

**B. J. DeRonde**

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**To:** <BBNP.COLEIS@nrc.gov>  
**Cc:** "B. J. DeRonde" <psychndesign@verizon.net>; <derddafdl@verizon.net>; "PATRICIA PERLUKE" <ajlaquin@verizon.net>  
**Sent:** Tuesday, July 17, 2012 12:20 AM  
**Subject:** Comments and Concerns from Public on Bell Bend Project NUCLEAR REGULATORY COMMISSION [Docket No. 52-039; NRC-2008-0603]

**Barbara J. and Robert N. DeRonde**

**25 Hornbeck Ridge**

**Poughkeepsie, NY 12603**

**July 15,  
2012**

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**Cindy Bladey, Chief**

**Rules, Announcements, and Directives Branch (RADB)**

**Office of Administration**

**Mall Stop: TWB-05-B01M**

**U.S. Nuclear Regulatory Commission**

**Washington, DC 20555-0001**

**Re: NUCLEAR REGULATORY COMMISSION [Docket No. 52-039; NRC-2008-0603]**

**PPL Bell Bend, LLC; Bell Bend Nuclear Power Plant Combined  
License Application; Notice of Intent To Conduct a Supplemental Scoping  
Process on the Revised Site Layout  
AGENCY: Nuclear Regulatory Commission  
ACTION: Solicitation of public comment**

SUNSI Review Complete  
Template = ADM-013

ERFD5 = ADM-03  
Add =  
L. Quinn-Willingham (Aug 1)  
7/17/2012

**As owners of one-third of 83 +/- acres of developed land, formerly known as the Berwick-Beach Haven Speedway, located on the western side of Confers Lane, Village of Beach Haven, Salem Township, Luzerne County, Pennsylvania, whose northern boundary is adjacent to and contiguous with the southern boundary of the proposed Bell Bend project area, we feel compelled to inform you that we are most horrified by the location PPL has selected for its Bell Bend plant, especially its nuclear reactor. Though we do not live in PA, we feel extremely sorry for the poor souls who do, if this site plan is approved.**

**First, the Bell Bend nuclear reactor will be located approximately 1800 linear feet from our northern property line and slightly further away from one of our other neighbors on Confers Lane. Whose insane concept is this? As a licensed NYS Architect in private practice for 36 years, it is beyond my and my colleagues comprehension how anyone in their right mind could have derived a site plan, such as the one Ms. Amy Elliot of the U.S. A.C.E. provided us; this design reflects the mentality of some amateur, someone who just came out of college, who lives in cocoon or vacuum, who is out of touch with the real world.**

**Given all of the land that PPL acquired recently in Salem Township, it is readily apparent that PPL and their design team are not competent design engineers in terms of site plans, nor ethical ones, for no decent designer having any sense of moral character would ignore the impact and risk nuclear technology poses for human beings and animals. To shove a nuclear next to a populated area illustrates someone who is out of touch with events in the history of nuclear accidents and contamination of water supplies and children. It is the hubris of this narcissistic company and its representatives who distort the truth that we find most disturbing. Any publicly traded corporation that is run by a wise and mature C.E.O. would not have let this layout occur. The immature, narcissist hubris reflected in the Bell Bend site plan relates to a piece of information about a recent hostile takeover of another utility made by PPL in the country of Wales. Near the city of Cardiff is a reservoir and nature preserve that has been designated by the country as having scenic and scientific significance. Being a beautiful place, PPL acquired this land in the takeover. The country is not upset and up in arms, PPL announced that it will be constructing 300 new homes in this nature beautiful - anything for money. Some individuals have speculated that PPL's real motive is to use the water for a nuclear plant. Nothing appears to be sacred when PPL gets its hands on it. So much for being a good neighbor, who takes the time to understand the nature, culture, and values of the people.**

**The question for the Commissioners of the NRC and the EPA is: To what extent are you willing to sacrifice your values to damage the image of the current President or the future one, whoever that will be, by supporting literally a "deadly" site plan, one that places human beings at great risk of having their soil, air, and groundwater contaminated during and after construction. The mere fact that the neighbors on Confers Lane informed her that their water ran red for a few weeks during and after PPL had finished doing some test borings, suggests to me that the distance of the Bell Bend reactor is far too close for the preservation of health and safety for people.**

**The fact that PPL's revised layout may save PPL some money in not having to run more transmission lines is not our problem; it is their cost of doing business. There is a wise adage: Haste makes waste. The fact that PPL may have already installed additional transmission lines in anticipation of having their site plan approved is presumptive on**

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**PPL's part.**

To date, based upon the attendance of community members at the NRC's last public assessment meeting in February, community participation appeared to be very poor - most likely because the NRC and the EPA do not do as good a job as needed try and engage the community and seek out their opinions. Has any one of the federal agencies ever conducted a survey, sent someone house to house to ask how they feel about another reactor being in their back yard. Has anyone ever informed the public about the risks associated with aging nuclear power plants and groundwater contamination, so that they can make an informed decision as to whether they want to risk living in Salem Twp. any more. It is the only ethical and professional thing to do, regardless of the public relations consequences. Has any one ever bothered to send all of the property owners and residents of the township notice about the massive amount of ground water PPL will take out of the ground to construct the foundation for their reactor? Again this should not be a matter of notifying people whose property lines are contiguous with PPL; the groundwater removal work will have a widespread impact on the entire community which the youthful members of the Federal government do not seem to either understand, appreciate, or care enough about the citizens to inform them. It is better to inform people up front so they can move instead of making them angry in the future, which only results in lawsuits. The people and property owners of Salem Twp. are children of God and deserve to be treated with respect. This is why meetings should be publicized by the NRC, EPA, the SRBC, and the EPA not just one newspaper, but in all papers that cover the entire region. It should be a requirement of each project manager and a PPL employee to coordinate and notify the people well in advance. People don't read the Federal Register, let alone know about its existence. Again, this is an example of lack of communication between the government and people who live in the real world. Though PPL may not think that it is to their advantage to allow the people to become informed, the truth of the matter, partnerships last longer than fiefdoms and serfs. It is just our observation, the lack of communication between the government and the public, suggests to us that the public has no say, that our democracy has given way to an oligarchy.

Who is going to take the time to organize a meeting on this issue soon, as it not one that should wait or occur a year from now? The NRC and PPL need to be more transparent with the public and keep a majority of the people informed about his project as it affects human lives, personal property, and property values; this project is something that should be taken lightly by anyone.

Concerning, NRC requirements for nuclear plant setbacks from the property line of adjacent property owners, the NRC's response was late in forthcoming to us; it took almost six months from the time we asked; this is unacceptable, as it prevents the citizen from being able to make comments in a timely manner. Setback requirements are so basic and so important that almost every town and village have them in the United States. Given its importance, the required setback requirement in actual distances should be at the finger tips of every Project Manager within minutes. The NRC stays on top of what is happening in the world of nuclear energy, yet it is so behind on having something so basic to protecting children and the public. It is imperative for NRC to have such an official book of regulations. The public cannot trust the licensees to make a sound and safe determination; the health implications of the public are too great. Nuclear accident history is replete with accidents. If such a task were to be left up the licensee, this would be analogous to me letting my teenage nephew

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**drive my Mercedes any time he wanted and return it any time it pleased him.**

**The public are not idiots; do not treat as though we are. If the NRC does not have such manual yet, the Bell Bend project should be shelved until one is crafted with the assistance of the country's best minds in the field of nuclear and environmental medicine, environment toxicology, physiopathology, including nuclear engineering. Having read the June 2011 report published by the GAO titled Nuclear Regulatory Commission Oversight of Underground Piping Systems Commensurate with Risk, but Proactive Measures Could Help Address Future Leaks. As a result of reading this document, we have gained a great deal of insight into a major problem at nuclear plants and its possible relationship to groundwater contamination and cancer. We are glad to learn about such a document and the work of the GAO and Senator Boxer's and Congressman Markey's work. Andrew Roseburg also was most helpful in helping my wife get started with some of her research and we appreciated this very much.**

**It appears to us that perhaps the NRC needs to pay attention not only to the licensees, but to the public as well. Nuclear reactors are not gym set or garden sheds; the sleeping giant in reactors can kill. If the NRC does not have book on setback requirements for reactors soon, we recommend that the NRC shelve the Bell Bend project until one is developed. The risks are too high. Such documents are basic to any planning or architecture department; we cannot believe that the engineering firm PPL employed for their site design had never heard of this requirement. We do not believe the document Ms. Laura Quinn-Willingham sent us; it looks too much like something she had written. Setbacks requirements are even found in the national building code. In speaking about what my wife had received from Laura Quinn-Willingham - that the NRC allows the licensee to determine what the setback requirements will be, my wife shared this information with an acquaintance who is a cancer researcher and who works for Pfizer Pharmaceutical. On learning about this absence of regulation, our friend's response was "Tell the young lady to go back and do her homework! If this is all that the NRC can say about setback requirements, the public is like a sitting goose waiting to be cooked to death."**

**Is the NRC and the EPA willing to sacrifice their principles for a group of executives, who by their very actions, subconsciously communicate how they really feel about the people, the children and the community? Given that the site plans we have, they appear to have been designed by amateurs, who are out of touch with reality, who failed to incorporate the human factors of the environment. We would prefer that Bell Bend project be shelved for a safer, more cost effective energy alternative - a natural gas-fired plant, but not anywhere near the existing Susquehanna reactor on our property. The needs of the people, who have owned these lands, and homes, far longer than PPL did have been totally ignored. This site plan was developed by someone or a team of people who live in a vacuum, who put the needs of themselves first. This design is an example of a selfish designer, who is concerned more about saving money than saving lives. People who are devoid of consideration for the community are dangerous.**

**Lastly, our 83 acre property contains a man-made stocked lake and former raceway (now covered with lawn). Our lake is fed by underground springs, adjacent ponds on our land but which are fed by streams that come off PPL property. Any disturbance to the water features on their land will severely impact our lake and our fish, which have been there since the late 1960's, when it had been engineered and constructed under the direction of Mr. George Perlucke, Barbara DeRonde's father. We would appreciate it very much after conducting the human**

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factors and the impact this nuclear power plant or even gas-fired plant would have upon our street's environment. As a Licensed Architect for 36 years, I am horrified to think that any decent engineering firm would locate a nuclear reactor so close to a residential area, particularly, when the world has witnessed such horrible disasters over the past 50 years. It would be in the best interests of all families on this street if PPL's President and CEO, William H. Pence and Team of Engineers reconsider their strategy per what my wife has written. The cost to good will is not worth what will follow if they proceed with their plans. I agree with my wife Barbara that the safest, most cost effective solution is for PPL to move toward a gas-fired, but not in close proximity to the people on Confers Lane or anywhere near their existing reactors for fire safety reasons. Based upon consultation with a professional hydrogeological engineering firm, the water in our, the undergrounds springs that feed our lake along with a steam that comes off of the PPL project area that feeds our ponds, we anticipate the massive amount of groundwater which PPL plans on withdrawing will severely deplete our supply of fresh water as well as stress and kill our fish. No one to date has responded to us, where we have previously voiced the seriousness of this matter to the NRC as well as the UISACE. How are you going to protect the people, their natural and man-made resources and features from being totally destroyed. It does not appear that this project has been very thought out in terms of its impact on the human beings who live and own property on Confers Lane and within the Village of Beach Haven and the Town of Berwick.

**Should you go ahead with this license, PPL must pay for all of the needed services to sample, test, monitor, and write reports for us daily for three or more years, or whatever it takes to protect our lake, our wells, our air, fish, trees, and soil. PPL must pay for all the test and services our independent consultants determine we need.**

In summary, we are asking that PPL not be granted another license to construct or operate another nuclear power plant anywhere on or near Confers Lane, or anywhere near Beach Haven, Salem Township, PA. Based upon what I have read and been told, PPL appears to have difficulty being able to operate safely and satisfactorily its two existing reactors at their Susquehanna nuclear plant. PPL's poor performance should not be rewarded with another opportunity to jeopardize the health and safety of the people and environment of Northeastern Pennsylvania, its rivers, streams, soil, and the Treasury of the people of the United States. The lives of the people of Salem Township, Luzerne County, the Susquehanna River and the Chesapeake Bay (a major food source for the East Coast) have been exploited and poisoned long enough. It is time for PPL to mature and to move on to a safer technology for producing energy for its executives and stockholders as it produces energy for use in New York City & New Jersey.

Respectfully yours,

Robert N. Deronde, R.A.,

7/17/2012

**Barbara J. DeRonde, B.I.D., M.B.A. (Fin.), M.A. (Rel. Studies), M.A. (Com. Psy.), M.S. (Clin. Psy.),**

**and**

**Patricia A. Perlake, B.A. (Commun.) M.B.A, M.A. Co-owner**

**1118 Emerald Drive, Bel Air, MD 21014**

**Source: Wikipedia**

### **U.S. Nuclear Accidents**

- **Compiled by allen lutins ([allen@lutins.org](mailto:allen@lutins.org))**
- **<http://www.lutins.org/nukes.html>**
- **Last updated 24 April 2012**
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#### **Research Facilities**

**2 September 1944**

Peter Bragg and Douglas Paul Meigs, two Manhattan Project chemists, were killed when their attempt to unclog a tube in a uranium enrichment device led to an explosion of radioactive uranium hexafluoride gas exploded at the Naval Research Laboratory in Philadelphia, PA. The explosion ruptured nearby steam pipes, leading to a gas and steam combination that bathed the men in a scalding, radioactive, acidic cloud of gas which killed them a short while later.

**21 August 1945**

Harry K. Daghlian Jr. was killed during the final stages of the Manhattan Project (undertaken at Los Alamos, New Mexico to develop the first atomic bomb) from a radiation burst released when a critical assembly of fissile material was accidentally brought together by hand. This incident pre-dated remote-control assembly of such components, but the hazards of manual assembly were known at the time (the accident occurred during a procedure known as "tickling the dragon's tail"). A similar incident, involving another fatality, occurred the following year (see [next entry](#)), after which hand-manipulations of critical assemblies was abandoned.

**21 May 1946**

A nuclear criticality accident occurred at the Los Alamos Scientific Laboratory in New Mexico. Eight people were exposed to radiation, and one, Louis Slotin, died nine days later of acute radiation sickness.

**29 November 1955**

EBR (Experimental Breeder Reactor) I, located near Arco, Idaho, experienced a partial core meltdown. EBR I, which commenced operating in 1951 and was decommissioned in 1964, was

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the world's first nuclear power plant.

**2 July 1956**

Nine persons were injured when two explosions destroyed a portion of Sylvania Electric Products' Metallurgy Atomic Research Center in Bayside, Queens, New York.

**1957**

A radiation release at the the Keleket company resulted in a five-month decontamination at a cost of \$250,000. A capsule of radium salt (used for calibrating the radiation-measuring devices produced there) burst, contaminating the building for a full five months.

**30 December 1958**

A chemical operator was exposed to a lethal dose of radiation following an incident involving the mixing of plutonium solutions, dying 35 hours later of severe radiation exposure.

**26 July 1959**

A clogged coolant channel resulted in damage to 30% of the fuel elements at the Santa Susana Field Laboratory (now known as the Boeing-Rocketdyne Nuclear Facility) in the Simi Hills area of Ventura County, California. Later discovery of the incident prompted a class-action suit by local residents, who successfully sued for \$30 million over cancer and thyroid abnormalities contracted due to their proximity to the facility.

**2 April 1962**

An "unplanned nuclear excursion" occurred in a plutonium processing facility in Richland, Washington. Several employees were hospitalized for observation following exposure to the resultant radiation, and radiation was detected in the surrounding atmosphere for several days following the incident.

**26 March 1963**

A mechanical failure led to a nuclear leak and subsequent fire at an experimental facility in Livermore, California, resulting in serious damage to the shielded vault where the experiment was conducted.

**5 October 1966**

A sodium cooling system malfunction caused a partial core meltdown at Detroit Edison's Enrico Fermi I demonstration breeder reactor near Detroit, Michigan. Radioactive gases leaked into the containment structures, but radiation was reportedly contained. The incident is documented in John Fuller's We Almost Lost Detroit.

**1974**

Whistleblowers at the Isomedix company in New Jersey reported that radioactive water was flushed down toilets and had contaminated pipes leading to sewers. The same year a worker received a dose of radiation considered lethal, but was saved by prompt hospital treatment.

**1982**

International Nutronics in Dover, New Jersey, which used radiation baths to purify gems, chemicals, food, and medical supplies, experienced an accident that completely contaminated the plant, forcing its closure. A pump malfunctioned, siphoning water from the baths onto the floor; the water eventually was drained into the sewer system of the heavily populated town of Dover. The NRC wasn't informed of the accident until ten months later -- and then by a

whistleblower, not the company. In 1986, the company and one of its top executives were convicted by a federal jury of conspiracy and fraud. Radiation has been detected in the vicinity of the plant, but the NRC claims the levels "aren't hazardous."

**1986**

The NRC revoked the license of a Radiation Technology, Inc. (RTI) plant in New Jersey for repeated worker safety violations. RTI was cited 32 times for various violations, including throwing radioactive garbage out with the regular trash. The most serious violation was bypassing a safety device to prevent people from entering the irradiation chamber during operation, resulting in a worker receiving a near-lethal dose of radiation.

**ca. December 1991**

One of four cold fusion cells in a Menlo Park, CA, laboratory exploded while being moved; electrochemist Andrew Riley was killed and three others were injured. The other three cells were buried on site, leading to rumors that a nuclear reaction had taken place. A report concluded that it was a chemical explosion; a mixture of oxygen and deuterium produced by electrolysis ignited when a catalyst was exposed. The Electric Power Research Institute, which spent \$2 million on the SRI cold fusion research, suspended support for the work pending the outcome of an investigation.

**1996**

Radioactive tritium and strontium (the latter at up to 70 times the drinking water standard) were found to have contaminated groundwater around Brookhaven National Laboratory in Upton, NY during a routing shutdown. The details are covered in a report by the U.S. Nuclear Regulatory Commission.

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## **Power Plants**

**3 January 1961**

The world's first nuclear-related fatalities occurred following a reactor explosion at the National Reactor Testing Station in Idaho Falls, Idaho. Three technicians, were killed, with radioactivity "largely confined" (words of John A. McCone, Director of the Atomic Energy Commission) to the reactor building. The men were killed as they moved fuel rods in a "routine" preparation for the reactor start-up. One technician was blown to the ceiling of the containment dome and impaled on a control rod. His body remained there until it was taken down six days later. The men were so heavily exposed to radiation that their hands had to be buried separately with other radioactive waste, and their bodies were interred in lead coffins. Another incident three weeks later (on 25 January) resulted in a release of radiation into the atmosphere.

**24 July 1964**

Robert Peabody, 37, died at the United Nuclear Corp. fuel facility in Charlestown, Rhode Island, when liquid uranium he was pouring went critical, starting a reaction that exposed him to a lethal dose of radiation.

**19 November 1971**

The water storage space at the Northern States Power Company's reactor in Monticello, Minnesota filled to capacity and spilled over, dumping about 50,000 gallons of radioactive waste water into the Mississippi River. Some was taken into the St. Paul water system.



**March 1972**

Senator Mike Gravel of Alaska submitted to the Congressional Record facts surrounding a routine check in a nuclear power plant which indicated abnormal radioactivity in the building's water system. Radioactivity was confirmed in the plant drinking fountain. Apparently there was an inappropriate cross-connection between a 3,000 gallon radioactive tank and the water system.

**27 July 1972**

Two workers at the Surry Unit 2 facility in Virginia were fatally scalded after a routine valve adjustment led to a steam release in a gap in a vent line. [See also 9 December 1986]

**28 May 1974**

The Atomic Energy Commission reported that 861 "abnormal events" had occurred in 1973 in the nation's 42 operative nuclear power plants. Twelve involved the release of radioactivity "above permissible levels."

**22 March 1975**

A technician checking for air leaks with a lighted candle caused \$100 million in damage when insulation caught fire at the Browns Ferry reactor in Decatur, Alabama. The fire burned out electrical controls, lowering the cooling water to dangerous levels, before the plant could be shut down.

**28 March 1979**

A major accident at the Three Mile Island nuclear plant near Middletown, Pennsylvania. At 4:00 a.m. a series of human and mechanical failures nearly triggered a nuclear disaster. By 8:00 a.m., after cooling water was lost and temperatures soared above 5,000 degrees, the top portion of the reactor's 150-ton core melted. Contaminated coolant water escaped into a nearby building, releasing radioactive gasses, leading as many as 200,000 people to flee the region. Despite claims by the nuclear industry that "no one died at Three Mile Island," a study by Dr. Ernest J. Sternglass, professor of radiation physics at the University of Pittsburgh, showed that the accident led to a minimum of 430 infant deaths.

**1981**

The Critical Mass Energy Project of Public Citizen, Inc. reported that there were 4,060 mishaps and 140 serious events at nuclear power plants in 1981, up from 3,804 mishaps and 104 serious events the previous year.

**11 February 1981**

An Auxiliary Unit Operator, working his first day on the new job without proper training, inadvertently opened a valve which led to the contamination of eight men by 110,000 gallons of radioactive coolant sprayed into the containment building of the Tennessee Valley Authority's Sequoyah I plant in Tennessee.

**July 1981**

A flood of low-level radioactive wastewater in the sub-basement at Nine Mile Point's Unit 1 (in New York state) caused approximately 150 55-gallon drums of high-level waste to overturn, some of which released their highly radioactive contents. Some 50,000 gallons of low-level radioactive water were subsequently dumped into Lake Ontario to make room for the cleanup. The discharge was reported to the Nuclear Regulatory Commission, but the sub-basement contamination was not. A report leaked to the press 8 years later resulted in a study which

found that high levels of radiation persisted in the still flooded facility.

#### 1982

The Critical Mass Energy Project of Public Citizen, Inc. reported that 84,322 power plant workers were exposed to radiation in 1982, up from 82,183 the previous year.

#### 25 January 1982

A steam generator pipe broke at the Rochester Gas & Electric Company's Ginna plant near Rochester, New York. Fifteen thousand gallons of radioactive coolant spilled onto the plant floor, and small amounts of radioactive steam escaped into the air.

#### 15-16 January 1983

Nearly 208,000 gallons of water with low-level radioactive contamination was accidentally dumped into the Tennessee River at the Browns Ferry power plant.

#### 25 February 1983

A catastrophe at the Salem 1 reactor in New Jersey was averted by just 90 seconds when the plant was shut down manually, following the failure of automatic shutdown systems to act properly. The same automatic systems had failed to respond in an incident three days before, and other problems plagued this plant as well, such as a 3,000 gallon leak of radioactive water in June 1981 at the Salem 2 reactor, a 23,000 gallon leak of "mildly" radioactive water (which splashed onto 16 workers) in February 1982, and radioactive gas leaks in March 1981 and September 1982 from Salem 1.

#### 9 December 1986

A feedwater pipe ruptured at the Surry Unit 2 facility in Virginia, causing 8 workers to be scalded by a release of hot water and steam. Four of the workers later died from their injuries. In addition, water from the sprinkler systems caused a malfunction of the security system, preventing personnel from entering the facility. This was the second time that an incident at the Surry 2 unit resulted in fatal injuries due to scalding [see also 27 July 1979].

#### 1988

It was reported that there were 2,810 accidents in U.S. commercial nuclear power plants in 1987, down slightly from the 2,836 accidents reported in 1986, according to a report issued by the Critical Mass Energy Project of Public Citizen, Inc.

#### 28 May 1993

The Nuclear Regulatory Commission released a warning to the operators of 34 nuclear reactors around the country that the instruments used to measure levels of water in the reactor could give false readings during routine shutdowns and fail to detect important leaks. The problem was first brought to light by an engineer at Northeast Utilities in Connecticut who had been harassed for raising safety questions. The flawed instruments at boiling-water reactors designed by General Electric utilize pipes which were prone to being blocked by gas bubbles; a failure to detect falling water levels could have resulted, potentially leading to a meltdown.

#### 15 February 2000

New York's Indian Point II power plant vented a small amount of radioactive steam when a an aging steam generator ruptured. The Nuclear Regulatory Commission initially reported that no radioactive material was released, but later changed their report to say that there was a leak, but not of a sufficient amount to threaten public safety.

**6 March 2002**

Workers discovered a foot-long cavity eaten into the reactor vessel head at the Davis-Besse nuclear plant in Ohio. Borated water had corroded the metal to a 3/16 inch stainless steel liner which held back over 80,000 gallons of highly pressurized radioactive water. In April 2005 the Nuclear Regulatory Commission proposed fining plant owner First Energy 5.4 million dollars for their failure to uncover the problem sooner (similar problems plaguing other plants were already known within the industry), and also proposed banning System Engineer Andrew Siemaszko from working in the industry for five years due to his falsifying reactor vessel logs. As of this writing the fine and suspension were under appeal.

**November 2005**

High tritium levels, the result of leaking pipes, were discovered to have contaminated groundwater immediately adjacent to the Braidwood Generating Station in Braceville, Illinois.

**May 2011**

The U.S. Nuclear Regulatory Commission commenced meetings to discuss problems at a nuclear reactor in Braidwood, Illinois. Findings included the release of six million gallons of water containing radioactive tritium into the local aquifer, improper wiring of an alarm system intended to warn plant workers of problems, and a flaw in the plant's backup water supply.

**June 2011**

An AP investigation revealed that three quarters of all nuclear plants in the U.S. were found to be leaking radioactive tritium. Over half the plants studied had concentrations exceeding the federal drinking water standard, and while none had reached public drinking supplies, leaks at three plants had contaminated the drinking wells of nearby homes.

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## **Bombs and Bombers**

**13 February 1950**

A B-36 en route from Alaska to Carswell Air Force Base in Fort Worth, Texas, developed serious mechanical difficulties, complicated by severe icing conditions. The crew headed out over the Pacific Ocean and dropped the nuclear weapons from 8,000 feet off the coast of British Columbia. The weapons' high-explosive material detonated on impact, but the crew parachuted to safety.

**11 April 1950**

A B-29 carrying a nuclear weapon crashed into a mountain near Manzano Base in Albuquerque, New Mexico, killing all 13 crewmembers aboard.

**August 1950**

One of a fleet of B-29s carrying Mark IV nuclear bombs crashed at Fairfield-Suisun Air Force Base in California, killing 12 of the 20 crewmembers aboard; the resultant explosion of the conventional explosives killed another 7 people on the ground. The base was later re-named for General Robert Travis, who commanded (and was one of the casualties in) the aircraft.

**10 November 1950**

A B-50 en route to Davis-Monthan Air Force Base in Tucson, Arizona, was forced to jettison a nuclear weapon over the St. Lawrence River near St. Alexandre-de-Kamouraska, Canada.

**10 March 1956**

A B-47 with two nuclear weapons aboard disappeared over the Mediterranean Sea after flying out of MacDill Air Force Base in Tampa, Florida. An exhaustive search failed to locate the aircraft, its weapons, nor its crew.

**27 July 1956**

A U.S. B-47 practicing a touch-and-go landing at Lakenheath Royal Air Force Station near Cambridge, England went out of control and smashed into a storage igloo housing three Mark 6 nuclear bombs, each of which had about 8,000 pounds of TNT in its trigger mechanism. No crewmen were killed, and fire fighters were able to extinguish the blazing jet fuel before it ignited the TNT.

**22 May 1957**

A 10 megaton hydrogen bomb was accidentally dropped from a bomber in an uninhabited area near Albuquerque, New Mexico owned by the University of New Mexico. The conventional explosives detonated, creating a 12 foot deep crater 25 feet across in which some radiation was detected.

**28 July 1957**

A C-124 Globemaster transporting three nuclear weapons and a nuclear capsule from Dover Air Force Base in Delaware to Europe experienced loss of power in two engines. The crew jettisoned two of the weapons somewhere east of Rehobeth, Del., and Cape May/Wildwood, New Jersey. A search for the weapons was unsuccessful and it is a fair assumption that they still lie at the bottom of the ocean.

**11 October 1957**

A B-47 carrying a single nuclear weapon crashed shortly after takeoff. The weapon was partially destroyed in the ensuing fire, but the nuclear core was recovered intact.

**31 January 1958**

Unbeknownst to Moroccan officials, a B-47 loaded with a fully-armed nuclear weapon collapsed and caught fire on the runway at a U.S. Strategic Air Command base 90 miles northeast of Rabat. The Air Force considered evacuating the base, but instead allowed the bomber to continue to burn for seven hours. During cleanup operations a large number of vehicles and aircraft were contaminated with radiation.

**5 February 1958**

A B-47 carrying a Mark 15, Mod 0, nuclear bomb on a simulated combat mission from Homestead Air Force Base in Florida collided with an F-86. After three unsuccessful attempts to land at Hunter Air Force Base in Georgia, the B-47 crew jettisoned the nuclear bomb into the Atlantic Ocean off Savannah. The Air Force conducted a nine-week search of a 3-square-mile area in Wassaw Sound where the bomb was dropped, but declared on April 16 that the bomb was irretrievably lost. More details can be read on this [Wikipedia article](#).

**11 March 1958**

A B-47 on its way from Hunter Air Force Base in Georgia to an overseas base accidentally dropped an unarmed nuclear weapon into the garden of Walter Gregg and his family in Mars Bluff, South Carolina. The conventional explosives detonated, destroying Gregg's house and injuring six family members. The blast resulted in the formation of a crater 50-70 feet wide and 25-30 feet deep. Five other houses and a church were also damaged; five months later the Air

Force paid the Greggs \$54,000 in compensation.

4 November 1958

A B-47 carrying a nuclear weapon caught fire and crashed during takeoff from Dyess Air Force Base in Abilene, Texas, killing one crew member.

26 November 1958

A B-47 caught fire on the ground at Chennault Air Force Base in Lake Charles, Louisiana, destroying a nuclear weapon onboard, resulting in minor radioactive contamination of the immediate vicinity.

15 October 1959

A B-52 with two nuclear bombs collided in mid-air with a KC-135 jet tanker and crashed near Hardinsburg, Kentucky. Both bombs were recovered intact, but eight crewmembers lost their lives.

7 June 1960

A BOMARC-A nuclear missile burst into flames after its fuel tank was ruptured by the explosion of a high pressure helium tank at McGuire Air Force Base in New Egypt, New Jersey. The missile melted, causing plutonium contamination at the facility and in the ground water below.

21 January 1961

A B-52 bomber carrying one or more nuclear weapons disintegrated in midair following an engine fire and explosion approximately 10 miles north of Monticello, Utah, killing all five crewmembers.

24 January 1961

A B-52 bomber suffered structural failure and disintegrated in mid-air 12 miles north of Seymour Johnson Air Force Base in Goldsboro, NC, releasing two hydrogen bombs. Five crewmen parachuted to safety, while three others died when the aircraft exploded in mid-air. The bombs jettisoned as the plane descended, one parachuting to earth intact, the other plunging deep into waterlogged farmland. To this day, parts of the nuclear bomb remain embedded deep in the muck. The area is off-limits, and is tested regularly for radiation releases. More information can be found at the *Broken Arrow: Goldsboro, NC* site at [www.ibiblio.org/bomb/](http://www.ibiblio.org/bomb/).

14 March 1961

A B-52 with nuclear bombs crashed in California while on a training mission.

13 January 1964

A B-52 with two nuclear weapons crashed near Cumberland, Maryland.

8 December 1964

A B-58 slid off a runway at Bunker Hill (now Grissom) Air Force Base in Peru, Indiana. The resulting fire consumed portions of five onboard nuclear weapons, leading to radioactive contamination of the surrounding area.

5 December 1965

An A-4E aircraft accidentally fell overboard off the USS Toconderoga, with the loss of pilot LTJG D.M. Webster and a nuclear weapon. The incident, which occurred in the Pacific Ocean approximately 200 miles east of Okinawa, was not reported by the Department of Defense until

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1981.

17 January 1966

A B-52 collided with an Air Force KC-135 jet tanker while refueling over the coast of Spain, killing eight of the eleven crew members and igniting the KC-135's 40,000 gallons of jet fuel. Two hydrogen bombs ruptured, scattering radioactive particles over the fields of Palomares; a third landed intact near the village of Palomares; the fourth was lost at sea 12 miles off the coast of Palomares and required a search by thousands of men working for three months to recover it. Approximately 1,500 tons of radioactive soil and tomato plants were removed to the U.S. for burial at a nuclear waste dump in Aiken, S.C. The U.S. eventually settled claims by 522 Palomares residents at a cost of \$600,000, and gave the town the gift of a \$200,000 desalinizing plant.

22 January 1968

A B-52 crashed 7 miles south of Thule Air Force Base in Greenland, scattering the radioactive fragments of three hydrogen bombs over the terrain and dropping one bomb into the sea after a fire broke out in the navigator's compartment. Contaminated ice and airplane debris were sent back to the U.S., with the bomb fragments going back to the manufacturer in Amarillo, Texas. The incident outraged the people of Denmark (which owned Greenland at the time, and which prohibits nuclear weapons over its territory) and led to massive anti-U.S. demonstrations. One of the warheads was reportedly recovered by Navy Seals and Seabees in 1979, but an August 2000 report suggests that in fact it may still be lying at the bottom of Baffin Bay. Additional details, including footage of the recovery efforts, can be viewed at [news.bbc.co.uk/2/hi/europe/7720049.stm](http://news.bbc.co.uk/2/hi/europe/7720049.stm) courtesy of the BBC.

2 November 1981

A fully-armed Poseidon missile was accidentally dropped 17 feet from a crane in Scotland during a transfer operation between a U.S. submarine and its mother ship.

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## Submarines and Ships

*Some of the following incidents involve the discharge of radioactive coolant water by ships and submarines. While water from the primary coolant system stays radioactive for only a few seconds, it picks up bits of cobalt, chromium and other elements (from rusting pipes and the reactor) which remain radioactive for years. In realization of this fact, the U.S. Navy has curtailed its previously frequent practice of dumping coolant at sea.*

18 April 1959

An experimental sodium-cooled reactor utilized aboard the USS Seawolf, the U.S.'s second nuclear submarine, was scuttled in 9,000 feet of water off the Delaware/Maryland coast in a stainless steel containment vessel. The reactor was plagued by persistent leaks in its steam system (caused by the corrosive nature of the sodium) and was later replaced with a more conventional model. The reactor is estimated to have contained 33,000 curies of radioactivity and is likely the largest single radioactive object ever dumped deliberately into the ocean. Subsequent attempts to locate the reactor proved to be futile.

October 1959

One man was killed and another three were seriously burned in the explosion and fire of a prototype reactor for the USS Triton at the Navy's training center in West Milton, New York. The

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Navy stated, "The explosion...was completely unrelated to the reactor or any of its principal auxiliary systems," but sources familiar with the operation claim that the high-pressure air flask which exploded was utilized to operate a critical back-up system in the event of a reactor emergency.

1961

The USS Theodore Roosevelt was contaminated when radioactive waste from its demineralization system, blew back onto the ship after an attempt to dispose of the material at sea. This happened on other occasions as well with other ships (for example, the USS Guardfish in 1975).

10 April 1963

The nuclear submarine Thresher imploded during a test dive east of Boston, killing all 129 men aboard.

5 December 1965

*This write-up is drawn from the US Nuclear Weapons Accidents page at [www.cdi.org/issues/NukeAccidents/accidents.htm](http://www.cdi.org/issues/NukeAccidents/accidents.htm).*

An A-4E Skyhawk strike aircraft carrying a nuclear weapon rolled off an elevator on the U.S. aircraft carrier Ticonderoga and fell into the sea. Because the bomb was lost at a depth of approximately 16,000 feet, Pentagon officials feared that intense water pressure could have caused the B-43 hydrogen bomb to explode. It is still unknown whether an explosion did occur. The pilot, aircraft, and weapon were lost.

The Pentagon claimed that the bomb was lost "500 miles away from land." However, it was later revealed that the aircraft and nuclear weapon sank only miles from the Japanese island chain of Ryukyu. Several factors contributed to the Pentagon's secretiveness. The USS Ticonderoga was returning from a mission off North Vietnam; confirming that the carrier had nuclear weapons aboard would document their introduction into the Vietnam War. Furthermore, Japan's anti-nuclear law prohibited the introduction of atomic weapons into its territory, and U.S. military bases in Japan are not exempt from this law. Thus, confirming that the USS Ticonderoga carried nuclear weapons would signify U.S. violation of its military agreements with Japan. The carrier was headed to Yokosuka, Japan, and disclosure of the accident in the mid-1980s caused a strain in U.S.-Japanese relations.

1968

Radioactive coolant water may have been released by the USS Swordfish, which was moored at the time in Sasebo Harbor in Japan. According to one source, the incident was alleged by activists but a nearby Japanese government vessel failed to detect any such radiation leak. The purported incident was protested bitterly by the Japanese, with Premier Eisaku Sato warning that U.S. nuclear ships would no longer be allowed to call at Japanese ports unless their safety could be guaranteed.

22 May 1968

The U.S.S. Scorpion, a nuclear-powered attack submarine carrying two Mark 45 ASTOR torpedoes with nuclear warheads, sank mysteriously on this day. It was eventually photographed lying on the bottom of the ocean, where all ninety-nine of its crew were lost. Details of the accident remained classified until November 1993, when a Navy report detailing the incident was made public. The report suggested that a malfunction in one of Scorpion's

torpedoes could have caused the sinking, but evidence from subsequent dives to the location suggest that this was not the culprit.

**14 January 1969**

A series of explosions aboard the nuclear aircraft carrier Enterprise left 17 dead and 85 injured.

**16 May 1969**

The U.S.S. Guitarro, a \$50 million nuclear submarine undergoing final fitting in San Francisco Bay, sank to the bottom as water poured into a forward compartment. A House Armed Services subcommittee later found the Navy guilty of "inexcusable carelessness" in connection with the event.

**12 December 1971**

Five hundred gallons of radioactive coolant water spilled into the Thames River near New London, Connecticut as it was being transferred from the submarine Dace to the sub tender Fulton.

**October-November 1975**

The USS Proteus, a disabled submarine tender, discharged significant amounts of radioactive coolant water into Guam's Apra Harbor. A geiger counter check of the harbor water near two public beaches measured 100 millirems/hour, fifty times the allowable dose.

**22 May 1978**

Up to 500 gallons of radioactive water was released when a valve was mistakenly opened aboard the USS Puffer near Puget Sound in Washington.

**November 1992**

Due to a valve failure, the nuclear-powered USS Long Beach leaked 109 gallons of radioactive cooling water over a 44-day period while docked at San Diego Naval Station. An additional 50 gallons had leaked out there the previous April and May. The *San Diego Union* reported that coolant had also been released at Pearl Harbor (Hawaii) and Indian Island (Washington). U.S. Navy officials insist that the level of radiation posed no threat, and that a "very small amount of valve leakage that is unavoidable and occurs on all ships is well understood, controlled and accounted for."

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## **Nuclear Bomb Tests and Testing Facilities**

**26 April 1953**

Radioactive rain, the result of above-ground nuclear tests, fell on Troy, New York.

**5 September 1961**

President Kennedy ordered the resumption of nuclear testing, "underground, with no fallout."

**10 December 1961**

Clouds of radioactive steam escaped from an underground nuclear test, closing several New Mexico highways.

**4 June 1962** The Bluegill nuclear test, designed to detonate a nuclear device in the



atmosphere, was aborted 10 minutes after launch when the missile tracking system failed prior to nuclear detonation. The nuclear device was lost at sea.

20 June 1962 A failure of the Starfish nuclear test, designed to detonate a nuclear device in space, caused radioactive debris to be scattered across Johnston Island in the Pacific Ocean.

9 December 1968

Clouds of radioactive steam from a nuclear test in Nevada broke through the ground, releasing fallout and violating the Limited Nuclear Test Ban Treaty signed 5 years earlier.

18 December 1970

An underground nuclear test in Nevada resulted in a cloud of radioactive steam to be thrust 8,000 feet in the air over Wyoming.

15 July 1999

A spokesperson for President Clinton announced that thousands of contract workers at U.S. nuclear weapons facilities, exposed to toxic and radioactive substances during the previous 50 years, could seek federal compensation for related illnesses.

## **Processing, Storage, Shipping and Disposal**

*From 1946 to 1970 approximately 90,000 cannisters of radioactive waste were jettisoned in 50 ocean dumps up and down the East and West coasts of the U.S., including prime fishing areas, as part of the early nuclear waste disposal program from the military's atomic weapons program. The waste also included contaminated tools, chemicals, and laboratory glassware from weapons laboratories, and commercial/medical facilities*

11 September 1957

A fire at the Rocky Flats Nuclear Weapons Plant near Denver, Colorado led to a serious release of plutonium dust and smoke into the atmosphere. Another serious fire occurred at the same plant in 1969 (see entry).

December 1962

A summary report was presented at an Atomic Energy Commission symposium in Germantown, Maryland, listing 47 accidents involving shipment of nuclear materials to that date, 17 of which were considered "serious."

11 May 1969

A plutonium fire broke out in Building 776 at the Atomic Energy Commission's Rocky Flats Nuclear Weapons Plant. Plutonium was released into the atmosphere and tracked out of the building on the boots of firefighters, and several buildings at the factory were so badly contaminated that they had to be dismantled.

1971

After experimenting with disposal of radioactive waste in salt, the Atomic Energy Commission announced that "Project Salt Vault" would solve the waste problem. But when 180,000 gallons of contaminated water was pumped into a borehole; it promptly and unexpectedly disappeared. The project was abandoned two years later.

**1972**

The West Valley, NY fuel reprocessing plant was closed after 6 years in operation, leaving 600,000 gallons of high-level wastes buried in leaking tanks. The site caused measurable contamination of Lakes Ontario and Erie.

**December 1972**

A major fire and two explosions occurred at a Pauling, New York plutonium fabrication plant. An undetermined amount of radioactive plutonium was scattered inside and outside the plant, resulting in its permanent shutdown.

**1979**

The Critical Mass Energy Project (part of Ralph Nader's Public Citizen, Inc.) tabulated 122 accidents involving the transport of nuclear material in 1979, including 17 involving radioactive contamination.

**16 July 1979**

A dam holding radioactive uranium mill tailings broke, sending an estimated 100 million gallons of radioactive liquids and 1,100 tons of solid wastes downstream at Church Rock, New Mexico.

**August 1979**

Highly enriched uranium was released from a top-secret nuclear fuel plant near Erwin, Tennessee. About 1,000 people were contaminated with up to 5 times as much radiation as would normally be received in a year. Between 1968 and 1983 the plant "lost" 234 pounds of highly enriched uranium, forcing the plant to be closed six times during that period.

**January 1980**

A 5.5 Richter earthquake at Lawrence Livermore National Laboratory, where large amounts of nuclear material are kept, caused a tritium leak.

**19 September 1980**

An Air Force repairman doing routine maintenance in a Titan II ICBM silo in Damascus, Arkansas dropped a wrench socket, which rolled off a work platform and fell to the bottom of the silo. The socket struck the missile, causing a leak from a pressurized fuel tank. The missile complex and surrounding areas were evacuated. Eight and a half hours later, the fuel vapors ignited, causing an explosion which killed an Air Force specialist and injured 21 others. The explosion also blew off the 740-ton reinforced concrete-and-steel silo door and catapulted the warhead 600 feet into the air. The silo has since been filled in with gravel, and operations have been transferred to a similar installation at Rock, Kansas.

**21 September 1980**

Two canisters containing radioactive materials fell off a truck on New Jersey's Route 17. The driver, en route from Pennsylvania to Toronto, did not notice the missing cargo until he reached Albany, New York.

**1983**

The Department of Energy confirmed that 1,200 tons of mercury had been released over the years from the Y-12 Nuclear Weapons Components Plant at Oak Ridge, Tennessee, the U.S.'s earliest nuclear weapons production plant. In 1987, the DOE also reported that PCBs, heavy metals, and radioactive substances were all present in the groundwater beneath Y-12. Y-12 and the nearby K-25 and X-10 plants were found to have contaminated the atmosphere, soil and

streams in the area.

#### December 1984

The Fernald Uranium Plant, a 1,050-acre uranium fuel production complex 20 miles northwest of Cincinnati, Ohio, was temporarily shut down after the Department of Energy disclosed that excessive amounts of radioactive materials had been released through ventilating systems. Subsequent reports revealed that 230 tons of radioactive material had leaked into the Greater Miami River valley during the previous thirty years, 39 tons of uranium dust had been released into the atmosphere, 83 tons had been discharged into surface water, and 5,500 tons of radioactive and other hazardous substances had been released into pits and swamps where they seeped into the groundwater. In addition, 337 tons of uranium hexafluoride was found to be missing, its whereabouts completely unknown. In 1988 nearby residents sued and were granted a \$73 million settlement by the government. The plant was not permanently shut down until 1989.

#### 1986

A truck carrying low-level radioactive material swerved to avoid a farm vehicle, went off a bridge on Route 84 in Idaho, and dumped part of its cargo in the Snake River. Officials reported the release of radioactivity.

#### 6 January 1986

A container of highly toxic gas exploded at The Sequoyah Fuels Corp. uranium processing factory in Gore, Oklahoma, causing one worker to die (when his lungs were destroyed) and 130 others to seek medical treatment. In response, the Government kept the plant closed for more than a year and fined owners Kerr-McGee \$310,000, citing poorly trained workers, poorly maintained equipment and a disregard for safety and the environment. [See also 24 November 1992.]

#### 1986

After almost 40 years of cover-ups, the U.S. Government released 19,000 pages of previously classified documents which revealed that the Hanford Engineer Works was responsible for the release of significant amounts of radioactive materials into the atmosphere and the adjacent Columbia River. Between 1944 and 1966, the eight reactors, a source of plutonium production for atomic weapons, discharged billions of gallons of liquids and billions of cubic meters of gases containing plutonium and other radioactive contaminants into the Columbia River, and the soil and air of the Columbia Basin. Although detrimental effects were noticed as early as 1948, all reports critical of the facilities remained classified. By the summer of 1987, the cost of cleaning up Hanford was estimated to be \$48.5 billion. The Technical Steering Panel of the government-sponsored Hanford Environmental Dose Reconstruction Project released the following statistics in July 1990: Of the 270,000 people living in the affected area, most received low doses of radiation from iodine, but about 13,500 received a total dose some 1,300 times the annual amount of airborne radiation considered safe for civilians by the Department of Energy. Approximately 1,200 children received doses far in excess of this number, and many more received additional doses from contaminants other than iodine. [See also May 1997 and July 2000.]

#### 1988

The National Research Council panel released a report listing 30 "significant unreported incidents" at the Savannah River production plants over the previous 30 years. As at Hanford (see 1986), ground water contamination resulted from pushing production of radioactive materials past safe limits at this weapons complex. In January 1989, scientists discovered a

fault running under the entire site through which contaminants reached the underground aquifer, a major source of drinking water for the southeast. Turtles in nearby ponds were found to contain radioactive strontium of up to 1,000 times the normal background level.

**6 June 1988**

Radiation Sterilizers, Incorporated reported that a leak of Cesium-137 had occurred at their Decatur, Georgia facility. Seventy thousand medical supply containers and milk cartons were recalled as they had been exposed to radiation. Ten employees were also exposed, three of whom "had enough on them that they contaminated other surfaces" including materials in their homes and cars, according to Jim Setser at the Georgia Department of Natural Resources.

**October 1988**

The Rocky Flats, Colorado plutonium bomb manufacturing site was partially closed after two employees and a Department of Energy inspector inhaled radioactive particles. Subsequent investigations revealed safety violations (including uncalibrated monitors and insufficient fire-response equipment) and leaching of radioactive contaminants into the local groundwater.

**24 November 1992**

The Sequoyah Fuels Corp. uranium processing factory in Gore, Oklahoma closed after repeated citations by the Government for violations of nuclear safety and environmental rules. It's record during 22 years of operation included an accident in 1986 that killed one worker and injured dozens of others and the contamination of the Arkansas River and groundwater. The Sequoyah Fuels plant, one of two privately-owned American factories that fabricated fuel rods and armor-piercing bullet shells, had been shut down a week before by the Nuclear Regulatory Commission when an accident resulted in the release of toxic gas. Thirty-four people sought medical attention as a result of the accident. The plant had also been shut down the year before when unusually high concentrations of uranium were detected in water in a nearby construction pit. [Also see 6 January 1986 for details of an additional incident.] A Government investigation revealed that the company had known for years that uranium was leaking into the ground at levels 35,000 times higher than Federal law allows; Carol Couch, the plant's environmental manager, was cited by the Government for obstructing the investigation and knowingly giving Federal agents false information.

**31 March 1994**

Fire at a nuclear research facility on Long Island, New York resulted in the nuclear contamination of three fire fighters, three reactor operators, and one technician. Measurable amounts of radioactive substances were released into the immediate environment.

**May 1997**

A 40 gallon tank of toxic chemicals, stored illegally at the U.S. Government's Hanford Engineer works exploded, causing the release of 20,000-30,000 gallons of plutonium-contaminated water. A cover-up ensued, involving the contractors doing clean-up and the Department of Energy, who denied the release of radioactive materials. They also told eight plant workers that tests indicated that they hadn't been exposed to plutonium even though no such tests actually were conducted (later testing revealed that in fact they had not been exposed). Fluor Daniel Hanford Inc., operator of the Hanford Site, was cited for violations of the Department of Energy's nuclear safety rules and fined \$140,825. Violations associated with the explosion included the contractor's failure to assure that breathing devices operated effectively, failure to make timely notifications of the emergency, and failure to conduct proper radiological surveys of workers. Other violations cited by the DOE included a number of events between November 1996 and June 1997 involving Fluor Daniel Hanford's failure to assure adherence to PFP

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"criticality" safety procedures. ("Criticality" features are defined as those features used "to assure safe handling of fissile materials and prevention of...an unplanned and uncontrolled chain reaction that can release large amounts of radiation.") [See also 1986 and July 2000.]

8 August 1999

The *Washington Post* reported that thousands of workers were unwittingly exposed to plutonium and other highly radioactive metals over a 23-year period (beginning in the mid-1950's) at the Department of Energy's Paducah Gaseous Diffusion Plant in Kentucky. Workers, told they were handling Uranium (rather than the far more toxic plutonium), inhaled radioactive dust while processing the materials as part of a government experiment to recycle used nuclear reactor fuel.

June 2000

U.S. Senator Mike DeWine (R-OH) led a field senate hearing regarding workers exposed to hazardous materials while working in the nation's atomic plants. At the hearing, which revealed information about potential on and off-site contamination at the Portsmouth Gaseous Diffusion Plant in Piketon, Ohio, DeWine noted, "We know that as a result of Cold War efforts, the government, yes, our federal government, allowed thousands of workers at its facilities across the country to be exposed to poisonous materials, such as beryllium dust, plutonium, and silicon, without adequate protection." Testimony also indicated that the Piketon plant altered workers' radiation dose readings and worked closely with medical professionals to fight worker's compensation claims.

July 2000

Wildfires in the vicinity of the Hanford facility hit the highly radioactive "B/C" waste disposal trenches, raising airborne plutonium radiation levels in the nearby cities of Pasco and Richland to 1,000 above normal. Wildfires also threatened the Los Alamos National Laboratory in New Mexico and the DOE's Idaho National Engineering and Environmental Laboratory. In the latter case, the fires closely approached large amounts of stored radioactive waste and forced the evacuation of 1,800 workers. [See also 1986 and May 1997.]

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