

**THE INDIAN POINT NUCLEAR POWER PLANTS:
A HISTORY OF FAILURE, MISHAPS, SECRECY & LIES**

1955 Babcock & Wilcox issued construction permit for IP1 for Con Ed; AEC has no citing criteria for nuclear plants, thus the plant, which is on the Hudson River, on an active earthquake fault line, and is 24 miles from the NYC line, is approved without discussion of any of these factors (when such criteria are proposed in 1979, the IP plants are the only operating plants in the country to fail 5 of the 6 proposed criteria; the NRC refuses to adopt the new criteria, instead reverting to its 1962 "interim" rules). When it comes on-line in 1962, the construction costs total 2 1/2 times higher than projected. Within a year of operation, its generating system fails, and is replaced with a Westinghouse system.

1966 Westinghouse issued construction permit for IP2, to be operated by ConEd; issued operating license in 1971; on-line Aug, 1973, four years later than projected.

1969 Westinghouse issued construction permit for IP3, to be operated by Con Ed; issued operating license in 1975; on-line in Aug 1976.

1971 An arsonist sets fire to a building housing much of the cooling system, causing \$10 million in damage.

Feb 1972 a 1/2 million gallon water tank spills at IP2.

Aug 1972 Westinghouse replaces defective fuel system at IP2 at \$10 million cost.

Nov 1972 ConEd President expresses disappointment at nuke plants' operations, noting that frequent breakdowns and repairs make plants uneconomical. Plants were built with promises of 80% or better capacity; IP1 has operated at less than 50% capacity, and nationally nuke plants operate at only 60% capacity. (1)

Nov, 1973 Engineers shut down IP1, hearing a "hammering noise." A 300-degree steam leak buckles the "heat proof" steel liner of the containment vessel, and leaking water fills the reactor vessel 4 1/2 feet deep. The reactor is shut down until March, 1974. (2)

Oct 1974 IP1 ordered to shut down, as it lacks mandated ECCS. The reactor was never issued a full-term operating license, but ran for 12 years on its 18-month "provisional" license. (3)

1975 As part of a controversial state bail-out of ConEd, IP3 is bought by NYPA for \$349 million.

Jan, 1976 Robert D. Pollard, NRC chief safety engineer and project manager for IP2 resigns, calling IP2 "an accident waiting to happen," and citing design deficiencies in both IP plants. (4)

1976 IP2 operates at 29% capacity for the year, due to extensive repairs. Con Ed is fined for overexposing a worker to radiation.

July, 1977 A transformer explosion at IP triggers a major blackout and causes dozens of people to flee, fearing a major accident.

1977 A leak spills tens of thousands of gallons of radioactive water into the basement of the reactor building.

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MARCH 28, 1979 A pressure relief valve sticks at Three Mile Island, a reactor in central PA, leading to a major accident (a partial meltdown) and forcing the evacuation of nearly 100,000 people.

Sept 1979 UCS, NYPIRG, and WESPAC petition the NRC to decommission IP1 and suspend operations at IP2 & 3, citing over 60 unresolved safety deficiencies, including problems in plant design.

Dec 1979 IP2 cited for one of the highest rates of worker radiation exposure in the nuke industry. (5)

May, 1980 After a bombing at the Statue of Liberty, police receive a threatening call that "IP is next."

June, 1980 NYPIRG releases a citizens task force report prepared with WESPAC, SHAD, and others, criticizing IP evacuation plan and IP2 safety record, and calling for shut down of the plant.

Oct 17, 1980 to 1982 Con Ed discovers over 100,000 gallons of radioactive water spilled in the containment building of IP2, with water rising 25 feet in a floor cavity and eventually rising nine feet up the reactor vessel. No one had checked the area since Oct 3, despite warning lights showing water build-up, hence it is unclear how long the water had been leaking. Con Ed then attempts to restart the reactor three times, without first checking on possible damage from the spill. Neither the NRC, local officials, or the public are notified of the accident for three days. A UCS study showed 24 equipment failures and 21 management & operations errors in the period from Oct 1 to 20. IP2 is shut for 8 months; ConEd attempts to recoup losses from the shut down, estimated at \$800,000/day, with a 10% rate hike; WESPAC, NYPIRG, and 20 other groups organize a rate payers boycott, which by Dec includes nearly 1 million customers; WESPAC also calls for a public takeover of ConEd.(6)

1980-82 UCS, NYPIRG, and WESPAC initiate legal action to close IP pending NRC analysis of the consequences of a major accident. Subsequent NRC hearings on IP operations and emergency planning are stalled when the hearing board chair resigns in protest of a ruling that excludes much anti-nuclear testimony. The board declines the activists' petition. A NY Times editorial calls the hearing a "kangaroo conference," and states that the "regulatory game" is likely rigged against anti-nuke activists. Former NRC Commissioner Peter Bradford states afterwards, "Nowhere has the commission majority's hostility to fundamental legal concepts of fairness been more clearly shown than in the Indian Point hearings." (7)

April 26, 1986 Chernobyl accident: a Ukrainian reactor explodes, releasing most (if not all) of its radioactive matter. (8)

Aug, 1987 A GAO report notes that the NRC is slow to require corrective action in plants with chronic safety violations, takes 10 years or more to act on even the riskiest safety problems, and lacks guidelines that identify safety violations severe enough to shut nuke plants. (9)

May, 1992 IP3 fined for failing to maintain critical safety systems.

Sept, 1992 IP3 fined for failing to fix leaky coolant pipes. A control room operator who failed a July drug test is back on the job, without a retest.

Oct, 1992 An NRC report card on IP3 finds declining performance in 5 of seven areas evaluated, including dropping the "engineering and technical

support" grade from good to acceptable. The NRC points to a backlog of 3,500 pairs needing attention at IP3. (10)

Dec, 1992 The FBI seizes NYPA records regarding a meeting at which a senior plant manager knowingly lied to the NRC; in addition, the FBI seizes records showing that 25-30 plant operators admitted to "occasionally falsifying log entries. (11)

Feb 27, 1993 NYPA shuts IP3, after a series of violations over the past year that led to fines totaling \$462,500. NYPA spokespeople hope for a restart in 2-3 months. (12)

June 22, 1993 IP3 is placed on the NRC's Watch List of troubled plants, joining NYPA's other NY plant, Oswego's Fitzpatrick plant, which had been placed on the list in Feb, 1992. NYPA officials hope for a winter restart. (13)

June-Oct, 1993 NRC fines NYPA \$300,000 for 17 safety violations disclosed in April, 1993, including defects that caused a six month failure in a backup reactor shutdown system. NYPA also admits that it has been issuing inaccurate reports on radiation releases for 13 years. The utility was issuing the information assuming that a filtering device that was disconnected in 1980 had still been operable; the NRC's resident inspector notes "They released more (radiation) than they thought they released." (14)

Sept, 1993 NRC report shows backup cooling pumps went for ten years without fuses; the report also cites a backup generator that operated 11 years longer than recommended by the manufacturer, louvers stuck shut due to lack of simple maintenance, and a reactor shield fastened with incorrect bolts--and missing nuts. (15)

On Sept 14, workers accidentally dump 900 gallons of radioactive water into the Hudson; four days later, 1,000 gallons of boric acid solution are spilled at the plant. (16)

Nov, 1993 A senior operator, after getting caught submitting a bogus urine sample, tests positive for cocaine and marijuana, forcing his resignation. He is the 2nd senior operator testing positive for drugs at IP3. (17)

Nov, 1993 Two original safety valves at IP3 found to be insufficiently rated; in the rush to replace them before an upcoming NRC inspection, engineers install them backwards, blocking both cooling systems and disabling backup generators. (18)

Dec 93-Jan, 1994 Parts of a secret nuclear industry document is leaked, revealing dangerous conditions at IP3 that both NYPA and the NRC were aware of for months or years before the Feb '93 shut down, including defects in the same kind of valves implicated in the 1979 meltdown at 3Mile Island. (19)

April, 1994 Lehman Brothers ranks IP3 one of 8 US nuclear plants as "poor performers" in a report on nuclear investments.

May, 1994 After an NRC directive forces the utility to inspect its spent fuel pool at IP1, Con Ed admits that water has been leaking the site for four years, with estimates of up to 150 gallons of radioactive water leaking each day. (20)

June, 1994 An underground pipe at the shut down IP3 plant breaks, spilling 1,600 gallons of toxic waste into the Hudson. The spill continues for nine days before the rupture is discovered. (21)

July, 1994 A maintenance worker at IP3 accidentally opens a valve and spills 500 gallons of water.

Sept, 1994 Assemblymen Richard Brodsky holds hearings on IP3 that challenge the notion that the plants' generate energy cheaply enough to balance the public safety, health, and environmental costs. Testimony shows that other energy options are cheaper, that IP3 has run at only 42% efficiency over its lifetime, and that it ranks 95th out of 109 US nuclear plants in its lifetime capacity factor. Testimony shows rate payers could save up to \$140 million/year from closing IP3. (22)

Oct, 1994 Another maintenance worker at IP3 accidentally opens a valve and spills 1500 gallons of water.

April, 1995 Steam generator tube cracking discovered in 25% of tubes at IP2; despite recent findings at the Maine Yankee plant that such cracking can be missed by standard testing procedures, the NRC refuses to require that both IP plants immediately institute enhanced tests, despite their regulations that require such testing. (23)

July 19, 1995 IP3 restarted after 2 1/2 year shut down. NYPA, having replaced 19 of its top 27 managers, claims that a "nuclear religion" instituted at the plant will insure safe operations. (24)

July, 1995 NYPA runs IP3 improperly for three days, risking safety system failures; the violation brings an NRC citation in Oct 95. (25)

August, 1995 NRC reports on July-August operations at IP3 criticizes operators for using strict procedural standards as loose guidelines and failing to report deviations from standards. (26)

July 18, 1995 28 thousand gallons of water spill from IP1 into the Hudson. (26a)

September 14, 1995 NYPA shuts IP3, again, citing need to review safety & operational procedures. NYPA expects shutdown to last 2-3 months.

Jan, 1996 NRC fines NYPA \$50,000 for safety violations involving running while backup safety pumps are inoperable. (27)

April 6, 1996 IP3 restarted after a 7 month shutdown.

June, 1996 A hydrogen gas leak causes an explosion at IP3. (27a)

October 1996 IP3 is cited as one of the nation's worst plants by Public Citizen, who note the plant's 22 safety system failures over three years -- three times the national average. Although not on the list, IP2 is ranked third worst in the nation for safety system actuation and ninth worst for worker exposure. (28)

Oct, 1996 Con Ed announces reorganization plans, including moving its IP2 plant into a state regulated subsidiary, thereby shielding the plant from potential free market competition. Meanwhile, a NYPA deal to turn over management of IP3 to a private company falls through, as negotiators cannot agree on terms. (29)

Jan, 1997 IP3 shut down for heater repairs. IP2 shut down due for valve repairs.

Feb, 1997 Assemblyman R. Brodsky excoriates IP3 President Robert Schoenberger at a public hearing for secret NYPA dealings to turn over management to a private company, and accuses the NYPA executive of misleading the Assembly. (30)

May, 1997 A GAO report notes lax oversight at the NRC, echoing the 1987 GAO report. (31)

June 25, 1997 IP3 removed from NRC Watch List. Plant spokespeople assert that management's pursuit of excellence has turned things around, and will insure safe operations. (32)

August, 1997 IP3 is cited by the NRC for an "apparent" violation of safety standards, by failing to correctly translate design basis information into procedures. The utility is fined \$55,000 by the NRC for inadequacies in its emergency safety procedures. (33)

Aug 6-15, 1997 IP2 shut down, due to questionable pressurizer safety valve settings; also, the plant's fire protection systems are found in a degraded condition.

October 8, 1997

NRC PROPOSES \$110,000 CIVIL PENALTY AGAINST CONSOLIDATED EDISON

FOR VIOLATIONS AT INDIAN POINT 2 NUCLEAR POWER PLANT IN NEW YORK

The Nuclear Regulatory Commission staff has proposed \$110,000 in fines against Consolidated Edison Company of New York for four violations of agency requirements at its Indian Point 2 nuclear power plant. All of the violations pertain to equipment not being properly maintained and/or operated at the facility, located in Buchanan, N.Y.

October 15, 1997 More problems with a pump cause the plant to shut down.

October 29, 1997 Notice of violations for IP2 - " Procedure non-adherence has been a recurrent theme in NRC inspectin reports for the last two years "

NOTES

New York Times = NYT Gannett Suburban Newspapers = Gt

1 NYT, 11/19/72

2 Much of the pre-1973 information comes from a timeline printed in the NYPIRG Magazine, Agenda, Summer, 1980.

3 Union of Concerned Scientists petition to the NRC, 1979

4 Gt, 1/21/76, 2/7/76; 2/10/76, 2/12-13/76; Daily News, 1/21/76; NYT 2/10-11/76, 2/13/76, 2/19/76. See also NYT, 2/8/76 re: GE engineers resignations; NYT, 2/29/76 op-ed "The Nuclear-Power-Truth Maze" by G. Wald

5 VilVoice, 12/24/79

6 Gt, 11/9/80, 11/11-13/80, 12/6/80, 1/6/81; Patent Trader, 1/6/81; Power Line, dec-Jan 1981

7 Inside NRC, 11/1/82; NYT, 2/27/80

8 Earth Island Journal, summer 1997; Bull of At Sci's, May, 1996

- 9 Information on this report available at WESPAC
- 10 Gt, 10/28/92, 11/10/92; North County News, 10/28/92
- 11 NYNewsday, 11/1/93
- 12 NYT, 7/4/93
- 13 Ibid
- 14 Gt, 10/23/93
- 15 Ibid
- 16 Ibid
- 17 Gt, 1/7/94, 1/12/94, 1/14/94; NY Newsday, 1/6/94
- 18 Gt, 1/194, 1/7/94, 1/8/94; NY Newsday, 1/5/94
- 19 Ibid
- 20 Gt, 5/20/94, 6/9, 6/27
- 21 Gt, 6/29/94
- 22 NYT, 9/26/94
- 23 Information available at WESPAC

- 24 Gt, 6/ ?/95; NYT, 10/18/95
- 25 Gt, 10/18/95; NYT, 10/18/95
- 6a NYT, 7/22/95
- 27 Gt, 8/21/97
- 27a Rockland Journal, 6/26 and 6/28/96
- 28 Gt, 10/10/96
- 29 Gt, 10/31/96
- 30 Gt 2/15/97; North County News, 2/19/97
- 31 This GAO report, and some commentary, is available at WESPAC
- 32 Gt 6/26/97
- 33 NctyNews 7/30/97; Gt 8/21/97

[To Homepage](#) [To Indian Point](#)