Groundwater Events Sorted by Location

Reactor		Date	Description
Alvin W. Vogtle	**Unit 1**	19941106	Workers conducting a visual walkdown near the alternate radwaste building noticed water inside and outside of the posted radiological area. Investigation discovered a valve that had been left open on the temporary NaOH tank resulting in contaminated water leaking onto the ground.
Source File(s):	20060000-vogtle-10-cfr-50-75-g-report.pdf		
Alvin W. Vogtle	**Unit 1**	19950000	Radioactively contaminated water leaked during 1994 and 1995 from an outdoor temporary storage tank containing radioactive material from processing of the spray additive tank. Workers dammed the storm drains to prevent the radioatively contaminated water from getting offsite. Workers removed contaminated concrete during the cleanup. Contaminated soil was remediated, although sampling of the soil in 2006 detected radioactivity thought to be remaining from the spill a decade earlier.
Source File(s):	20060731-hatch-vogtle-farley-voluntary-groundwater-submittal.pdf		
Alvin W. Vogtle	**Unit 2**	19920000	During the early 1990s, radioactively contaminated water leaked into the ground through a hole in the moated area surrounding the Unit 2 refueling water storage tank. The contaminated soil was excavated and disposed of.
Source File(s):	20060731-hatch-vogtle-farley-voluntary-groundwater-submittal.pdf		
Alvin W. Vogtle	**Unit 2**	19941106	Workers conducting a visual walkdown near the alternate radwaste building noticed water inside and outside of the posted radiological area. Investigation discovered a valve that had been left open on the temporary NaOH tank resulting in contaminated water leaking onto the ground.
Source File(s):	20060000-vogtle-10-cfr-50-75-g-report.pdf		
Alvin W. Vogtle	**Unit 2**	19950000	Radioactively contaminated water leaked during 1994 and 1995 from an outdoor temporary storage tank containing radioactive material from processing of the spray additive tank. Workers dammed the storm drains to prevent the radioatively contaminated water from getting offsite. Workers removed contaminated concrete during the cleanup. Contaminated soil was remediated, although sampling of the soil in 2006 detected radioactivity thought to be remaining from the spill a decade earlier.
Source File(s):	20060731-hatch-vogtle-farley-voluntary-groundwater-submittal.pdf		
Arkansas Nuclear One	**Unit 2**	20060530	Radioactively contaminated water spilled into two rooms outside of the radiologically controlled area when the Unit 2 spent fuel pool tilt pit was overfilled from the boron management holdup tanks.
Source File(s):	20060731-ano-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Beaver Valley	**Unit 1**	20060731	The company reported three spills of radioactively contaminated water from the Unit 1 primary grade storage tank into the ground since 1977 (dates unspecified), a leak of radioactively contaminated water from the refuel water storage tank into the ground (date unspecified), a leak of radioactively contaminated water from the liquid waste storage tank into the ground (date unspecified), and two times when radioactively contaminated water was inadvertently pumped from plant sumps to the catch basin system.
Source File(s):	20060731-bv-db-perry-voluntary-groundwater-submittal.pdf		
Beaver Valley	**Unit 2**	20060731	The company reported three spills of radioactively contaminated water from the Unit 1 primary grade storage tank into the ground since 1977 (dates unspecified), a leak of radioactively contaminated water from the refuel water storage tank into the ground (date unspecified), a leak of radioactively contaminated water from the liquid waste storage tank into the ground (date unspecified), and two times when radioactively contaminated water was inadvertently pumped from plant sumps to the catch basin system.
Source File(s):	20060731-bv-db-perry-voluntary-groundwater-submittal.pdf		
Big Rock Point		19621201	Water, suspected to have come from leaks in the condensate system, flooded the pipe tunnel to a depth of approximately two inches. Some of the radioactively contaminated water may have entered the gravel-filled expansion cavity surrounding the containment building or through floor expansion joints into the sand beneath the building.
Source File(s):	20040701-brp-license-termination-plan-r1.pdf		
Big Rock Point		19630808	Radioactively contaminated water leaked from a flange on the outdoor waste hold tank located to the west of the turbine building. It is likely that the contaminated water entered the ground below the tanks.
Source File(s):	20040701-brp-license-termination-plan-r1.pdf		
Big Rock Point		19730726	Radioactively contaminated material was discovered in a temporary shelter near the base of the stack. The potential existed for soil and pavement in this area to be contaminated.
Source File(s):	20040701-brp-license-termination-plan-r1.pdf		
Big Rock Point		19770221	The radwaste transfer cask liner banged against the cask during the transfer of spent filters. Contaminated debris spilled onto the ground by the open air radwaste valut. The liner read 2.3 rem per hour. The cleanup included removal of radioactively contaminated snow.
Source File(s):	20040701-brp-license-termination-plan-r1.pdf		
Big Rock Point		19771031	During reactor startup, reactor cooling water backflowed to the plant heating boiler that was supplying steam supply. Steam bubble collapse resulted in a waterhammer event. There was an unplanned, uncontrolled release of radioactively contaminated water to the discharge canal.
Source File(s):	19820500-nureg-cr-2059-waterhammer-events.pdf		

Reactor	Date	Description
Big Rock Point	19780928	The waste hold tank overflowed and spilled radioactively contaminated water onto the asphalt below the tanks.
Source File(s):	20040701-brp-license-termination-plan-r1.pdf	
Big Rock Point	19811107	Approximately 300 gallons of radioactively contaminated water was inadvertently discharged to the environment during processing of the chemical waste receiving tank when the vent plug on the radwaste pump failed due to pump casiing corrosion and erosion.
Source File(s):	19840611-aeod-nuclear-plant-erosion.pdf	
Big Rock Point	19811120	Approximately 10 cubic feet of radioactively contaminated resin spilled at the north end of the pipe tunnel in the turbine building due to operator error in a valve line-up. Remediation efforts included removing 3 to 5 inches of gravel from the expansion joint area between the pipe tunnel and the sphere. Radiation fields of up to 3 rem per hour were measured at contact with the floor after cleanup.
Source File(s):	20040701-brp-license-termination-plan-r1.pdf	
Big Rock Point	19821105	Asphalt rubble located near the base of the stack was discovered to be radioactively contaminated.
Source File(s):	20040701-brp-license-termination-plan-r1.pdf	
Big Rock Point	19840531	Workers discovered water weeping through the wall of the radwaste pump room. The water was traced to a leak in a two-inch diameter aluminum pipe below the turbine building. An estimated 20,000 gallons of radioactively contaminated water from the condensate system leaked into the soil. A section of the concrete floor in the turbine building was removed and eight barrels of contaminated soil excavated and removed.
Source File(s):	20040701-brp-license-termination-plan-r1.pdf 19840816-brp-ler-tritium-leak.pdf	
Big Rock Point	19870213	Approximately 25 gallons of radioactively contaminated water overflowed the waste hold tank vent line and spilled onto the asphalt. About one gallon was estimated to enter the ground.
Source File(s):	20040701-brp-license-termination-plan-r1.pdf	
Big Rock Point	19880629	Radioactively contaminated water leached through a cement wall on the west side of Room 121 into the compressed gas bottle storage area.
Source File(s):	20040701-brp-license-termination-plan-r1.pdf	
Big Rock Point	19890224	Workers questioned the integrity of the drain line in the condensate demineralizer room. Prior efforts to unplug the line were suspected to have punctured the line to allow radioactively contaminated water to reach the soil below the concrete floor.
Source File(s):	20040701-brp-license-termination-plan-r1.pdf	

Reactor		Date	Description
Big Rock Point		19890921	Workers discovered the floor in Room 121 to be flooded with radioactively contaminated water. The flood was up to the curb with leakage into the gas bottle storage area.
Source File(s):	20040701-brp-license-termination-plan-r1.pdf		
Big Rock Point		19930813	The waste hold tank overflowed and spilled radioactively contaminated water onto the ground.
Source File(s):	20040701-brp-license-termination-plan-r1.pdf		
Big Rock Point		19931127	Workers discovered that the overhead supply pipe to the condensate storage tank had been leaking near the turbine building. Three 55-gallon barrels were filled with contaminated soil during the cleanup effort.
Source File(s):	20040701-brp-license-termination-plan-r1.pdf		
Big Rock Point		19940818	Workers detected tritium in two of nine groundwater monitoring wells installed for the decommissioning planning effort. The two wells were the locations closest to the lake. The tritium was believed to have come from the condensate storage tank leak that occurred in May 1984.
Source File(s):	20040701-brp-license-termination-plan-r1.pdf		
Braidwood	**Unit 1**	19981100	Radioactively contaminated water leaked from vacuum breaker valve CW060 in the circulating water blowdown line.
Source File(s):	20060728-bw-voluntary-groundwater-submittal.pdf		
Braidwood	**Unit 1**	20001100	Radioactively contaminated water leaked from vacuum breaker valve CW557/58 in the circulating water blowdown line.
Source File(s):	20060728-bw-voluntary-groundwater-submittal.pdf		
Braidwood	**Unit 1**	20030800	Radioactively contaminated water leaked from vacuum breaker valve CW138 in the circulating water blowdown line.
Source File(s):	20060728-bw-voluntary-groundwater-submittal.pdf		
Braidwood	**Unit 1**	20060116	A neighbor called the plant's security department to report water leaking from vacuum breaker pit 0CW066 in the blowdown line right of way area. Workers responded to the report and confirmed the leakage. Operators reduced the blowdown flow rate and isolated vacuum breaker 0CW066 to stop the leakage.
Source File(s):	20060116-bw-report-blowdown-line-leak.pdf		
Braidwood	**Unit 1**	20060313	An estimated 280 gallons of water, sampled with a tritium concentration of 180,000 picocuries per liter, leaked from the FRAC tank area due to a failed berm wall. Workers used a temporary pump to transfer about 240 gallons back into the berm after the wall was repaired.
Source File(s):	20060313-braidwood-tritium-leak.pdf		

Reactor		Date	Description
Braidwood	**Unit 2**	19981100	Radioactively contaminated water leaked from vacuum breaker valve CW060 in the circulating water blowdown line.
Source File(s):	20060728-bw-voluntary-groundwater-submittal.pdf		
Braidwood	**Unit 2**	20001100	Radioactively contaminated water leaked from vacuum breaker valve CW557/58 in the circulating water blowdown line.
Source File(s):	20060728-bw-voluntary-groundwater-submittal.pdf		
Braidwood	**Unit 2**	20030800	Radioactively contaminated water leaked from vacuum breaker valve CW138 in the circulating water blowdown line.
Source File(s):	20060728-bw-voluntary-groundwater-submittal.pdf		
Braidwood	**Unit 2**	20060116	A neighbor called the plant's security department to report water leaking from vacuum breaker pit 0CW066 in the blowdown line right of way area. Workers responded to the report and confirmed the leakage. Operators reduced the blowdown flow rate and isolated vacuum breaker 0CW066 to stop the leakage.
Source File(s):	20060116-bw-report-blowdown-line-leak.pdf		
Braidwood	**Unit 2**	20060313	An estimated 280 gallons of water, sampled with a tritium concentration of 180,000 picocuries per liter, leaked from the FRAC tank area due to a failed berm wall. Workers used a temporary pump to transfer about 240 gallons back into the berm after the wall was repaired.
Source File(s):	20060313-braidwood-tritium-leak.pdf		
Browns Ferry	**Unit 1**	19731019	About 1,400 gallons of liquid radwaste of unknown, unanalyzed concentration was inadvertently discharge to the river due to personnel error. The liquid radwaste tank was intended to be placed in recirculation mode but was mistakenly placed in discharge mode.
Source File(s):	19850300-nureg-cr-4067-barrier-degradation-and-small-accident-events.pdf		
Browns Ferry	**Unit 1**	19770104	A leak in a residual heat removal heat exchanger allowed radioactive water to be released to the river at levels exceeding technical specificaiton limits.
Source File(s):	19850300-nureg-cr-4067-barrier-degradation-and-small-accident-events.pdf		
Browns Ferry	**Unit 1**	19780715	After the unit was shut down for maintenance, the residual heat removal system was placed in operation to assist shut down cooling of the reactor vessel water. Workers determined that a residual heat removal heat exchanger had a tube leak and that radioactively contaminated water was being discharged to the Tennessee River "at a rate above permissible limits."
Source File(s):	19780717-bfnp-pno-unplanned-release-rhr-heat-exchanger.pdf 19850300-nureg-cr-4067-barrier-degradation-and-small-accident-events.pdf		

Reactor		Date	Description
Browns Ferry	**Unit 1**	20050300	A leak in a pipe elbow on the east side of the cooling tower and an overflow of the cooling tower basin caused by malfunction of the system level indicators resulted in radioactive contamination of the concrete pad and ground around the tower.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Browns Ferry	**Unit 1**	20051100	Tritium levels greater than baseline values were detected in an undergrond cable tunnel between the intake structure and the turbine building. Samples taken in January 2006 identified gamme emitters in addition to tritium (beta emitter).
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Browns Ferry	**Unit 1**	20060200	A soil sample taken from underneath the radwaste ball joint vault (located outside the radwaste doors) indicated trace levels of cobalt-60 and cesium-137.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Browns Ferry	**Unit 2**	20050300	A leak in a pipe elbow on the east side of the cooling tower and an overflow of the cooling tower basin caused by malfunction of the system level indicators resulted in radioactive contamination of the concrete pad and ground around the tower.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Browns Ferry	**Unit 2**	20051100	Tritium levels greater than baseline values were detected in an underground cable tunnel between the intake structure and the turbine building. Samples taken in January 2006 identified gamme emitters in addition to tritium (beta emitter).
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Browns Ferry	**Unit 2**	20060200	A soil sample taken from underneath the radwaste ball joint vault (located outside the radwaste doors) indicated trace levels of cobalt-60 and cesium-137.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Browns Ferry	**Unit 3**	19830116	A leaking tube in a residual heat removal heat exchanger allowed radiaoctive water from the reactor coolant system to be released to the river at levels exceeding technical specification limits.
Source File(s):	19850300-nureg-cr-4067-barrier-degradation-and-small-accident-events.pdf		
Browns Ferry	**Unit 3**	20010100	Tritium levels greater than baseline values were detected in an onsite monitoring well west of the Unit 3 condenser circulating water conduit in the radwaste loading area.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Browns Ferry	**Unit 3**	20050300	A leak in a pipe elbow on the east side of the cooling tower and an overflow of the cooling tower basin caused by malfunction of the system level indicators resulted in radioactive contamination of the concrete pad and ground around the tower.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Browns Ferry	**Unit 3**	20051100	Tritium levels greater than baseline values were detected in an undergrond cable tunnel between the intake structure and the turbine building. Samples taken in January 2006 identified gamme emitters in addition to tritium (beta emitter).
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Browns Ferry	**Unit 3**	20060200	A soil sample taken from underneath the radwaste ball joint vault (located outside the radwaste doors) indicated trace levels of cobalt-60 and cesium-137.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Browns Ferry	**Unit 3**	20080105	The condensate storage tank overflowed due to failed tank level instrumentation. The spilled water flowed into the sump in the condensate piping tunnel, triggering a high level alarm that prompted workers to initiate the search that discovered the overflow condition. Some of the spilled water may have permeated through the pipe tunnel into the ground.
Source File(s):	20080110-bfnp-der-tritium-spill.pdf		
Browns Ferry	**Unit 3**	20100407	Approximately 1,000 gallons of radioactively contaminated water leaked from Condensate Storage Tank No. 5 as workers were transferring water between condensate storage tanks. A worker conducting routine rounds observed water leaking from an open test valve near the top of CST No. 5.
Source File(s):	20100407-bfnp-der-tritium-spill.pdf		
Brunswick	**Unit 1**	19870000	Workers repaired a leak on the Unit 2 radwaste effluent line. The 4-inch diameter pipe was located in a concrete trench buried 8 to 15 feet below the ground surface. The leak was discovered when water surfaced at grade level.
Source File(s):	20060728-bsep-voluntary-groundwater-submittal.pdf 20100506-nrc-tritium-database-report.pdf		
Brunswick	**Unit 1**	19940500	Workers performing a pressure test of the Unit 2 radwaste effluent line identified and repaired a leakage pathway for radiaoctively contaminated water.
Source File(s):	20060728-bsep-voluntary-groundwater-submittal.pdf		
Brunswick	**Unit 1**	19961000	Approximately 100 gallons of radioactively contaminated water overflowed the floor drain sump in the low level radwaste processing facility through a breach in the sump wall and into the ground beneath the facility.
Source File(s):	20060728-bsep-voluntary-groundwater-submittal.pdf		
Brunswick	**Unit 1**	20070613	Workers confirmed that tritium concentrations exceeding 30,000 picocuries per liter existed in new onsite shallow groundwater monitoring wells.
Source File(s):	20080403-bsep-groundwater-report.pdf		

Reactor		Date	Description
Brunswick	**Unit 1**	20070621	During the transfer of radioactively contaminated water from the Unit 1 suppression pool to the waste surge tank, about 2,500 to 3,000 gallons of water leaked onto the ground from a disassembled check valve on the drain line from the Unit 2 condensate storage tank to the waste storage tank. Some of the leaked water entered the storm drain system.
Source File(s):	20080708-bsep-condition-report-cst-overflow.pdf		
Brunswick	**Unit 1**	20080300	Tritium was detected in 14 of 15 monitoring wells located around the storm drain storage pond. After tritium was discovered in an electrical manhole in May 2007, workers determined the source to be leaching from the storm drain storage pond and the monitoring wells were installed.
Source File(s):	20080600-bsep-quarterly-groundwater-monitoring-report.pdf		
Brunswick	**Unit 1**	20080307	Workers confirmed that tritium concentrations exceeding 30,000 picocuries per liter existed in an onsite shallow groundwater monitoring well. The source of the tritium was believed to be the same as in the June 2007 discovery (i.e., from leakage into the storm drain collection system) but not prevented by the actions taken in response to that event.
Source File(s):	20080403-bsep-groundwater-report.pdf		
Brunswick	**Unit 1**	20100120	An operator conducting a routine inspection discovered water leaking from a pipe on plant property. Approximately 1,000 gallons of water with tritium concentration of 5,590 picocuries per liter leaked into the ground.
Source File(s):	20070613-bsep-condition-report-tritium-in-manhole.pdf		
Brunswick	**Unit 2**	19800200	Radioactively contaminated water passed through leaking tubes in the auxiliary boiler and contaminated soil onsite.
Source File(s):	20060728-bsep-voluntary-groundwater-submittal.pdf		
Brunswick	**Unit 2**	19870000	Workers repaired suspected leakage from the underground radwaste effluent pipe using a "wrap-around" patch.
Source File(s):	20080400-bsep-root-cause-tritium-leak.pdf		
Brunswick	**Unit 2**	19940000	After the underground radwaste effluent line failed a pressure test, indicating that radioactively contaminated water was leaking into the ground, workers lined the pipe with Goodyear Pliocord Red Flextra Hose.
Source File(s):	20080400-bsep-root-cause-tritium-leak.pdf		
Brunswick	**Unit 2**	19950000	Two monitoring wells drilled down gradient from the radwaste effluent line showed tritium concentrations of 46,000 and 35,000 picocuries per liter.
Source File(s):	20080400-bsep-root-cause-tritium-leak.pdf		

Reactor		Date	Description
Brunswick	**Unit 2**	19961000	Approximately 100 gallons of radioactively contaminated water overflowed the floor drain sump in the low level radwaste processing facility through a breach in the sump wall and into the ground beneath the facility.
Source File(s):	20060728-bsep-voluntary-groundwater-submittal.pdf		
Brunswick	**Unit 2**	20010000	Workers using a video camera mounted to a robotic crawler examined the inside of the storm drain lines due to suspected blockage. The inspection revealed degradation of a pipe joint inside the protected area of the plant. This pipe carried overflow water from the turbine building HVAC system, known to be contaminated with tritium. Leakage from this storm drain line would release radioactively contaminated water into the ground.
Source File(s):	20080400-bsep-root-cause-tritium-leak.pdf		
Brunswick	**Unit 2**	20070500	Samples of water dran from electrical manholes MW-5 and MW-6 revealed tritium contamination.
Source File(s):	20080400-bsep-root-cause-tritium-leak.pdf		
Brunswick	**Unit 2**	20070613	Workers confirmed that tritium concentrations exceeding 30,000 picocuries per liter existed in new onsite shallow groundwater monitoring wells.
Source File(s):	20080403-bsep-groundwater-report.pdf		
Brunswick	**Unit 2**	20080300	Tritium was detected in 14 of 15 monitoring wells located around the storm drain storage pond. After tritium was discovered in an electrical manhole in May 2007, workers determined the source to be leaching from the storm drain storage pond and the monitoring wells were installed.
Source File(s):	20080600-bsep-quarterly-groundwater-monitoring-report.pdf		
Brunswick	**Unit 2**	20080307	Workers confirmed that tritium concentrations exceeding 30,000 picocuries per liter existed in an onsite shallow groundwater monitoring well. The source of the tritium was believed to be the same as in the June 2007 discovery (i.e., from leakage into the storm drain collection system) but not prevented by the actions taken in response to that event.
Source File(s):	20080403-bsep-groundwater-report.pdf		
Brunswick	**Unit 2**	20080307	The company announced that tritium concentrations in monitoring well ESS-2C had increased from 492,600 picocuries per liter in 2004 to 1,833,000 picocuries per liter in 2008. The company also reported that tritium concentrations in monitoring well ESS-16 had increased from 2,230 picocuries per liter to 64,420 picocuries per liter over this same period.
Source File(s):	20080400-bsep-root-cause-tritium-leak.pdf		

Reactor		Date	Description
Brunswick	**Unit 2**	20100110	An operator conducting a routine inspection discovered water leaking from a pipe on plant property. Approximately 1,000 gallons of water with tritium concentration of 5,590 picocuries per liter leaked into the ground.
Source File(s):	20070613-bsep-condition-report-tritium-in-manhole.pdf		
Byron	**Unit 1**	19860400	The circulating water blowdown line developed leaks on three separate locations. After the third leak, the fiberglass line was replaced with a steel pipe.
Source File(s):	20060714-byron-voluntary-groundwater-submittal.pdf		
Byron	**Unit 1**	20000000	The Containment Access Facility was found to have leached from the contaminated area to the ground.
Source File(s):	20060714-byron-voluntary-groundwater-submittal.pdf		
Byron	**Unit 1**	20060300	Tritium was found in several of the six vacuum breaker vaults along the circulating water blowdown line.
Source File(s):	20060714-byron-voluntary-groundwater-submittal.pdf		
Byron	**Unit 2**	19860400	The circulating water blowdown line developed leaks on three separate locations. After the third leak, the fiberglass line was replaced with a steel pipe.
Source File(s):	20060714-byron-voluntary-groundwater-submittal.pdf		
Callaway	**Unit 1**	20060802	The company informed the NRC that air release valves on the discharge pipeline operate with a small amount of blow-by that resulted in the contamination of the French drain in the manholes and low tritium contamination of the groundwater near the manholes.
Source File(s):	20060802-callaway-voluntary-groundwater-submittal.pdf		
Calvert Cliffs	**Unit 1**	20051203	Workers identified tritium in a shallow monitoring well onsite and traced its source to an eroded pipe in a sub-surface drainage system connected to the plant circulating water system, a normal discharge pathway for releases of radioactively contaminated water. The eroded pipe is a 2-inch diameter PVC pipe installed during initial construction of the facility to measure the depth of the water table.
Source File(s):	20060731-cc-nmp-ginna-voluntary-groundwater-submittal.pdf		
Calvert Cliffs	**Unit 2**	20051203	Workers identified tritium in a shallow monitoring well onsite and traced its source to an eroded pipe in a sub-surface drainage system connected to the plant circulating water system, a normal discharge pathway for releases of radioactively contaminated water. The eroded pipe is a 2-inch diameter PVC pipe installed during initial construction of the facility to measure the depth of the water table.
Source File(s):	20060731-cc-nmp-ginna-voluntary-groundwater-submittal.pdf		
Catawba	**Unit 1**	19920328	A small amount of radioactively contaminated water leaked from steam generator drain tank A outlet piping from valve 1WL314 into the ground.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Catawba	**Unit 1**	20020506	A small amount of radioactively contaminated water leaked from the manway of the Unit 1 reactor makeup water storage tank onto the gravel in the yard.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Catawba	**Unit 1**	20050906	After wet soil was observed around the bottom of the Unit 1 reactor makeup water storage tank near a small diameter insulated pipe, workers removed the piping insulation and inspected the area. No leak pathways were identified. The soil remains damp but the source of the moisture remains undetermined.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Catawba	**Unit 1**	20060628	Radioactively contaminated water was found in a pipe trench where liquid radwaste piping enters the monitoring tank building. The trench sump pump discharge piping created a siphon that transported sump water up into the trench.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Catawba	**Unit 1**	20071008	Workers analyzed a sample drawn from groundwater monitoring well 213 and found the tritium concentration to be 42,335 picocuries per liter.
Source File(s):	20071107-catawba-tritium-report.pdf		
Catawba	**Unit 1**	20071016	In response to tritium detected in monitoring well #213, workers opened the pipe trench on the east side of the turbine buidling. No leaks were found. Workers then opened the pipe trench on the west side of the turbine building. Numerous leaking pipes were found. A sample of water from the pipe trench revealed tritium to be present.
Source File(s):	20080000-catawba-leak-info-and-ohotos.pdf		
Catawba	**Unit 2**	19920328	A small amount of radioactively contaminated water leaked from steam generator drain tank A outlet piping from valve 1WL314 into the ground.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Catawba	**Unit 2**	20071008	Workers analyzed a sample drawn from groundwater monitoring well 213 and found the tritium concentration to be 42,335 picocuries per liter.
Source File(s):	20071107-catawba-tritium-report.pdf		
Columbia Generating Station		19890000	Workers placed sediment removed from the service water spray pond into a trench south of the protected area. When it was later determined this soil had been radioactively contaminated, the soil was exhumed and relocated to a designated on-site storage location.
Source File(s):	20060721-cgs-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Columbia Generating Station		19910000	Workers placed sediment removed from the service water spray pond into a trench south of the protected area. When it was later determined this soil had been radioactively contaminated, the soil was exhumed and relocated to a designated on-site storage location.
Source File(s):	20060721-cgs-voluntary-groundwater-submittal.pdf		
Columbia Generating Station		19920000	Contaminated water from the turbine building sumps was pumped to the onsite storm drani pond.
Source File(s):	20060721-cgs-voluntary-groundwater-submittal.pdf		
Columbia Generating Station		19920000	The plant's sewage treatment facility was radioactively contaminated via a cross-connection from a US Department of Energy facility.
Source File(s):	20060721-cgs-voluntary-groundwater-submittal.pdf		
Columbia Generating Station		20060000	Low levels of radioactive contamination were discovered along the circulating water blowdown line.
Source File(s):	20060721-cgs-voluntary-groundwater-submittal.pdf		
Crystal River	**Unit 3**	19770606	Blown water loop seals to the waste gas low pressure header caused an unplanned release of radioactivity in the auxiliary building. Workers evacuated the area. About 33 curies of noble gas was vented to the atmosphere.
Source File(s):	19850300-nureg-cr-4067-barrier-degradation-and-small-accident-events.pdf		
Crystal River	**Unit 3**	19780500	The NRC reported about a spill of radioactively contaminated resin. Workers were transferring the resin from a holdup tank inside the auxiliary building to a shielded shipping cask outside. All of the hoses were metal-braided and all of the piping was steel except for a polyvinylchloride tee inside the trailer. When level in the cask was sensed high, an automatic shut-off valve closed. The ensuing pressure surge caused the PVC tee to break. Resin spilled from the broken tee into the trailer's sump. Bolted seams in the sump leaked resin onto the asphalt pavement under the trailer. The resin slurry flowed into a nearby storm drain.
Source File(s):	Information Notice 79-09		
Crystal River	**Unit 3**	19991002	During a discharge from the condensate system to the onsite percolation pond, a fiberglass wastewater line leaked radioactively contaminated water into the ground. All affected soil was excavated and disposed of as radwaste.
Source File(s):	20060725-cr3-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Davis-Besse	**Unit 1**	20060731	The company reported that a slurry of radioactively contaminated secondary resins and water was pumped to the south settling basin where it remains to this day (date unspecified), that radioactively contaminated water leaked into the ground from the backwash receiver tank through a broken 3-inch pipe (date unspecified), that primary grade radioactively contaminated water spilled onto the ground near the borated water storage tank while the hydrogen addition system was being drained (date unspecified), and radioactively contamined water spilled onto the ground while the north settling basin was being pumped to the collection box when the hose fell out of the collection box (date unspecified). Approximately 7 cubic yards of contaminated soil were excavated and shipped to a radwaste disposal facility following the backwash receiver tank spill. Approximately 20 cubic yards of contaminated soil was excavated and shipped to a radwaste disposal facility followign the borated water storage tank spill.
Source File(s):	20060731-bv-db-perry-voluntary-groundwater-submittal.pdf		
Davis-Besse	**Unit 1**	20081022	A sample of water from a site inside the protected area excavated to investigate a leaking fire line was found to contain tritium concentrations of 37,500 picocuries per liter. Workers found two leaks in a 3-inch diameter buried pipe. The pipe was the condensate demineralizer backwash line to the collection box.
Source File(s):	20081022-db-leak-spill-record.pdf		
Diablo Canyon	**Unit 1**	19931100	Approximately 4,000 gallons of radioactively contaminated water spilled into a floor drain that routed the water to an asphalt covered area north of the auxiliary building. The water did not migrate past the protected area and evaporated quickly.
Source File(s):	20060731-dc-voluntary-groundwater-submittal.pdf		
Diablo Canyon	**Unit 2**	19931100	Approximately 4,000 gallons of radioactively contaminated water spilled into a floor drain that routed the water to an asphalt covered area north of the auxiliary building. The water did not migrate past the protected area and evaporated quickly.
Source File(s):	20060731-dc-voluntary-groundwater-submittal.pdf		
Donald C. Cook	**Unit 1**	20060731	The company reported that primary-to-secondary steam generator leaks and component cooling water system drains in the 1980s and 1990s allowed radioactively contaminated water to collect in the turbine room sump, where it was pumped to the adsoprtion pond. Because tritium was in the water pumped to the adsorption pond, it entered the groundwater from the pond. Seven additional monitoring wells were installed to monitor the contaminated groundwater. The highest concentration measured was 19,000 picocuries/liter.
Source File(s):	20060731-cook-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Donald C. Cook	**Unit 2**	20060731	The company reported that primary-to-secondary steam generator leaks and component cooling water system drains in the 1980s and 1990s allowed radioactively contaminated water to collect in the turbine room sump, where it was pumped to the adsoprtion pond. Because tritium was in the water pumped to the adsorption pond, it entered the groundwater from the pond. Seven additional monitoring wells were installed to monitor the contaminated groundwater. The highest concentration measured was 19,000 picocuries/liter.
Source File(s):	20060731-cook-voluntary-groundwater-submittal.pdf		
Dresden	**Unit 1**	19740317	Radioactively contaminated water was spilled when a valve that was supposed to divert flow to an empty tank when the aligned tank was filled to capacity failed. As a result, the tank was overfilled.
Source File(s):	19850300-nureg-cr-4067-barrier-degradation-and-small-accident-events.pdf		
Dresden	**Unit 1**	20090617	Workers inspecting the internals of the Unit 1 condensate storage tank identified two fishmouth ruptures and a through-wall crack in the standpipe. Workers determined that contaminated water leaked into the ground from a drain line connected to this standpipe.
Source File(s):	20090724-dr-report-tritium-leaks.pdf		
Dresden	**Unit 2**	19701015	Radioactively contaminated water leaked from the radwaste concentrator to the river.
Source File(s):	19830200-dr2-nureg-0823-systematic-evaluation-program.pdf		
Dresden	**Unit 2**	19710527	When the high pressure coolant injection (HPCI) system was being tested with flow returning to the condensate storage tank, operators shut down HPCI upon noticing the condensate storage tank water level dropping. Workers found that the HPCI test return line to the condensate storage tank ruptured upstream of the manual isolationv valve. The aluminum test return line had not been designed for the HPCI pump discharge pressure. Approximately 15,000 gallons of radioactively contaminated water leaked into the ground.
Source File(s):	19830200-dr2-nureg-0823-systematic-evaluation-program.pdf 19710601-dr-aec-memo-hpci-underground-line-rupture.pdf		
Dresden	**Unit 2**	19710807	Radioactively contaminated water was released due to an improper valve lineup.
Source File(s):	19830200-dr2-nureg-0823-systematic-evaluation-program.pdf 19710811-dr-aec-memo-unplanned-radioactive-liquid-release.pdf		
Dresden	**Unit 2**	19730427	Radioactively contaminated water leaked from radwaste piping. Acid had degraded the piping leading to the leakage.
Source File(s):	19830200-dr2-nureg-0823-systematic-evaluation-program.pdf		
Dresden	**Unit 2**	19760905	Radioactively contaminated water leaked into the ground from a leak in the high pressure coolant injection (HPCI) system test return line.
Source File(s):	19830200-dr2-nureg-0823-systematic-evaluation-program.pdf		

Reactor		Date	Description
Dresden	**Unit 2**	19760915	Radioactively contaminated water leaked into the ground from a leak in the high pressure coolant injection (HPCI) system test return line. Some of the leaked water entered the sewer system.
Source File(s):	19830200-dr2-nureg-0823-systematic-evaluation-program.pdf		
Dresden	**Unit 2**	19771104	Radioactively contaminated water leaked through a heat exchanger tube and was released to a pond.
Source File(s):	19830200-dr2-nureg-0823-systematic-evaluation-program.pdf		
Dresden	**Unit 2**	19890000	Radioactively contaminated water leaked when the Unit 1 spent fuel pool overflowed.
Source File(s):	20060728-dr-voluntary-groundwater-submittal.pdf		
Dresden	**Unit 2**	19940000	Radioactively contaminated water leaked from buried high pressure coolant injection system piping.
Source File(s):	20060728-dr-voluntary-groundwater-submittal.pdf		
Dresden	**Unit 2**	19990000	Radioactively contaminated water leaked past the river water discharge isolation valve.
Source File(s):	20060728-dr-voluntary-groundwater-submittal.pdf		
Dresden	**Unit 2**	20040831	Radioactively contaminated water leaked from buried high pressure coolant injection system piping.
Source File(s):	20060728-dr-voluntary-groundwater-submittal.pdf 20060518-dr-exelon-iepa-leak-violation-response.pdf		
Dresden	**Unit 2**	20060000	Radioactively contaminated water leaked from buried high pressure coolant injection system piping.
Source File(s):	20060728-dr-voluntary-groundwater-submittal.pdf		
Dresden	**Unit 2**	20090605	The company informed the NRC that ti had detected tritium concentrations of 3.2 million picocuries per liter from a monitoring well near the condensate storage tank and 500,000 picocuries per liter in an adjacent storm drain line. The company suspected an active leak in underground piping associated with the condensate storage tank.
Source File(s):	20090610-dr-pno-tritium-leakage.pdf		
Dresden	**Unit 2**	20090713	Workers discovered a stream of water coming from a 24-inch diameter pipe connected to the Unit 2 and Unit 3 condensate storage tanks. This buried pipe had been excavated for a carbon fiber repair procedure when the leak was discovered.
Source File(s):	20090724-dr-report-tritium-leaks.pdf		
Dresden	**Unit 3**	19940000	Radioactively contaminated water leaked from buried high pressure coolant injection system piping.
Source File(s):	20060728-dr-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Dresden	**Unit 3**	19990000	Radioactively contaminated water leaked past the river water discharge isolation valve.
Source File(s):	20060728-dr-voluntary-groundwater-submittal.pdf		
Dresden	**Unit 3**	20040000	Radioactively contaminated water leaked from buried high pressure coolant injection system piping.
Source File(s):	20060728-dr-voluntary-groundwater-submittal.pdf		
Dresden	**Unit 3**	20060000	Radioactively contaminated water leaked from buried high pressure coolant injection system piping.
Source File(s):	20060728-dr-voluntary-groundwater-submittal.pdf		
Dresden	**Unit 3**	20090605	The company informed the NRC that ti had detected tritium concentrations of 3.2 million picocuries per liter from a monitoring well near the condensate storage tank and 500,000 picocuries per liter in an adjacent storm drain line. The company suspected an active leak in underground piping associated with the condensate storage tank.
Source File(s):	20090610-dr-pno-tritium-leakage.pdf		
Dresden	**Unit 3**	20090713	Workers discovered a stream of water coming from a 24-inch diameter pipe connected to the Unit 2 and Unit 3 condensate storage tanks. This buried pipe had been excavated for a carbon fiber repair procedure when the leak was discovered.
Source File(s):	20090724-dr-report-tritium-leaks.pdf		
Duane Arnold		19830214	Approximately 30 gallons of radioactively contaminated water spilled onto the ground and into a storm sewer than a barrel tipped over.
Source File(s):	20060731-sb-st-lucie-tp-daec-voluntary-groundwater-submittal.pdf		
Edwin I. Hatch	**Unit 1**	20020601	A sample of soil excavated from the east side fo the reactor building for construction of the dry cask transportation road was determined to he contaminated. The source of the contaminated was not determined.
Source File(s):	20080508-hatch-50-57-g-8200-gallon-leak.pdf		
Edwin I. Hatch	**Unit 1**	20030807	Workers discovered that the piping penetrating the concrete base slab for the Unit 1 condensate storage tank had deteriorated allowing an unknown amount of radioactively contaminated water to leak into the soil. The tritium concentration in nearby monitoring well T12 reached 4,070,000 picocuries per liter.
Source File(s):	20080508-hatch-50-57-g-8200-gallon-leak.pdf		
Edwin I. Hatch	**Unit 1**	20041001	About 5,610 gallons of radioactively contaminated water overflowed the moat around the Unit 1 radioactive waste processing pad into the soil. The water leaked from a demineralized water line. The leaked water was initially clean of radioactivity, but became contaminated as it flowed through the berm area.
Source File(s):	20080508-hatch-50-57-g-8200-gallon-leak.pdf		

Reactor		Date	Description
Edwin I. Hatch	**Unit 1**	20050520	Leaks from the Unit 1 condensate storage tank transfer pump recirculation line and cracks in the weld on the suction side of the pump resulted in the leakage of an unknown amount of radioactively contaminated water into the soil. Tritium concentrations in montioring well T12 near the Unit 1 condensate storage tank reached 1,020,000 picocuries per liter.

Source File(s): 20080508-hatch-50-57-g-8200-gallon-leak.pdf

Edwin I. Hatch	**Unit 1**	20060731	The company reported that radioactively contaminated water leaked into the ground from a buried radioactive liquid line broken when the building settled, from a leaking buried abandoned pipe, from seal failures on the outdoor radioactive water storage tank transfer pump, from deflation of the spent fuel pool expansion bellows, from leaking outdoor radioactive water tanks, and from a leaking isolation valve on the demineralized water system that overflowed a curbed area around a contaminated area.

Source File(s): 20060731-hatch-vogtle-farley-voluntary-groundwater-submittal.pdf

Edwin I. Hatch	**Unit 1**	20071226	An estimated 5,700 gallons of radioactively contaminated water leaked into the ground when recently installed piping to underground collection tank 1Y22N008A became separated. A sample of water from the leak had tritium concentrations of 24,900 picocuries per liter.

Source File(s): 20080508-hatch-50-57-g-8200-gallon-leak.pdf

Edwin I. Hatch	**Unit 1**	20080501	An estimated 8,200 gallons of potentially radioactively contaminated water overflowed an underground collection tank (1Y22N008A) onto the surrounding ground area. Dirt and gravel had seeped into the tank through a gap between the manway and an extension piece. The buildup eventually disabled the pump, allowing water to collect and overflow.

Source File(s): 20080508-hatch-50-75-g-report-8200-gallon-leak.pdf

Edwin I. Hatch	**Unit 2**	20060731	The company reported that radioactively contaminated water leaked into the ground from a buried radioactive liquid line broken when the building settled, from a leaking buried abandoned pipe, from seal failures on the outdoor radioactive water storage tank transfer pump, from deflation of the spent fuel pool expansion bellows, from leaking outdoor radioactive water tanks, and from a leaking isolation valve on the demineralized water system that overflowed a curbed area around a contaminated area.

Source File(s): 20060731-hatch-vogtle-farley-voluntary-groundwater-submittal.pdf

Edwin I. Hatch	**Unit 2**	20061002	A sample of water drawn from a monitoring well recently installed on the northwest side of the Unit 2 condensate transfer pump moat had tritium concentrations of 41,360 picocuries per liter. The source of this tritium was attributed to migration of leakage from the Unit 1 condensate storage tank and/or its piping.

Source File(s): 20061003-hatch-condition-report-tritium-detection.pdf

Reactor		Date	Description
Edwin I. Hatch	**Unit 2**	20070404	Samples of water drawn from monitoring well NW10 on the west side of the Unit 2 condensate storage tank showed tritium concentrations ranging from 40,000 to 69,900 picocuries per liter.
Source File(s):	20080508-hatch-50-57-g-8200-gallon-leak.pdf		
Edwin I. Hatch	**Unit 2**	20080319	Approximately 2,450 gallons of radioactively contaminated water were removed from pullboxes PB2-AU (923,000 picocuries per liter) and PB2-AT (868,000 picocuries per liter).
Source File(s):	20080508-hatch-50-57-g-8200-gallon-leak.pdf		
Fermi	**Unit 2**	19850000	Radioactively contaminated water leaked from the condensate storage tank into the soil. Potentially contaminated soil was excavated, monitored, and approved for re-use onsite as fill dirt.
Source File(s):	20060728-f2-voluntary-groundwater-submittal.pdf		
Fort Calhoun	**Unit 1**	19820000	Radioactively contaminated water from the safety injection refueling water tank spilled and flowed out of the truck bay door into the ground. The contaminated soil was excavated and shipped to a radwaste disposal facility.
Source File(s):	20060731-fc-voluntary-groundwater-submittal.pdf		
Fort Calhoun	**Unit 1**	19830421	A hose connected to the demineralized water supply system was put into the refueling water canal. For unknown reasons, the nozzle was opened. The refueling water canal overflowed into the spent fuel pool. The spent fuel pool overflowed into the safety injection and refueling water tank. The refueling water tank overflowed and the contaminated water flowed under the fuel shipment door to the outside grounds.
Source File(s):	19950400-fc-nuclear-power-experience-summary.pdf		
Fort Calhoun	**Unit 1**	20040700	Water from the reverse osmosis unit in an old warehouse outside of the protected area leaked water that flowed into an adjacent area temporarily being used to store radioactively contaminated equipment. The spill was cleaned up and surveys indicated the water had not spread the contamination.
Source File(s):	20060731-fc-voluntary-groundwater-submittal.pdf		
Fort Calhoun	**Unit 1**	20070511	Chemistry department personnel detected tritium, cesium-137, and antimony-125 in water seeping into the transfer canal pump room (Room 24) of the auxiliary building through an exterior wall. The tritium level was 173,000 picocuries per liter and increasing.
Source File(s):	20070608-fc-report-of-groundwater-leak.pdf		
Grand Gulf	**Unit 1**	19970400	Radioactively contaminated water leaked from the plant chilled water system during the chller replacement work. Some of the leaked water entered the storm drain system and flowed to the Mississippi River via the Hamilton Lake.
Source File(s):	20060731-ggns-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Grand Gulf	**Unit 1**	19971209	Radioactively contaminated water leaked into the ground during hydrolaser activities in the fuel storage pool. Contaminated rocks and dirt were excavated.
Source File(s):	20060731-ggns-voluntary-groundwater-submittal.pdf		
Grand Gulf	**Unit 1**	19991030	Radioactively contaminated water leaked from a hydrolaser. Containment paint was removed and rocks and dirt excavated as part of the cleanup effort.
Source File(s):	20060731-ggns-voluntary-groundwater-submittal.pdf		
Grand Gulf	**Unit 1**	20060606	Radioactively-clean water leaked from the firewater system inside the auxiliary building. The water picked up enough radiaoctivity from the floor to be detectable. The now radioactively contaminated water leaked through a doorway to the area outside the auxiliary building.
Source File(s):	20060731-ggns-voluntary-groundwater-submittal.pdf		
H. B. Robinson	**Unit 2**	19730410	During testing of the safety injection system, about 500 gallons of radioactively contaminated water from the refueling water storage tank spilled into the site storm drain and flowed into Black Creek.
Source File(s):	20060724-hbr-voluntary-groundwater-submittal.pdf 19740211-hbr-aec-cp&l-radioactive-liquid-spills.pdf		
H. B. Robinson	**Unit 2**	19730423	The refueling water storage tank overflowed and 8,925 gallons of radioactively contaminated water spilled into the site storm drain and flowed into Black Creek.
Source File(s):	20060724-hbr-voluntary-groundwater-submittal.pdf		
H. B. Robinson	**Unit 2**	19740510	A leak from steam generator A sent 360 gallons of radioactively contaminated water to the site storm drain where it flowed into Black Creek.
Source File(s):	20060724-hbr-voluntary-groundwater-submittal.pdf		
H. B. Robinson	**Unit 2**	19750503	A tanker collecting water from the waste disposal system was overfilled and approximately two gallons of radioactively contaminated water spilled into the site storm drain where it flowed into Black Creek.
Source File(s):	20060724-hbr-voluntary-groundwater-submittal.pdf		
H. B. Robinson	**Unit 2**	19760000	In the original design, the site storm drains discharged via a ditch into Black Creek. After a series of spills of radioactively contaminated water, the site storm drains were redirected into the west settling pond.
Source File(s):	20060724-hbr-voluntary-groundwater-submittal.pdf		
H. B. Robinson	**Unit 2**	19771026	A thermowell coupling on a boron injection tank failed spilling approximately 148 gallons of radioactively contaminated water into the site storm drain where it flowed into the west setting pond.
Source File(s):	20060724-hbr-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
H. B. Robinson	**Unit 2**	19790202	A demineralizer drain valve leak allowed radioactively contaminated water from the refueling water storage tank to flow into the site storm drain where it flowed to the west settling pond.
Source File(s):	20060724-hbr-voluntary-groundwater-submittal.pdf		
H. B. Robinson	**Unit 2**	19810000	Approximately 1,862 cubic feet of radioactively contaminated soil from a chemical decontamination spill were removed and disposed of as radwaste.
Source File(s):	20060724-hbr-voluntary-groundwater-submittal.pdf		
H. B. Robinson	**Unit 2**	19811027	Approximately 3,600 gallons of radiaoctively contaminated water leaked from a temporary tank holding chemical decontamination waste water and flowed into the site storm drain where it flowed on to the west settling pond.
Source File(s):	20060724-hbr-voluntary-groundwater-submittal.pdf		
H. B. Robinson	**Unit 2**	19880809	Approximately 184 gallons of radioactively contaminated water leaked from drains in the environmental and radiation control building to the site storm drain where it flowed to the west settling pond.
Source File(s):	20060724-hbr-voluntary-groundwater-submittal.pdf		
H. B. Robinson	**Unit 2**	20000221	During freezing weather, radioactively contaminated water leaked from the abandoned "B" waste evaporator cooling tower into the ground beneath it.
Source File(s):	20060724-hbr-voluntary-groundwater-submittal.pdf		
H. B. Robinson	**Unit 2**	20011204	Resin fill valve CVC-224 leaked radiaoctively contaminated water to the site storm drain where it flowed into the west settling pond.
Source File(s):	20060724-hbr-voluntary-groundwater-submittal.pdf		
Haddam Neck		19690503	Radioactively contaminated liquid leaked after an improper valve lineup caused the boron recovery tank to rupture.
Source File(s):	19860703-cy-ornl-review-operating-experience.pdf		
Haddam Neck		19690506	A broken pipe resulted in a spill of 500 gallons of radioactively contaminated water in the boron recovery area.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf 19860703-cy-ornl-review-operating-experience.pdf		
Haddam Neck		19730621	An unplanned release of radioactive gases occurred due to a leaking valve in the purification system.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf		
Haddam Neck		19730621	An unplanned release of radioactively contaminated water occurred from the letdown system due to a procedural error.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf 19860703-cy-ornl-review-operating-experience.pdf		

Reactor	Date	Description
Haddam Neck	19731101	Approximately 270 liters of radioactively contaminated water leaked past a valve at the refueling water storage tank into the storm drain.
Source File(s):	20060727-cy-voluntary-groundwater-submittal.pdf	
Haddam Neck	19731102	A leaking heater valve for the radioactive waste storage tank resulted in the contamination of a storm drain.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	
Haddam Neck	19760128	Approximately 15 gallons of radioactively contaminated water leaked from the "A" recycle test tank into a diked area onsite.
Source File(s):	20060727-cy-voluntary-groundwater-submittal.pdf	
Haddam Neck	19760522	Radioactively contaminated watre leaked from a drain line into the ground from its location beneath the drumming room floor in the primary auxiliary building.
Source File(s):	20060727-cy-voluntary-groundwater-submittal.pdf	
Haddam Neck	19760712	The company informed the NRC that radiaoctively contaminated water (mostly tritium) leaked into the ground beneath the PAB floor from the steam generator waste discharge pipe and the service water effluent pipe.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	
Haddam Neck	19761214	Radioactively contaminated liquid leaked from a liquid waste line. The tritium concentration in the external sump increased.
Source File(s):	19860703-cy-ornl-review-operating-experience.pdf	
Haddam Neck	19770114	The company informed the NRC that radiaoctively contaminated water (mostly tritium) leaked into the ground beneath the PAB floor from the steam generator waste discharge pipe and the service water effluent pipe.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	
Haddam Neck	19770224	Approximately 1,000 gallons of radioactively contaminated water leaked from the "A" recycle test tank into a diked area onsite.
Source File(s):	20060727-cy-voluntary-groundwater-submittal.pdf	
Haddam Neck	19770310	The company informed the NRC that about 1,000 gallons of radioactively contaminated water had leaked from the recycle test tank.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	

Reactor	Date	Description
Haddam Neck	19771104	The company informed the NRC that the tritium levels in the river water near the discharge canal exceeded station limits. About 223,200 gallons of radioactively contaminated water was inadvertently discharged to the river. The liquid contained about 266 curies of tritium, 0.75 curies of fission and activation products, and 0.12 curies of dissolved noble gases.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf 19850300-nureg-cr-4067-barrier-degradation-and-small-accident-events.pdf	
Haddam Neck	19780331	The company informed the NRC that radiaoctively contaminated water (mostly tritium) leaked into the ground beneath the PAB floor from the steam generator waste discharge pipe and the service water effluent pipe.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	
Haddam Neck	19781027	The company informed the NRC that the tritium levels in the river water near the discharge canal exceeded station limits.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	
Haddam Neck	19781125	Workers determined that the contents of the boron water storage tank were leaking into the A & B wells.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	
Haddam Neck	19790223	Approximately 20 gallons of radioactively contaminated water leaked from a manway into the yard area following steam generator blowdown line rupture disc acutation.
Source File(s):	20060727-cy-voluntary-groundwater-submittal.pdf	
Haddam Neck	19790306	Radioactively contaminated water leaked from a manway into the yard area following steam generator blowdown line rupture disc acutation.
Source File(s):	20060727-cy-voluntary-groundwater-submittal.pdf	
Haddam Neck	19790810	The liquid waste discharge line leaked, contaminating soil near the hot machine shop driveway.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	
Haddam Neck	19791216	The degasifier diaphragm ruptured and radioactively contaminated water flowed to the main stack via the waste gas relief line.
Source File(s):	19800520-cy-report-on-contaminations.pdf	
Haddam Neck	19800207	The company informed the NRC that radioactively contaminated water had leaked from the boron waste storage tank.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	

Reactor	Date	Description
Haddam Neck	19800227	The company informed the NRC that radiaoctively contaminated water (mostly tritium) leaked into the ground beneath the PAB floor from the steam generator waste discharge pipe and the service water effluent pipe.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	
Haddam Neck	19800428	The drain line to storm drains from diked areas around tanks containing radioactively contaminated water broke.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	
Haddam Neck	19830328	Approximately 84 gallons of radioactively contaminated water leaked from the chemistry lab to a septic tank.
Source File(s):	20060727-cy-voluntary-groundwater-submittal.pdf	
Haddam Neck	19831213	Radioactively contaminated water was inadvertently discharged to the Connecticut River due to valve mispositioning.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	
Haddam Neck	19840911	Radioactively contaminated water spilled when a resin liner was overfilled.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	
Haddam Neck	19840913	Radioactively contaminated water spilled when a resin liner was overfilled.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	
Haddam Neck	19881011	Workers discovered radioactively contaminated soil while excavating near manhole #11.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	
Haddam Neck	19890100	Workers emptied radioactively contaminated water into a floor drain in the spent fuel building. The drain carried the water to an open trench that ran into a marshy area on the site. Radioactively contaminated water could then flow into the discharge canal and the Connecticut River.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	
Haddam Neck	19890224	Approximately 50 gallons of radioactively contaminated water leaked from the spent fuel building floor drain into the 155 kilovolt switchyard.
Source File(s):	20060727-cy-voluntary-groundwater-submittal.pdf	
Haddam Neck	19900322	Component cooling water was spilled into the storm sewer.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	

Reactor	Date	Description
Haddam Neck	19900914	Radioactively contaminated water leaked from the refueling water storage tank.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	
Haddam Neck	19900914	Workers identified a six gallon per day leak of radioactively contaminated water from the refueling water storage tank by water inventory monitoring efforts.
Source File(s):	20060727-cy-voluntary-groundwater-submittal.pdf	
Haddam Neck	19901219	It was reported that the leak rate from the refueling water storage tank had increased from 5 gallons per day to 30 gallons per day over the past three months.
Source File(s):	19950400-cy-nuclear-power-experience-summary.pdf	
Haddam Neck	19910812	Radiaoctively contaminated water spilled from the reactor coolant system into the pipe trench.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	
Haddam Neck	19910812	Approximately 400 gallons of radioactively contaminated water flowed through an open valve into the pipe trench.
Source File(s):	20060727-cy-voluntary-groundwater-submittal.pdf 19910812-cy-unusual-event-unplanned-radioactive-release.pdf	
Haddam Neck	19961007	Workers detected tritium in yard drains 4, 5, and 6.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	
Haddam Neck	19970822	Workers detected radioactivity in the sand near the refueling water storage tank.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	
Haddam Neck	19970924	Workers detected radioactivity in the soil at the shooting range.
Source File(s):	19980326-cy-nrc-ir-historical-contamination-issues.pdf	
Haddam Neck	20051031	The company informed the NRC of signs that radioactively contaminated water was leaking into the ground from the spent fuel pool.
Source File(s):	20051031-cy-der-leaking-spent-fuel-pool.pdf	

Reactor		Date	Description
Hope Creek	**Unit 1**	19950405	While using the decontamination solution evaporator to process radioactively contaminated liquid waste from the chemical waste tank, the operator twice responded to high differential pressure alarms across the demister by spraying the demister with water. Each time, the addition of water when heating steam continued to be supplied to the evaporator unit caused a buildup of steam and an increase in pressure. The pressure buildups were relieved when 60 gallon mixtures of radioactively contaminated water and steam were blown through a 6-inch diameter exhaust pipe to the south plant vent. The releases contaminated "a large area within the site protected area as well as onsite buildings and vehicles." Workers investigating the events observed "a radiaoctive reddish-brown liquid dripping from the [south plant vent] duct" but "assumed the reddish liquid drip to be a pre-existing condition."
Source File(s):	19951006-hc-nrc-info-notice-95-46-radwaste-evaporator-unplanned-release.pdf		
Humboldt Bay	**Unit 3**	19730126	Radioactively contaminated water overflowed the No. 2 concentrated radioactive liquid waste storage tank and drained into the outfall canal. The inlet valve to the tank had been left partially open while the drain valve was plugged. The water level inside the tank rose and leaked through an instrument line penetration to an outside sump which in turn drained to the outfall canal. Approximately 20 gallons was estimated to have leaked.
Source File(s):	19730202-hbay-aec-memo-unplanned-liquid-release.pdf		
Humboldt Bay	**Unit 3**	19770722	Workers identified leakage of radioactively contaminated water into the outfall canal. The source was identified as leakage of concentrates from the radioactive waste evaporator. The automatic sump pump failed to transfer the accumulating water from the radioactive waste evaporator. The concentrates were inadvertently released through a leaking valve in a line leading to the yard drain system, which empties into the outfall canal. The leak was estimated to be 2,000 to 3,000 gallons with a radioactivity level of 0.3 microcuries per millileter.
Source File(s):	19770728-hbay-pno-radioactive-liquid-leak.pdf		
Humboldt Bay	**Unit 3**	19970825	Approximately 10 gallons of radioactively contaminated water was inadvertently released to the discharge canal.
Source File(s):	19970825-hb-inspection-plan-inleakage-problem.pdf		
Humboldt Bay	**Unit 3**	19971212	The NRC discussed with the company the recent detection of tritium in well #1. Well #11 had had detectable levels of tritium for many years, which the company attributed to a spill from the condensate polishers in the 1960 time frame.
Source File(s):	19980122-hbay-decommissioning-inspection-plan.pdf		
Humboldt Bay	**Unit 3**	19980420	An NRC report mentioned that tritium had been detected in upgradient monitoring wells onsite.
Source File(s):	19980420-hb-decommissioning-inspection-plan-tritium-wells.pdf		
Humboldt Bay	**Unit 3**	20040000	Radioactively contaminated water leaked into the ground from the auxiliary boiler blowdown sump.
Source File(s):	20060731-tmi-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Indian Point	**Unit 1**	20060731	The company reported that radioactively contaminated water had leaked in the past from the Unit 1 spent fuel pool and from an impoundment area holding contaminated soil from a Unit 1 septic leach field into the ground.
Source File(s):	20060731-ip-voluntary-groundwater-submittal.pdf		
Indian Point	**Unit 2**	19880407	It was reported that 8,400 gallons of radioactively contaminated water leaked into the Hudson River through a crack in the condenser blowdown line from the refueling water storage tank heating coil.
Source File(s):	19950700-ip2-nuclear-power-experience-summary.pdf		
Indian Point	**Unit 2**	20060321	The company announced that elevated levels of strontium-90 had been detected in a monitoring well near the Hudson River.
Source File(s):	2		
Indian Point	**Unit 2**	20060731	The company reported that radioactively contaminated water had leaked in the past from the Unit 2 spent fuel pool.
Source File(s):	20060731-ip-voluntary-groundwater-submittal.pdf		
Indian Point	**Unit 3**	20060321	The company announced that elevated levels of strontium-90 had been detected in a monitoring well near the Hudson River.
Source File(s):	20060321-ip-entergy-release-tritium-detection.pdf		
James A. FitzPatrick		19910318	After the auxiliary boiler was contaminated with liquid radioactive waste evaporator bottoms, radioactivity was released to the atmosphere when the auxiliary boiler was overpressurized forcing its pressure relief valve to open. A rain shower caused radioactivity to fall onto the facility property and flow into the storm drains, resulting in an unmonitored release into Lake Ontario.
Source File(s):	20060801-jaf-voluntary-groundwater-submittal.pdf		
Joseph M. Farley	**Unit 1**	20060731	The company reported that at some unspecified date in the past, radioactively contaminated water leaking from a broken underground radioactive liquid effluent line rose to the surface of the ground near the Unit 2 reactor makeup water storage tank. After repairing the leaking pipe, worker excavated the contaminated soil and shipped it to a radwaste disposal facility.
Source File(s):	20060731-hatch-vogtle-farley-voluntary-groundwater-submittal.pdf		
Joseph M. Farley	**Unit 1**	20060731	The company reported that at some unspecified date in the past, radioactively contaminated water leaked from a buried Unit 1 steam generator blowdown discharge line into the ground on the south side of the snubber test building. After repairing the broken line, workers excavated contaminated soil and shipped it to a radwaste disposal facility.
Source File(s):	20060731-hatch-vogtle-farley-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Joseph M. Farley	**Unit 1**	20060731	The company reported that during the early years of unit operation, spills of radioactively contaminated water on a concrete processing pad during transfer of resins, sludges, waste evaporator bottoms, and dewatering liquid got into the ground beneath the facility through small cracks in the concrete.
Source File(s):	20060731-hatch-vogtle-farley-voluntary-groundwater-submittal.pdf		
Joseph M. Farley	**Unit 2**	20020308	Radioactively contaminated water from a broken undeground liquid effluent pipe was detected when it rose to the ground surface near the Unit 2 reactor water makeup water storage tank. Workers repaired the broken pipe and transferred contaminated soil to drums for shipment to an offsite radwaste processing facility.
Source File(s):	20100506-nrc-tritum-database-report.pdf		
Joseph M. Farley	**Unit 2**	20060731	The company reported that during the early years of unit operation, spills of radioactively contaminated water on a concrete processing pad during transfer of resins, sludges, waste evaporator bottoms, and dewatering liquid got into the ground beneath the facility through small cracks in the concrete.
Source File(s):	20060731-hatch-vogtle-farley-voluntary-groundwater-submittal.pdf		
Joseph M. Farley	**Unit 2**	20060731	The company reported that at some unspecified date in the past, radioactively contaminated water leaking from a broken underground radioactive liquid effluent line rose to the surface of the ground near the Unit 2 reactor makeup water storage tank. After repairing the leaking pipe, worker excavated the contaminated soil and shipped it to a radwaste disposal facility.
Source File(s):	20060731-hatch-vogtle-farley-voluntary-groundwater-submittal.pdf		
Kewaunee		20060809	Workers identified tritium in samples of groundwater at several location beneath the auxiliary and turbine buildings.
Source File(s):	20060814-kw-pno-tritium-detected.pdf		
LaSalle County	**Unit 1**	19850000	During 1984 and 1985, radioactively contaminated water leaked into the ground from a break in the buried high pressure core spray return line to the cycled condensate storage tank. Contaminated soil was excavated and shipped to a radwaste disposal facility.
Source File(s):	20060731-lasalle-voluntary-groundwater-submittal.pdf		
LaSalle County	**Unit 1**	20100701	The company informed the NRC that tritium concentrations of up to 700,000 picocuries per liter had been detected in the berm areas around the two condensate storage tanks. Workers identified an ative leak near the base of the Unit 1 condensate storage tank.
Source File(s):	20100702-ls-pno-cst-leaking.pdf		
LaSalle County	**Unit 2**	19850000	During 1984 and 1985, radioactively contaminated water leaked into the ground from a break in the buried high pressure core spray return line to the cycled condensate storage tank. Contaminated soil was excavated and shipped to a radwaste disposal facility.
Source File(s):	20060731-lasalle-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
LaSalle County	**Unit 2**	19850527	The rupture of a buried high pressure core spray return pipe to the condensate storage tank released about 200,000 of radioactively contaminated water into the ground near the offgas filter building. Samples of the water indicated low but detectable amounts of radioactivity.
Source File(s):	19950700-lasalle-nuclear-power-experience-summary.pdf		
LaSalle County	**Unit 2**	20010900	Radioactively contaminated water entered the ground when the Unit 2 cycled condensate storage tank overflowed.
Source File(s):	20060731-lasalle-voluntary-groundwater-submittal.pdf		
Limerick	**Unit 1**	20020300	Radioactively contaminated water leaked from the steam seal evaporator through the blow-down panel on the north side of the turbine building into the ground. Six inches of gravel over an area of approximately 100 square feet was excavated and shipped to a licensed radioactive water disposal facility.
Source File(s):	20060728-lgs-voluntary-groundwater-submittal.pdf		
Limerick	**Unit 2**	20020300	Radioactively contaminated water leaked from the steam seal evaporator through the blow-down panel on the north side of the turbine building into the ground. Six inches of gravel over an area of approximately 100 square feet was excavated and shipped to a licensed radioactive water disposal facility.
Source File(s):	20060728-lgs-voluntary-groundwater-submittal.pdf		
McGuire	**Unit 1**	19870300	Radioactively contaminated water spilled from a rupture of the Unit 1 reactor make-up water storage tank. Contaminated soil was excavated.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
McGuire	**Unit 1**	20030626	Workers detected tritium in the groundwater drainage system sump collecting drainage from under the site.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
McGuire	**Unit 1**	20040617	Tritium levels greater than baseline values were detected in two temporary monitoring wells west of the conventional waste holdup ponds.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
McGuire	**Unit 1**	20080204	The company reported that a leak in the final holdup pond allowed approximately 100,000 gallons of radioactively contaminated water to leak into the groundwater.
Source File(s):	20080204-mcguire-der-inadvertent-release.pdf		
McGuire	**Unit 2**	19920710	Radioactively contaminated water leaked from piping between the Unit 2 refueling water storage tank and the shield wall. Contaminated soil was excavated.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
McGuire	**Unit 2**	20030626	Workers detected tritium in the groundwater drainage system sump collecting drainage from under the site.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
McGuire	**Unit 2**	20040617	Tritium levels greater than baseline values were detected in two temporary monitoring wells west of the conventional waste holdup ponds.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
McGuire	**Unit 2**	20050520	A groundwater sample from a monitoring station near the Unit 2 equipment staging building measured a tritium level of 138,000 picocuries per liter, substantially above the EPA limit of 20,000 picocuries per liter.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
McGuire	**Unit 2**	20060214	A groundwater sample from a monitoring station at the northeast corner of the auxiliary building measured tritium levels of 35,200 picocuries per liter, above the EPA standard of 20,000 picocuries per liter.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
McGuire	**Unit 2**	20060215	A groundwater sample from a monitoring station at the northeast corner of the auxiliary building measured tritium levels of 33,800 picocuries per liter, above the EPA standard of 20,000 picocuries per liter.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
McGuire	**Unit 2**	20060310	A groundwater sample from a monitoring station at the northeast corner of the auxiliary building measured tritium levels of 33,100 picocuries per liter, above the EPA standard of 20,000 picocuries per liter.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
McGuire	**Unit 2**	20060501	A groundwater sample from a monitoring station at the northeast corner of the auxiliary building measured tritium levels of 31,900 picocuries per liter, above the EPA standard of 20,000 picocuries per liter.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
McGuire	**Unit 2**	20060601	A groundwater sample from a monitoring station at the northeast corner of the auxiliary building measured tritium levels of 33,200 picocuries per liter, above the EPA standard of 20,000 picocuries per liter.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
McGuire	**Unit 2**	20060621	A groundwater sample from a monitoring station at the northeast corner of the auxiliary building measured tritium levels of 30,000 picocuries per liter, above the EPA standard of 20,000 picocuries per liter.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
McGuire	**Unit 2**	20060702	A groundwater sample from a monitoring station at the northeast corner of the auxiliary building measured tritium levels of 30,000 picocuries per liter, above the EPA standard of 20,000 picocuries per liter.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
McGuire	**Unit 2**	20060717	A groundwater sample from a monitoring station at the northeast corner of the auxiliary building measured tritium levels of 26,300 picocuries per liter, above the EPA standard of 20,000 picocuries per liter.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
McGuire	**Unit 2**	20060726	A groundwater sample from a monitoring station at the northeast corner of the auxiliary building measured tritium levels of 31,700 picocuries per liter, above the EPA standard of 20,000 picocuries per liter.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
McGuire	**Unit 2**	20080204	The company reported that a leak in the final holdup pond allowed approximately 100,000 gallons of radioactively contaminated water to leak into the groundwater.
Source File(s):	20080204-mcguire-der-inadvertent-release.pdf		
Millstone	**Unit 1**	19750300	An improperly wired conductivity cell allowed radioactively contaminated water to flow into the house heating bolier makeup system. Overflow from the deaerating feed tank and surge tank resulted in an unfiltered and unmonitored release of radioactively contaminated water.
Source File(s):	NRC Circular 77-12		
Millstone	**Unit 1**	19750327	1,200 workers were evacuated from the plant site after Unit 1 operators mistakenly mixed contaminated water with clean water.
Source File(s):	19931100-cer-report-appendix-b.pdf 19850300-nureg-cr-4067-barrier-degradation-and-small-accident-events.pdf		
Millstone	**Unit 1**	19760212	Following an automatic reactor scram, the main steam isolation valves closed and the isolation condensor actuated per design. A tube in the isolation condenser failed and radioactively contaminated water entered the shell side of the condenser and exited through the condenser vent. The vent discharged radioactively contaminated water and steam outside the reactor building. 20 55-gallon drums of contaminated soil was excavated and sent to a licensed low-level waste dump.
Source File(s):	19760212-mp1-pno-isolation-condenser-leak-causes-ground-contamination.pdf 19760400-mp1-article-history.pdf		

Reactor		Date	Description
Millstone	**Unit 1**	19761118	Workers investigating the reason for water vapor emanating from a catch basin in the Unit 1 transformer yard determined that the catch basin water was radioactively contaminated. Further investigation determined the source of the radioactively contaminated water to be the condensate return system for the house heating steam boilers. Workers terminated the discharge. An investigation concluded the leakage pathway had been used intermittently between May 28, 1976, and November 18, 1976, and approximately 200,000 gallons of radioactively contaminated water was inadvertently released over this period.
Source File(s):	19761119-mp1-nu-nrc-radioactive-water-leak.pdf 19761119-mp-pno-radioactive-liquid-release.pdf		
Millstone	**Unit 1**	19761129	The company informed the NRC that approximately 450 gallons of radioactively contaminated water had been pumped out of a waste oil sump near the reactor building that was not intended to contain radioactive liquid. The spent fuel pool had been inadvertently overfilled, with radioactively contaminated water flowing into the ventilation ducts installed just above normal fuel pool height. The water dripped from the ductwork into machinery pedestals for the recirculation pumps and into the pumps' waste oil drains.
Source File(s):	19761129-mp-nu-nrc-radioactive-liquid-leaks.pdf		
Millstone	**Unit 2**	20060804	The company reported ten occurrences involving inadvertent releases of radioactively contaminated water onsite. The dates, amounts, and specifics of these leaks was not made public.
Source File(s):	20060804-kw-mp-na-surry-voluntary-groundwater-submittal.pdf		
Millstone	**Unit 3**	20060804	The company reported ten occurrences involving inadvertent releases of radioactively contaminated water onsite. The dates, amounts, and specifics of these leaks was not made public.
Source File(s):	20060804-kw-mp-na-surry-voluntary-groundwater-submittal.pdf		
Millstone	**Unit 3**	20071128	A sample of water taken from the foundation drain sump outside of the engineered safety features building measured a tritium concentration of 34,000 picocuries per liter. Water from this sump is pumped to the station yard drain system and discharged to the Long Island Sound.
Source File(s):	20071129-mp3-der-tritium-detection.pdf		
Monticello		19711119	A radioactive waste storage tank overflowed and 53,000 gallons of contaminated water spilled into the Mississippi River. About 10,000 gallons entered the Minneapolis drinking water system.
Source File(s):	19931100-cer-report-appendix-b.pdf		
Monticello		19810730	About 1,500 gallons of radioactively contaminated water leaked from waste storage tanks and some flowed into the Mississippi River.
Source File(s):	19931100-cer-report-appendix-b.pdf		
Monticello		20090910	The company reported that a sample taken from a new monitoring well measured a tritium concentration of 21,300 picocuries per liter. The source of this tritium was not yet identified.
Source File(s):	20090910-mn-der-tritium-detected.pdf		

Reactor		Date	Description
North Anna	**Unit 1**	20060804	The company reported 56 occurrences involving inadvertent releases of radioactively contaminated water onsite. The dates, amounts, and specifics of these leaks was not made public.
Source File(s):	20060804-kw-mp-na-surry-voluntary-groundwater-submittal.pdf		
North Anna	**Unit 2**	20060804	The company reported 56 occurrences involving inadvertent releases of radioactively contaminated water onsite. The dates, amounts, and specifics of these leaks was not made public.
Source File(s):	20060804-kw-mp-na-surry-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 1**	19730910	Approximately 20 gallons of radioactively contaminated water spilled onto the ground when a Chem-Nuclear tank truck overflowed as waste from the B miscellaneous waste hold-up tank was being transferrred.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 1**	19741218	Approximately 50 gallons of radioactively contaminated water spilled onto the ground when a Chem-Nuclear tank truck overflowed.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 1**	19770118	Radioactively contaminated water was pumped from the turbine building sump following a primary-to-secondary leak to the upper settling basin, lower settling basin, and waste oil collection basin. The waste oil collection basin overflowed.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 1**	19800716	Approximately 5 gallons of radioactively contaminated water spilled onto the ground from a liner in the mobile solidification area south of the interim radwaste building as the liner was being filled. The leak was through an inspection hole in the cask holding the liner.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 1**	19820224	Workers discovered a leak of radioactively contaminated water from liquid waste disposal valves LWD-686 and LWD-668 into a trench during transfer of concentrates from the interim radwaste facility to a Chem-Nuclear solidification unit.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 1**	19850425	Radioactively contaminated water and spent Powdex resin was inadvertently transferred from cells 1A and 1D to the lower settling pond instead of to the Powdex backwash receiving tank.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 1**	19850610	Approximately 517 gallons of radioactively contaminated water containing Powdex resin was releaed to the yard drain system.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Oconee	**Unit 1**	19871007	Approximately 30,000 gallons of radioactively contaminated water spilled from the borated water storage tank during maintenance work. A freeze plug was being used during the maintenance. When the nitrogen supply to the freeze plug was exhausted, the freeze plug thawed. Borated water storage tank water leaked from welds into the pipe chase pit and then into the yard drain system.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 1**	19900517	Approximately 10,000 gallons of radioactively contaminated water overflowed the Unit 1 and Unit 2 spent fuel pool and into the cask decon pit and other areas of the auxiliary building. About 60 gallons of the spilled water flowed through a floor drain in the spent fuel pool change room to the sanitary waste lagoon. Another 50 gallons spilled onto the pavement outside the fuel receiving bay roll-up door.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 1**	20001129	Radioactively contaminated water spilled at the treatment storage disposal facility and contaminated some soil.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 2**	19730910	Approximately 20 gallons of radioactively contaminated water spilled onto the ground when a Chem-Nuclear tank truck overflowed as waste from the B miscellaneous waste hold-up tank was being transferrred.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 2**	19770118	Radioactively contaminated water was pumped from the turbine building sump following a primary-to-secondary leak to the upper settling basin, lower settling basin, and waste oil collection basin. The waste oil collection basin overflowed.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 2**	19781205	Approximately 1 gallon of radioactively contaminated water spilled onto the pavement when a small cask used to transfer radioactive material inside the protected area fell off the back of a traveling truck.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 2**	19800529	The Unit 2 tendon gallery was found flooded to a depth of nearly two feet of radioactively contaminated water. The source of the water was the decon tank toom via the reactor building / auxiliary building interface.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 2**	19800716	Approximately 5 gallons of radioactively contaminated water spilled onto the ground from a liner in the mobile solidification area south of the interim radwaste building as the liner was being filled. The leak was through an inspection hole in the cask holding the liner.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Oconee	**Unit 2**	19820224	Workers discovered a leak of radioactively contaminated water from liquid waste disposal valves LWD-686 and LWD-668 into a trench during transfer of concentrates from the interim radwaste facility to a Chem-Nuclear solidification unit.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 2**	19840906	Radioactively contaminated water and spent Powdex resin was inadvertently transferred from cells 2D and 2E to the upper settling pond instead of to the Powdex backwash receiving tank.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 2**	19850331	Radioactively contaminated water leaked from the low pressure injection system into the east penetration room and down the outside of the auxiliary building wall to an area near the reactor building equipment hatch. Approximately 50 gallons of water entered the yard drain system.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 2**	19850610	Approximately 517 gallons of radioactively contaminated water containing Powdex resin was releaed to the yard drain system.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 2**	19900517	Approximately 10,000 gallons of radioactively contaminated water overflowed the Unit 1 and Unit 2 spent fuel pool and into the cask decon pit and other areas of the auxiliary building. About 60 gallons of the spilled water flowed through a floor drain in the spent fuel pool change room to the sanitary waste lagoon. Another 50 gallons spilled onto the pavement outside the fuel receiving bay roll-up door.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 2**	20001129	Radioactively contaminated water spilled at the treatment storage disposal facility and contaminated some soil.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 3**	19730910	Approximately 20 gallons of radioactively contaminated water spilled onto the ground when a Chem-Nuclear tank truck overflowed as waste from the B miscellaneous waste hold-up tank was being transferrred.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 3**	19770118	Radioactively contaminated water was pumped from the turbine building sump following a primary-to-secondary leak to the upper settling basin, lower settling basin, and waste oil collection basin. The waste oil collection basin overflowed.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Oconee	**Unit 3**	19790516	Approximately 2,000 gallons of radioactively contaminated water overflowed the borated water storage tank during draindown of the fuel transfer canal and about 300 gallons flowed through vent 2LP-59 to a west pentration room floor drain, then flowed under a door to the ground outside.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf 19791019-nrc-circular-79-21-unplanned-radioactive-liquid-releases.pdf		
Oconee	**Unit 3**	19791016	Approximately 130 gallons of radioactively contaminated low pressure injection system water spilled into the west penetration room through gaseous waste disposal system valve 3GWD0152 and onto the ground.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 3**	19791110	Radioactively contaminated water from the Unit 3 once-through-steam-generator sample line was drained through tygon tubing connected to an adjacent restroom sink to the onsite sewage treatment plant and discharged through the waste oil collection basin.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 3**	19800716	Approximately 5 gallons of radioactively contaminated water spilled onto the ground from a liner in the mobile solidification area south of the interim radwaste building as the liner was being filled. The leak was through an inspection hole in the cask holding the liner.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 3**	19820224	Workers discovered a leak of radioactively contaminated water from liquid waste disposal valves LWD-686 and LWD-668 into a trench during transfer of concentrates from the interim radwaste facility to a Chem-Nuclear solidification unit.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 3**	19820709	Radioactively contaminated water spilled into the ground near the Unit 3 solidificaiton area while a portable demineralizer was being filled.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 3**	19850610	Approximately 517 gallons of radioactively contaminated water containing Powdex resin was releaed to the yard drain system.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oconee	**Unit 3**	20001129	Radioactively contaminated water spilled at the treatment storage disposal facility and contaminated some soil.
Source File(s):	20060803-catawba-oconee-mcguire-voluntary-groundwater-submittal.pdf		
Oyster Creek		19731220	About 3,400 gallons of radioactively contaminated water leaked into the ground after the drain line from a temporary storage tank froze and cracked.
Source File(s):	19850300-nureg-cr-4067-barrier-degradation-and-small-accident-events.pdf		

Reactor	Date	Description
Oyster Creek	19750206	Radioactively contaminated water was inadvertently discharged from the plant when the backwash valves on a condenser waterbox were left open while workers inspected the condenser for leaking tubes.
Source File(s):	19830100-oc-nureg-0822-systematic-evaluation-program.pdf	
Oyster Creek	19750213	During a refueling outage, workers testing for condenser tube leaks allowed primary coolant to reach the secondary side of the condenser and then directly to the discharge canal.
Source File(s):	19850300-nureg-cr-4067-barrier-degradation-and-small-accident-events.pdf	
Oyster Creek	19790417	Radioactively contaminated water leaked from a drywell equipment drain tank. Water in the pipe tunnel had a measured radioactivity level of 0.3 picocuries per cubic centimeter and soil in the vicinity where the pipe tunnel penetrates the reactor building was found to be contaminated.
Source File(s):	19791019-nrc-circular-79-21-unplanned-radioactive-liquid-releases.pdf	
Oyster Creek	19810210	Radioactively contaminated water seeped through a three-feet thick concrete wall around the new radwaste building. Leakage from the condensate transfer system overflowed into the three chemical waste collection tank vaults. Surveys showed detectable ground contamination within six inches of the outside wall.
Source File(s):	19830100-oc-nureg-0822-systematic-evaluation-program.pdf	
Oyster Creek	19810421	An estimated 10,000 gallons of radioactively contaminated water leaked into the ground from a valve inside the condensate transfer pump building.
Source File(s):	19830100-oc-nureg-0822-systematic-evaluation-program.pdf	
Oyster Creek	19820930	Workers discovered that radioactively contaminated water leaked into the ground from the waste storage tank located outside of the northwest side of the old radwaste building.
Source File(s):	19821123-oc-ler-groundwater-contamination.pdf	
Oyster Creek	19830100	Radioactively contaminated water spilled from a chemical waste storage tank in the new radwaste building.
Source File(s):	19950100-oc-nuclear-power-experience-summary.pdf	
Oyster Creek	19870126	A 4-inch diameter condensate storage tank drain line valve cracked, spilling about 2,000 gallons of radioactively contaminated water into the ground.
Source File(s):	19950100-oc-nuclear-power-experience-summary.pdf	
Oyster Creek	19960900	Approximately 130,000 gallons of radioactively contaminated water leaked from the condensate system to the discharge canal and then to Barnegat Bay. The radioactivity in the leaked water was estimated to be 75 curies, mostly tritium.
Source File(s):	20060328-nrc-list-of-past-tritium-leaks.pdf	

Reactor	Date	Description
Oyster Creek	20090415	Workers determined tritium levels of 102,000 picocuries per liter in water sampled from the emergency service water vault.
Source File(s):	20090415-oc-condition-report-tritium-in-esw-vault.pdf	
Oyster Creek	20090425	Workers identified and repaired a leak in an 8-inch diameter pipe between the plant and the condensate storage tank.
Source File(s):	20090500-oc-estimated-tritium-leakage-report.pdf	
Oyster Creek	20090427	Workers identified and repaired a leak from a 10-inch diameter pipe between the plant and the condensate storage tank.
Source File(s):	20090500-oc-estimated-tritium-leakage-report.pdf	
Oyster Creek	20090825	Workers determined that leakage from a condensate transfer pipe as it passed through a penetration sleeve in a turbine building wall flowed into the ground.
Source File(s):	20090908-oc-nrc-ir-underground-piping-leak.pdf	
Palisades	19741205	Radioactively contaminated water was released from the laundry system without prior monitoring / sampling.
Source File(s):	19821000-pal-nureg-0820-systematic-evaluation-program.pdf	
Palisades	19750401	Approximately 288 gallons of radioactively contaminated water were released from the liquid radwaste system without prior monitoring / sampling.
Source File(s):	19821000-pal-nureg-0820-systematic-evaluation-program.pdf 19750411-pal-ler-inadvertent-release.pdf	
Palisades	19790609	Workers transferred secondary system spent powdered resins to an outside storage bin without monitoring. A rain storm caused the storage bin to overflow with radioactively contaminated water and resins washed into a storm drain and flowing into Lake Michigan.
Source File(s):	19791019-nrc-circular-79-21-unplanned-radioactive-liquid-releases.pdf	
Palisades	19800913	A fork lift transporting a canister of radioactive waste hit a pot hole. About two gallons of radioactively containment liquid spilled from the canister when it slipped from the forks. Workers removed the contaminated soil and placed it it waste barrels for disposal.
Source File(s):	20100428-pal-site-hydrology-report-groundwater-protection.pdf	
Palisades	19840106	While sluicing resin from tank T-104 to an unused resin bin, workers discovered that the plug was missing from the storm drain and that resin was spilling onto the ground. About 10 gallons spilled and may have entered the storm drain.
Source File(s):	20100428-pal-site-hydrology-report-groundwater-protection.pdf	

Reactor		Date	Description
Palisades		19910328	As resin was being sluiced from tank T-104B to a resin storage cask, a clog pressurized and broke the transfer hose. About 20 cubic feet of resin spilled into the turbine building and onto the pavement outside. Workers decontaminated the pavement and turbine building floor.
Source File(s):	20100428-pal-site-hydrology-report-groundwater-protection.pdf		
Palisades		19920324	While sluicing resin from steam generator blowdown demineralizer T-104A, about half a barrel spilled onto the pavement near the resin storage cask. Some of the radioactively contaminated water may be entered the storm drain.
Source File(s):	20100428-pal-site-hydrology-report-groundwater-protection.pdf		
Palisades		19940507	A truck transporting a box of contaminated soil hit a bump, causing the box to fall from the truck. The box borke open and deposited about half its contents onto the road near the south radwaste building.
Source File(s):	20100428-pal-site-hydrology-report-groundwater-protection.pdf		
Palisades		19940809	An undetermined amount of radioactively contaminated liquid leaked from tank T-91 into the valve pit shared with tank T-90. Approximately 450 cubic feet of contaminated soil down to five feet were remediated.
Source File(s):	20100428-pal-site-hydrology-report-groundwater-protection.pdf		
Palisades		20060731	The company reported that at unspecified dates in the past, cooling tower overflow incidents resulted in non-radioactively contaminated water flowing through the south storage building that contained radioactively contaminated equipment. The now radioactively contaminated run-off flow contaminated soil around the structure to a depth of six inches.
Source File(s):	20060731-pal-pb-mn-pi-voluntary-groundwater-submittal.pdf		
Palisades		20060731	The company reported that at some unspecified date in the past, 2,790 gallons of radioactively contaminated water leaked from utility water storage tank (T-91) onto the floor. Some water seeped through the wall of the room into the ground.
Source File(s):	20060731-pal-pb-mn-pi-voluntary-groundwater-submittal.pdf		
Palisades		20071210	Workers determined tritium levels of 22,000 picocuries per liter in a monitoring well recently installed at the site.
Source File(s):	20071211-pal-der-tritium-leak.pdf		
Palo Verde	**Unit 2**	19930319	Approximately 4,000 gallons of radioactively contaminated water leaked from the condensate system into the ground north of the Unit 2 turbine building.
Source File(s):	20060728-pv-voluntary-groundwater-submittal.pdf		
Palo Verde	**Unit 3**	20060301	Workers discovered tritium from an unidentified source in the subsurface water in the Unit 3 yard area.
Source File(s):	20060728-pv-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Peach Bottom	**Unit 2**	19840326	After a sample of the high pressure service water system was found to be contaminated, workers found a leak in the expansion bellows portion of the residual heat removal heat exchanger. The leak provided an unmonitored release pathway for the discharge of radioactively contaminated liquid.
Source File(s):	19930100-pch-nuclear-power-experience-summary.pdf		
Peach Bottom	**Unit 2**	20090731	The company informed the NRC that samples taken outside the northeast corner of the Unit 3 turbine building had tritium concentrations of 127,252 picocuries per liter.
Source File(s):	20090731-pch-exelon-nrc-groundwater-leak.pdf		
Peach Bottom	**Unit 3**	19830303	During refueling with the reactor cavity flooded and connected to the spent fuel pool, residual heat removal (RHR) pumps A and B inadvertently started. The water they injected into the reactor vessel overfilled the reactor cavity. Some of the overflow poured down the equipment hatch and went under the railroad bay doors into the storm drain system and then the river.
Source File(s):	19850300-nureg-cr-3950-v1-fuel-performance-1983.pdf 19850300-nureg-cr-4067-barrier-degradation-and-small-accident-events.pdf		
Peach Bottom	**Unit 3**	19860216	Radioactively contaminated water overflowed the Unit 3 condensate storage tank into the ground. Soil was excavated and shipped to a licensed radioactive waste disposal facility.
Source File(s):	20060728-pch-voluntary-groundwater-submittal.pdf 19930100-pch-nuclear-power-experience-summary.pdf		
Peach Bottom	**Unit 3**	20090731	The company informed the NRC that samples taken outside the northeast corner of the Unit 3 turbine building had tritium concentrations of 127,252 picocuries per liter.
Source File(s):	20090731-pch-exelon-nrc-groundwater-leak.pdf		
Perry	**Unit 1**	19891206	Due to a defective level gauge, a settling tank in the radwaste system overflowed and about 2,000 gallons of condensate water leaked onto the floor.
Source File(s):	19891208-perry-pno-offgas-loop-seal.pdf		
Perry	**Unit 1**	20060731	The company reported that radioactively contaminated water leaked into the underdrain system and that leaks from plant system leaked through seismic gaps between plant buildings into the underdrain system (dates unspecified).
Source File(s):	20060731-bv-db-perry-voluntary-groundwater-submittal.pdf		
Pilgrim	**Unit 1**	19750930	Approximately 1-2 gallons of radioactively contaminated water spilled from a truck moving a metal cask filled with radioactive diatomaceous earth.
Source File(s):	20060731-pg-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Pilgrim	**Unit 1**	19760610	Approximately 150 gallons of radioactively contaminated water overflowed a disposable resin cask on a truck and spilled onto the ground outside the radwaste building. About 400 square feet were contaminated. Workers confined the spill with vermiculite and commenced cleanup.
Source File(s):	19760611-pg-pno-radioactive-water-spill.pdf		
Pilgrim	**Unit 1**	19760924	Approximately 10 to 20 gallons of radioactively contaminated water leaked on a hole punched into a 55-gallon drum of spent resin by a barrel jack. The area was decontaminated.
Source File(s):	20060731-pg-voluntary-groundwater-submittal.pdf		
Pilgrim	**Unit 1**	19770802	While spent fuel pool resin was being transferred to the spent resin storage tank, radioactively contaminated water flowed through an open vent valve onto the pavement outside the radwaste truck lock door. The spilled water was mopped up and the contaminated asphalt paved over.
Source File(s):	20060731-pg-voluntary-groundwater-submittal.pdf		
Pilgrim	**Unit 1**	19810107	Radioactively contaminated water and resin leaked through two one-inch diameter valves on the condensate resin fill hopper on condensate demineralizer "B" and flowed towards a storm drain. The spill was cleaned up and surveys of the storm drain detected no radioactivity.
Source File(s):	20060731-pg-voluntary-groundwater-submittal.pdf		
Pilgrim	**Unit 1**	19820611	Approximately one cubic foot of condensate demineralizer resin was inadvertently exhausted to the vent duct when a condensate demineralizer was being backwashed. The ducting carried the resin out of the reactor building exhaust.
Source File(s):	20060731-pg-voluntary-groundwater-submittal.pdf		
Pilgrim	**Unit 1**	19860925	Radioactively contaminated water and sludge leaked onto the ground when a 55-gallon drum fell over during transport. The area was decontaminated.
Source File(s):	20060731-pg-voluntary-groundwater-submittal.pdf		
Pilgrim	**Unit 1**	19881116	Due to a valve inadvertently left open, 2,300 gallons of radioactively contaminated water spilled form a container of used filters on the process building floor. The water flowed outside the building towards the inner site boundary fence. About 1,000 cubic feet of gravel and earth were removed during the remediation effort.
Source File(s):	19950100-pg-nuclear-power-experience-summary.pdf		
Pilgrim	**Unit 1**	19881116	Approximately 2,600 gallons of radioactively contaminated water overflowed from a radwaste cask liner filled with diatomaceous earth when a demineralizer water fill valve was left open. The overflow spilled into the radwate truck lock and about 200 gallons flowed onto the pavement in the yard. The affected areas were decontaminated and repaved.
Source File(s):	20060731-pg-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Pilgrim	**Unit 1**	20100708	The company reported that a sample from a new monitoring well near the condensate storage tank indicated a tritium concentration of 11,072 picocuries per liter.
Source File(s):	20100708-pg-der-tritium-leak-by-cst.pdf		
Point Beach	**Unit 1**	19750200	Approximately 10,000 gallons of radioactively contaminated water flowed into an onsite retention pond following a steam generator tube rupture event. Some radioactively contaminated water leaked from the pond into the groundwater.
Source File(s):	20060731-pal-pb-mn-pi-voluntary-groundwater-submittal.pdf		
Point Beach	**Unit 1**	19870619	Approximately 160 gallons of reactor coolant from the Unti 1 letdown system was released to Lake Michigan via the Unit 2 service water system due to an improper valve alignment.
Source File(s):	19950700-pb-nuclear-power-experience-summary.pdf		
Point Beach	**Unit 1**	19970000	Radioactively contaminated water leaked from a buried discharge pipe into the ground, where it welled up to the surface. Most of the water ran into a stream on the east side of the sewage treatment plant and then into Lake Michigan.
Source File(s):	20060731-pal-pb-mn-pi-voluntary-groundwater-submittal.pdf		
Point Beach	**Unit 2**	19970000	Radioactively contaminated water leaked from a buried discharge pipe into the ground, where it welled up to the surface. Most of the water ran into a stream on the east side of the sewage treatment plant and then into Lake Michigan.
Source File(s):	20060731-pal-pb-mn-pi-voluntary-groundwater-submittal.pdf		
Prairie Island	**Unit 1**	19890000	Elevated levels of tritium, but below the EPA drinking water limits, were detected in the well of a nearby residence. It was concluded that the source of the tritium was from leakage from the discharge canal or possibly from a leaking underground liquid radioactive waste discharge pipe. In 1991, the company installed a double-walled radioactive liquid discharge pipe.
Source File(s):	20060731-pal-pb-mn-pi-voluntary-groundwater-submittal.pdf		
Prairie Island	**Unit 1**	19920000	Workers detected low levels of cobalt-60, cesium-134, and cesium-137 in the soil in an area where high turbidiy water is discharged from the turbine building sump. In 1998, workers excavated the contaminated soil and shipped it to a radwaste disposal facility.
Source File(s):	20060731-pal-pb-mn-pi-voluntary-groundwater-submittal.pdf		
Prairie Island	**Unit 1**	20060805	During annual maintenance on the plant heating boiler, workers redirected water normally discharged into the turbine building sump into a drain that was routed to gravel outside the turbine building. The water discharged to the gravel area contained detectable levels of tritium.
Source File(s):	20060807-pi-der-tritium-detection.pdf		

Reactor		Date	Description
Prairie Island	**Unit 2**	19890000	Elevated levels of tritium, but below the EPA drinking water limits, were detected in the well of a nearby residence. It was concluded that the source of the tritium was from leakage from the discharge canal or possibly from a leaking underground liquid radioactive waste discharge pipe. In 1991, the company installed a double-walled radioactive liquid discharge pipe.
Source File(s):	20060731-pal-pb-mn-pi-voluntary-groundwater-submittal.pdf		
Prairie Island	**Unit 2**	19920000	Workers detected low levels of cobalt-60, cesium-134, and cesium-137 in the soil in an area where high turbidiy water is discharged from the turbine building sump. In 1998, workers excavated the contaminated soil and shipped it to a radwaste disposal facility.
Source File(s):	20060731-pal-pb-mn-pi-voluntary-groundwater-submittal.pdf		
Prairie Island	**Unit 2**	20060805	During annual maintenance on the plant heating boiler, workers redirected water normally discharged to the turbine building sump through a drain to a gravel area outside the turbine building. This water contained detectable levels of tritium.
Source File(s):	20060807-pi-der-tritium-detection.pdf		
Quad Cities	**Unit 1**	19760325	Approximately 4,000 gallons of radioactively contaminated water were discharged to the river at a rate five times the technical specification limit due to a calculation error.
Source File(s):	19760326-qc-pno-chemical-waste-sample-tank-discharge.pdf		
Quad Cities	**Unit 1**	19860300	Radioactively contaminated water leaked onto the blacktop east of the Unit 1 integrated leak rate compressor.
Source File(s):	20060731-qc-voluntary-groundwater-submittal.pdf		
Quad Cities	**Unit 1**	19890606	Workers discovered that slightly radioactive water from the laundry drain tank had leaked through a hole in the laundry drain tank into the laundry sample tank transfer line. This water then entered the day tank skid drain line which also contained holes. The water flowed through this line to the discharge bay. Water also flowed along the trench holding the day tank skid drain line through a deteriorated penetration to an area outside of the turbine building.
Source File(s):	19890710-qc1-ler-radioactive-liquid-release.pdf		
Quad Cities	**Unit 2**	19750800	Radioactively contaminated water from a feedwater system leak flowed under a turbine building roll-up door into the ground.
Source File(s):	20060731-qc-voluntary-groundwater-submittal.pdf		
Quad Cities	**Unit 2**	19760325	Approximately 4,000 gallons of radioactively contaminated water were discharged to the river at a rate five times the technical specification limit due to a calculation error.
Source File(s):	19760326-qc-pno-chemical-waste-sample-tank-discharge.pdf		

Reactor		Date	Description
Quad Cities	**Unit 2**	19791200	Radioactively contaminated water leaked onto the blacktop east of the Unit 1 reactor building while workers drained Unit 2 residual heat removal heat exchanger 2B.
Source File(s):	20060731-qc-voluntary-groundwater-submittal.pdf		
R. E. Ginna		19950000	Workers discovered that the steam generator overboard blowdown pipe was leaking radioactively contaminated water into the groundwater. At the time, the unit had significant primary-to-secondary leakage (50 cubic centimeters per minute) in the steam generator. The down-gradient sample wells recorded a peak level of 20,000 picocuries/liter of tritium.
Source File(s):	20060731-cc-nmp-ginna-voluntary-groundwater-submittal.pdf		
Rancho Seco		19750000	Approximately 1,765 gallons of radioactively contaminated water overflowed the regenerant hold-up tank and reached the plant effluent release point.
Source File(s):	20060400-rs-license-termination-plan.pdf		
Rancho Seco		19840000	Approximately 500 gallons of radioactively contaminated water from T-993 reached the environment when a drain hose failed.
Source File(s):	20060400-rs-license-termination-plan.pdf		
Rancho Seco		19840000	Approximately 900 gallons of radiaoctively contaminated water overflowed the condensate storage tank (T-358) and reached the environment.
Source File(s):	20060400-rs-license-termination-plan.pdf		
Rancho Seco		19850000	Approximately 1,000 gallons of radioactively contaminated water leaked from regenerant hold-up tank B to the environment.
Source File(s):	20060400-rs-license-termination-plan.pdf		
Rancho Seco		19860306	On January 6, 1986, workers made a temporary change to the operating procedure for the Demineralized Reactor Coolant Storage Tank System to allow pumping radioactively contaminated water from the Demineralized Reactor Coolant Storage Tank (T-621) to either Regeneration Hold-up Tank (T-950 A or B) for release to the environment. The technical specifications permitted temporary changes to procedures provided the intent of the procedure is unaltered and the change is reviewed and approved by the Plant Review Committee within seven days. Despite neither of these two conditions being satisfied, workers used the temporary procedure change to discharge about 350,000 gallons of radioactively contaminated water to the environment between January 6, 1986, and March 6, 1986. The NRC included this violation in the $100,000 civil penalty proposed on January 13, 1989.
Source File(s):	19890113-rs-ea-radioactive-effluents.pdf		

Reactor		Date	Description
Rancho Seco		19860313	The company terminated "the pumping of radioactive water from the Demineralized Reactor Coolant Storage Tank (T-621) through a temporary conduit to either Regeneration Hold-up Tank (T-950 A or B), and ultimately released to the environment. The NRC included this practice (begun in January 1983) in the $100,000 civil penalty proposed on January 13, 1989.
Source File(s):	19890113-rs-ea-radioactive-effluents.pdf		
Rancho Seco		19860606	From March 30, 1983, to January 6, 1986, and from March 6, 1986, to March 30, 1986, The company had no procedure in place to control the transfer of radioactively contaminated water from the Demineralized Reactor Coolant Storage Tank (T-621) to either Regeneration Hold-up Tank (T-950 A or B) for ultimate release to the environment. In 1985, approximately 787,500 gallons of radioactively contaminated water were released to the environment via this uncontrolled process. The NRC included this violation in the $100,000 civil penalty proposed on January 13, 1989.
Source File(s):	19890113-rs-ea-radioactive-effluents.pdf		
Rancho Seco		19861116	Leakage from a small flaw in the spent fuel storage pool seeped through the concrete walls of the fuel storage building and resulted in an unplanned offsite release.
Source File(s):	19880300-nureg-cr-3950-v4-fuel-performance-1986.pdf 19890300-nureg-cr-3950-v5-fuel-performance-1987.pdf		
Rancho Seco		19880000	Approximately 88 gallons of radioactively contaminated water leakage from moisture separator reheater valves and flowed through turbine building floor drains to the environment.
Source File(s):	20060400-rs-license-termination-plan.pdf		
Rancho Seco		19900000	Approximately 500 gallons of radioactively contaminated water leaked from the tritium evaporator (RWS-730) into a storm drain south of the east cooling tower.
Source File(s):	20060400-rs-license-termination-plan.pdf		
Rancho Seco		19930000	Approximately 450 gallons of radioactively contaminated water leaked from a regenerant hold-up tank agitator into a storm drain.
Source File(s):	20060400-rs-license-termination-plan.pdf		
Rancho Seco		20020000	Approximately 450 gallons of radioactively contaminated water leaked from a regenerant hold-up tank agitator into a storm drain.
Source File(s):	20060400-rs-license-termination-plan.pdf		
River Bend	**Unit 1**	20030624	Worker identified small leak in the buried two-inch diamter fiberglass line of the liquid radwaste system during excavation in the security isolation zone south of the turbine building.
Source File(s):	20060731-rb-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
River Bend	**Unit 1**	20080116	Workers identified water leaking from a cooling tower blowdown line. The water, estimated to be approximately 720 gallons, flowed into a nearby storm drain and into East Creek, where flow is discharged into the Mississippi River. A sample taken at East Creek measured a tritium concentration of 28,042 picocuries per liter while a sample from the leak location measured a tritium concentration of 129,456 picocuries per liter.
Source File(s):	20081105-rb-condition-report-leak.pdf		
Salem	**Unit 1**	19770224	Approximately 10 gallons of radioactively contaminated water resulted when a Unit 1 floor drain backed up near the Unit 1 / Unit 2 auxiliary building fence line boundary. The water ran across the floor into an open drain on the Unit 2 side, spilling onto the floor below. A roving watch discovered the puddle. Workers seeking to correct the problem inadvertently placed a full waste holdup tank in service, causing approximately 2,600 gallons of radioactively contaminated water to overflow the tank and flow into the moat on the Unit 1 side.
Source File(s):	19770224-s-pno-radioactive-liquid-spill.pdf		
Salem	**Unit 1**	19771009	Approximately 600 gallons of radioactively contaminated water were inadvertently pumped from a liquid waste tank into a circulating water discharge pipe instead of to a tanker truck.
Source File(s):	19771011-s-pno-inadvertent-release-radioactive-liquid.pdf		
Salem	**Unit 1**	20021200	Workers identified radioactively contaminated water leaking from the Unit 1 spent fuel pool into the ground.
Source File(s):	20060727-s-voluntary-groundwater-submittal.pdf 20031015-salem-ir-spent-fuel-pool-leak.pdf		
Salem	**Unit 2**	19830418	Radioactively contaminated water was inadvertently released from the liquid radwaste system due to damaged valves.
Source File(s):	19950400-s-nuclear-power-experience-summary.pdf		
Salem	**Unit 2**	19830422	Radioactively contaminated water was inadvertently released from the liquid radwaste system due to damaged valves.
Source File(s):	19950400-s-nuclear-power-experience-summary.pdf		
Salem	**Unit 2**	20070524	Approximately 20,000 gallons of condensate water containing hydrazine and tritium leaked into the yard area east of the Unit 2 Condensate Polisher Building after a sight glass failed on the #24 Condensate Polishing System Demineralizer Vessel.
Source File(s):	20070627-s2-pseg-report-20000-gallon-spill.pdf 20070524-s2-der-tritium-release.pdf		
Salem	**Unit 2**	20100406	Samples from the Unti 2 north storm drain system indicated a tritium concentration over 1 million picocuries per liter. The source of this tritium had not yet been identified.
Source File(s):	20100406-s2-der-tritium-detection.pdf		

Reactor		Date	Description
San Onofre	**Unit 1**	19810000	Workers found radioactive contamination of the beach to the southwest corner of the site. A 13-foot deep by 12-foot wide portion of the beach was excavated and 21,900 cubic feet of contaminated sand was shipped to Richland, WA for burial. The excavation revealed a damaged "out-of-service" storm drainline that penetrated the Unit 1 seawall. Small leaks of radioactively contaminated water from various Unit 1 systems collected in the yard drain system and entered the damaged discharge pipe.
Source File(s):	20010000-songs1-history.pdf		
San Onofre	**Unit 1**	19810717	An explosion in a radioactive gas holding tank damaged the tank and caused an unplanned release of radioactive gases (about 8.8 curies).
Source File(s):	19931100-cer-report-appendix-b.pdf 19831200-nureg-cr-3430-nuclear-plant-operating-experience-1981.pdf		
San Onofre	**Unit 1**	19860000	Workers found that spent fuel pool water had leaked through the pool's liner and filled the leakage collection system and well. Radioactively contaminated water penetrated through the concrete wall of the spent fuel pool and exuded from a outdoor concrete slab adjacent to the fuel handling building. The liner leak was patched with epoxy.
Source File(s):	20010000-songs1-history.pdf		
San Onofre	**Unit 1**	20060807	Workers identified tritium levels of 50,000 to 330,000 picocuries per liter in samples taken at the Unit 1 site.
Source File(s):	20060815-songs-pno-tritium-leak.pdf		
San Onofre	**Unit 2**	19830300	Radioactively contaminated water leaked from a hose connection on the recirculation line of a Unit 2 / Unit 3 refueling water storage tank onto the roof of the tank farm building. Roof drains carried the water into the storm drain system and then into the main circulating water outfall.
Source File(s):	20060801-songs-voluntary-groundwater-submittal.pdf		
San Onofre	**Unit 2**	19880600	Radioactively contaminated water entered the storm drain when the Unit 2 fuel handling building sump backed up.
Source File(s):	20060801-songs-voluntary-groundwater-submittal.pdf		
San Onofre	**Unit 2**	19890500	Workers determined that a sampling trough being used to collect relief leakage from Unit 2 and 3 secondary plant system sample valves was draining to an unmonitored sump.
Source File(s):	20060801-songs-voluntary-groundwater-submittal.pdf		
San Onofre	**Unit 3**	19830300	Radioactively contaminated water leaked from a hose connection on the recirculation line of a Unit 2 / Unit 3 refueling water storage tank onto the roof of the tank farm building. Roof drains carried the water into the storm drain system and then into the main circulating water outfall.
Source File(s):	20060801-songs-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
San Onofre	**Unit 3**	19861000	Approximately 100 gallons of radioactively contaminated water leaked from the Unit 3 refueling water storage tank during maintenance and flowed into the storm drain system.
Source File(s):	20060801-songs-voluntary-groundwater-submittal.pdf		
San Onofre	**Unit 3**	19890500	Workers determined that a sampling trough being used to collect relief leakage from Unit 2 and 3 secondary plant system sample valves was draining to an unmonitored sump.
Source File(s):	20060801-songs-voluntary-groundwater-submittal.pdf		
Seabrook	**Unit 1**	19990600	Workers found radioactively contaminated water leaking at an estimated rate of 10 to 30 gallons per day from the spent fuel cask wash pit / transfer canal area. Tritium was detected in the subsurface water under the powerblock building. Applicable of a non-metallic liner in 2004 stopped the leak. Prior to the repair, the areas were often drained and maintained dry to prevent leakage.
Source File(s):	20060731-sb-st-lucie-tp-daec-voluntary-groundwater-submittal.pdf		
Sequoyah	**Unit 1**	19850000	Radioactively contaminated water leached through a concrete wall of the condensate demineralizer waste evaporator building into the ground.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Sequoyah	**Unit 1**	19970500	Approximately 3,000 gallons of radioactively contaminated water spilled from the modularized transfer demineralization system when a conductivity probe failed. An estimated 600 to 1,000 gallons flowed through the railroad bay door to the ground outside.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Sequoyah	**Unit 1**	20020400	Prior to excavation for the steam generator replacement crane foundation, sampling identified contaminated soil surrounding the Unit 1 refueling water storage tnak moat drain.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Sequoyah	**Unit 1**	20060700	An investigation to identify sources of tritum in groundwater found detectable levels of tritium in the Unit 1 and Unit 2 refueling water storage tank moat water.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Sequoyah	**Unit 2**	19850000	Radioactively contaminated water leached through a concrete wall of the condensate demineralizer waste evaporator building into the ground.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Sequoyah	**Unit 2**	19850000	Radioactively contaminated water sprayed from a burst hose through a doorway in the Unit 2 additional equipment building to the ground outside.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Sequoyah	**Unit 2**	19950500	Workers identified contaminated soil at the outfall of the Unit 2 refueling water storage tank moat drain pipe.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Sequoyah	**Unit 2**	19970500	Approximately 3,000 gallons of radioactively contaminated water spilled from the modularized transfer demineralization system when a conductivity probe failed. An estimated 600 to 1,000 gallons flowed through the railroad bay door to the ground outside.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Sequoyah	**Unit 2**	19980100	Radioactively contaminated water overflowed the Unit 2 additional equipment building sump and out the doorway to the ground outside. Contaminated concrete and soil was remediated.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Sequoyah	**Unit 2**	20060700	An investigation to identify sources of tritum in groundwater found detectable levels of tritium in the Unit 1 and Unit 2 refueling water storage tank moat water.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Shearon Harris	**Unit 1**	19950700	Workers identified radioactively contaminated soil caused by runoff from the outdoor spent fuel car staging area.
Source File(s):	20060727-harris-voluntary-groundwater-submittal.pdf		
Shearon Harris	**Unit 1**	20090401	An independent consultant concluded that radioactively contaminated water was leaking into the ground from the buried cooling tower blowdown line. This buried pipe carried water from the cooling tower basin to Harris lake. It is used to dilute liquid radwaste discharges. Tritium concentrations of 2,120 picocuries per liter were measured.
Source File(s):	20090401-harris-talking-points-tritium-blowdown-line.pdf		
Shearon Harris	**Unit 1**	20100110	An operator on routine rounds discovered water leaking from an eigh-inch diamter fiberglass waste neutralization basin flash mixer return pipe. An estimated 1,000 gallons of water containing a low level of tritium (5,590 picocuries per liter) leaked into the soil.
Source File(s):	20100112-harris-der-tritium-detection.pdf		
South Texas Project	**Unit 1**	19890815	Workers found radiological contamination in a stairwell in the mechanical auxiliary building. Further inquiry identified a valve lineup problem in the radiological waste evaporator that resulted in reactor coolant draining into the inorganic basin outside the power block but inside the protected area.
Source File(s):	19890815-stp-pno-radioactive-contamination.pdf		

Reactor		Date	Description
St. Lucie	**Unit 1**	19770406	Appromimately 3,800 gallons of radioactively contaminated water overflowed the Unit 1 refueling water tank onto the ground. Approximately 2,856 gallons entered the storm drains and flowed to a settling basin withn the protected area. The spill was estimated to contain 3.27 curies of radioactivity with 1.61 curies reaching the settling basin.
Source File(s):	20060731-sb-st-lucie-tp-daec-voluntary-groundwater-submittal.pdf		
St. Lucie	**Unit 1**	19930615	Workers found that the refueling water tank had leaked approximately 55,141 gallons of radioactively contaminated water into the ground. It was estimated that the leaked water contained 6.54 curies, with 6.5 curies of tritium.
Source File(s):	20060731-sb-st-lucie-tp-daec-voluntary-groundwater-submittal.pdf		
St. Lucie	**Unit 1**	19950819	Approximately 11,250 gallons of radioactively contaminated water overflowed the primary water tank onto the ground and into sform drains. It was estimated that the leaked water contained 3.94 curies of tritium.
Source File(s):	20060731-sb-st-lucie-tp-daec-voluntary-groundwater-submittal.pdf		
St. Lucie	**Unit 1**	20000720	Approximately 100 gallons of radioactively contaminated water spilled onto the ground after painters accidentally punctured the 12C waste monitor tank.
Source File(s):	20060731-sb-st-lucie-tp-daec-voluntary-groundwater-submittal.pdf		
St. Lucie	**Unit 1**	20010920	Approximately 83 gallons of radioactively contaminated water leaked onto the ground from a hose connected to waste monitor tank 1A.
Source File(s):	20060731-sb-st-lucie-tp-daec-voluntary-groundwater-submittal.pdf		
St. Lucie	**Unit 1**	20020208	Approximately 15 gallons of radioactively contaminated water leaked onto the ground when a resin dewatering hose became disconnected from a floor drain. About five gallons reached the storm drains.
Source File(s):	20060731-sb-st-lucie-tp-daec-voluntary-groundwater-submittal.pdf		
St. Lucie	**Unit 1**	20040413	Approximately 2,400 gallons of radioactively contaminated water overflowed the refueling water tank onto the ground and into the storm drain system.
Source File(s):	20060731-sb-st-lucie-tp-daec-voluntary-groundwater-submittal.pdf		
St. Lucie	**Unit 1**	20050905	During dredging of the discharge canal, a pipe containing radioactively contaminated water was broken. Several cubic yards of contaminated spoils were discharged to an area by the nuclear training center.
Source File(s):	20060731-sb-st-lucie-tp-daec-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
St. Lucie	**Unit 1**	20061010	A sample of water drawn from montioring well MW-6 had a tritium concentration of 14,050 picocuries per liter. A consultant retained to investigate two tritium spike events concluded that this event was likely caused by leakage from the CS-500 recirculation line drain valve (V-07214) into the emergency core cooling system transfer tunnel. Water leaked from the transfer tunnel to the yard sump, where it drained to the component cooling water foundation floor. The water reached the ground through an unidentified below-grade leak.
Source File(s):	20071100-st-lucie-groundwater-tritium-spike-report.pdf		
St. Lucie	**Unit 1**	20070515	A sample drawn from monitoring well MW-6 had a tritium concentration of 15,120 picocuries per liter. A consultant retained to investigate two tritium spikes in this monitoring well concluded that this event was caused by leakage of water from the component cooling water heat exchanger vent valve (V-14163) on the the concrete foundation and through an unidentified crack to the ground.
Source File(s):	20071100-st-lucie-groundwater-tritium-spike-report.pdf		
St. Lucie	**Unit 1**	20070519	An estimated 6 to 10 gallons of radioactively contaminated water leaked from a temporary chiller heat exchanger unit. The leak was described as being a stream 3 feet wide by 10 feet long leading into a storm drain.
Source File(s):	20071100-st-lucie-groundwater-tritium-spike-report.pdf		
St. Lucie	**Unit 2**	20060719	Radioactively contaminated water was detected in and removed from an electrical cable vault at manways 211 and 291. Workers attributed the source as being in-leakage from surrounding soil contaminated in the past by leakage from the Unit 2 primary water storage tank and the Unit 2 refueling water storage tank.
Source File(s):	20071100-st-lucie-groundwater-tritium-spike-report.pdf		
Surry	**Unit 1**	19750314	The primary grade water tank overflowed. Radiologically contaminated water flowed into the discharge canal. Workers estimated the unplanned, uncontrolled release to be less than 1 perent of the maximum permissible concentration of radioactivity.
Source File(s):	19750314-surry-vepco-aec-inadvertent-spill.pdf		
Surry	**Unit 1**	20060804	The company reported eight occurrences involving inadvertent releases of radioactively contaminated water onsite. The dates, amounts, and specifics of these leaks was not made public.
Source File(s):	20060804-kw-mp-na-surry-voluntary-groundwater-submittal.pdf		
Surry	**Unit 1**	20071020	Workers detected water leaking from an undergrond concrete storm drain pipe carrying radioactively contaminated liquid from the plant to the station discharge canal. Workers excavated this pipe for inspections and observed water leaking from a pipe joint. The water had a tritium concentration of 31,900 picocuries per liter. The leak rate was estimated at one half gallon per day.
Source File(s):	20071022-surry-der-tritium-leak.pdf		

Reactor		Date	Description
Surry	**Unit 1**	20090303	Approximately 450 gallons of radioactively contaminated liquid was released from a relief valve onto the ground near the Primary Grade tanks in the yard outside the plant. Samples showed the tritium concentration to be 4,810 picocuries per liter and the cesium concentration to be 25.1 picocuries per liter.
Source File(s):	20090304-surry-der-tritium-spill.pdf		
Surry	**Unit 2**	20060804	The company reported eight occurrences involving inadvertent releases of radioactively contaminated water onsite. The dates, amounts, and specifics of these leaks was not made public.
Source File(s):	20060804-kw-mp-na-surry-voluntary-groundwater-submittal.pdf		
Surry	**Unit 2**	20071020	Workers detected water leaking from an undergrond concrete storm drain pipe carrying radioactively contaminated liquid from the plant to the station discharge canal. Workers excavated this pipe for inspections and observed water leaking from a pipe joint. The water had a tritium concentration of 31,900 picocuries per liter. The leak rate was estimated at one half gallon per day.
Source File(s):	20071022-surry-der-tritium-leak.pdf		
Susquehanna	**Unit 1**	19831200	A Unit 1 condensate system leak flowed into a Unit 2 turbine building central area sump which was being pumped into a temporary sump outside the Unit 2 turbine building. Once discovered, the contaminated liquid was removed from the affected sumps and the sumps were decontaminated.
Source File(s):	20060720-sses-voluntary-groundwater-submittal.pdf		
Susquehanna	**Unit 2**	19831200	A Unit 1 condensate system leak flowed into a Unit 2 turbine building central area sump which was being pumped into a temporary sump outside the Unit 2 turbine building. Once discovered, the contaminated liquid was removed from the affected sumps and the sumps were decontaminated.
Source File(s):	20060720-sses-voluntary-groundwater-submittal.pdf		
Susquehanna	**Unit 2**	19880400	A Unit 2 condensate system leak moved past the radiologically controlled area boundary at the turbine building train bay door. Workers cleanup up the contaminated water and affected soil.
Source File(s):	20060720-sses-voluntary-groundwater-submittal.pdf		
Susquehanna	**Unit 2**	19950200	Water leaked from the condensate system into a drain pipe in the area of the Unit 2 condensate storage tank berm. A survey of the berm area showed very low levels of radioactive materials.
Source File(s):	20060720-sses-voluntary-groundwater-submittal.pdf		
Three Mile Island	**Unit 1**	19860000	Radioactively contaminated water leaked from the borated water storage tank.
Source File(s):	20060731-tmi-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Three Mile Island	**Unit 1**	19950000	Radioactively contaminated water leaked into the ground from the auxiliary boiler blowdown sump.
Source File(s):	20060731-tmi-voluntary-groundwater-submittal.pdf		
Three Mile Island	**Unit 1**	19960000	Radioactively contaminated water leaked from the borated water storage tank.
Source File(s):	20060731-tmi-voluntary-groundwater-submittal.pdf		
Three Mile Island	**Unit 1**	19970000	Radioactively contaminated water leaked from the borated water storage tank.
Source File(s):	20060731-tmi-voluntary-groundwater-submittal.pdf		
Three Mile Island	**Unit 1**	19990000	Radiaoctively contaminated water leaked into the ground from the radwate discharge line.
Source File(s):	20060731-tmi-voluntary-groundwater-submittal.pdf		
Three Mile Island	**Unit 1**	20060601	Radioactively contaminated water leaked into the ground from a broken de-icing line on the condensate storage tank. Between May 17 and May 31, 2006, workers pumped about 4,000 gallons of water from an overflowing manway to the ground, thinking it was clean water. A sample, however, measured tritium concentrations of up to 45,000 picocuries per liter.
Source File(s):	20060731-tmi-voluntary-groundwater-submittal.pdf 20060928-exelon-tritium-analysis-report.pdf		
Turkey Point	**Unit 3**	19790328	Approximately 25 gallons of radioactively contaminated water leaked onto the ground from the level instrument line on the refueling water storage tank.
Source File(s):	20060731-sb-st-lucie-tp-daec-voluntary-groundwater-submittal.pdf		
Turkey Point	**Unit 3**	19790611	Approximately 900 gallons of radioactively contaminated water overflowed a waste processing tank due to an operator error in aligning valves. The auxiliary building floor drain backed up to the onsite storm drain. The drain system discharged the radioactively contaminated water to an onsite underground tile bed.
Source File(s):	19791019-nrc-circular-79-21-unplanned-radioactive-liquid-releases.pdf		
Turkey Point	**Unit 3**	19821106	Approximately 600 gallons of radioactively contaminated water spilled from the B monitor tank as laundry water was being transferred to the tank. The water spilled to the high head safety injection pump room, component cooling room, and potentially to the storm drain system.
Source File(s):	20060731-sb-st-lucie-tp-daec-voluntary-groundwater-submittal.pdf		
Turkey Point	**Unit 4**	19751021	Approximately 880 gallons of radioactively contaminated water stored in 55-gallon drums in the cask wash area was inadvertently pumps into a storm drain. It was estimated that 2.1 curies of cobalt-58 and cobalt-60 was released through the storm drains.
Source File(s):	20060731-sb-st-lucie-tp-daec-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Turkey Point	**Unit 4**	19751106	Workers discovered that radioactively contaminated water had been leaking through the Unit 4 spent fuel pit concrete wall at an estimated rate of 2 gallons per hour into the ground. It was estimated that 2,960 gallons reached the ground.
Source File(s):	20060731-sb-st-lucie-tp-daec-voluntary-groundwater-submittal.pdf		
Turkey Point	**Unit 4**	19780911	Approximately 150 gallons of radioactively contaminated water spilled into the pavement when the spent fuel pit cooling pump seal failed.
Source File(s):	20060731-sb-st-lucie-tp-daec-voluntary-groundwater-submittal.pdf		
Turkey Point	**Unit 4**	19790828	Approximately 3,000 gallons of radioactively contaminated water overflowed the refueling water storage tank and spilled onto the ground. It was estimated the spilled water contained 1.091 curies.
Source File(s):	20060731-sb-st-lucie-tp-daec-voluntary-groundwater-submittal.pdf		
Turkey Point	**Unit 4**	19821106	Approximately 600 gallons of radioactively contaminated water spilled from the B monitor tank as laundry water was being transferred to the tank. The water spilled to the high head safety injection pump room, component cooling room, and potentially to the storm drain system.
Source File(s):	20060731-sb-st-lucie-tp-daec-voluntary-groundwater-submittal.pdf		
Turkey Point	**Unit 4**	19880816	Approximately 1,460 gallons of radioactively contaminated water leaked from the spent fuel pit cooling pump. It was estimated that 6 to 7 gallons leaked into the storm drains.
Source File(s):	20060731-sb-st-lucie-tp-daec-voluntary-groundwater-submittal.pdf 19880817-tp-pno-spent-fuel-cooling-spill.pdf		
Turkey Point	**Unit 4**	20050510	Approximately 5 gallons of radioactively contaminated water leaked onto the ground when a 3/4-inch diameter hose used to fill the reactor cavity inadvertently siphoned water out of the cavity and onto the ground near the Unit 4 tendon gallery.
Source File(s):	20060731-sb-st-lucie-tp-daec-voluntary-groundwater-submittal.pdf		
Vermont Yankee		19760720	Approximately 83,000 gallons of radioactively contaminated water overflowed the condensate storage tank into the storm drain system to the Connecticut River over a two-day period.
Source File(s):	20060731-vy-voluntary-groundwater-submittal.pdf 19760805-vy-ler-cst-spill-of-tritium.pdf		
Vermont Yankee		20100301	The company informed the NRC that samples from six onsite monitoring wells detected tritium concentrations exceeding 20,000 picocuries per liter. The highest reading was 2.5 million picocuries per liter.
Source File(s):	20100301-vy-tritium-release-report.pdf		
Virgil C. Summer		19870202	Inadvertent activation of the fire service system flooded the fuel handling building charcoal plenum. The non-radioactive fire water picked up radioactivity from the charcoal and transported it to the yard and storm drains.
Source File(s):	20060731-summer-voluntary-groundwater-submittal.pdf		

Reactor		Date	Description
Virgil C. Summer		19920805	Workers found radioactivity traces in and around a liquid radwaste discharge line leak detection manhole.
Source File(s):	20060731-summer-voluntary-groundwater-submittal.pdf		
Waterford	**Unit 3**	19970521	Approximately 800 gallons of radioactively contaminated water overflowed the spent fuel pool onto the ground due to a valve misalignment.
Source File(s):	20060731-wf-voluntary-groundwater-submittal.pdf		
Watts Bar	**Unit 1**	19981200	Radioactively contaminated soil was discovered beneath the concrete radwaste pad.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Watts Bar	**Unit 1**	20030000	Beginning in 2003, tritium leaching into the ground from the plant has been found in site monitoring points.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Watts Bar	**Unit 1**	20040000	The radwaste line was discovered to be leaking.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Watts Bar	**Unit 1**	20050000	The radwaste line was discovered to be leaking.
Source File(s):	20060804-bfnp-sqn-wb-voluntary-groundwater-submittal.pdf		
Wolf Creek	**Unit 1**	20010000	Workers identified leakage of spent fuel pool water past the stainless steel liner in the spent fuel pool. The leaked water entered the leak detection and collection system. It was the third spent fuel pool liner leak to have been discovered. The liner was repaired each time.
Source File(s):	20060725-wc-voluntary-groundwater-submittal.pdf		
Yankee Rowe		19610920	A half-liter container of radioactively contaminated water was dropped on the asphalt between the primary auxiliary building and the waste disposal building. The spill was cleaned up with the residual contamination level measured at 0.05 millirem per hour at one inch from the pavement.
Source File(s):	20050126-yr-site-assessment-report.pdf		
Yankee Rowe		19630918	Approximately 10 gallons of radioactively contaminated water spilled onto the ground when a one-half inch sampling valve was inadvertently left open while filling the shield tank cavity from the safety injection tank. After cleanup, the residual contamination level was measured to be 70 to 100 millirem per hour at one inch off the pavement.
Source File(s):	20050126-yr-site-assessment-report.pdf		

Reactor	Date	Description
Yankee Rowe	19631008	The company informed the NRC that it had detected tritium concentrations of 3.2 million picocuries per liter from a monitoring well near the condensate storage tank and 500,000 picocuries per liter in an adjacent storm drain line. The company suspected an active leak in underground piping associated with the condensate storage tank.
Source File(s):	20050126-yr-site-assessment-report.pdf	
Yankee Rowe	19640903	Reactor coolant water laking through the seals of the shutdown cooling pumps back-flowed into the seal water tank. The tank overflowed and radiaoctively contaminated water spilled onto the roof of the primary auxiliary building. The roof drains flowed into the storm drainsystem. An estimated 35 gallons of radioactively contaminated water reached the storm drains via this pathway.
Source File(s):	20050126-yr-site-assessment-report.pdf	
Yankee Rowe	19640927	Approximately 33 gallons of radioactively contaminated water overflowed the spent fuel pit and ran down the exterior wall and across asphalt pavement into the storm drain system. The spent fuel pit overflow was caused by a mispositioned valve when an operator started the low pressure surge tank make-up pump in order to wash down a shipping cask.
Source File(s):	20050126-yr-site-assessment-report.pdf	
Yankee Rowe	19641003	Workers failed to close the fill valve after filling the ion exchange pit to its normal operating level. Radioactively contaminated water continued to flow by gravity feed from the primary water storage tank to the ion exchange pit. When an operator later noticed water seeping through the blacktop on the west side of the pit, the problem was identified and the fill valve closed.
Source File(s):	20050126-yr-site-assessment-report.pdf	
Yankee Rowe	19660927	When workers detected radioactivity in samples drawn from the west storm drain culvert, the ensuing investigation found a leaking relief valve on the safety injection tank heating system. Radioactively contaminated water from the leaking relief valve flowed into a floor drain in the primary auxiliary building that discharged to the storm drain.
Source File(s):	20050126-yr-site-assessment-report.pdf	
Yankee Rowe	19661101	Approximately 10 gallons of radioactively contaminated water flowed into a storm drain when the drain hose for the fuel chute de-watering pump burst.
Source File(s):	20050126-yr-site-assessment-report.pdf	
Yankee Rowe	19680116	Approximately 200 gallons of radioactively contaminated water flowed into the waste hold-up tank moat when the water in the suction line to the waste hold-up tank froze and caused a valve bonnet to fail.
Source File(s):	20050126-yr-site-assessment-report.pdf	

Reactor	Date	Description
Yankee Rowe	19720218	Workers found the isolation valve for the level indicator on the evaporator distillate test tank to be leaking at a rate reported to be 270 millileters per minute onto the gravel outside the facility. Workers repaired a ruptured diaphragm on the valve.
Source File(s):	19720315-yr-ler-inadvertent-liquid-release.pdf	
Yankee Rowe	19750716	10 of 14 areas sampled around the ion exchange pit were found to be contaminated to levels greater than 1000 disintegrations per minute per 100 square centimeters. Most of the contaminated surfaces were removed with the remaining contamination sealed in place with asphalt and covered with clean soil.
Source File(s):	20050126-yr-site-assessment-report.pdf	
Yankee Rowe	19771221	Workers conducting core borings of the ground inadvertently punctured the 2.5-inch diameter stainless steel pipe from the service building sump tanks to the primary auxiliary building with the boring bit. The workers did not realize they had broken the piping, located 15-feet below ground level, until the next day when the sump pump started and water came out of the bore hole. Approximately 20 gallons of radioactively contaminated water from the sump spilled from the broken pipe. The pipe was repaired and encased in a sand and concrete cover.
Source File(s):	20050126-yr-site-assessment-report.pdf	
Yankee Rowe	19800806	As workers were pumping resin into a disposal cask, radioactively contaminated water leaked from the transfer hose. A 15-foot by 20-foot area in the yard was contaminated. Some of the contaminated asphalt was removed and shipped to a licensed low-level radwaste dump.
Source File(s):	20050126-yr-site-assessment-report.pdf	
Yankee Rowe	19810515	As workers positioned the reactor vessel head over the equipment hatch, the reactor vessel head came into contact with the shield wall. Subsequent rainfall carried the radioactive contamination into the east storm drain.
Source File(s):	20050126-yr-site-assessment-report.pdf	
Yankee Rowe	19840910	Workers discovered that the underground drain pipe from the potentially contaminated area (PCA) storage building to the waste disposal building was leaking radioactively contaminated water. Approximately 420 cubic feet of contaminated dirt and rock were excavated and disposed of as radioactive waste.
Source File(s):	20050126-yr-site-assessment-report.pdf	
Yankee Rowe	19940217	The fuel chute de-watering pipe and a neutron shield tank telltale drain line froze and ruptured. A pile of snow had detectable levels of cobalt-60 and cesium-137. The radioactively contaminated snow was removed and sent to the radiological drains.
Source File(s):	20050126-yr-site-assessment-report.pdf	

Reactor		Date	Description
Zion	**Unit 1**	19770505	An NRC inspector identified an unmonitored, uncontrolled pathway for the release of radioactively contaminated water to the environment. The fire sump drain line was routed to the plant discharge point. NRC Region III estimated that up to 1,000 curies of tritium per year might have been released via this pathway.
Source File(s):	19770505-zion-pno-tritium-in-discharge.pdf		
Zion	**Unit 2**	19770505	An NRC inspector identified an unmonitored, uncontrolled pathway for the release of radioactively contaminated water to the environment. The fire sump drain line was routed to the plant discharge point. NRC Region III estimated that up to 1,000 curies of tritium per year might have been released via this pathway.
Source File(s):	19770505-zion-pno-tritium-in-discharge.pdf		