, other Susquehanna workers or the general public affected because of this

incident,' " Scopelliti said in a statement. "The level of radioactivity on the clothing was slightly above what is seen in background radiation in the environment."

The contractors' previous job was at a nuclear power plant in Sweden, PPL said in its statement. Monday was their first day inside Susquehanna's security fence, however neither contractor had entered the part of the plant that contains radioactive materials, Scopelliti said. Routine radiological surveys found the areas outside that part to be free of radioactivity, PPL said. General Electric said it also was investigating. Federal regulators and state environmental officials have been notified, the company said. (See January 29, 2003 and March 25, for other releases.)

- March 23, 2003 - "PPL is replacing all four steam turbines at its Susquehanna nuclear plant near Berwick" ("Sunday Patriot News", March 23, 2003).

- March 25, 2003 - An "unusual event" was declared when "contamination was taken off site" when "a worker "tripped on lead shielding blankets..." The event was "declared at 4:52 pm and ended at 7:15 pm. " (*Platts Nuclear News Flashes*, March 25, 2003)

(See January 29 and March 4, 2003, for related incidents).

- April 26, 2003 - PPL defended its **\$314 million investment**

**loss** in a Brazilian electric distribution company, and plans to maintain its investments in similar companies located in El Salvador in the United Kingdom (Please refer to September, 1997, February 4, 2000, and ***2002: PPL kills expansion; earnings projections slashed*** and for related developments).

Despite management's objections, shareholders approved a resolution that "recommended" the submittal of "poison pills" to shareholders for approval. "Two other shareholder resolutions failed. One would have set limits on bonuses for PPL executives, and the other would have required that the accounting firm that does the annual PPL audit not get other business from the company" (April 26, 2003).

- May 16, 2003 - PPL issued a press release indicating that they will be filing a distribution rate case at the PUC in the Spring of 2004 with proposed new rates to take effect on January 1, 2005. The press release does not specify the anticipated amount of the increase. PPL's transmission and distribution rate cap expires on December 31, 2004. Company representatives previously had informally indicated that they would file in 2004.

- May 22, 2003 -- THE PENNSYLVANIA NATIONAL GUARD IS INCREASING ITS PRESENCE at the state's nuclear plants, Gov. Edward Rendell

(D) announced yesterday. Since shortly after the Sept. 11, 2001 terrorist attacks until the end of last month, Pennsylvania had had a 24-hour Guard presence at the plants, but then had switched to random, unannounced security patrols, Rendell spokesman Michael Lukens said. But under Rendell's order, which went into effect yesterday, the two elements are being combined, Lukens said. He said the order would remain in effect "indefinitely," and the governor's office would continue to assess it. Rendell's announcement said he took the action in response to the recent elevation of the national threat level to orange, but Lukens said the state's assessment of the need for the Guard would not necessarily be tied to future changes in that threat level (*Platts Nuclear News Flashes*).

(See October 6 & 17, 2001, January 30, 2002, and November 2, 2002 for related incidents).

- June 19, 2003 - The Attorney General rejected the PUC's claim that PPL manipulated whole sale electricity prices between January and April, 2001. Although prices spikes 30 times above normal seasonal rates, the AG "determined that that PPL did not violate antitrust in acquiring that market power." The Attorney General did admit held extra capacity in 2001. FERC did not act as is satisfied with subsequent PJM rule changes will prevent future spikes. However, as result of the price gauging several smaller electric retailers were permanently forced out of the market (See June 14, 2002, for background information).

- June 29, 2003 - "More than 50 Montana residents have sued PPL Corp., alleging that the Colstrip power plant PPL operates and partially

owns in Montana is polluting their drinking water. PPL says there is 'no merit' to the claim" (*Sunday Patriot News*, June 29, 2003).

- July 13, 2003 - "Utilities save big as towns lose out: Tax bills on plants of major power companies in Pennsylvania have gone from **\$120 million annually to \$20 million** ( Anthony R. Wood, *Inquirer Staff Writer*)

While homeowners are paying an average of 30 percent more than they did in 1997, Exelon, Pennsylvania Power & Light, and the other major electric utility companies in the state are paying 85 percent less in taxes on their plants, down from about \$120 million annually to about \$20 million, an *Inquirer* analysis has found.

Meantime, the utilities are passing on their real estate levies to their customers, based not on what the companies are currently taxed but on the far higher sums of six years ago.

...For the previous 25 years, the power companies' property taxes were relatively cut-and-dried. Payments were calculated by the state and put into one important pot: the Pennsylvania Utility Realty Tax Act fund, or PURTA. For 1997, \$167.5 million was paid in, the bulk of it by the two electric behemoths, Peco Energy Co. and Pennsylvania Power & Light.

...When the state loosened its grip on the electric industry, the commercial power plants - 25 major ones, 55 much smaller - were gradually released from PURTA. For the first two years, 1998 and 1999, the utilities were allowed to appraise their plants for tax purposes; the fund tumbled to \$60 million.

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...On Jan. 1, 2000, the plants were removed from PURTA and put on the property rolls of the locales in which they sat, to be assessed and taxed like any hometown business.

**...Susquehanna nuclear power plant. Although the facility was built at a cost of \$4 billion and assessed at \$3.8 billion, PP&L argued in its appeal that it was worth only a fraction of that. In December 2000, a Luzerne County judge agreed, fixing the assessment at \$165.4 million.**

PP&L now pays \$3 million annually to the county, Salem Township and the Berwick Area School District - far less than the \$30 million the plant used to add each year to the PURTA pot, according to court records.

The Susquehanna appeal has been by far the biggest in the state. The Common Pleas Court ruling, which paralleled PP&L's arguments virtually point for point, could set the course for other cases in Pennsylvania and around the nation, said Epstein, the consumer activist.

"[Susquehanna] was the first nuke case to come in, and it was precedent-setting," Epstein said. Since then, he added, the strategy "of driving school districts off a cliff without a seat belt" has been applied in cases around the commonwealth.

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...From 2000 through 2009, PP&L is including in its customer billings \$280 million in real estate levies, according to court records. **In reality, the company pays only \$3 million a year on the plant - an estimated 10-year windfall of \$250 million.**

***Study Finds Utility Winners During Deregulation Are Companies That 'Stuck to Their Knitting'***

- August 4, 2003 - "From 1998 to 2002, U.S. utilities leapt into deregulation and created multiple strategies to compete. Because it takes time to determine how the strategies worked, we are just seeing results

now. Winners among utility companies relied on traditional regulated utility assets," said Coyne and Hartshorne. "They are firms that stuck to their knitting rather than plunging into merchant power generation or purchasing foreign power plants.

“ The top five companies in annualized shareholder return were Exelon Corp., Southern Company, Entergy Corp., Western Gas Resources and PPL Corp.

“ The bottom five companies in total shareholder return for the five-year period were Aquila Inc., Dynegy Inc., The Williams Companies, Inc., The AES Corp. and El Paso Corp.”

- August 6, 2003 -The NRC released NUREG 1774 which documented a 60% increase in fuel load drop events from 1993 to 2002. The Report found half of the incidents involved moving fuel assemblies at spent fuel pools, and greater risks for heavy load drops were at Boiling Water Reactors like Susquehanna (The Report #ML033060160 can be accessed through ADAMs.) (For related events at he SSES please refer to December 31, 1992; September 10 and October 1 & 28, 1993; January 1, July 1 and August 1994; August 22, 1995; and, September 5, 1996.)

#### **POLL: Security officers expect another blackout in 12 months**

- August 25, 2003 - CSO Magazine polled 382 chief security officers (CSO) and senior security executives showed 59% blamed the electric industry and not the government for the blackout of 2003.

CSOs showed their lack of confidence in the power industry and grid with

59% predicting another major blackout within 12 months. Over three-quarters said they doubt the electric industry will be modernized in five years. That percentage want a probe by an independent investigator without ties to the industry. Almost half (47%) ask that the probe's results be classified to keep terrorists from learning about US vulnerabilities.

Those surveyed included 156 whose firms felt some direct impact of the outage. Many want the federal government to expand oversight of the electric industry. "Regulations are often regarded as the necessary evil in securing the nation's infrastructure," said Lew McCreary, editor of the Framingham, Mass, publication, but he was surprised that CSOs -- traditionally anti-regulation -- are calling for increased government control in this industry, "having now been faced with a glaring example of so-called market forces at work," the editor cleverly observed.

The magazine did the survey online Aug 19-21, having sent an email invitation to the web-based survey to 12,200 subscribers. The 382 are the ones that met qualifications and fully completed the survey. The sample was chosen randomly and each subscriber had an equal probability of being selected. Figure a 5% margin of error, the magazine said.

Results are at [www.csoonline.com/releases/08220385\\_release.html](http://www.csoonline.com/releases/08220385_release.html).

(Story originally published in *Restructuring Today* 8/25/03.)

- August 31, 2003 - "In the first half of the year, PPL posted earnings from core operations of \$292 million, or \$1.72 a share, compared with \$262 million, or \$1.77 a share, during the same period in 2002" (*Sunday Patriot News*, August 31, 2003).

- September 11, 2003 - SUSQUEHANNA-1 WAS AT ABOUT 65% POWER TODAY AFTER A FIRE ON A FEEDWATER pump was extinguished last night. Joe Scopelliti, a spokesman for operator PPL Susquehanna, said today that plant personnel were investigating the cause of the oil fire, which the plant fire brigade extinguished eight minutes after it started at 11:14 last night. He declined to estimate when the unit would return to full power. (*Platts Nuclear News Flashes*).

- September 15, 2003 - SUSQUEHANNA-1 RETURNED TO FULL POWER THIS MORNING following repairs to one of the three pumps that provides water to the reactor. The repairs were necessary following a fire on Sept. 10 that was caused by a leak in a pump lubrication system. The unit was at 70% power following the fire. Herbert Woodeshick, spokesman for operator PPL Susquehanna, said the investigation into the root cause of the leak is still ongoing (*Platts Nuclear News Flashes*).

- September 19, 2003 - “Critics say that the high electric prices and the subsequent failure of Montana Power were evident from the start: Montana Power, which once provided the sixth lowest electric rates in the country, consented to sell off its generating plants as part of the deal to allow it to diversify into unregulated businesses. But, one buyer PP&L came in and bought all the assets. So, instead of having a steady supply from one, regulated in-state supplier, there is now one, unregulated out-of-state supplier...

“Concerns that rates may rise even higher have prompted a voter initiative in Montana to give the state the right to buy back the assets that were sold to PP&L. That vote failed in 2002, although supporters say that they will try again in 2004... (By Ken Silvestein , Director, Energy Industry Analysis). (See June 29, 2003, for related information).

Power Reactor Event Number: 40196 Facility: SUSQUEHANNA

**Event Text:**

**AUTOMATIC SCRAM AT SUSQUEHANNA ON LOW WATER LEVEL**

- "At 0053 hours on September 24, 2003 with Susquehanna Unit 1 operating at 100% power an automatic reactor scram occurred due to low water level. At the time of the scram, reactor feed pump testing was in progress and the 'C' reactor feed pump tripped. The reactor recirc pumps runback initiated as expected when water level reached 30" with the feed pump tripped. Level continued to drop and reached the Level 3 auto scram setpoint. Level continued to drop and reached a low level of approximately -48" wide range. Reactor Core Isolation Cooling and High Pressure Coolant Injection auto started at their initiation setpoints and injected to the vessel to recover level. All level 2 and 3 containment isolations occurred as expected. The reactor recirc pumps tripped as expected when level 2 was reached. Reactor Pressure was controlled with bypass valves, there were no Safety Relief Valve lifts. There are no challenges to containment.

"Unit 1 is currently stable in Mode 3 with both reactor recirc pumps restarted. A human performance error was the cause of the reactor feed pump trip. Investigation is continuing into the plant response to the reactor feed pump trip."

The NRC Resident Inspector was notified of this event.

- NEW YORK, Sept 24 (Reuters) - PPL Corp. said on Wednesday that a unit at its Susquehanna nuclear power plant automatically shut down when one of three feedwater pumps that supply water to its reactor stopped working. The loss of the feedwater pump caused the water level in the Unit 1 reactor to drop, causing a full shutdown of the unit at 12:53 a.m. The plant is located in Luzerne County near..." (See November 13, 2003 for follow up information.)

***The goal is for nuclear power plants to have  
24-hour Coast Guard patrols***

By SEAN ADKINS Daily Record staff Friday,

- October 10, 2003 - The U.S. Coast Guard has proposed a permanent rule that would close off sections of the Susquehanna River adjacent to Three Mile Island and Peach Bottom Atomic Power Station.

Following the terrorist attacks, the Coast Guard began patrolling temporary circular security zones around the waters that both nuclear power plants use for producing electricity.

The temporary zones act as a barrier to vessel traffic in a specific areas and work to protect power plants from damage or terrorist attack, according to a public notice published in the Federal Register.

The proposed rule is part of a national plan to switch the status of the temporary zones to that of permanent, said Neil Sheehan, spokesman for the Nuclear Regulatory Commission. The goal of that national strategy is for each of the country's 68 nuclear power plants eventually to be subject to immutable 24-hour patrols by the Coast Guard with assistance from other federal state and local agencies, he said. "The concern here is to protect the critical and vital areas of the plant," Sheehan said.

Similar to the present temporary conditions, the permanent law would prevent people and boats from entering or lingering in the security zone without prior authorization. Pending public comment that could alter the rule, plans are for the temporary zones that surround Peach Bottom Atomic Power Station and TMI in Dauphin County to become permanent by early next year.

The change in zone designation from temporary to permanent will not affect plant operations, said Dana Fallano, a spokeswoman for Exelon Generation. The company worked with both the NRC and the Coast Guard to establish the zone, she said. Exelon co-owns and operates both TMI and Peach Bottom Atomic Power Station.

The security zone is not expected to disrupt charter and recreational fishermen, since those boats will be allowed to pass safely around the area, according to the public notice.

- October 27, 2003 -NRC AGREED TO RELAX TWO REQUIREMENTS IN AN APRIL ORDER ON SECURITY FORCE personnel working hours. NRC Office of Nuclear Reactor Regulation Director James Dyer Oct. 23 issued notices to all reactor licensees that the agency would allow shift turnover time to be excluded from total group work hours that must be tracked. The NRC staff had wanted accounting of all hours worked for tracking overtime, which it says could lead to worker fatigue, but now agrees with the industry that tracking the extra time does impose some additional burden. Industry officials argued the shift change time is usually not more than 15 minutes. The second relaxation allows licensees to increase the work hours during force-on-force exercises from a 48- to 60-hour per week average. Dyer said the staff understands that the simulated exercises put additional demands on the security guards but the mock attacks extend only for a short period of time (Platts, *Nuclear News*).

- NUCLEAR NEWS FLASHES - Wednesday, October 29, 2003 --  
OPERATING POWER REACTOR LICENSEES MUST BE IN FULL COMPLIANCE TODAY with NRC's April 29 order imposing measures to control the work hours for security force personnel. The industry had asked for relief in two areas of the order, and the NRC staff recently approved those requests. The industry will not have to track the time it takes for guards to change shifts in the overall group work hours and will be allowed a 60-hour limit--up from the usual 48 hours per week--in scheduling guards during the week of a force-on- force exercise. Two other April orders, one on security officer training and the other on changes to the design basis threat, require full implementation by Oct. 29, 2004. A Nuclear Energy Institute official said at a conference in Arlington, Va. today that the industry plans to ask the NRC to rescind the three orders after licensees adopt the requirements in their security plans (Platts, *Nuclear News*).

- November 13 , 2003 - “ Pennsylvania Power & Light’s Susquehanna-1 was forced [to] shut down 159 hours due to low reactor water level following an indervtent trip of a feed pump during feed pump testing” (*Nucleoniocs Week*, p. 17.) (See September 24 2003, for initiating event.)

**Nuke fund falls short of target, report says  
Owners required to set aside money to dismantle plants**

- December 05, 2003, BY GARRY LENTON, The Patriot-News

The owners of a third of the nation's nuclear plants, including the damaged reactor at Three Mile Island, aren't setting aside enough money to dismantle the plants when they close, according to a new federal study.

That could mean higher electric rates for some Pennsylvanians if companies increase their annual contributions to catch up.

If the companies don't close the shortfall, the study warns, taxpayers may face billions in cleanup costs when the plants' useful lives are ended, most likely decades from now...

The total decommissioning bill for all existing plants is estimated to be \$33 billion.

The lifetime of a nuclear power plant is estimated to be 40-60 years. At that age, industry experts say, facility wear and fatigue can make continued operation unsafe. The plants are licensed by the federal Nuclear Regulatory Commission for 40 years, with the opportunity to apply for extensions.

*Continued on the following page...*

Under federal law, decommissioned plants must be dismantled and the land returned to pristine condition.

Pennsylvania plants that are under-funded, according to the GAO report, are Limerick 1 and 2 in Montgomery County; Peach Bottom 1 in York County; Three Mile Island 2, and Susquehanna 1 and 2 near Berwick.

Both the GAO and the NRC projections could be wrong. No one knows for sure how much it will cost to decommission a nuclear plant, because it has not been done. "Estimates are based on the volume of materials that would have to be shipped and stored," Exelon's Nesbitt said. "... Nobody really knows [what the cost will be.] You base it on the best data you have available."

Eric Epstein, president of Three Mile Island Alert, and founder of the EFMR Monitoring Fund, who has helped negotiate cost-recovery plans for nuclear plants before the Pennsylvania Utilities Commission, estimates that the industry is billions short of what will be needed.

Estimates are based on plans that assume that low-level nuclear waste from Pennsylvania plants will be shipped to a dump site that doesn't exist, Epstein said. The estimate also assumes there will be a place to store the spent fuel rods and other high-level wastes. The federal government has yet to build such a site.

- December 22, 2003 - NATIONAL GUARD TROOPS BEGAN PROTECTING PENNSYLVANIA'S NUCLEAR POWER PLANTS at 7 a.m. local time today, according to Gov. Edward Rendell (D). Troops will remain at the plants as long as the threat level remains at "orange," indicating a high risk of a terrorist incident, Rendell said. Deployment of the state National Guard to the nuclear plants was among the steps the state government took to protect Pennsylvania infrastructure in response to the raising of the Homeland Security Threat Level yesterday. The nuclear plants in Pennsylvania are Beaver Valley, Limerick, Peach Bottom, Susquehanna and Three Mile Island. NRC spokesman Dave McIntyre said he was not aware of other states deploying National Guard troops to nuclear plants in response to the increased threat level (NUCLEAR NEWS FLASHES.)

Facility: SUSQUEHANNA

HQ OPS Officer: GERRY WAIG Notification Date: 01/15/2004

Notification Time: 13:03 [ET]

Event Date: 01/14/2004

Event Time: 19:50 [EST]

Last Update Date: 01/15/2004

Emergency Class: NON EMERGENCY

1	N	Y	94	Power Operation	94	Power Operation
2	N	Y	100	Power Operation	100	Power Operation

### Event Text

#### OFFSITE NOTIFICATION OF ACCIDENT INVOLVING 2 TRUCKS CARRYING EMPTY NEW FUEL SHIPPING CONTAINERS

- The following information was provided by the licensee via facsimile: "On 1/14/2004 at 19:56 hours, the Shift Manager was notified by the Clinton County, PA Emergency Management Agency of vehicle accident involving trucks that were carrying a shipment from Susquehanna. The trucks were carrying empty shipping boxes from a shipment of new fuel that had previously been delivered to Susquehanna. These empty boxes were being shipped in accordance with U.S. Department of Transportation regulations [49CFR173.428 Empty Class 7 (Rad Mat)].

"On 1/15/2004 at 10:20 hours, additional information was provided

to the control room indicating that this accident could cause increased public interest due to the severity of the accident. The two tractor trailers involved in the shipment were amongst the vehicles in the accident. One of the truck drivers was seriously injured. The trucks were severely damaged. Clinton County, PA, Emergency Management Agency was called to the scene by initial responders as well as the Pennsylvania Department of Environmental Protection. Both surveyed the boxes and found no indication of radiation/contamination. The shipping boxes and vehicles are being held by the towing company until the shipping company can provide replacement vehicles."

The licensee has notified the NRC Resident Inspector.

(See March 6, 2004, for a similar accident.)

- Sat, Jan. 18, 2004

Power Reactor      Event Number: 40486  
Facility: SUSQUEHANNA  
Region: 1 State: PA  
Unit: [ ] [2] [ ]  
RX Type: [1] GE-4,[2] GE-4  
NRC Notified By: GORDON ROBINSON  
HQ OPS Officer: STEVE SANDIN      Notification Date: 01/29/2004  
Notification Time: 00:05 [ET]  
Event Date: 01/28/2004  
Event Time: 20:33 [EST]  
Last Update Date: 01/29/2004  
Emergency Class: NON EMERGENCY  
10 CFR Section:  
50.72(b)(2)(xi) - OFFSITE NOTIFICATION Person (Organization):  
GLENN MEYER (R1)  
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**

OFFSITE NOTIFICATION TO LOCAL LAW ENFORCEMENT DUE TO FIRE  
BRIGADE ACTIVATION

"At 2018 hrs, the Control Room was notified of smoke coming from the Unit 2 Vital UPS room. The Field Unit Supervisor (FUS) was dispatched to the room to investigate. At 2026 hrs, the Fire Brigade was activated. When the FUS arrived

at the Vital UPS Panel he reported that there was smoke coming from the panel. He opened the panel and observed smoke coming from the transformer in the panel. He did not observe any flames at any time while dealing with the event. At 2029 hrs, Security was notified and subsequently notified the State Police at 2033 hrs. At 2033 hrs, the transformer was deenergized and the smoke began to dissipate. Entry into the Emergency Plan was evaluated and it was determined that no entry conditions exists at this time.

"Due to the notification of the Local Law Enforcement Agency, this event constitutes an Offsite Notification and therefore reportable under 10CFR50.72(b)(2)(xi) requiring a 4 hr ENS notification."

When the transformer was deenergized, all loads were automatically transferred to the alternate power supply. The loss of this transformer did not affect any safety related equipment and does not require entry into any TS LCO Action Statements.

The licensee notified state/local agencies and the NRC Resident Inspector. No press release is planned.

Power Reactor Event Number: 40498

Facility: SUSQUEHANNA Region: 1 State: PA

Unit: [1] [2] [ ]

RX Type: [1] GE-4,[2] GE-4 NRC Notified By: GRANT FERNSLER

HQ OPS Officer: MIKE RIPLEY Notification Date: 02/02/2004

Notification Time: 17:33 [ET]

Event Date: 02/02/2004 Event Time: 09:01 [EST]

Emergency Class: NON EMERGENCY

Unit	SCRAM	Code	RX	CRIT	Initial PWR	Initial RX Mode
1	N	Y	87	Power Operation	87	Power Operation
2	N	Y	100	Power Operation	100	Power Operation

### Event Text

#### FITNESS FOR DUTY

A contractor foreman/supervisor was determined to be under the influence of **alcohol** during a pre-access FFD test as part of processing for unescorted access. The supervisor was denied unescorted access to the protected area. Contact the HOO for additional details

The licensee notified the NRC Resident Inspector.

NRC: NRC Special Inspection Starts at Susquehanna Nuclear Plant

News Release - Region I - 2004-00  
U.S. NUCLEAR REGULATORY COMMISSION  
**Office of Public Affairs, Region I**

No. I-04-003 - February 9, 2004  
CONTACT: Diane Screnci (610) 337-5330  
Neil A. Sheehan (610) 337-5331

Several events involving loose bolts on emergency diesel generators. The twin-reactor plant is located in Berwick, Pa., and operated by PPL Susquehanna, LLC.

The purpose of the inspection, which got under way today, is to determine the facts surrounding the discovery that several bolts on emergency diesel generators at the plant were found to be not fully tightened during the period from March 2003 through January. Among other things, the team will independently evaluate the adequacy and quality of PPLs response and the risk significance of the problem.

Nuclear power plants generate and transmit electricity to the grid, but they also receive power back for operational purposes. If the flow of that off-site power is interrupted, emergency diesel generators are relied



AREVA will supply its ATRIUM™ 10 boiling water reactor (BWR) fuel assemblies for Susquehanna units 1 and 2. The fuel will be manufactured at AREVA's nuclear fuel manufacturing facility in Richland, Washington. Since 1992, more than 2,900 ATRIUM™ 10 fuel assemblies have been installed in 17 reactors worldwide.

"We have enjoyed a longstanding relationship with PPL Susquehanna," said John Matheson, AREVA senior vice president, nuclear fuels. "We are pleased to have this opportunity to further support PPL's generation goals by providing high-quality fuel that is capable of meeting the highest demands for performance and reliability." (Press Release).

## **Event Text**

### **OFFSITE NOTIFICATION AT SUSQUEHANNA INVOLVING A TRAFFIC ACCIDENT**

"On 3/06/04 at 0528 Plant Security was notified of an accident at the entrance to the site involving an employee leaving work and a south bound vehicle on PA Route 11. There were no reported injuries. Local law enforcement was contacted and investigated the incident. Because of the involvement of a LLEA and potential media or general public interest in the event, the Pennsylvania Emergency Management Agency (PEMA) was notified of the incident at 0812 hours. Based on the notification to a government agency and possible public interest, this event was determined to be reportable under 10CFR50.72(b)(2)(xi)."

The NRC Resident Inspector was notified.

(See January 14, 2004, for a similar accident.)

Power Reactor      Event Number: 40602 Facility: SUSQUEHANNA  
Region: 1 State: PA Unit: [1] [2] [ ] RX Type: [1] GE-4,[2] GE-4  
NRC Notified By: RONALD FRY HQ OPS Officer: CHAUNCEY GOULD  
Notification Date: 03/21/2004 Notification Time: 16:03 [ET] Event Date:  
03/21/2004

Event Time: 12:32 [EST] Last Update Date: 03/21/2004

Emergency Class: NON EMERGENCY 10 CFR Section:

INFORMATION ONLY      Person (Organization): HAROLD GRAY (R1)

Unit SCRAM Code      RX CRIT      Initial PWR Initial RX Mode      Current

PWR Current RX Mode

1      N      N      0      Refueling      0      Refueling

2      N      Y      100      Power Operation      100      Power Operation

#### **Event Text**

THREE INJURED NONCONTAMINATED CONTRACTORS WERE TRANSPORTED  
TO THE HOSPITAL.

"On 3/21/04 at 12:32 hrs a bucket truck working at the Unit 1 Cooling Tower came in contact with a 230KV transmission line causing the loss of one off site power supply to the plant. The 500 KV offsite circuit remained energized during the event. A contract employee at the base of the truck was thrown due to the electrical short. A contract employee in the bucket of the truck was able to lower the bucket to the ground. A first aid crew was dispatched to the location and an Ambulance was requested. The Ambulance entered the site at 12:50 and at 13:02 the individuals were

transported to the local hospital. Due to the electrical transient in the plant, a contract employee performing grinding activities lost control of the grinder and injured his middle finger. This individual received first aid and was transported to the local hospital by his supervisor. The individual injured in the plant was surveyed by Health Physics prior to leaving the site and no contamination was found. The Local Law Enforcement Agency was notified of the Emergency vehicle being dispatched to the site. The State Emergency Operations Center will be notified of the Emergency vehicle entering the site."

The NRC Resident Inspector and local agencies were notified and the state will be notified.

Power Reactor Event Number: 40605 Facility: SUSQUEHANNA  
Region: 1 State: PA Unit: [1] [ ] [ ] RX Type: [1] GE-4,[2] GE-4  
NRC Notified By: GRANT FERNSLER  
HQ OPS Officer: STEVE SANDIN Notification Date: 03/23/2004  
Notification Time: 11:00 [ET] Event Date: 03/23/2004  
Event Time: 07:46 [EST] Last Update Date: 03/23/2004  
Emergency Class: NON EMERGENCY 10 CFR Section:  
50.72(b)(3)(ii)(A) - DEGRADED CONDITION Person (Organization):  
FRANK COSTELLO (R1)  
Unit SCRAM Code RX CRIT Initial PWR Initial RX Mode  
Current PWR Current RX Mode  
1 N N o Refueling o Refueling

### Event Text

#### INDICATION OF CRACK FAILURE ON RCS PRESSURE BOUNDARY PENETRATION

"Unit 1 is currently in a refueling outage in Mode 5. During a routine inservice inspection of the reactor vessel, an indication was discovered on the N1B penetration. This is associated with the suction for B Loop of Reactor Recirculation. At 0746 on 3/23/2004, the Control Room was notified that the evaluation was completed and the indication was determined to be unacceptable under the ASME Section XI Code. Based on guidance provided in NUREG-1022, Rev. 2, this material defect in the

primary coolant boundary constitutes a seriously degraded condition and is reportable under 10CFR50.72(b)(3)(ii)(A). A final evaluation of the flaw and a repair plan is being developed."

The licensee informed the NRC Resident Inspector.  
PRN: PPL's Susquehanna Nuclear Power Plant Returns to Normal Operation

## Small Flaw Found in Pipe at PPL Nuclear Site in Luzerne County, Pa.

Publication: [Knight Ridder/Tribune Business News](#)

Date: [Thursday, March 25 2004](#)

By Sam Kennedy, The Morning Call, Allentown, Pa. Knight Ridder/Tribune Business News

Mar. 25--A crack was discovered in a pipe during a routine inspection of the Susquehanna nuclear power plant, PPL Corp. announced Wednesday. The defect posed no immediate threat to the public, according to PPL, which operates the plant. Risk of rupture within the Unit 1 reactor was not significant because the crack was so small, a company spokesman said. "This was nowhere near a break," Herb Woodeshick said. He likened the crack, found Tuesday, to a "blemish."

BERWICK, Pa., April 28, 2004 /PRNewswire-FirstCall/ -- PPL's Susquehanna nuclear power plant in Luzerne County declared an end to an "unusual event" at 3:52 p.m. EDT on Wednesday (4/28), and plant operators have begun to return the Unit 2 reactor to full power.

The plant entered the lowest of the four emergency classifications for nuclear power plants at 1:25 p.m. EDT Wednesday because of an electrical failure in a power distribution panel located in the Unit 2 reactor building. As a result, the unit's power was reduced to about 80 percent.

"Plant equipment and personnel reacted as expected for this type of situation," said Herbert D. Woodeshick, special assistant to the president for PPL Susquehanna. "Workers isolated the electrical failure and restored power to the affected systems through an alternate electrical supply."

The damaged distribution panel supplied power to the cooling system for the main generator and to the system that removes certain gases from the turbine's main condenser, without which the unit cannot operate at full power.

"The plant was in a stable condition throughout the event, and Unit 1 remains at full power," Woodeshick said.

Unit 2 now has been operating for 374 consecutive days.

PPL notified Luzerne and Columbia county emergency management agencies, the Pennsylvania Emergency Management Agency and the Nuclear Regulatory Commission.

The Susquehanna plant, located about seven miles north of Berwick, is owned jointly by PPL Susquehanna LLC and Allegheny Electric Cooperative Inc. and is operated by PPL Susquehanna.

PPL Susquehanna LLC is a member of the PPL Corporation family of companies. Headquartered in Allentown, Pa., PPL Corporation.

(Please reference the following dates for a list of chronic electrical problems at the SSES: "1986"; September, 1988; February 6, 1990; July 23, 1997; June 8-16, 1999; and, April 12, 2005.)

Power Reactor      Event Number: 40777  
Facility: SUSQUEHANNA  
Notification Date: 05/26/2004

**Event Text** OFF SITE NOTIFICATION

"This event is being reported under 10CFR50.72(b)(2)(xi) as an item of public interest and an event for which other government agencies have been notified. "At 1600 on 5/26/2004, the operations Shift Manager was notified by the Security Shift Supervisor that an individual [truck driver] had been arraigned by a LLEA [Local Law Enforcement Agency] judge for prohibited items (drug paraphernalia) which were discovered during a routine entrance search of personnel and vehicles. The items were discovered outside the protected area

[and] were determined to not pose a threat or attempted threat. The LLEA was called and responded to the site access area and removed the individual to the local barracks, where he was subsequently arraigned on a misdemeanor. The individual's name has been removed from the Susquehanna LLC visitors list. "The Manager of Nuclear Security briefed NRC Region #1 Inspector, Dana Caran, concerning the incident."

The licensee notified the NRC Resident Inspector.  
Citizens Voice: 5 detained near Salem nuclear plant  
Wednesday 30 June, 2004  
by Heidi E. Ruckno Citizens' Voice Staff Writer

Federal and state authorities reported Tuesday that several men of Middle Eastern descent were driving around the Berwick and Shickshinny areas Tuesday looking for the nuclear power plant in Salem Township.

The five men, four from Bangladesh and another of Pakistani descent, were reportedly seen at the Delaware Water Gap rest area along Interstate 80 around 8:20 a.m. They were also spotted in Bloomsburg, Columbia County.

State police said they were asking directions to the river near the plant because they wanted to go fishing. Their minivan was pulled over by state police in Shickshinny around 11 a.m. on U.S. Route 11 in Salem Township, four miles south of the Susquehanna Steam and Electric Power Plant.

According to federal and state authorities, the Federal Bureau of Investigation was notified. Because of visa issues, two of the five men were detained by immigration authorities.

"We did stop and detain five individuals, who were believed to be of Middle Eastern descent, because of suspicious activity," FBI special agent Jerri Williams said. Their van was searched Tuesday and authorities did not find anything illegal.

All five men were released Tuesday evening. Williams said Tuesday that there was no cause for alarm, as authorities did not find any links to terrorist activity.

Both the Luzerne County Emergency Management Agency and power plant security were notified about the incident. When asked if the power plant had taken any special precautions, EMA operations and training officer Steve Bekanich said he couldn't speak for the plant.

Power plant spokesperson Joseph Scopelliti said he knew of no procedural

changes resulting from the incident. "I know of nothing different," Scopelliti said. "I've seen state police vehicles up and down the highway, but that's every day. We were made aware by state police that there was a concern."

According to Scopelliti, security at the plant is normally very tight. He said that every employee must have proper identification or they will not be allowed on the grounds, and that all unknown people and vehicles are searched and X-rayed.

"We're ready 24-7," Scopelliti said. "We're not sitting back waiting for something. Everyone that comes up here must have a business reason to come up."

©The Citizens Voice 2004

July 2, 2004:

**GOVERNOR RENDELL ANNOUNCES ENHANCED  
SECURITY MEASURES AT NUCLEAR POWER PLANTS  
*National Guard, State Police to Provide a 24-hour Presence and  
Random, Unannounced Patrols During Independence Day Holiday***

**HARRISBURG:** Governor Edward G. Rendell today said the Pennsylvania National Guard and the Pennsylvania State Police will provide both a 24-hour presence and random, unannounced security patrols at the Commonwealth's five nuclear power plants. The enhanced security measures will be provided in a coordinated fashion with the plant operators and their security teams, and will remain in force at least through the conclusion of the Independence Day holiday.

"My Homeland Security Team continues to coordinate on a regular basis with the U.S. Department of Homeland Security, the Federal Bureau of Investigation, the U.S. Department of Defense, and the Nuclear Regulatory Commission in order to discuss and share relevant intelligence information and threat analysis," Governor Rendell said.

“Although there currently exists no credible threat against any Pennsylvania nuclear power facility, in an abundance of caution I have asked the National Guard and State Police to immediately commence enhanced security measures at our nuclear power stations. At a minimum, we will maintain this deployment status through the holiday weekend.”

The state’s nuclear power plants are Beaver Valley in Shippingport Borough, Beaver County; Susquehanna in Salem Township, Luzerne County; Limerick in Limerick Township, Montgomery County; Peach Bottom in Delta Borough, York County; and Three Mile Island in Londonderry Township, Dauphin County.

Power Reactor Event Number: 40196 Facility: SUSQUEHANNA

- September 12, 2004:

**State plan to handle nuke crisis challenged  
Preschools, hospitals and nursing homes are unprepared,  
2 residents say**

**BY GARRY LENTON                      Of The Patriot-News**

State and federal authorities are investigating allegations that Pennsylvania is unprepared to evacuate preschool children and nursing home and hospital patients during a nuclear accident.

The federal government requires that the state have a plan for moving people who cannot care for themselves and live within 10 miles of a nuclear plant. Two Harrisburg area residents allege that the state has been out of compliance with federal safety requirements for nearly two decades.

Gov. Ed Rendell's office and the Federal Emergency Management Agency took on the review of the state's plan after receiving a letter last week from Larry

Christian and Eric Epstein, chairman of the watchdog group Three Mile Island Alert, detailing these issues. The Nuclear Regulatory Commission also received the letter.

If the accusations are deemed true, it would call into question the validity of the operating licenses for the five nuclear power stations in Pennsylvania. Federal law requires the NRC to determine that the public will be protected in a radiological emergency before it grants a license to open a nuclear plant.

*Tuesday, December 21, 2004*

Citing rate hikes that take effect Jan. 1 in Pennsylvania, PPL Corp. expects to boost its 2005 earnings from current operations by about 8 percent, the company said Monday.

The Allentown-based utility is forecasting earnings of \$3.80 to \$4.20 per share, up from a projected \$3.65 to \$3.85 per share this year.

The rate hikes, approved by the state Public Utility Commission, affect 1.3 million electricity customers in central and eastern Pennsylvania.