

Date	Facility	Report Classification	Accident report
April 2, 2017	Sendai NPP		At 16:24, while Units I and 2 were operating normally at Sendai Nuclear Power Plant, due to the investigation of problems with the bus bar at Sendai Thermal Power Plant, a problem arose where external power sources became unable to receive power usually supplied from Hitoyoshi Substation via Sendai Thermal Power Plant. While according to safety regulations it is required to have at least three external power supply circuits operating, only the two from South Kyushu Substation were secured, thus deviating from operational restrictions. At 21:12, a normal situation was restored. As Kyushu Electric Power Company confirmed that Sendai NPP was receiving power from the Hitoyoshi Substation via the Shin-Kagoshima Substation, bypassing Sendai Thermal Power Station, the deviation from operational restrictions was annulled at 19:15. However, as it was pointed out by the Nuclear Regulation Authority that this supply route was not included in the permission for changes to the establishment of the nuclear reactor or the construction plan approval, it was once again admitted that a deviation had taken place.
May 2, 2017	Hamaoka NPP	○	A worker on a patrol inspection discovered that a deposit of particle-like material had spread over the floor to an extent of 80cm by 70cm around a water drainage catch basin in the drum transport device maintenance room in the second floor of the basement of the waste volume reduction processing unit building (Building 1). Two further deposits were found in the same room and a further two more deposits in the next room, the drum management room. As the surface contamination density of the first deposit discovered was 141 Bq/cm <sup>2</sup> , exceeding the standard of 40 Bq/cm <sup>2</sup> , steps were taken to restrict entry to the area. It was confirmed that the deposits consisted of particulate resin, powdered resin, and metal scrap. These were found to contain cobalt-60, manganese-54, cesium-137 and zinc-65, the radiation being assessed as a total of 3,330 kBq. Chubu Electric Power Company presumed that the accident occurred because "effluent with a high concentration of resin was discharged (a cleaning operation of the cleaning drain receiving tank) into the building's water discharge system via the cleaning drain receiving tank due to implementation of a discharge operation from the dryer liquid supply tank B to the cleaning drain receiving tank."
May 22, 2017	Fukushima Daini Nuclear Power Station Unit 1		Circulating oil and coolant leaked from chiller B in the central control room.
June 7, 2017	JAEA Oarai Research and Development Center	○	Please see <a href="http://www.cnrc.jp/english/?p=3910">www.cnrc.jp/english/?p=3910</a>
June 20, 2017	Hamaoka Unit 3		Corrosion and fissures were confirmed in the strainer filter when carrying out an overhaul and inspection of the eddy strainer on the seawater coolant system for the high-pressure core spray equipment.
July 5, 2017	Ikata Unit 3		It was discovered when performing a monthly test of the emergency diesel generators 3A and 3B that the temperature of the air at the outlet of the air cooler was gradually rising. The air cooler uses seawater and it was presumed that marine animals such as shells had become affixed to the narrow tubes. Cleaning was implemented.
July 7, 2017	Rokkasho Uranium Enrichment Plant		When a test operation of the diesel generator A in the auxiliary building was performed during an inspection, flames were seen coming from the generator's control panel.

August 2, 2017	Fukushima Daiichi Nuclear Power Station		The subdrain water level temporarily declined rapidly in two locations in the No.51 subdrain pit installed on the southwestern side of Unit 4 reactor building. Since there was no change in the water levels in the accumulated water in the Unit 4 reactor building and waste treatment building or in the other subdrains in the area surrounding Unit 4, it was at first judged that a failure and accident had occurred to the water level gauge in subdrain No.51. However, as drilling work was being performed in subdrain No.215, located 6 or 7 meters from subdrain No.51, it was judged that there was no failure of the water level gauge but that the water level had actually declined due to the impact of the drilling work. The water level of the accumulated water in each of the buildings exceeded the water level in the subdrains for some time and thus there was a deviation from operational restrictions.
August 7, 2017	Shimane NPP		Chugoku Electric Company was contacted by the maker to say that a defect occurring in the program installed in the low-level radiation waste dispatch testing equipment was causing some of the measured data to be lost. Of the 8272 solidified waste containers sent to the Japan Nuclear Fuel Ltd. Low-Level Radioactive Waste Burial Center in Rokkasho Village, the test data for 3448 containers has been lost.
August 10, 2017	Nuclear Fuel Industries, Ltd, Kumatori	○	An inspection of the powder mixer in mixing room 2-2 in the No.2 processing building showed that uranium powder was leaking from around the flanges, etc. A detailed inspection of the equipment showed that a gap was present on the surface of the joint between the resin cover installed where the lower part of the loader is joined to the upper part of the powder mixer, where uranium powder was accumulating. The recovered amount was 19.1 grams (assessed as 2.66 million Bq of radiation). 90 grams of uranium had also accumulated inside the equipment.
August 22, 2017	Fukushima Daiichi Nuclear Power Station		It was discovered that when spent fuel stored in the common spent fuel pool at Fukushima Daiichi Nuclear Power Station was placed in dry casks for both storage and transport in November 2013, four assemblies of spent recovered uranium was placed in two of the casks without permission and was stored in the temporary cask storage facility. The two casks were returned to the common spent fuel pool from the temporary cask storage facility by October 20, 2017.
August 25, 2017	Tsuruga Unit 2		When records of "Measurement results for radioactive gas wastes (notification)" and "Results of Ge nuclide analysis" were checked, it was found that radioactivity measurements of incinerator exhaust pipe dust, iodine sampler dust filters and charcoal filters sampled in the period April 17 to 24 were performed about two weeks later, on May 10. It was confirmed that the frequency of measurement stipulated in the safety regulations had not been maintained.
September 11, 2017	Hamaoka Unit 3		When the central control room ventilation and air conditioning system duct was inspected, it was confirmed that pinholes possibly caused by corrosion were present in 8 locations at the confluence of the external air and the central control room air conditioning system. A panel was installed covering the pinholes as a repair measure.
September 28, 2017	Fukushima Daiichi Nuclear Power Station		In the surroundings of Units 1-4, the newly established subdrain pits (Nos. 201, 202, 203, 208, 209, 212), the use of which had begun during the period April 19 to August 9, the settings for the water level gauges were mistaken and it became clear that the water levels were actually 709mm lower than the measured water levels. Because of this, the subdrain water levels became lower than the level of the accumulated water in the Units 1-4 reactor buildings. As there was a possibility that there was a deviation from operational restrictions, the subdrain pump operation was suspended. It was found that the water level in subdrain pit No.203 deviated from operational restrictions. At the time of the subdrain pit construction, the three altitude standards T.P., former O.P. and new O.P. had been employed in a confused manner.
September 28, 2017	Shimane Unit 2		An operational abnormality in which the valve would neither reach the full-open or full-closed state was confirmed at the time of adjustment of the stand-alone limit switch after replacing the reactor building air supply internal isolation valve master valve limit switch.

October 11, 2017	Rokkasho Uranium Enrichment Plant		In an inspection of air supply and exhaust ducts performed autonomously following the duct corrosion at Shimane NPP Unit 2, it was announced on September 1 that severe corrosion and large numbers of apertures had been found. No inspection had been performed since the facility began operation in 1992. In particular, corrosion and damage in the draught chamber fitted with monitoring scrubber in the analysis room on the enrichment plant first floor, where chemical substances are used, was extremely severe, with some parts failing to maintain their original shape. On October 11, it was judged by the Nuclear Regulation Authority (NRA) that safety regulation infringements had occurred since the function of containing nuclear fuel substances had not been maintained.
October 11, 2017	Rokkasho Reprocessing Plant		On August 13, an accident occurred where around 800 liters of rainwater that had accumulated in the piping pit B, located outside and adjacent to the reprocessing plant's emergency power supply building, flooded into the emergency power supply building (emergency diesel generator B auxiliary room) through an aperture in the building wall. Regarding this building aperture, in connection with the rainwater intrusion accident in the reactor building at Shika NPP in 2016, this location was reported to the Nuclear Regulation Authority (NRA) as having no problem with watertightness, but it became clear that the caulking and so on was insufficient. Additionally, in past inspections, the "cable pit" was inspected, but it became clear that the "piping pit" had not been inspected since 2003. On October 11, it was pointed out by NRA that there were safety regulation infringements due to infringements of the regulations for "Planning and Implementation of Duties", "Patrols and Inspections" and "Planning and Implementation of Maintenance Management". On March 1, 2018, a rainwater intrusion accident occurred at piping pit A.
October 29, 2017	Hamaoka Unit 4		The water leak alarm sounded at the piping duct for the reactor equipment cooling water system. The sealing material in a wall aperture had come loose and it was discovered that water had flooded into the trench room. The influx of water was about 600 liters, which was rainwater from typhoon 22. The cover for the area into which workers had to enter to pull the cable around had not been properly maintained. It was discovered that similar maintenance failures existed in 8 locations. Triggered by this problem, when examining whether or not measures had been taken to prevent water intrusion in building apertures as a response to an instruction order issued for Units 3-5, it was found that building apertures in 44 locations had been removed from inspection schedules.
October 30, 2017	Fukushima Daiichi NPS Unit 6	○	When starting the Unit 6 emergency diesel generator A for a regular test, a problem occurred where it was not possible to adjust the frequency and the generator could not be connected to the power supply system. The generator was suspended from use. TEPCO judged that the governor had broken down.
November 6, 2017	Ikata Unit 3		During a regular test in the reactor auxiliary building, when the emergency diesel generator 3B was started, as the fuel valve cooling water pump stopped automatically, the generator was stopped manually. As the emergency diesel generator 3A was undergoing an overhaul inspection, the only emergency power supply was the air-cooled emergency generating equipment system 1 and therefore there was a deviation from operational restrictions. It is presumed that the power supply cable for the fuel valve cooling water pump had become damaged and that a ground fault had occurred.
November 15, 2017	Fukushima Daiichi Nuclear Power Station		In the "Fukushima Daiichi Nuclear Power Station Implementation Plan for Specific Nuclear Facilities", the temporary storage area N is stipulated as the temporary storage area for debris, etc. It was pointed out in a safety inspection by the NRA that contaminated earth retrieved onsite had been provisionally placed in the area without being loaded into metal containers and had been temporarily stored at area N after placing in flexible container bags, and furthermore, patrols were insufficient as the inappropriate state of the area had been overlooked.
November 18, 2017	Hamaoka Unit 5		When metal fusion cutting was being carried out near the large service hatch on the first floor of the turbine building, smoke emission occurred from the filter of the dust collector being used to collect metal dust produced by the metal fusion cutting.

November 20, 2017	Fukushima Daiichi Nuclear Power Station Unit 2		After shutting down Unit 2 reactor pressure containment vessel (PCV) gas management device system A for maintenance work, the alarm for "PCV gas management outlet dust radiation monitor B, flow rate abnormality, high/low" sounded in system B. This made it impossible to monitor the concentration of radioactive short half-life nuclides, and was thus a deviation from operational restrictions. As the valve on the trace gas monitor B system was closed, it was confirmed that monitoring was restored after opening the valve.
November 20, 2017	Tsuruga Unit 1		To carry out decontamination work on new fuel stored in the spent fuel pool, when the pool insert/detach machine was being used to remove channel boxes, the chain that drives the movable platform on which the new fuel is placed broke and fell to the bottom from a height of about 4m. The fuel was not damaged. It was found that the limit switch that automatically stops the winding of the chain at the location of the upper limit when the moveable platform is rising was deformed. It was discovered that the limit switch failed to function due to the cross guide, one part of the limit switch, having been fitted upside down.
December 11, 2017	Rokkasho Reprocessing Plant		Of the two systems for emergency blackout power equipment in the control building, the alarm for system A sounded, and as it was confirmed onsite that the equipment was not being fed power, this was judged to be an incident.
January 15, 2018	Kashiwazaki-Kariwa Unit 3		Sparks and an abnormal smell occurred in the emergency electrical parts room in the first floor basement of the seawater heat exchanger room building. A fire had occurred inside a 6900V power supply circuit breaker, burning the electric cord covering and the trip coil inside the circuit breaker.
January 18, 2018	Hamaoka NPP	○	When workers entered the ventilation system main exhaust unit A on the second floor of the waste compaction device building (building No.1) for an inspection, a particulate deposit was found spread over an area of 130cm by 80cm on the floor around the water catch basin. The surface radiation contamination density was 105 Bq/cm <sup>2</sup> , and as this exceeded the standard (40 Bq/cm <sup>2</sup> ), steps were taken to restrict entry into the exhaust filter unit zones A and B. The deposit contained cobalt-60, manganese-54 and cesium-137, and the total radiation was assessed as 200 Bq. There were differences in the joints of the piping in the building compared with design drawings and it was found that the catch basin in question in this incident was connected with the catch basin where contamination was discovered on May 2, 2017 and the effluent water system piping in the building.
January 22, 2018	Tokai Daini NPP		Regarding the "Application for Tokai Daini NPP Extension of Operating Period Approval (Extension of the Period of Operation of a Nuclear Facility for Power Generation)" submitted to NRA on November 24, 2017, the reactor pressure vessel (RPV) reactor core area ultrasonic flaw detection test in the "RPV Special Inspection Procedure" showed a valid core length of 3650mm in the part that underwent the flaw detection test, which was shorter than the valid fuel length of 3708mm given in the Application for the Construction Plan Approval. It was thus clear that the special inspection ultrasonic flaw detection test scope was deficient by 51mm. In addition, it was also found that the set value for the reactor water level gauge was used erroneously. This was because, where the design maker's value should have been used, the manufacturing maker's erroneous value had been used.
February 2, 2018	Higashidori Unit 1		In the fuel pool coolant cleaning system pre-coating tank pump room on the second floor of the reactor building, it was discovered that 93 liters of water had leaked from the sump pit. When water had been run in after an inspection of the fuel pool coolant cleaning system, as the work was carried out without checking to see that a valve that should have been closed was actually closed, water from the condensate supplementary feed system had overflowed and leaked out.
February 9, 2018	Rokkasho Reprocessing Plant		In the refining room. When the tower tank-type waste gas treatment equipment waste gas treatment system was switched from exhaust fan system A to exhaust fan system B, an abnormality occurred in system B, which shut down automatically. A problem then occurred when switching back to system A. The cause of the breakdown in system B is unclear.

February 13, 2018	Fukushima Daini Nuclear Power Station Unit 2	Triggered by the duct erosion at Shimane NPP Unit 2, the central control room ventilation and air conditioning ducts were inspected. When the ventilation and air conditioning system was restarted after the inspection, as it was possible that air was flowing in from the inspection hatch (on the third floor of the turbine building), of the equipment which supplies air for the central control room, the ventilation and air conditioning system was shut down. Since no abnormality was found after an inspection, normal ventilation and air conditioning was restored.
February 14, 2018	Shika NPP	In a safety inspection by NRA, it was found that three NPP employees had not undergone safety education, and this was judged to be a "supervisory" safety regulation infringement.
March 16, 2018	Onagawa NPP Unit 1	In the weather data (temperature, humidity, wind direction and speed, precipitation) monitored 24 hours a day on the NPP site, it was found that there was an error in the transmitted data for precipitation. Of the data sent every 10 minutes for 24 hours a day, when the data for 23:50 and 24:00 should have been sent, data for the one hour between 23:00 and 24:00 was sent. The cause was that, when the weather monitoring equipment was renewed in March 2008, there was an error in the data transmission program, this error therefore being repeated for ten years before it was discovered.
March 30, 2018	Genkai NPP Unit 3	When generation was resumed and trial running was carried out at 75% of output capacity on March 25, steam was discovered leaking from the 3B deaerator air vent pipe (carbon steel). The generator was shut down, and when the 8 air vent pipes on each of the 3A and 3B deaerators were examined, considerable rusting was seen on the exterior plate of the air vent pipe (No.5 air vent pipe) from which the steam leakage had occurred and there was also rust on the insulating material and pipe joints. A 13mm by 6 mm dent and one pinhole, thought to have been caused by corrosion, were found on this pipe. No abnormality had been found in the corrosion wastage inspection performed in the 10th regular inspection period from December 2006 to March 2007. At the time of normal regular inspections, inspection by removal of the insulating material was not carried out. The 16 pipes and exterior plates, etc. were replaced.