

INDIAN POINT TIMELINE

October 1954: Consolidated Edison buys Indian Point Park and an adjacent tract, totaling 350 acres on the banks of the Hudson River at Indian Point, which is a popular park with beaches, trails, swimming pools and two piers. The plants are sited on the Hudson River, the Ramapo earthquake fault line, and 24 miles from the New York City line.

1963: The 265 megawatt Indian Point 1 plant starts operating.

1966: Indian Point 2 starts construction.

1969: Indian Point 3 starts construction; Con Ed starts operation in 1976.

1973: Operation at Indian Point 2 begins.

November 1973: Engineers shut down Indian Point 1 when a 300-degree steam leak buckles the “heat proof” steel liner of the containment vessel.

October 1974: Indian Point 1 is ordered to shut down, lacking emergency cooling systems.

1975: New York Power Authority buys Indian Point 3 for \$349 million.

July 1977: A transformer explosion at Indian Point triggers a major blackout, causing dozens of people, fearing a major accident, to flee.

October 17, 1980: Con Ed discovers over 100,000 gallons of radioactive water spilled in the containment building of Indian Point 2. Neither the NRC local officials, nor the public is notified of the accident for three days.

February 27, 1993: New York Power Authority shuts Indian Point 3 after a series of violations.

June 22, 1993: Indian Point 3 is placed on the NRC’s “Watch List” of troubled plants. NRC fines Indian Point 3 \$300,000 for 17 safety violations.

September 14, 1993: Plant workers accidentally dump 900 gallons of radioactive water into the Hudson.

May 1994: Con Ed says radioactive water has been leaking at the site for four years, with estimates of up to 150 gallons leaking each day.

June 1994: An underground pipe breaks at Indian Point 3 plant spilling 1,600 gallons of toxic waste into the Hudson.

July 19, 1995: Indian Point 3 restarted after a two-and-a-half year shut down.

August 1997: Indian Point 3 is cited by the NRC for safety violations.

August 6-15, 1997: Indian Point 2 shut down due to defective safety valve settings.

November 19, 1998, Indian Point 3 shut down in response to unauthorized entry into protected area.

February 15, 2000: First full scale alert declared at Indian Point when Indian Point 2 reactor manually tripped due to indications of steam generator tube rupture in generator number 24. Contaminated steam is released. The NRC later reveals that hundreds of gallons of radioactive water leaked into the Hudson River and the Buchanan water system. Indian Point 2 is shut down until December 2000.

April 2, 2000: NRC rates Indian Point 2 most trouble-plagued nuclear power plant in the country.

November 2000: Entergy, an energy conglomerate based in New Orleans, purchases Indian Point 3 & the James A. Fitzpatrick for \$967 million. Entergy's northeast regional headquarters in White Plains announced the plant was worth more than \$152 million a year to the local economy.

September 2001: Entergy purchases Indian Point 1 and 2 for \$502 million.

September 21, 2001: NRC admits uncertainty that the nation's 103 plants could withstand the same kind of impact that leveled the World Trade Center.

May 18, 2002: Christopher Kozlow, Westchester's deputy commissioner of emergency services, is dismissed after about six months on the job. Kozlow is to claim the county wouldn't let him change the evacuation plan.

June 5, 2002: Testimony before the U.S. Senate states that security guards at the nation's 104 nuclear power plants are not equally paid, trained or armed. Some earn less than janitors and carry shotguns that would be no defense against terrorists with automatic weapons, say lawmakers and security experts.

June 8, 2002: Westchester County gives away potassium iodide pills at first of three public distributions. Thousands show up to receive pills.

August 2002: Governor Pataki Hires James Lee Witt Associates to evaluate emergency plans for Indian Point and other state nuclear facilities.

September 11, 2002: Entergy shuts down Indian Point 2 to prevent a growing hydrogen gas leak from reaching potentially explosive levels in the air outside the nuclear power plant.

January 10, 2003: The Witt Report, an independent study of the evacuation plan commissioned by Governor George Pataki, is made public. Report states evacuation plan can't protect public.

January 14, 2003: County executives from Westchester, Putnam, Rockland and Orange counties refuse to sign evacuation plan.

February 2, 2003: FEMA tells the state it must ignore the counties' protest and make its own decision about the emergency evacuation plans.

February 4, 2003: Invoking the principle of home rule, SEMO rejects the federal directive, saying it will not overrule the counties' decision to refuse to sign their annual certification letters.

February 21, 2003: SEMO refuses to certify the emergency evacuation plans, saying it cannot give "reasonable assurance" that they can protect the public.

February 28, 2003: Riverkeeper releases study by Synapse Energy Economics that demonstrates closure of the Indian Point Nuclear Plant would have little or no effect on reliable electric service for New Yorkers.

April 9, 2003: Justice Thomas W. Keegan orders the State Department of Environmental Conservation to issue a draft permit for Indian Point's cooling system by Nov. 14, in response to a lawsuit brought by Assemblyman Richard Brodsky and Susan Shapiro, Clearwater, Riverkeeper, Pete Seeger, and others. Millions of fish eggs, larvae, and young fish are killed every year by the power plant's water-intake system.

April 28/29, 2003: Mechanical problems cause Reactor 2 to trip due to offsite electrical problems on April 28. On April 29 a fire breaks out in Reactor 3; it took over 45 minutes to bring the fire under control. Both reactors are taken off-line.

May 1, 2003: Over 175 first responders state they cannot guarantee safety of residents.

July 25, 2003: FEMA and the NRC overrule the counties' and state's determination that the emergency evacuation plans can't protect the public. County inquiries and Congressional hearings are called in the aftermath.

August 12, 2003: NRC launches investigation into cause of 9 unplanned shutdowns at IP during the past 18 months. The national average is less than one unplanned shutdown per reactor.

July 2003: NRC reports that IP 2 & 3 received 28 whistleblower complaints for 2002, a 22 percent increase. 75% of the complaints primarily involved issues of security. National median was four.

August 14, 2003: Blackout 2003. The entire region regains power without IP being online for nearly a week.

September 8, 2003: The Union of Concerned Scientists and Riverkeeper formally petition the Nuclear Regulatory Commission (NRC) to order the immediate shutdown of both nuclear power reactors, because the plant's drainage pits (also known as containment sumps) are "almost certain" to be blocked with debris during an accident.

September 9, 2003: NRC conducts a special inspection of IP's emergency-alert system to examine a discrepancy between Entergy and the 4 EPZ counties over the reliability of 154 sirens.

September 13, 2003: Nearly 600 electrical workers at Indian Point ask a federal court to block managers from shifting them between the Indian Point 2 & 3. The electrical workers claim that cuts in the work force have led to unsafe working conditions and poses safety issues for the public. Local 1-2 of the Utility Workers Union of America requests a restraining order against Entergy Nuclear Operations, a subdivision of Entergy Nuclear Northeast.

September 16, 2003: Project on Government Oversight (POGO) releases a letter it sent to the NRC criticizing the agency for making the security tests at Indian Point nuclear plant too easy. The letter based criticism of the "force-on-force" test on information gathered from participants and observers of the test.

September 18, 2003: The NRC initiates a special inspection of Indian Point's emergency-alert system to examine a discrepancy between Entergy Nuclear and the four emergency planning zone counties over the reliability of 154 sirens.

November 20, 2003: 276 rank-and-file workers at the Indian Point 3 unit schedule a strike authorization vote for Dec. 4, Local 1-2 Utility Workers Union of America. Manny Hellen, president of the local, said a strike would occur if a new contract isn't reached by Jan. 17.

October 22, 2003: An Entergy official admits on NRP-affiliate station WAMC that there is no updated seismic hazard analysis for Indian Point.

December 22, 2003: The Nuclear Regulatory Commission issues a report that examined numerous unplanned outages at Indian Point. The report reveals that during the August 14th blackout key back-up systems were not in operation. The NRC found that Entergy had not corrected a known problem with some of the plant's back-up diesel generators. As a result the diesel generators, needed to power air-conditioning to cool emergency response equipment, failed during the blackout.

December 29, 2003: Entergy sends a letter to the NRC formally notifying the agency of their intent to store irradiated nuclear fuel in dry casks on the site of the Indian Point nuclear power plant, in an Independent Spent Fuel Storage Installation (ISFSI). Industry whistleblowers and nuclear safety watchdogs have raised concerns about design flaws with the Holtec dry cask model Entergy proposes to use at Indian Point and about Holtec's inadequate quality assurance program.

January 18, 2004: Entergy and Local 1-2 Utility Workers Union of America reach a tentative four-year agreement, averting a strike.

March 1, 2004: William Lemanski – a town councilman of Tuxedo, NY and a retired software manager at Indian Point 2 publicly announces at a town board meeting his concerns regarding improperly sorted electric cables at the Indian Point 2 nuclear power plant. The NRC finally acknowledges the problem and promises to fix, yet to date repairs of this system remain uninspected by independent experts.

March 3, 2004: Nuke plant wiring probed

March 9, 2004: Indian Point 2 & 3 receives NRC green rating for safety. As a result, Indian Point will receive less intense oversight from the NRC.

April 15, 2004: A hundred concerned residents attend an NRC open meeting to discuss Entergy's plans to store high-level radioactive waste in above-the-ground casks.

April 26, 2004: The Indian Point Safe Energy Coalition calls on the NRC to conduct a realistic drill that includes a terrorist scenario with a fast-breaking release for the emergency plans for the 10-mile Emergency Planning Zone near Indian Point.

May 5, 2004: Stamford, CT emergency officials request to be on the Emergency Notification list for Indian Point.

May 2004: For the first time in US nuclear power history, the NRC ends the public's right to a hearing on safety issues.

May 25, 2004: Westchester County hires Boston-based Levitan & Associates to determine if and how the Indian Point nuclear plants can be closed and replaced with an alternative energy source

June 2, 2004: Dr. Erik Larsen, medical director of the STAT Flight emergency helicopter operation at the Westchester Medical Center, raises concerns that the facility could "fall apart" with as few as 50 people seeking treatment after an accident at Indian Point.

June 8, 2004: Biennial emergency evacuation drill for Indian Point conducted. Elected officials and the public are outraged when it is learned that the drill included a "terrorist-type attack" but no radiation was released in the scenario. FEMA and the NRC quickly rubber-stamp the test as adequate.

June 2004: The 9/11 commission and its witnesses divulge that additional air-based terrorist attacks have already been attempted, that more major attacks are likely in the near future, and that nuclear power plants are top al-Qaeda targets.

June 23, 2004: Entergy employee raises concerns that emergency sirens may not operate properly during hot summer days.

July 15, 2004: Over 100 concerned residents attend NRC open house to discuss Entergy's proposed dry cask storage system. IPSEC and nuclear safety experts argue that large casks containing deadly

toxic waste are attractive terrorist targets, particularly since Entergy's plan is to place them on a concrete pad with no protective structures or barriers.

July 22, 2004: The 9/11 commission report suggests that the 9/11 plot's ringleader had considered crashing a commercial airliner into a nuclear power plant in the New York area. The report explains that Mohamed Atta, who piloted one of the planes that hit the World Trade Center, "considered targeting a nuclear facility he had seen during familiarization flights near New York."

August 9, 2004: The NRC announces that it will no longer make available to the public the results of physical assessments of nuclear plant security or enforcement actions associated with such evaluations.

September 2, 2004: Entergy announces plans to cut work force at Indian Point by up to 500 workers.

September 2, 2004: Indian Point 2 shutdown for valve failure.

September 3, 2004: A new patrol boat is approved to be permanently stationed at Indian Point. Oversight of the boat will fall to the authority of the state Division of Military and Naval Affairs, which uses National Guard troops to staff its marine force.

September 8, 2004: Riverkeeper releases a study that finds the potential health consequences of a successful terrorist attack on the Indian Point nuclear plant could cause as many as 518,000 long-term deaths from cancer and as many as 44,000 near-term deaths from acute radiation poisoning, depending on weather conditions. Dr. Edwin Lyman, a senior staff scientist in the Global Security Program at the Union of Concerned Scientists, authored the report entitled "Chernobyl-on-the-Hudson?: The Health and Economic Impacts of a Terrorist Attack at the Indian Point Nuclear Plant."

September 15, 2004: Indian Point 2 shutdown for valve failure.

September 6, 2004: Entergy announces that it will seek a power uprate for Indian Point. The company wants to increase power generation by 90 megawatts.

September 20, 2004: Entergy drops its interest in building a small onsite gas plant at Indian Point site.

September 21, 2004: Congresswoman Sue Kelly (R-Katonah) calls on the NRC to inspect wiring at Indian Point after former worker raised allegations of improper cable separation at Indian Point.

September 24, 2004: Indian Point 2 shutdown for valve failure.

September 24, 2004: Orange County Board of Legislators Public Safety Committee passes resolution calling on federal authorities to investigate the safety of spent fuel storage at the Indian Point nuclear plant.

October 1, 2004: Indian Point security guards ratify a new five-year contract, averting a possible strike.

October 19, 2004: A labor dispute at Indian Point 2 triggers a sickout by approximately 40 electricians and other craft union workers after several workers were fired for allegedly raising safety concerns.

October 27, 2004: The NRC approves a 3.26% increase of electricity generating capacity for Indian Point 2.

November 2004: Up to 300 Indian Point workers are exposed to asbestos. Charles Pencola, a steamfitter who has worked at Indian Point for 35 years, said Entergy managers declined to stop work in the area until the problem was properly corrected.

December 2004: A nuclear watchdog group releases data showing that there is no backup power for sirens, in the event of loss of electricity. Indian Point is one of many U.S nuclear plants without back power to emergency sirens.

December 3, 2004: Indian Point 2 is shutdown for welding problems.

December 10, 2004: Emergency sirens fail to rotate properly.

January 2005: For the third consecutive year Westchester, Rockland, and Orange County officials refuse to submit their Annual Certification Letters, a checklist for the Indian Point emergency evacuation plans. For the second year in a row Putnam County Executive Robert Bondi submits his county's paperwork, despite no material changes to the plan since the Witt Report concluded that the plan is gravely flawed and probably cannot be fixed.

January 19, 2005: Westchester County hosts State Emergency Management Office Open House for Indian Point. Potassium Iodide pills are distributed to the public.

January 24, 2005: IP guard discovered drunk while acting as a safety supervisor at a firing range where other Entergy security workers were undergoing firearms training on the job at Indian Point. He receives a two-week suspension.

January 26, 2005: Congressional delegates, Eliot Engel (D-NY), Nita Lowey (D-Westchester/Rockland) and Sue Kelly (R-NY) notify the NRC that any failure of emergency sirens at Indian Point is unacceptable.

January 31, 2005: At a Press Club luncheon NYS Attorney General Eliot Spitzer says he supports the closure of Indian Point, if energy reliability can be assured.

February 8, 2004: Westchester County Executive Andy Spano calls on the NRC to investigate emergency sirens at Indian Point.

February 10/11, 2005: Control rods fail to load properly at Indian Point.

February 10, 2004: Ulster County Board of Legislators overwhelmingly votes in favor of opposing a 20-year license extension on Indian Point. Ulster County becomes fourth county board, and joins an addition 16 municipal boards that have passed a similar resolution opposing the relicensing of Indian Point.

February 14, 2005: Due to Entergy's improper handling of radioactive waste, an Indian Point shipment of low-level radioactive waste is discovered leaking upon arrival at the Barnwell Waste Management Facility in Barnwell, South Carolina. According to the NRC at least one worker was exposed to radioactive materials; this is in violation of South Carolina laws regulating the handling of nuclear waste at the Barnwell facility.

April 6, 2005: The long awaited study by the National Academy of Sciences on the vulnerability of spent fuel pools at U.S. nuclear power plants is released. The report, released yesterday, confirms what Riverkeeper has maintained since the terrorist attacks of September 11, 2001: the spent fuel pools at nuclear power plants are soft targets, vulnerable to terrorist attack by aircraft or high explosives, and pose a high risk to public health and safety due to the high levels of volatile radionuclides present in the irradiated fuel. Riverkeeper calls on Governor Pataki and Congressional delegates to immediately appoint an independent commission to review Indian Point's spent fuel pools, their vulnerability to terrorist attack, and possible solutions to minimize the grave risks posed to the public in the event of a terrorist attack at Indian Point.

April 12, 2005: The Government Accountability Office issues a scathing report of the Nuclear Regulatory Commission and nuclear power plant owners, including Entergy, for their ineffective oversight, poor inventory management, and lax safety and security management of high-level radioactive spent fuel at the 103 nuclear power plants in the United States. In 2004 Entergy lost high-level radioactive spent fuel rods at its Vermont Yankee nuclear plant.

May 18, 2005: NRC issues a Notice of Violation to Entergy Nuclear, Indian Point 2, following an inspection revealing that Entergy failed to respond adequately to a buildup of nitrogen gas in the safety injection pump system, which controls water flow in the emergency backup cooling system. The buildup of nitrogen gas had continued for 77 days before the NRC notified Entergy of the seriousness of the problem, knocking out one pump completely and damaging two others.

May 20, 2005: The Nuclear Regulatory Commission (NRC) rejects a public petition that would require all nuclear utilities to equip emergency notification systems with backup power sources independent from the electrical grid, so that in the event of an accident or an act of terrorism accompanied by a loss of power the public can still be promptly notified of a radiological emergency. Hiding behind bureaucratic red tape, the NRC – charged with protecting public health and safety – noted that the petition was filed improperly, since the lack of backup power to emergency sirens does not meet the criteria for an Emergency Enforcement Petition. Instead, the NRC argues that the request should go through the NRC’s “petition for rulemaking,” a process typically involving two years of deliberations.

June 9, 2005: Levitan Associates releases a report commissioned by Westchester County to study the feasibility of retiring Indian Point before its licenses expire. The report states that the energy currently supplied by Indian Point 2 & 3 could be easily replaced through a combination of new plants and increased energy efficiency measures at the state level, with the increase to ratepayers estimated to be “less than a slice of pizza per month.”

June 20, 2005: Congresswoman Nita Lowey authors The Nuclear Power Licensing Reform Act of 2005. If passed, it would require that the Nuclear Regulatory Commission must apply the same licensing standards to old nuclear power plants as new nuclear power plants, must take into account changes in population around a nuclear power plant, must require adequate emergency evacuation plans for populations within a 50-mile radius of a nuclear power plant, and must take into account threats to the population due to security and safety vulnerabilities at a nuclear power plant.

July 2005: Power to Indian Point’s emergency siren system is knocked out on two different occasions, once for six hours before officials were aware of the problem.

July 29, 2005: Entergy Nuclear NE publicly commits to replacing the malfunctioning emergency siren system, following repeated failed tests and power outages earlier in the summer. NY Senator Hillary Clinton’s amendment to the 2005 Energy Bill– which was signed into law by President Bush – mandates that Indian Point’s sirens have reliable backup power.

August/September 2005: The emergency siren system fails to operate properly during testing on several occasions, due to problems with Verizon’s phone lines and software failures that resulted in all of Rockland County’s sirens failing to sound for nearly an hour.

August 1, 2005: NRC issues a “White Finding” to Entergy for their failed response to a nitrogen gas leak first discovered in April 2005.

September 12-15, 2005: Department of Homeland Security conducts a review of security and emergency planning at Indian Point, as part of the federal government’s “Comprehensive Assessment” of the vulnerability of the nation’s infrastructure to terrorist attack. A siren test conducted during the review once again fails to activate a significant number of sirens. The review is unrelated to the widespread criticism of FEMA/DHS following Hurricane Katrina.

September 13, 2005: As officials from FEMA and the Department of Homeland Security conduct an assessment of security and offsite emergency planning for the Indian Point nuclear power plant, environmental watchdog group Riverkeeper calls for the immediate closure of the power plant until a full-blown, 9/11 Commission-style evaluation report is completed on FEMA's failure in New Orleans. In addition, Riverkeeper has asked that FEMA commit to participating in a stakeholder's roundtable regarding Indian Point's emergency plan.

September 20, 2005: NRC and Entergy notify the public that radioactive water is leaking from IP2's spent fuel pool. The leak was discovered by contractors excavating earth from the base of the pool in preparation for the installation of a new crane, for use in transferring spent fuel from the pool to dry cask storage. NRC assures the public there is no "immediate risk to public health or the environment." NRC later admits that Entergy first discovered the leak twenty days earlier, but did not believe it was serious enough to warrant public notification. NRC orders a special inspection to determine the source of the leak.

September 29, 2005: A control rod malfunction at IP3 forces the reactor to cut power by 35% immediately and notify the NRC. The control rods are designed to operate in unison, dropping into the reactor core to slow the fission process if a problem arises. In this case, a single rod dropped into the core without warning.

October 2-9, 2005: Indian Point 3 is completely shut down following the control rod malfunction. The electrical switch the NRC believes caused the problem is replaced. Despite the loss of 1,000 MW to the NY power grid, there are no disruptions or significant price increases during the week that IP3 is inoperative.

October 5, 2005: Entergy notifies the NRC that a sample from a monitoring well located in the IP2 transformer yard shows tritium contamination that is ten times the EPA drinking water limit for the radionuclide, and is consistent with tritiated water from a spent fuel pool. The NRC broadens its special inspection to include this new information. The NRC also states in its report that the monitoring well had not been checked since its installation in 2000, following the transfer of IP's ownership from ConEd to Entergy.

October 7, 2005: The NRC updates its Special Inspection Charter for the IP2 Tritium Leak to include a review of Entergy's efforts to control the ongoing leak from the IP1 Spent Fuel Pool.

October 18, 2005: The NRC and Entergy confirm that the radioactive leak discovered in August is greater than initially believed. The radioactive isotope, tritium, has been discovered in five sampling wells around Indian Point 2, while the leak at the spent fuel pool has increased to about two liters per day. Exposure to tritium increases the risk of developing cancer. The company plans to test more wells, inspect the liner of the leaking fuel pool, and install additional monitoring wells.

October 18, 2005: A test of the Indian Point sirens failed again today. Ten of 15 sirens in Orange County and another four of the 156 total sirens within the 10-mile evacuation zone failed to sound during the routine test.

October 28, 2005: NRC Region 1 Director Sam Collins formally requests permission from the agency's Executive Director of Operations to increase oversight at Indian Point on two matters, the tritium leak and the continued problems with the emergency sirens. Permission is granted three days later.

November 16, 2005: The NRC holds a public meeting with Entergy to discuss the company's plan for replacing the emergency siren system at Indian Point. Entergy announces their commitment to completely replacing the system by January 2007 with new sirens that will have backup battery power. However, statements by DHS officials regarding a lengthy approval process for the sirens put the time

schedule in doubt. In addition, NRC official Erik Leeds argued that the Energy Policy Act of 2005 required that the NRC enforce the order within 18 months, not that backup power be installed within 18 months.

November 26, 2005: The tritium leak at IP2 remains unsolved, nearly three months after its discovery. Entergy's use of underwater cameras and divers to visually inspect and test for leaks at three locations on the steel liner's surface yield no results. Entergy must now employ different cameras to inspect the liner near the bottom of the pool, where the radiation is too high for a human diver to enter.

December 1, 2005: Entergy reports to the NRC that an initial sample from a new monitoring well five feet from the wall of the IP2 Spent Fuel Pool shows tritium levels in the groundwater at thirty times the EPA limit, the highest level of tritium contamination yet discovered. In addition, the NRC announces that preliminary tests of tritiated water found in the IP1 Pool Collection System contain too much tritium to be from the IP1 Pool, suggesting that tritium-laced water is being collected in the IP1 Drain from another, unknown source. The NRC still does not know where the leak is coming from, how long it has been leaking, or the extent of groundwater contamination under the plant.

December 22, 2005: Unplanned shutdown at Indian Point 2 due to a valve that needed to be resealed.

March 1, 2006: Unplanned shutdown at Indian Point 2, because a carpenter accidentally turned off electrical power to the control rods. It returned online on February 2, 2006.

April 27, 2006: Indian Point 2 leak of river water discovered

July 5, 2006: Generator blip shuts down Indian Point 3

July 6, 2006: An unplanned shutdown at Indian Point 3, because worn wiring caused an electrical relay in the plant's main generator to trip. Reactor back online July 7.

July 21, 2006: An unplanned shutdown at Indian Point 3, because sparks were seen when metal scaffolding was too close to electrical connections. Reactor back online July 22.

August 2, 2006: All 156 emergency notification sirens for the Indian Point nuclear power plant went offline due to complications with the computer system. According to Neil Sheehan, spokesman for the Nuclear Regulatory Commission, siren capacity was restored at approximately 6:30 AM. As per federal regulations, this "constitutes a major loss of the offsite notification capability." Had there been an emergency at Indian Point, first responders would have been ordered to drive through neighborhoods within the 10-mile Emergency Planning Zone (EPZ) in Westchester, Rockland, Putnam, and Orange Counties with bullhorns to notify sleeping residents that they should turn on their radio or television for further emergency information. In recent years, the emergency notification sirens for Indian Point have failed repeatedly.

August 3, 2006: Computer glitch shuts off Indian Point sirens for 6 hours

August 23, 2006: Unplanned shutdown at Indian Point 2, because discharge valves that control levels of overflow of reactor-heated water were stuck on 55% capacity due to an electrical problem.

September 20, 2006: Computer glitch KOs Indian Point sirens

October 11, 2006: New York State Emergency Management Office (SEMO), during a routine test of various emergency plan components, erroneously sent over 100 emails to residents living within the 10-mile Evacuation Planning Zone noting that there was an emergency at Indian Point and that residents should begin preparing to evacuate. SEMO later retracted the emergency notice, indicating a glitch in their computer systems.

November 15, 2006: Unplanned shutdown at Indian Point 2, because a low-volt electrical connection malfunctioned and caused the steam generator to automatically stop working. The reactor went back online November 16, 2006.

November 16, 2006: Indian Point 2 shuts down for electrical problems

November 17, 2006: Indian Point 2 returns to service 15 hours after shutdown

November 29, 2006: An unplanned shutdown at Indian Point 2, because a 1" steel alloy pipe was found leaking non-radiated water in the containment building.

November 2006: The ongoing radioactive leak investigation took a disturbing turn in November with the news that the laboratory hired by Entergy to test the groundwater had submitted inconsistent sampling results showing strontium-90 at much lower levels than was actually found by both the NRC and New York state analyses. Samples of groundwater taken in August 2006 were split between Teledyne Labs of Knoxville, Tennessee, the NRC and state laboratories. Teledyne reported strontium-90 levels from 1-6 Pico curies per liter, which is below the EPA drinking water limit, while state and federal lab results showed the same groundwater containing 5-30 Pico curies per liter - significantly higher than what was reported. Entergy suspended its contract with Teledyne pending the results of an investigation into the discrepancy, while the NRC downplayed the different results as "an anomaly."

December 2006: Right before the kickoff of the Christmas holiday, the Nuclear Regulatory Commission (NRC) issued an inspection report on the Indian Point nuclear power plant, which notes a "potentially chilling effect" amongst workers who identify safety problems at the site. In the December 21, 2006 letter to Entergy's site Vice President, Fred Dacimo, NRC Director for the Division of Reactor Projects David C. Lew noted, "the NRC has become aware of incidents through insights gained during these inspections and from the allegation program where workers perceived that individuals were treated negatively by management for raising issues. As a result of these incidents, some workers expressed reluctance to raise issues under certain circumstances." In addition, Lew notes that Entergy had "deferred action" on an "alleged potential chilling effect in the Maintenance department."

December 22, 2006: Feds: Indian Point must help workers feel comfortable reporting safety problems

December 26, 2006: Time to get after Indian Point staffers who muzzle workers

January 5, 2007: "Unusual event" declared at IP3 due to rapidly lowering cooling water levels- Intake pipe screens on Hudson riverfront found to be clogged with ice and debris. (No shutdown)

January 16, 2007: The *Journal News* reported that four of twelve fish samples taken from the Hudson by Entergy showed detectable levels of strontium-90 in their flesh, raising new concerns as to the level of environmental damage caused by the leak of radioactive water containing strontium-90 from the Indian Point 1 spent fuel pool. Of the four showing higher levels, one was collected near Indian Point, and the other three near the Newburgh-Beacon bridge, about fifteen miles north of the plant. Riverkeeper immediately called on state and federal regulators to broaden their sampling program, so that a better picture of the extent of contamination could be ascertained. This toxic radionuclide, known as a "bone seeker" because it mimics calcium and concentrates in bone, can cause leukemia and bone cancer if ingested in high amounts. Despite Entergy's claim to the contrary, Indian Point is known to be at least one source of strontium-90 in the Hudson, and the only one currently known to be discharging this toxic substance into the river. Low levels of strontium-90 remain in the global environment from nuclear weapons testing during the 1950s and 60s, and the Knolls Atomic Laboratory dumped radioactive waste into the Mohawk River near Schenectady during the same time period. The Mohawk is a tributary of the Hudson.

February 6, 2007: Debris, ice and low tide cause water problems for Indian Point

February 16, 2007: First test of Entergy's new siren system is "unsuccessful", according to Westchester county Emergency Management commissioner Tony Sutton.

February 17, 2007: NRC chairman says Indian Point safety review not needed

February 24, 2007: A cracked spent fuel rod is discovered in IP2 spent fuel pool- IP2 pool has been leaking tritiated water into the environment since August 2005.

March 1, 2007: IP2 shutdown due to low water levels in the steam generators, caused by a broken pressure transmitter. (Restarted one day later)

March 1, 2007: Indian Point 2 shut down for fifth time in 15 months

March 9, 2007: Indian Point leaks still fuel debate

May 10, 2007: Indian Point finds tritium in its sewers

April 2, 2007: Second test of new siren system is a failure- 123/150 sirens fail to sound properly. April 15 is the deadline for the new siren system to be up and running.

April 3, 2007: IP3 shutdown due to low water levels in steam generator system, caused by failed boiler feed pump.

April 4, 2007: Reactor shutdown follows siren trouble in testy week for Indian Point

April 6, 2007 (Good Friday): "Unusual event" declared and emergency shutdown of IP3 due to transformer fire.

- IP oversight now degrades from "Green" to "White" due to too many unplanned shutdowns within 12-month period.

- Verplanck fire department responds, but does not enter site- fire is put out by plant fire brigade.

April 10, 2007: Indian Point 3 restart delayed by fire damage

April 16, 2007: Evacuation plan an 'embarrassing sham'

April 24, 2007: New tritium leak found at Indian Point

May 24, 2007: Indian Point pays \$130,000 fine, promises new sirens by summer

July 25, 2007: Local officials upset about uranium 235 at Indian Point

August 28, 2007: Feds scold Indian Point over dozing security guard

January 19, 2008: Corrosion found in year-old warning siren

March 25, 2008: Unplanned shutdown at Indian Point 2 starts refueling outage two days early

June 24, 2008: NRC granted permanent "relaxation" of inspection of reactor nozzle heads.

August 19, 2008: Indian Point sirens are ineffective

November 18, 2008: Indian Pt. discount on electricity to expire Electricity costs could jump as much as 35 percent for Westchester County and 103 other local municipalities next month, when a contract to buy power from Indian Point expires

January 22, 2009: 17 safety problems found at Indian Pt.

February 16, 2009: Uncontrolled leakage of condensate storage tank water on Auxillary Feedpump room, 2 inches of radioactive water found, loss of approximately 100,000 gallons.

May 29, 2009: Indian Point 3 shuts down again after valve malfunction

June 2, 2009: Indian Point 3 shut down once again

August 14, 2009: Indian Pt. vendor faulted over nuclear fuel canister testing

September 7, 2009: Leak found in pipe at Indian Point

September 17, 2009: Unplanned shut down at Indian Point 2 in Buchanan

November 4, 2009: NRC checks unplanned shutdown at Indian Point 2

November 5, 2009: Generator problem shuts down Indian Point 2 plant

January 11, 2010: Indian Point 2 goes offline due to malfunction

January 12, 2010: Indian Point 2 shuts down due to generator malfunction

January 20, 2010: Indian Point security guard accidentally discharges gun

February 18, 2010: Indian Point requests year to fix security

March 10, 2010: Steam leaks at Indian Point; Vanderhoef calls for probe

June 7, 2010: Diver dies while working at Indian Point

September 4, 2010: Indian Point 2 unexpected shutdown unlikely to be safety issue

September 10, 2010: Indian Point 3 shut down; entire nuclear plant now off-line

September 11, 2010: Indian Pt. 3 shuts for water leak; both reactors off grid

November 7, 2010: Explosion, fire knock Indian Point 2 offline

November 7, 2010: Indian Point fire traced to electrical connector

December 13, 2010: DEC: Thousands of gallons of oil leaked into Hudson after Indian Point fire

February 16, 2011: N.Y. sues feds over nuke-waste storage

February 23, 2011: Indian Point 3 goes offline to repair a leaking pipe

March 23, 2011: Feds to move Indian Point to top of earthquake-risk review list

March 25, 2011: Nuclear plant defects go unreported, audit finds

March 24, 2011: Congressional representatives Lowey & Engel want hearings.

March 25, 2011: Nuclear Plant defects go unreported, audit finds NRC has not levied any civil penalties or significant enforcement actions against nuclear plant operators for lapses in reporting equipment defects in at least eight years.

March 26, 2011: NYS Attorney General Eric T. Schneiderman asserts that NRC refuses to consider important data, and scales back safety requirements. Calls on the federal agency charged with ensuring nuclear power plants' safety to conduct immediate, comprehensive, and transparent studies, and then use the results to inform the decision-making on relicensing, as well as the safety measures for Indian Point's day-to-day operations.

March 29, 2011: NYS Attorney General Eric T. Schneiderman wants federal regulators to take enforcement action against the Indian Point nuclear plant for what he called the company's failure to comply with fire safety requirements.

May 14, 2011: Indian Point get fix list from NRC to prepare for crisis similar to Fukushima. At Indian Point 2, hydrogen containment devices, which are supposed to be tested every other year, haven't been tested for five years. * Fire protection equipment in locations that are not "seismically designed," or protected from an earthquake. * Inspectors identified potential vulnerabilities associated with seismic events. * At Indian Point 3, not enough firefighting equipment if severe events included both reactors simultaneously. Carbon-dioxide tanks used for firefighting are not seismically qualified.

August 21, 2011 Lightning bolt causes Indian Point outage.

August 25, 2011: The 5.8- magnitude quake caused a big enough jolt to send spooked workers streaming from downtown buildings.

December 23, 2011: A federal commission dismissed an appeal from the owner of the Indian Point nuclear power plant on Thursday, declining to hear arguments on a previous ruling requiring the company to bolster its plan to deal with major accidents.

January 10, 2012: Indian Point 18th unplanned shutdown in five years. Unit 2 due to Reactor Coolant Pump leakage from seals causing massive water pump overflow inside the containment dome.

January 20, 2012: The degraded water pump seal that caused the eight-day shutdown of the Indian Point 2 nuclear power plant will be tested to determine what led to its erosion now that the plant has returned to service.

March 2, 2012: A buildup of combustible gases inside a transformer that routes electricity from Indian Point Unit 3, to the grid, shut down the plant. Maintenance operators discovered a buildup of combustible gases inside the oil of the transformer; a buildup of this kind can indicate transformer degradation

March 27, 2012: DEC fines Indian Point \$1.2 million for transformer explosion at its Unit 2 reactor that spilled oil into the Hudson River in November 2010. The New York State Department of Environmental Conservation said that "longstanding structural conditions" led to the failure of a containment system that should have prevented the oil from flowing into the river.

June 6, 2012: A problem with Indian Point Unit 2's main electrical generator caused the plant to automatically shut down at about 6 a.m. Wednesday.

June 9, 2012: Attorney General Eric T. Schneiderman won a landmark victory against the NRC. The US Court of Appeals invalidated NRC's new plan to store nuclear waste at nuclear plants for an additional 60 years without a complete environmental and health impact assessment.

June 25, 2012: The NRC delayed security exercises this month at Indian Point after a security officer at reported feeling light-headed during training there.

August 17, 2012: Indian Point must fix several issues with its passive fire prevention systems, federal regulators announced today, in order to help workers respond more quickly to a fire at the nuclear power plant.

September 1, 2012: Other sources of energy can replace the output of the Indian Point nuclear power plant if the plant is closed, according to a new state report that looks at New York's entire transmission system.

September 6, 2012: The NRC directed staff to develop an environmental impact statement (EIS) and a revised waste confidence decision and rule on the temporary storage of spent nuclear fuel within 2 years.

September 11, 2012: The Indian Point security lieutenant suing Entergy for \$1.52 billion said Friday that Gov. Andrew Cuomo should use the National Guard or state police to bolster security at the nuclear power plant. Travis, 47, of Peekskill also wants to have Indian Point closed until Entergy can prove the plant is secure and that security personnel are adequately trained. According to the lawsuit, Indian Point's new perimeter security system crashes regularly and the nuclear power plant routinely fails anti-terrorism drills. During a storm, seven of ARINC's perimeter-monitoring cameras were out of service for a full day and three of the perimeter's "bullet-resistant enclosures" lost power.

September 15, 2012: The crane inside the Indian Point 3 unit isn't capable of moving a standard-sized cask, according to plant owner Entergy Nuclear. Workers will move fuel assemblies from that pool into a smaller container and then into the pool in Unit 2 before placing them into a normal-sized cask for long-term storage.

October 3, 2012: Energy employee, Roy Spangenberg, 57, was arraigned Monday in Peekskill City Court on a charge of menacing a police officer, a felony, and ordered to return to court Oct. 9.

October 13, 2012: The Indian Point nuclear power plant in Buchanan could be shut down immediately and cause no problems for the region's electricity supply, according to a report released Friday by two environmental groups.

October 29, 2012: NRC allowed Indian Point to continue operating despite warnings that Super Storm Sandy was bearing down, public transportation was suspended, and evacuation routes were already flooded. Emergency SCRAM occurred 10:40 PM in the middle of Super Storm Sandy, due to loss of off-site power, which had been expected.

December 26, 2012: Two natural gas pipelines that pass through the Indian Point nuclear power plant do not threaten the plant, according to the Nuclear Regulatory Commission, which is dismissing such a concern raised by two nuclear engineers.

January 7, 2013: 2nd Circuit Court of Appeals found the NRC failed to meet NEPA requirements by denying public participation by enacting a rule, to reduce Fire Safety Standards from 1 hour to 24 minutes, and approving it without providing public notice. To date, the underlying use of substandard fire insulation wrap, HemyC has not been retrofitted, for approximately \$500,000.

January 27 2013: Second Indian Point worker charged in copper wire theft

February 15, 2013: Indian Point 2 reactor temporarily closed after maintenance crews accidentally

tripped reactor shut down.

Jul. 3, 2013: Indian Point 2 shuts down reactor due to boiler pump issue, the unit's two main boiler feed pumps automatically stopped working. The pumps shut down because small tubes that carry water stopped working,

Jul. 17, 2013: Report lists Indian Point among reactors at 'risk of early retirement'

Jul. 23, 2013: Indian Point chemist arrested and charged with falsifying diesel fuel data
Fed allege he falsified diesel-fuel sample test data, in an apparent attempt to keep the plant from shutting down. Particulate matter in the fuel, which is used to power backup generators at the plant, exceeded Nuclear Regulatory Commission limits in 2011, tests then showed, imperiling the plant's continuing operation. Wilson fabricated the results of resample, showing particulate levels were below commission limits. and lied in a written report in advance of an NRC inspection.

Jul. 29, 2013: Indian Point 3 offline, Malfunctioning valve discovered. Control room operators shut down Unit 3 at the nuclear power plant in Buchanan around 5 a.m. because of a malfunctioning valve that controls the water flowing into the steam generators.

Jul. 31, 2013: Indian Point to cut up to 75 jobs. Earnings slump leads to company reductions across the U.S. The job cuts represent about 7 percent of Indian Point's approximately 1,100-person workforce and follow the company's announcement of a poor second-quarter financial performance.

Aug. 1, 2013: Indian Point reactor back on line after 3-day repair shutdown. Workers safely repaired a valve in Unit 3 that controls water flowing into one of four steam generators, Control room operators had shut down that unit's reactor around 5 a.m. Monday when the valve malfunctioned.