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| **Report Status: Published** |

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| **User(s): admin, N/A, WMMOS42** |

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| **Date Range (Published Date): 01.11.2017 To 30.11.2017** |

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| **Report Identifier(click to view report)** | **Original Published Date** | **ReferenceUnit** | **Event Date** | **Event Title** | **RevisionNumber** | **RevisionPublished Date** | **Significance** | **OECT****Summary** | **OECT****Cause** | **OECT References** | **Keywords** | **PO and CS** |
| [**WER TYO 17-0533**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30439) | 29.11.2017 | Kanupp 1 | 04.08.2017 | Failure of Neoprene gasket of Moderator drain tank outlet valve | 00 | 29.11.2017 | Significant | During shutdown, the gasket at the bonnet for a moderator drain tank outlet valve was replaced. Two hours after filling up the tank, heavy water started to leak from the bonnet. Collective exposure during valve isolation and the heavy water collection was 28.6 man-rem committed internal dose and four individuals exceeded the yearly regulatory dose limit of 2 rem/year. The event is Significant because committed internal dose of multiple people exceeded regulatory limit. | The direct cause&nbsp;for the&nbsp;high dose was the personnel was exposed in high tritium atmosphere. The direct cause for the failed gasket was the gasket was improperly sized and the absence of supervision during replacement. The inadequate size of the gasket contributed to uneven tightening and incorrect installation. The other causes were deficiencies in post maintenance check, maintenance procedures and procedure adherence. Insufficient personal protective equipment and the absence of vacuum pumps increased the dose during the operator response to the emergency situation. | SOER 2001 Rec 3 | 1 - For information only, gasket, heavy water, leak, procedure adherence, procedure inadequacy, radiation dose, radiation protection, risk assessment, tritium, valve | MA.1 , MA.2 , RS.1  |

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| **Report Identifier(click to view report)** | **Original Published Date** | **ReferenceUnit** | **Event Date** | **Event Title** | **RevisionNumber** | **RevisionPublished Date** | **Significance** | **OECT****Summary** | **OECT****Cause** | **OECT References** | **Keywords** | **PO and CS** |
| [**WER PAR 17-0880**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30454) | 30.11.2017 | Hongyanhe 2 | 04.05.2017 | Tripping of steam turbine lubrication system auxiliary AC lubricating oil pump caused delay in turbine run-up for 12 days | 00 | 30.11.2017 | Noteworthy | During hot shutdown, the auxiliary AC turbine lubricating oil pump tripped unexpectedly. Inspection revealed that the turbine lubrication oil pump had serious wear of impeller, mouth ring, pump housing and bearing. The event is Noteworthy because it resulted in turbine lubricating system not ready for turbine run-up for 12 days. | The direct cause was failure of lubrication of pump side bearing, resulting in pump damage. The pump was operated for longer than 1500 hours limit, which resulted in consumption of all grease in the bearing. The other cause was lack of lubrication pump status monitoring. |  | 1 - For information only, grease, lube oil pump, outage extension, preventive maintenance, turbine generator | ER.2 , MA.1 , OP.1  |
| [**WER PAR 17-0878**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30452) | 30.11.2017 | Fessenheim 1 | 12.09.2016 | Inoperability of the main/auxiliary transformer first stage fire protection system for 132 days | 00 | 30.11.2017 | Noteworthy | During normal operation and after spurious actuation of first stage fire suppression function on the main transformer, it was noticed that there was no water in the transformer spray nozzles and the tanks were empty. A limiting condition of operation (LCO) was entered. The event is Noteworthy because the tanks were empty since last outage and the fire suppression system had been inoperable for 132 days, exceeding the 14 days LCO time and thus violating the technical specification. | The cause was that the tanks had not been refilled after maintenance during the last outage because the maintenance package had been closed out without formal check of the correct filling of the tanks and furthermore the information informally given to the shift crew was lost. |  | 1 - For information only, fire suppression, human error, limiting condition of operation, technical specification, work control | CM.2 , FP.1 , MA.1 , OP.1 , SC.1 , WM.1  |
| **[WER PAR 17-0876](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30450)** | 30.11.2017 | Fessenheim 1 | 02.06.2016 | Reaching the very low limit position of control rod bank during power rampdown due to inadequate injection of water | 00 | 30.11.2017 | Noteworthy | While reducing power to 30%, an operator injected less borated water than required without noticing it. This resulted in continuous insertion of a control rod bank that reached the very low limit position for five minutes. This resulted in entry into a limiting condition for operation. The event is Noteworthy because the shift supervisor did not notice the error of operators which resulted in a reduction of the reactivity margin in case of a reactor scram. | The causes were over estimation of the injected boron volume, inadequate peer checking and prejob brief. | SOER 2013-1 Rec 3, SOER 2007-1 Rec 1, 4 | 1 - For information only, boron addition, control rod, human error, limiting condition of operation, management oversight, reactivity management | OP.1 , OP.2  |
| [**WER PAR 17-0874**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30448) | 30.11.2017 | Embalse 1 | 02.10.2017 | Fire in steam generator area during welding tasks | 00 | 30.11.2017 | Noteworthy | During an outage and while preparing for welding after replacement of a steam generator, a preheating cable detached from its terminal and contacted the steam generator body. The energy discharged to earth through an adjacent scaffolding plank, melting a portion of it and burning the plastic sheet cover. This is Noteworthy event because the incandescent material dripping set fire on various elements located beneath the welding task area inside the containment. | The cause was inadvertent stepping of a contract worker on the preheating device cables due to which the cable got detached from its terminal and came in contact with the steam generator body. The other cause was inadequate housekeeping of the work area. |  | 1 - For information only, contractor, fire, human error, risk assessment | FP.1 , MA.1 , MA.2  |
| [**WER PAR 17-0861**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30405) | 23.11.2017 | Ringhals 1 | 17.06.2017 | Corrosion on the steel liner in the reactor containment caused extended outage | 00 | 23.11.2017 | Noteworthy | During the outage and while performing the containment integrity test, three visible leaks areas were identified in the steel liner just above the torus. A 73-day outage extension was needed to make repairs. The event is Noteworthy because the containment leaks caused 73-day outage extension. | The direct cause was corrosion cells formed when water leaked from underlying basin to the space behind the liner. The apparent cause was in Incomplete application of current test programme, unclear interface, insufficient use of error prevention methods, inadequate material of insulation and degraded corrosion protection paint. |  | 1 - For information only, erosion/corrosion, human error, leak, outage extension, preventive maintenance, procedure adherence | ER.1 , ER.2 , ER.4  |
| [**WER PAR 17-0860**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30404) | 23.11.2017 | Ringhals 1 | 22.08.2017 | Damaged static mixer in the feed water system due to flow-induced vibrations | 00 | 23.11.2017 | Noteworthy | During an outage, a noise was heard from an area upstream of the feed water train 1 mixer in the reactor containment. It was found that the thermal liner associated to the static mixer had loosened. The event is Noteworthy because it resulted in the outage extension of 30 days. | The cause was flow-induced vibrations, which led to a fretting process. The other cause was inadequate preventive maintenance. The contributing cause was unclear interface for overall system responsibility between the engineering department and the maintenance department. |  | 1 - For information only, feedwater control system, outage extension, preventive maintenance, vibration | ER.2 , OR.1  |
| [**WER PAR 17-0858**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30402) | 23.11.2017 | Nogent S/Seine 1 | 19.08.2017 | Risk of interaction between pipes in safety injection and containment spray systems in the event of an earthquake | 00 | 23.11.2017 | Noteworthy | During normal operation and while performing inspection to check the interaction between pipes in the safety injection system (RIS) and containment spray system (EAS), clearance between a RIS pipe and an EAS pipe was found to be inadequate and in case of an earthquake, the integrity of these pipes would not be guaranteed. The event is Noteworthy because of potential for damage to two safety system pipes in case of an earthquake. | The cause was construction legacy issues. During construction phase, the reactor building underwent more significant subsidence than was expected due to the specific characteristics of the soil. Station modifications did not ensure that there was a sufficient distance between the pipes and inspections performed during the acceptance phase did not identify the interaction risk. | SER 2005-3 | 2 - Important lessons, containment spray, design change, design criteria / design basis, human error, risk assessment, safety injection, seismic qualification | CM.3 , EN.1  |
| [**WER PAR 17-0847**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30391) | 23.11.2017 | Flamanville 2 | 17.07.2017 | Nonquality maintenance work on residual heat removal system valve  | 00 | 23.11.2017 | Noteworthy | During reactor shutdown and after one train residual heat removal system (RHRS) was shut down for surveillance test, a temperature rise was identified in the reactor coolant system. The subsequent investigation revealed that a RHRS valve on the only in-service RHRS train was not in expected open position, causing insufficient flowrate. The in-service RHRS train was declared unavailable and a group-1 limiting condition of operation was entered. This event is Noteworthy due to the complete loss of shutdown cooling function for two hours. | The cause was the valve was incorrectly installed upside-down during maintenance. The contributors were that competence of the workers assigned was not checked by the supervisors and the post-maintenance testing methodology guide was inadequate. |  | 1 - For information only, human error, management oversight, procedure inadequacy, residual heat removal, shutdown cooling | CM.2 , MA.1 , MA.2 , NP.1 , TR.1  |
| **[WER PAR 17-0846](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30390)** | 23.11.2017 | Fessenheim 1 | 21.07.2016 | Exceeding of the 5% nominal power/min following a spurious closure / opening of a turbine main governor valve | 00 | 23.11.2017 | Noteworthy | During normal operation, a turbine main governing valve spuriously closed. The unit power was reduced to 85%. After 15 minutes the governing valve reopened, resulting on a power ramp-up of 10.45% per minute, exceeding the technical specifications limit of 5% per minute. The unit power was manually reduced to 75%. The event is Noteworthy because it resulted in a reactor power increase rate of more than double the technical specification limit. | The cause was spurious voltage variations of the electro-hydraulic converter power supply module, which controls the governing valve position. |  | 1 - For information only, electro hydraulic control, power reduction, power supply, power surge, reactivity management, turbine control valve | ER.1  |
| [**WER PAR 17-0842**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30386) | 23.11.2017 | Dampierre 3 | 25.08.2017 | Safe shutdown of the unit further to unavailability of the emergency diesel generator | 00 | 23.11.2017 | Noteworthy | During normal operation and while testing an emergency diesel generator (EDG), the EDG was shut down after banging noises and leak of exhaust gas around a cylinder. This resulted in unavailability of the EDG and consequently entry into a limiting condition of operation (LCO). The reactor was shut down as the EDG repair was not possible in the time allowed by the LCO. The event is Noteworthy because damage of the EDG resulted in a 15-day outage. | The root cause was equipment malfunction either due to malfunction of the connecting rod head bearing on two cylinders or a combustion fault on a cylinder which incurred damage to the connecting rod head bearing. |  | 1 - For information only, diesel engine, diesel generator, leak, limiting condition of operation, reactor shutdown, vibration | ER.1 , ER.3  |
| [**WER PAR 17-0840**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30384) | 23.11.2017 | Chooz B 2 | 27.08.2017 | Loss of the auxiliary transformer due to inadvertent opening of a breaker on several occasions caused LCOs | 00 | 23.11.2017 | Noteworthy | During an outage, inadvertent opening of the Unit 1 auxiliary transformer breaker resulted in loss of the Unit 2 auxiliary transformer. This caused emergency diesel generators to start and entry into multiple limiting conditions of operation (LCO). The spent fuel pool cooling pump and nuclear auxiliary building ventilation system were lost and the pool temperature increased from 32 to 39 degree C. The time for lifting the accumulation of LCOs could not be complied with. The same event reoccurred after four and 18 days. The event is Noteworthy because of loss of spent fuel pool cooling and entry into multiple LCOs in three different occasions. Similar vulnerability effected four units. | The cause was several intermittent isolation faults on the switchboards located downstream of the auxiliary transformer. The leaktightness requirement for the connection housings was not sufficiently factored into the procedures. A soft fault activated opening of the breaker on several occasions. Some of the components affecting soft fault did not have a dedicated maintenance programme. |  | 1 - For information only, breaker, contractor, design criteria / design basis, fuel pool, heating ventilating and air conditioning, limiting condition of operation, loss of offsite power, procedure inadequacy, technical specification, transformer | ER.2 , ER.3 , MA.2 , PI.2  |
| [**WER PAR 17-0814**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30309) | 16.11.2017 | Belleville 1 | 23.07.2017 | Foreign material detected in the Safety Injection System during outage | 00 | 16.11.2017 | Noteworthy | During shutdown with the reactor vessel open and while testing a safety injection pump, low flow was detected on the safety injection minimum flow line. During the inspection, pieces of black rubber were discovered at the downstream orifice plates of the safety injection pumps and at the pump suction. A piece was crushed and scattered in the safety injection system. The event is Noteworthy because of degradation of safety injection system due to foreign material, resulting in outage extension by 25 days for the system cleaning. | The cause was foreign material&nbsp;that fell&nbsp;into the pump suction shaft during a routine replacement. The other cause was underestimation of the risk of introduction of foreign material. | SOER 2015-2 Rec 3 | 1 - For information only, contractor, FME, human error, outage extension, risk assessment, safety injection, safety injection pump | MA.1 , MA.2  |
| [**WER PAR 17-0811**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30247) | 09.11.2017 | Tricastin 1 | 28.09.2017 | #PRELIMINARY# : 4 units shut down in response to an order from the regulator to strengthen a part of the flood defence upstream of the plant.  | 00 | 09.11.2017 | Noteworthy | All four units were shut down in response to an order from the regulator in order to strengthen a section of the flood defences upstream of the plant. The plant was unable to prove that a section of the flood barrier could withstand a seismic margin earthquake. The event is Noteworthy because multiple units were required shutdown for reinforcement of the flooding barrier weakness. (An ENR was issued based on this event.) | The cause analysis has not yet been completed. |  | 2 - Important lessons, design criteria / design basis, reactor shutdown, seismic qualification | CM.1  |
| [**WER PAR 17-0784**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30219) | 09.11.2017 | Golfech 1 | 01.08.2017 | Loss of Spent Fuel Pool cooling during execution of a test | 00 | 09.11.2017 | Noteworthy | During the defuel mode of&nbsp; the outage&nbsp;and while performing a test to check the reactor coolant pumps&nbsp;trip upon generation of containment spray and isolation signal, two valves in the component cooling water system (RRI) received the signal to close. This resulted in the loss of spent fuel pool (SFP) cooling for 3 minutes. There was no increase in the pool temperature. The event is Noteworthy because of loss of SFP cooling. | The cause was an error in the analysis of the initial the conditions required to implement the test. The status of the RRI valves was not checked, as a result the related countermeasures were not applied. The other causes were inadequate risk assessment, inadequate test procedure and ineffective communication between the contract workers who prepared the test and the shift team. |  | 1 - For information only, configuration control, contractor, fuel pool, human error, procedure inadequacy, risk assessment, work control | MA.1 , MA.2 , OP.1 , WM.1  |
| [**WER PAR 17-0752**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30159) | 02.11.2017 | Bugey 2 | 03.08.2017 | Bypasses in the volumetric protection could cause flooding from the turbine hall to the electrical building | 00 | 02.11.2017 | Noteworthy | During a study, six open&nbsp;penetrations between the turbine hall and the electrical building were identified. Similar conditions were identified on all four units. In the event of break of the condenser circulation water sleeves, the water in the turbine hall could enter the electrical buildings and reach the safety system equipment in the basement of nuclear auxiliary building and the operating building. The event is Noteworthy because of potential for common mode failure of safety related equipment. | The cause was organisational issues. The impact of the discharge piping systems on extended volumetric protection had not been studied due to lack of coordination of the corporate engineering structures. The modification design process was deficient. |  | 1 - For information only, design criteria / design basis, human error, water intrusion | CM.1 , CM.3 , EN.1  |
| [**WER ATL 17-1310**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30373) | 21.11.2017 | River Bend 1 | 09.01.2016 | Automatic Reactor Scram Due to Closure of Main Steam Isolation Valves Apparently Resulting From a Lightning-Induced Electrical Transient | 00 | 21.11.2017 | Noteworthy | During normal operation, an electrical transient caused by a lightning storm resulted in the closure of all main steam isolation valves (MSIV) and an automatic reactor scram. The reactor feedwater pumps tripped on high reactor water level signal and later on a low reactor water level signal was received multiple times. The event is Noteworthy because of an unexpected MSIV closure transient due to operations in a configuration known to be vulnerable to grid disturbances. It also resulted in an outage of 23 days. | The direct cause was a phase-to-phase fault on the 230kV transmission system due to lightning strike. The root cause was alignment of both reactor protection system buses with an offsite power source instead of motor-generator sets. The vulnerability of plant to grid disturbance in this configuration was not corrected after a similar event in the past. |  | 1 - For information only, automatic scram, lightening protection system, main steam isolation valve, risk assessment, transmission line | CM.2 , OF.2 , OP.1 , PI.2  |
| [**WER ATL 17-1290**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30261) | 09.11.2017 | Indian Point 2 | 07.03.2016 | Loss of 480V Bus While Preparing for Diesel Test | 00 | 09.11.2017 | Noteworthy | During cold shutdown and while preparing for an emergency diesel generator (EDG) load test, two 480 V buses lost power due to the trip of the normal supply breaker. This resulted in the loss of both residual heat removal (RHR) pumps and a spent fuel pool pump and the&nbsp;entry into a limiting condition of operation. Both loops of RHR were again lost one hour later when the EDG tripped on overcurrent. The RHR was restored in approximately three minutes. The event is Noteworthy because of loss of both trains of RHR on two occasions. | The cause&nbsp;of the&nbsp;loss of power&nbsp;of the 480V buses&nbsp;that the normal supply breaker tripped on overcurrent due to excessive loads. The apparent cause was inadequate procedure guidance which resulted in excessive electrical loads on 480 V buses. The cause of the EDG trip was malfunction of the automatic voltage regulator. |  | 1 - For information only, diesel generator, fuel pool, limiting condition of operation, power supply, procedure inadequacy, residual heat removal pump, risk assessment, voltage regulator | ER.1 , OP.1 , OP.2  |

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| **Report Identifier(click to view report)** | **Original Published Date** | **ReferenceUnit** | **Event Date** | **Event Title** | **RevisionNumber** | **RevisionPublished Date** | **Significance** | **OECT****Summary** | **OECT****Cause** | **OECT References** | **Keywords** | **PO and CS** |
| [**WER TYO 17-0536**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30478) | 30.11.2017 | Sendai 1 | 02.04.2017 | Deviation from limiting conditions of operation related to off-site power supply spcification | 00 | 30.11.2017 | Trending | During normal operation, one offsite power supply line going through another thermal power station (also called Sendai) became unavailable. This resulted in entry into a limiting condition of operation. | The cause was turning off a breaker by sendai thermal power station for troubleshooting without consulting nuclear power station about its effect. On receiving a notice, the nuclear power station also did not consult nor coordinate with sendai thermal power station about possible effects on the technical specification. |  | 1 - For information only, human error, limiting condition of operation, loss of offsite power, work control | OF.2 , OP.1  |
| [**WER TYO 17-0534**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30476) | 30.11.2017 | Narora 1 | 22.05.2017 | Failure of Diesel Generator-1 output breaker to close during surveillance test. | 00 | 30.11.2017 | Trending | During normal operation and while testing an emergency diesel generator (EDG), its output circuit breaker did not close. This resulted in unavailability of one out of three EDGs. | The cause was non-operation of the breaker spring charging mechanism due to dowel pin failure. The root cause was fatigue failure of the dowel pin caused by frequent mechanical impact at the start and end of spring charging operation. The other cause was inadequate monitoring and absence of dowel pin replacement frequency. |  | 1 - For information only, breaker, diesel generator, fatigue cracking, limiting condition of operation, preventive maintenance | ER.2  |
| [**WER TYO 17-0532**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30413) | 24.11.2017 | Sanmen 1 | 29.07.2017 | Nitrogen leaked from Low Pressure Gland Seal Steam Pipeline | 00 | 24.11.2017 | Trending | During commissioning phase and while performing work related to cleaning of gland seal steam screens, nitrogen leaked from the low pressure gland seal steam pipeline due to inadequate isolation. There was a risk of suffocation of the workers. | The direct cause was that the isolation valve preceding the first-stage gland steam pressure control valve was not closed. The root cause was that the isolation preparation engineer failed to fully understand the condition of the unit and did not know that the gland seal system pipeline was filled with nitrogen for maintenance. |  | 1 - For information only, configuration control, human error, industrial safety, risk assessment | IS.1 , OP.1 , WM.1  |
| [**WER TYO 17-0526**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30368) | 21.11.2017 | Hanul 3 | 14.09.2017 | Steam Leakage from Outlet of Orifice in Auxiliary Feedwater Pump Turbine System  | 00 | 21.11.2017 | Trending | During normal operation, steam leakage was identified at a flange on the vent line of the auxiliary feedwater pump turbine system. A limiting condition of operation was entered after closing steam supply valve for carrying out temporary repair. | The direct cause was failure of a weld on the pipe/flange. The root cause was the use of carbon steel piping on the steam vent line, which is susceptible to corrosion. The contributing cause was lack of monitoring on the wall thinning of carbon steel pipes. |  | 1 - For information only, auxiliary feedwater pump, erosion/corrosion, leak, limiting condition of operation, preventive maintenance, steam, weld | ER.2 , ER.4  |
| [**WER TYO 17-0525**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30367) | 21.11.2017 | Hanul 5 | 04.04.2017 | Manual Stop of Emergency Diesel Generator due to Exhaust Gas Leakage  | 00 | 21.11.2017 | Trending | During normal operation and while performing surveillance test for an emergency diesel generator (EDG), the EDG was manually stopped due to a fire alarm generated by exhaust gas leakage from the exhaust manifold bellow. A limiting condition for operation was entered. | The cause was development of cracks due to cumulative stress. The root cause was inadequate installation of the exhaust manifold due to the absence of post maintenance checks. The contributing cause was that preventative maintenance did not include the exhaust manifold bellows. |  | 1 - For information only, diesel engine, leak, preventive maintenance, stress corrosion, vendor | ER.3 , MA.1 , MA.2  |
| [**WER TYO 17-0523**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30365) | 21.11.2017 | Shin-Kori 1 | 16.06.2017 | High Monitor Level Alarm during RCS Intermediate Leg Cleaning | 00 | 21.11.2017 | Trending | During an outage and while cleaning reactor coolant system intermediate leg, a high level alarm was activated by a radiation monitor. The work was stopped and all workers inside the reactor building were evacuated. | The direct cause was inappropriate temporary equipment caused carbon dioxide and hot particles being spread inside the reactor building. The root cause was an inadequate review of the capacities of the temporary blowers and purge fan prior to the work. The contributing causes were insufficient experience and a lack of adherence to the temporary work procedure. |  | 2 - Important lessons, contractor, procedure adherence, radiation dose, risk assessment | RP.1 , RS.1 , WM.1  |
| [**WER TYO 17-0520**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30362) | 21.11.2017 | Hanul 3 | 17.07.2017 | Power Reduction by False Signal of Control Rods Insertion | 00 | 21.11.2017 | Trending | During normal operation, a spurious control rod insertion level indication resulted in turbine runback signal and consequently the reactor power reduced to 78%. | The direct cause was false level indication of a control rod in control element assembly calculator (CEAC) channel. The root cause was ageing of an optical transmitter-receiver of the control rod. The contributing cause was lack of preventive maintenance for optical transmitter-receivers. |  | 1 - For information only, ageing, control rod, digital control system / digital components, power reduction, preventive maintenance, rod position indicator | ER.2 , ER.3  |
| [**WER TYO 17-0517**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30359) | 20.11.2017 | Hanul 4 | 21.08.2017 | Sensor Fail Alarm Received from the Core Protection Calculator | 00 | 20.11.2017 | Trending | During normal operation, a communication optic modem&nbsp;for the core protection calculator system failed. Two limiting conditions for operation were entered to replace the modem. | The direct cause was bad contact and failure of internal components of the optic modem. The apparent cause was ageing. The contributing cause was inadequate preventive maintenance. |  | 1 - For information only, ageing, digital control system / digital components, limiting condition of operation, preventive maintenance | ER.2 , ER.3  |
| [**WER TYO 17-0516**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30358) | 20.11.2017 | Hanbit 6 | 05.06.2017 | Uninterrupted Power System Inverter Tripped on Low Voltage and Automatic Transfer to Constant Voltage Transformer  | 00 | 20.11.2017 | Trending | During normal operation and while performing a safety valve test, the operation of auxiliary feedwater pump outlet valve actuated a dc bus ground alarm and tripped uninterrupted power supply system inverter. This resulted in an entry into a limiting condition of operation. | The direct cause was a voltage surge introduced to the dc bus when the auxiliary feed water pump outlet valve was operated, causing the bus to be grounded and its voltage to instantaneously drop. The root cause was defective electronic contactor of the valve actuator. The contributing causes were inadequate maintenance procedures and insufficient maintenance work control. The inspection of the electronic contactor was not included in the valve inspection. |  | 1 - For information only, dc bus, inverter, limiting condition of operation, motor operated valve, preventive maintenance, procedure inadequacy, valve actuator | ER.2 , MA.2  |
| [**WER TYO 17-0515**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30357) | 20.11.2017 | Hanul 6 | 06.09.2016 | Turbine-Driven Auxiliary Feedwater Pump 01B Governor Leak | 00 | 20.11.2017 | Trending | During normal operation and while performing the auxiliary feedwater pump (AFWP) and safety related valves test, water leak was identified on an AFWP governor. The pump was stopped for maintenance and a limiting condition of operations was entered. Leaks from the AFWP governor have occurred in the past. | The direct cause was a lack of sealing due to aging of the sealing parts. The root cause was inadequate post-maintenance testing and preventive maintenance did not follow the frequency recommended by the manufacturer. The first contributing cause was a lack of experience understanding and training on the equipment, leading to the recurrence of the leakage. Inadequate prejob briefing due to time pressure contributed to the events. |  | 1 - For information only, auxiliary feedwater pump, human error, leak, limiting condition of operation, preventive maintenance, seal | ER.2 , MA.1 , MA.2  |
| [**WER TYO 17-0511**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30353) | 20.11.2017 | Kori 2 | 20.07.2017 | Functional Test of Fire Detectors Resulted in Clean Fire Extinguishing Agent Discharge  | 00 | 20.11.2017 | Trending | During normal operation and while reinstalling a cylinder solenoid valve after a functional test of clean fire extinguishing agent system, a plunger of the solenoid valve actuated due to inadequate reset caused by a human error, causing the clean agent to be discharged into the clean fire extinguishing agent room. Some areas affected lost its fire extinguishing function. | The direct cause was using a screwdriver to reset the electric actuator due to inadequate skill. The root cause of using inappropriate tools was that the worker relied on their experience to perform the task and no specific mounting device for the reset task was in place. A contributor was inadequate work supervision. |  | 1 - For information only, fire suppression, human error, management oversight | FP.1 , MA.1 , MA.2  |
| [**WER TYO 17-0510**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30352) | 20.11.2017 | Hanbit 6 | 10.05.2017 | Hot Diesel Coolant Leaked from Emergency Diesel Generator Rubber Joint | 00 | 20.11.2017 | Trending | During normal operation, the hot coolant inlet for an emergency diesel generator (EDG) was found leaking at a damaged rubber joint. The EDG was declared inoperable and entry into a limiting condition of operation was made. | The direct cause was damage to the rubber joint. The root causes were ageing, missed maintenance steps and improper maintenance practice. The contributing cause was inability to find defects through visual inspection. |  | 1 - For information only, ageing, diesel cooling water, diesel engine, diesel generator, leak, limiting condition of operation, preventive maintenance, procedure adherence | ER.3 , MA.1 , MA.2  |
| [**WER TYO 17-0508**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30345) | 17.11.2017 | Fangjiashan 1 | 05.07.2017 | The Ferrule of Safety Protective Net of Scaffolding Unexpectedly Got Loose and Fell into the Spent Fuel Pool | 00 | 17.11.2017 | Trending | While removing safety protective nets above the spent fuel pool,&nbsp;a corner&nbsp;ferrule got loose and fell into the spent fuel pool. | The direct cause was the failure of the top and bottom clips of the ferrule. The root cause was failure to conduct the risk evaluation for the &nbsp;falling of the&nbsp;ferrule. The contributing cause was lack of relevant provisions on use of safety nets for scaffolding operations around the pool. |  | 1 - For information only, FME, fuel pool, human error, risk assessment | MA.1 , MA.2  |
| [**WER TYO 17-0504**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30341) | 17.11.2017 | Fangjiashan 1 | 10.09.2017 | Auxiliary Feedwater System Started Automatically during Shutdown of Unit 1 of Fangjiashan | 00 | 17.11.2017 | Trending | While decreasing power to shut down the unit, the water level in the moisture separator reheater drain tank increased quickly causing the turbine to trip. During turbine coast down, a bearing vibration increased so operators manually broke condenser vacuum to reduce turbine speed and turbine bypass system was switched to atmosphere. The main feedwater pump tripped on high water level in a steam generator, leading to automatic startup of two auxiliary feedwater pumps. | The direct cause of startup of the AFW pumps was that the limit switch did not operate during closing of the first group of bypass valves of the turbine bypass system, resulting in unlocking of control signal sent to the steam generator water level control system and consequently isolation of main feedwater. The root cause was incorrect setting of the closing limit for pneumatic bypass discharge valve of the turbine bypass system. |  | 1 - For information only, bearing, feedwater control system, limit switch, turbine steam bypass valve, turbine trip, vibration | CM.1 , ER.3 , MA.1  |
| [**WER TYO 17-0501**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30338) | 16.11.2017 | Takahama 3 | 25.05.2017 | Suspend Functional Test of Backup Emergency Generators | 00 | 16.11.2017 | Trending | During an outage and while performing the functional test of the backup emergency generators, the emergency diesel generators started up automatically. The test was suspended. | The cause was insufficient air vent during the recovery of the system which supplies the chilled water to a chiller. |  | 1 - For information only, chiller, diesel cooling water, diesel generator | ER.1  |
| [**WER TYO 17-0500**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30306) | 16.11.2017 | Hanul 3 | 14.08.2017 | Inoperability of Core Operating Limit Supervisory System  | 00 | 16.11.2017 | Trending | During normal operation and while a main plant monitoring system (PMS) computer was being restarted to resolve an alarm, an error in the shared disk area of the other main PMS computer occurred. This resulted in inoperability of the core operating limit supervisory system and consequently entry into a limiting condition of operation. | The direct cause was an error in the shared disk area. The root cause was possibility for an error when switching off and restarting the PMS computers because the disk of the master computer is shared. The contributing cause was an electrical influence of powering off the main computer on the physically shared disk and inadequate procedure for resetting the software. |  | 1 - For information only, computer, limiting condition of operation, procedure inadequacy | ER.1 , MA.2  |
| [**WER TYO 17-0499**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30305) | 16.11.2017 | Hanul 1 | 11.04.2017 | Low Level of Emergency Diesel Generator Daily Fuel Tank  | 00 | 16.11.2017 | Trending | During normal operation, the daily fuel tank level of an emergency diesel generator decreased due to an open drain valve. The EDG was declared inoperable and a limiting condition of operations was entered. | The direct cause was that the drain valve automatically open due to the worn supporting latch. The root cause was an inappropriate value setpoint. The other root cause was manufacturing deficiencies. A contributing cause was inadequate preventive maintenance. |  | 1 - For information only, design criteria / design basis, diesel fuel, diesel generator, leak, limiting condition of operation, preventive maintenance, setpoint, valve, vendor | ER.2 , ER.3  |
| [**WER TYO 17-0493**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30290) | 14.11.2017 | Fuqing 3 | 23.05.2017 | Flow of On-Line Boron Meter was Cut Off during chemical Sampling | 00 | 14.11.2017 | Trending | During normal operation and while sampling the medium pressure safety injection tank, a boron meter isolation valve was closed by mistake, resulting in a group-2 limiting condition of operation. | The direct cause was a human error. The root cause was deficiencies in use of human error reduction tools and supervision. A contributing cause was inadequate work document. |  | 1 - For information only, human error, limiting condition of operation, management oversight, valve misposition | CY.1  |
| [**WER TYO 17-0487**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30284) | 13.11.2017 | Shin-Kori 2 | 30.08.2017 | Flow Indication Decreased Due to Blockage of ESW Outlet Flowmeter | 00 | 13.11.2017 | Trending | During normal operation, flow indication of a train of essential service water (ESW) decreased. A limiting condition of operations was entered while flushing the associate flowmeter. | The direct cause was the blockage of the ESW outlet flowmeter sensor. The root cause was the pitot type flowmeter are&nbsp;vulnerable to blockage. A contributing cause was&nbsp;the continuous accumulation of foreign materials from seawater. |  | 1 - For information only, design criteria / design basis, essential service water, FME, limiting condition of operation | CM.1  |
| [**WER TYO 17-0484**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30281) | 12.11.2017 | Hanul 1 | 07.09.2017 | Low-Pressure Safety Injection Pump Tripped by Malfunction of Overcurrent Protection Relay  | 00 | 12.11.2017 | Trending | During normal operation and while performing a surveillance test for the safety injection system, a low-pressure safety injection pump tripped. This resulted in an entry into a limiting condition of operation. | The direct cause was ageing of the overcurrent protection relay that impacted the actuation setpoint. The root cause was that the relay could not be replaced due to obsolescence and compatibility issues. |  | 1 - For information only, ageing, limiting condition of operation, low pressure safety injection, preventive maintenance, relay, safety injection pump | ER.2 , ER.3  |
| [**WER TYO 17-0479**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30276) | 12.11.2017 | Wolsong 1 | 12.10.2017 | Common Unit Tritium Removal Facility Shut Down by Spurious Alarm from Tritium-in-Air Monitoring System  | 00 | 12.11.2017 | Trending | The high-high tritium concentration alarm occurred in the tritium removal facility (TRF) hydrogen handling area. This resulted in the emergency shutdown of the safety instrument system and the trip of the heavy water feed and deuterium system. This event led to the interruption of the tritium removal function of the TRF and the station entering abnormal operating procedure. | The direct cause was a false signal caused by discharged current due to instantaneous contact of foreign materials from the environment. The root cause was that the outside of the ion chamber was not insulated. The contributing causes were vibrations and foreign material. |  | 1 - For information only, circuit card, FME, insulation electrical, tritium, vibration | ER.1  |
| [**WER TYO 17-0478**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30273) | 10.11.2017 | Fuqing 2 | 13.07.2017 | Grounding Fault at Secondly Side of the Main Transformer led to Reactor Shutdown | 00 | 10.11.2017 | Trending | During normal operation, a main transformer tripped due to ground fault&nbsp;on the secondary side of the&nbsp;grounding transformer. Three reactor coolant pumps tripped due to loss of power supply, resulting in an automatic reactor scram. | The cause was inadequate installation of the grounding transformer. The flexible grounding cable was overlapped with the winding linkage and caused the ground fault after the insulation performance had decreased due to ageing. The other cause was inadequate preventive maintenance and inappropriate insulation material type that did not meet requirement. | SOER 2011-1 Rec 1, 3 | 1 - For information only, ageing, automatic scram, insulation electrical, preventive maintenance, risk assessment, single point vulnerability, transformer | ER.2 , ER.3 , MA.1  |
| [**WER TYO 17-0475**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30270) | 10.11.2017 | Kanupp 1 | 28.09.2017 | Intake water screens choking due to massive attack of dead fishes | 00 | 10.11.2017 | Trending | While operating at 80% power, the main condenser vacuum decreased and turbine generator load decreased to 66% power due to clogging of intake cooling water screens with small dead fish. | The direct cause was a large amount of small size dead fish in the intake bay and on the travelling screens. The apparent cause was a shoal of palm-sized fish entered in the intake bay and was killed while performing chlorination of the bay water. | SOER 2007-2 Rec | 2 - Important lessons, chemistry, condenser vacuum, intake, power reduction, travelling screen | CY.2 , OF.2 , OP.1  |
| [**WER TYO 17-0474**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30269) | 10.11.2017 | Fuqing 4 | 20.07.2017 | Interruption of Communication of Distributed Control System (DCS) resulted in Loss of Manual Control and Monitoring for Control Rod from Main Control Room | 00 | 10.11.2017 | Trending | During operation at 1% reactor power, the display of a screen in the computer information and control system failed and the main control room lost manual control and monitoring functions for control rods. | The direct cause was random failure of the communication protocol driver module in distributed Control system (DCS) communication module. The root cause was ineffective technical management for functions of DCS communication equipment and insufficient test depth for equipment interconnected for the first time. |  | 1 - For information only, computer, control rod, digital control system / digital components | ER.1 , PI.1  |
| [**WER TYO 17-0470**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30265) | 09.11.2017 | Qinshan 2 2 | 31.07.2017 | Power Loss of 220V AC UPS Bus during Switching of the Bus to the Inverter for Power Supply | 00 | 09.11.2017 | Trending | During an outage, power loss occurred when 220V uninterruptable power supply was switched to the inverter after performing maintenance. This resulted in unavailability of plant radiation monitoring system and caused isolation of containment sweeping ventilation system, fuel building ventilation system, complete shutdown of nuclear island chilled water system and fluctuation of residual heat removal flow. | The direct cause was that switching was conducted when the switch was disconnected. The root causes were ineffective transfer of information on document changes and insufficient training of isolation managers. The contributing causes were inadequate use of human error prevention tools and inadequate pertinence of the overall operation procedure. | SOER 2013-1 Rec 3 | 1 - For information only, configuration control, heating ventilating and air conditioning, human error, power supply, procedure inadequacy | OP.1 , OP.2  |
| [**WER TYO 17-0468**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30203) | 05.11.2017 | Maanshan 2 | 23.07.2017 | Reactor Trip Due to Phase-C Differential Relay of Reactor Cooling Pump-A (RCP-A) Actuation  | 00 | 05.11.2017 | Trending | During normal operation, a reactor coolant pump (RCP) tripped by a power cable ground fault. This resulted in an automatic reactor scram on reactor coolant water loop low flow. | The direct cause of the ground fault was a short between a damaged bus bar insulation and a stripped shield wire. The root cause was improper wiring of the shield wire at the RCP motor breaker. |  | 1 - For information only, automatic scram, insulation electrical, reactor coolant pump, wiring | MA.1  |
| [**WER PAR 17-0892**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30466) | 30.11.2017 | Tricastin 2 | 01.07.2016 | Control-room iodine filtration system out of service for longer than the allotted filter replacement time | 00 | 30.11.2017 | Trending | During normal operation, the control-room iodine filtration system was reported unavailable after it failed its surveillance test. Repair work, which normally takes about 15 hours, took approximately 30 hours longer to complete. The repair time did not exceed the technical specification limit. | The causes of delay were that the decision to change the filter was made in the evening but the contractor agreement did not include night-time work, pre-filter had also to be changed but new pre-filter was not available on site, the post maintenance test was not completed successfully and the filter had to be retightened. |  | 1 - For information only, charcoal filter, control room, heating ventilating and air conditioning, limiting condition of operation, procedure inadequacy, procurement, spare part | MA.1 , WM.1  |
| [**WER PAR 17-0890**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30464) | 30.11.2017 | Ningde 1 | 09.05.2017 | The Iodine Filters of Control Room Air Conditioning System Failed the Leakage Tests Multiple Times | 00 | 30.11.2017 | Trending | During normal operation, leakage test on the control room air conditioning system iodine filters failed multiple times. In the event of radioactive contamination in the plant, the system will not filter and shield the radioactive gas. Therefore the working environment of the main control room could not be guaranteed. | The direct cause was malfunctioning of four iodine filters before the test. The root cause was insufficient quality control of spare parts. The contributing factors were deformation of the hold-down devices in the iodine filters and dislocation and failure of charcoal layers during the transport process. |  | 1 - For information only, charcoal filter, control room, heating ventilating and air conditioning, procurement, spare part | ER.3  |
| [**WER PAR 17-0884**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30458) | 30.11.2017 | Muehleberg 1 | 07.09.2017 | Temporary unavailability of the reactor core isolation cooling system (RCIC) train B during start-up after the annual outage 2017 | 00 | 30.11.2017 | Trending | During startup and while performing function test of the reactor core isolation cooling system B (RCIC B) at a reactor pressure of 71 bar, unexpected isolation of the RCIC steam line and subsequent tripping of the RCIC B occurred. This resulted in an entry into a limiting condition of operation. | The cause was accumulation of non-condensable gases in the impulse lines of the measuring points. During the outage, steam lines and impulse lines of RCIC were flooded and drained as part of the opening and closing of the reactor pressure vessel. During the draining of the main steam lines and impulse lines, air and non-condensable gases entered the lines. | SER  | 1 - For information only, gas intrusion, limiting condition of operation, procedure adherence, reactor core isolation cooling | MA.1 , OP.1  |
| [**WER PAR 17-0882**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30456) | 30.11.2017 | Hongyanhe 3 | 25.05.2017 | Reactor Trip due to clogging by Algae Swarming into Circulation Water Filtration system Drum Screens | 00 | 30.11.2017 | Trending | During normal operation, algae swarmed into the cooling water intake and caused clogging of both trains of the drum screens. The differential pressure on train B drum screen increased relatively fast and resulted in tripping of a circulation water pump. The turbine was tripped manually. One minute later, the actuation of high drum screen differential pressure protection caused tripping of the next circulation water pump and the reactor scrammed automatically. | The root cause was insufficient measures against ingress of micro marine organism in severe weather. The contributing factors were inadequate personnel experience and knowledge and removal of temporary high pressure flushing pipeline. | SOER 2007-2 Rec 1,3,5 SER 2004-1 | 1 - For information only, automatic scram, design criteria / design basis, intake, risk assessment, travelling screen, turbine trip | EN.1 , OF.2 , OP.1  |
| [**WER PAR 17-0879**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30453) | 30.11.2017 | Heysham B1 | 04.07.2017 | Essential Diesel Generator smoking and flames from exhaust manifold area | 00 | 30.11.2017 | Trending | During normal operation and while performing an essential diesel generator (EDG) test, smoke and flames were reported in the vicinity of the exhaust gas manifolds. The EDG was declared unavailable for eight hours while being investigated. | The cause was a known phenomenon that occurred following extended periods of unloaded EDG. The direct cause was running the generator at low load. The root cause was procedure inadequacy and training. |  | 1 - For information only, diesel generator, procedure inadequacy | OP.2 , TR.1  |
| [**WER PAR 17-0872**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30446) | 30.11.2017 | Civaux 1 | 08.09.2017 | Sub-standard maintenance requiring remedial work on the turbine-driven auxiliary feedwater pumps | 00 | 30.11.2017 | Trending | During normal operation, both turbine-driven auxiliary feedwater pumps became unavailable after leaks were found on the injector inspection covers. This resulted in entry into two limiting conditions of operation. In order to maintain the operability of at least one turbine-driven pump, the pumps were repaired consecutively. | The cause was sub-standard maintenance and the inspection covers were under-torqued. In order to comply with the outage schedule, the turbine reassembly plan was changed without assessing all risks. The sequencing of reassembly phases was changed during the job, thus affecting the quality of maintenance work. |  | 1 - For information only, auxiliary feedwater pump, human error, limiting condition of operation, risk assessment, torque, work control | MA.1 , WM.1  |
| [**WER PAR 17-0870**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30444) | 30.11.2017 | Cattenom 4 | 15.09.2017 | Unavailability of ‘high flux at shutdown’ alarm during surveillance testing under a special requirement | 00 | 30.11.2017 | Trending | During intermediate shutdown, it was identified that nuclear instrumentation system alarm had been unavailable for 30 minutes when a special requirement was in force for position of the control rods. During this period of alarm inhibition, the special requirement was no longer complied with. | The cause was early removal of a temporary modification due to failure of the organisation for managing the conditions authorising the withdrawal of a temporary modification.&nbsp; |  | 1 - For information only, configuration control, human error, nuclear instrumentation, temporary modification | CM.2 , CM.3 , OP.1  |
| [**WER PAR 17-0868**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30442) | 30.11.2017 | Cattenom 4 | 01.09.2017 | Unavailability of an emergency diesel generator and the Essential Service Water System pump during a surveillance test | 00 | 30.11.2017 | Trending | During an outage and while performing a test on the emergency power steam-driven generator by simulating power failure of the 6.6 kV switchboard, the essential service water pump tripped and the train B diesel generator became unavailable for 26 minutes and the train B essential service water system was unavailable for three minutes. The event resulted in entry into three limiting conditions of operation.&nbsp; | The cause was errors in the test procedure. The procedure drafted at the corporate level was not checked from a technical perspective at the station.&nbsp; |  | 1 - For information only, diesel generator, essential service water, limiting condition of operation, procedure inadequacy | OP.1 , OP.2  |
| [**WER PAR 17-0866**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30410) | 23.11.2017 | Tricastin 1 | 01.08.2017 | Repeated thermal power spikes over a 45-minute period due to steam intake in the secondary system | 00 | 23.11.2017 | Trending | During normal operation, variations in steam consumption resulted in power spikes exceeding 100.4%. The related alarm was repeatedly acknowledged and the load limiter set point was lowered to reduce the load, but not enough to stop the alarm from reinitiating. The maximum thermal power achieved was 100.9%. | The cause of power spikes was variation in steam consumption caused by the auxiliary steam production system. The other causes were inadequate communication, operator error in solving the problem and inadequate alarm response sheet. | SOER 2013-1 Rec 3 | 1 - For information only, human error, management oversight, power reduction, power supply, power surge, procedure inadequacy | OP.1 , OP.2  |
| [**WER PAR 17-0864**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30408) | 23.11.2017 | Sizewell B 1 | 06.09.2017 | Operation of Auxiliary Steam Pressure Control Valve results in the Auxiliary Steam range relief valve lifting | 00 | 23.11.2017 | Trending | During normal operation and while placing a deaerator heater range in service, a perturbation was caused in the auxiliary steam range. As steam load increased, the auxiliary steam pressure control valve operated about a new further open position for about 10 minutes and consequently the pressure control became increasingly unstable, resulting in lifting of the auxiliary steam range relief valve. This resulted in increase in N16 instantaneous power and turbine power reduced by 4.5MWe. | The direct cause was unstable auxiliary steam pressure control. The root cause was inadequate design of the auxiliary steam pressure control valve which did not provide stable control at low steam demands. The contributing cause was that a design change was not implemented and deferred to a future outage. |  | 1 - For information only, auxiliary steam, design criteria / design basis, power reduction, power surge, relief valve | CM.1 , PI.3  |
| [**WER PAR 17-0862**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30406) | 23.11.2017 | Saint-Laurent B1 | 19.07.2017 | Violation of the 5 bar limit in cold shutdown mode for eight minutes | 00 | 23.11.2017 | Trending | During cold shutdown and while performing a test on the chemical and volume control system (RCV), the reactor coolant system (RCS) pressure exceeded the 5 bars limit and reached 7 bars for eight minutes due to incorrect configuration of the RCV. | The cause was that the control room procedure guide was not monitored with sufficient rigor and operator ownership and understanding of the plant status required to perform the surveillance test did not meet expectations.&nbsp; | SOER 2013-1 Rec 3 | 1 - For information only, configuration control, human error, procedure adherence, risk assessment | CM.2 , OP.1  |
| [**WER PAR 17-0856**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30400) | 23.11.2017 | Hinkley Point B1 | 09.08.2017 | Unplanned automatic shutdown of reactor 4 due to control rod fault | 00 | 23.11.2017 | Trending | During normal&nbsp;operation, all 44 control rods (7 sensor and 37 regulating rods) of the enhanced shutdown (ESD) system were spuriously driven into the core for 10 second. This caused a reduction in thermal power by 195 MW. The fault cleared itself after 10 seconds and the auto control system responded by withdrawing the 37 regulating rods. The ensuing transient caused an automatic reactor scram on main guardline excess flux protection.&nbsp; | The direct cause was loss of control power supplies to the ESD system due to failure of main supply contactor.&nbsp; The root cause was inadequate testing, which did not reveal any latent defects within the contactor relay. The contributing cause was that the design of the&nbsp;contactor relay prevents inspection of the internal components.&nbsp; |  | 1 - For information only, ageing, automatic scram, control rod, flux tilt, power reduction, power supply, power surge, preventive maintenance, single point vulnerability | ER.2 , ER.3  |
| [**WER PAR 17-0853**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30397) | 23.11.2017 | Heysham B1 | 01.08.2017 | Essential Diesel Generator was declared unavailable due to contaminated lubricating oil with fuel oil | 00 | 23.11.2017 | Trending | During normal operation, a degrading trend in the quality of the lubricating oil for the essential diesel generator (EDG) was identified. The decrease in oil viscosity occurred due to contamination with fuel oil. The EDG was declared unavailable. | The cause of the fuel oil contamination was a damaged O-rings in the engine-driven fuel pump. The O-ring damage was due to quality assurance issues during the previous overhaul. The root cause was that the data collected was not effectively evaluated, because the degrading trend was not identified prior to reaching the caution levels. |  | 1 - For information only, chemistry, diesel fuel, diesel generator, leak, limiting condition of operation, lube oil, lube oil pump, o-ring, procurement | CY.1 , MA.2  |
| [**WER PAR 17-0850**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30394) | 23.11.2017 | Heysham A1 | 27.07.2017 | High Sodium found in Boiler Feed Water resulted in a calculated Stress Corrosion Cracking | 00 | 23.11.2017 | Trending | During normal operation and while taking a new direct contact heater extraction pump in service, a cation conductivity and sodium excursion occurred on the boiler feed system. This resulted in a stress corrosion cracking damage and entry into a limiting condition of operation. | The cause was inadequate flushing of residual antifreeze from the pump before taking it into service. |  | 2 - Important lessons, chemistry, limiting condition of operation, procedure inadequacy, stress corrosion | ER.4 , PI.2  |
| [**WER PAR 17-0849**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30393) | 23.11.2017 | Gravelines 4 | 17.08.2017 | Automatic reactor trip on condenser vacuum degradation  | 00 | 23.11.2017 | Trending | During normal operation, degradation in the condenser vacuum led to an automatic reactor scram. | The direct cause was the supply of conditioned demineralised water was stop for planned works. Additionally an inadequate risk assessment on the impact on condenser vacuum resulting in the loss of water-seal in the condensate circuit of the turbine gland system. The other cause was an incorrect design isometrics of the condenser water seal and an inappropriate procedure for managing a rapid decrease in vacuum. |  | 1 - For information only, automatic scram, condenser vacuum, design criteria / design basis, procedure inadequacy, risk assessment, seal water, work control | ER.3 , OF.2 , OP.1 , OP.2  |
| [**WER PAR 17-0848**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30392) | 23.11.2017 | Flamanville 2 | 18.08.2017 | Automatic reactor trip on low feedwater flow due to human error | 00 | 23.11.2017 | Trending | During start-up and at 15% power, speed of the turbine-driven feedwater pump (TDFWP) was fluctuating. The speed regulation was switched to manual mode and load increase was continued with de-isolation of the high flow feedwater valves. The increased feedwater flow caused the steam generator feedwater flow regulators to close, leading to low-flow conditions and this in conjunction with the loop pressure differential above 30% nominal power resulted in an automatic reactor scram. | The cause was inappropriate actions associated with the transition to manual control of TDFWP speed and late de-isolation of the high-flow feedwater valves. The other cause was inadequate risk assessment and monitoring with the TDFWP speed in manual control. |  | 1 - For information only, automatic scram, feedwater control system, feedwater pump, human error, risk assessment, vibration | OF.2 , OP.1 , TR.1  |
| [**WER PAR 17-0843**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30387) | 23.11.2017 | Embalse 1 | 25.10.2017 | Impeller’s blades degradation in moderator pumps due to cavitation phenomenon | 00 | 23.11.2017 | Trending | The cause was due to a design change performed during commissioning. The design change installed two orifice plates that reduced the available net positive suction head below design requirements. | The cause was due to a design change performed during commissioning of the pump. During the design change, two orifice plates were installed in the piping decreased the required higher net positive suction head. | SER 2005-3 | 1 - For information only, design change, erosion/corrosion, pump | CM.3 , ER.1 , PI.2  |
| [**WER PAR 17-0839**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30383) | 23.11.2017 | Asco 1 | 14.05.2017 | Actuation of the Reactor Protection System causing safety injection due to low pressure in the pressuriser | 00 | 23.11.2017 | Trending | During cold shutdown and while going through the shutdown and cooling process, one train reactor protection system automatically actuated because the blocking of the safety injection signal was lost due to low pressure in the pressuriser, causing the reactor trip breaker to open. The automatic actuations associated with the safety injection did not progress, as they were blocked in this operational status. | The direct cause was the resetting of the safety injection signal when a contact in the safety injection manual blocking/reset selector switch located in the safe shutdown transfer panel opened. The root cause was the job risk analysis did not include the vibrations or impacts associated with the machining process. |  | 1 - For information only, reactor protection system, risk assessment, safety injection, vibration | OP.1 , WM.1  |
| [**WER PAR 17-0838**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30382) | 23.11.2017 | Asco 1 | 28.08.2017 | Trip of a tower fan in the engineered safeguards tower caused loss of cooling to diesel generator support systems | 00 | 23.11.2017 | Trending | During normal operation and while starting the fans for the engineered safeguard tower for an emergency diesel generator (EDG) test, one of the fans tripped due to a defect in the connection of one of the power supply cable. This resulted in unavailability of the tower fan and consequently the water system to cool the EDG support systems became unavailable. | The root cause was an incorrectly performed connection of the motor terminal. The other cause was inadequate maintenance procedure. |  | 1 - For information only, diesel cooling water, diesel generator, fan, heating ventilating and air conditioning, limiting condition of operation, power supply, procedure inadequacy | MA.1 , MA.2  |
| [**WER PAR 17-0837**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30348) | 20.11.2017 | Cofrentes 1 | 30.10.2017 | #PRELIMINARY# Flow imbalance between feedwater flow lines due to check valve failure leads to plant shutdown | 00 | 20.11.2017 | Trending | During startup after an outage, the feedwater flow distribution between lines A and B was not as expected, larger through line B and than through line A. The plant was taken to cold shutdown and the outage was extended to inspect the feedwater spargers to recover a bolt and a nut that was not recovered form the valve. | The direct cause was foreign material blocking the line A flow path due to the fracture of a check valve. The root cause analyses is under investigation. |  | 1 - For information only, check valve, loose part, outage extension, reactor shutdown | ER.1  |
| [**WER PAR 17-0836**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30332) | 16.11.2017 | Ningde 2 | 13.11.2016 | Opened Valve in Plant Radiation Monitoring System bypassing the containment | 00 | 16.11.2017 | Trending | During normal operation, a valve on vent line to atmosphere in plant radiation monitoring system (KRT) radioactivity measurement channels was found open. There was a risk that the radioactive gas in the containment may discharge to outside environment unexpectedly. | The direct cause was that the valve status was not inspected while isolating. The root cause was lack of line-up management on the valves inside KRT system. The contributing factors were unclear isolation operation interface and inadequate procedure. |  | 1 - For information only, configuration control, human error, procedure inadequacy, valve misposition | CM.2  |
| [**WER PAR 17-0835**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30330) | 16.11.2017 | Vandellòs II 2 | 07.08.2017 | Inoperability of one of the two trains of the essential chilled water system due to short circuit | 00 | 16.11.2017 | Trending | During normal operation, a short circuit in a control relay coil resulted in one of two essential chilled water system trains to become inoperable, requiring entry into a limiting condition of operations. | The direct cause was a defective relay located in a local panel. The root cause was an inadequate original design causing premature component ageing. |  | 1 - For information only, ageing, chiller, design criteria / design basis, heating ventilating and air conditioning, limiting condition of operation, relay | ER.3 , PI.2  |
| [**WER PAR 17-0834**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30329) | 16.11.2017 | Trillo 1 | 05.06.2017 | Load reduction to repair a main steam leak of the High Pressure turbine caused by human error | 00 | 16.11.2017 | Trending | During normal operation, a leak was discovered in the lower part of the high-pressure turbine. The unit power was reduced to 70% to carry out repair. | The cause was that the contact surfaces of the high-pressure turbine casing and the covers were not parallel and the seal had degraded due to an error when assembling the covers. The main root cause was human error in assembling the covers due to lack of task supervision. The design of the covers did not facilitate the sealing of the system. |  | 1 - For information only, contractor, design criteria / design basis, high pressure turbine, human error, leak, management oversight, power reduction, seal | ER.3 , MA.1 , MA.2  |
| [**WER PAR 17-0833**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30328) | 16.11.2017 | Tricastin 3 | 20.08.2017 | Discrepancy between axial power distribution and specified value caused LCO | 00 | 16.11.2017 | Trending | While increasing load, the axial power distribution limit annunciator alarmed multiple times, indicating that the reactor was in band 2 of the operating envelope. The operation crew implemented a wrong strategy to increase load, causing the plant to operate in band 2 for 1 hour and 3 minutes, exceeding the axial power distribution by 3 minutes. A group-1 limiting condition of operations was entered. | The cause was the load increase was not analysed properly due to a lack of experience. The operations failed to identify the impact of plant conditions on reactor control. | SOER 2013-1 Rec 3, SOER 2007-1 Rec 4 | 1 - For information only, flux tilt, human error, limiting condition of operation, reactivity management, risk assessment, turbine trip | CM.4 , OF.2 , OP.1 , OP.2  |
| [**WER PAR 17-0830**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30325) | 16.11.2017 | Sellafield - Infrastructure 1 | 21.08.2017 | Cladding Patches Fall near Workers Below | 00 | 16.11.2017 | Trending | Two pieces of cladding fell from the underside of a walkway approximately eight metres to the ground near to workers. There was potential for workers injury. | The root cause was that the cladding patches were fixed in place with rivets and mastic sealant instead of stainless steel screw fixtures. |  | 1 - For information only, industrial safety | IS.1  |
| [**WER PAR 17-0829**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30324) | 16.11.2017 | Sellafield - Infrastructure 1 | 13.08.2017 | Hand Injury from Heavy Goods Vehicle Tractor Unit | 00 | 16.11.2017 | Trending | While connecting a trailer to a tractor, the tractor unit fell onto the driver hand catching his thumb between the body of the fifth wheel and the bottom frame work. The operator broke his thumb. | The root cause was a lack of questioning attitude when faced with uncertain conditions. The fifth wheel framework was dry and not lubricated. The vehicle defect process was not appropriately used. |  | 1 - For information only, human error, industrial safety, injury, preventive maintenance | ER.2 , IS.1  |
| [**WER PAR 17-0827**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30322) | 16.11.2017 | Saint-Alban 2 | 21.08.2017 | Automatic reactor trip after a reactor protection alarm was acknowledged | 00 | 16.11.2017 | Trending | During normal operation, the operator reset three faults that were memorised by the data acquisition and processing modules (UATP), resulting in the undetected operation of two reactor trip breakers. The two additional reactor trip breakers were opened when the reset bottom was pressed again, causing an automatic reactor scram. The plant was unavailable to the grid for 41 hours and 47 minutes. | The root causes was failure to use procedures and inadequate risk assessment for high risk activities. The other cause was the key control instruction was not followed and insufficient communication between shift manager and the operator and inadequate operating procedures. | SOER 2013-1 Rec 3 | 1 - For information only, automatic scram, human error, procedure adherence, procedure inadequacy, risk assessment | OP.1 , OP.2  |
| [**WER PAR 17-0824**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30319) | 16.11.2017 | Beznau 2 | 13.09.2017 | Design deviation in emergency power trains could lead to non-availability of emergency power | 00 | 16.11.2017 | Trending | During an outage, a design deviation was detected related to the independence of the emergency power trains and had an impact on both units. A partial or total loss of the interface cabinets located in non- earthquake resistant buildings may result in unavailability of an emergency power train. | The root cause was insufficient critical challenge of the standard systems / the design of control suppliers protection systems and their application during the engineering phase. |  | 1 - For information only, contractor, design criteria / design basis, diesel generator, human error | CM.1 , EN.1  |
| [**WER PAR 17-0821**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30316) | 16.11.2017 | Fessenheim 1 | 04.08.2017 | Airlock of reactor containment could not be closed as required caused LCO | 00 | 16.11.2017 | Trending | During an outage and while defueling, a cable routed through the containment airlock door would prevent the door from closing if a containment isolation was needed. A group-1 limiting condition of operations was entered. | The causes were inadequate risk assessment. The other causes were the inadequate contractor work packages and a lack of safety concern by the station personnel. |  | 1 - For information only, configuration control, containment isolation, contractor, fire barrier, human error, procedure inadequacy, risk assessment, temporary modification | CM.2 , CM.3 , MA.2 , WM.1  |
| [**WER PAR 17-0820**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30315) | 16.11.2017 | Fessenheim 1 | 28.12.2016 | Failure of containment integrity when operating the doors of air locks | 00 | 16.11.2017 | Trending | During hot shutdown, simultaneous operation of an air pressure balancing valve and of the airlock door on the auxiliary building side resulted in breach of the containment integrity for two minutes and consequently entry into a limiting condition of operation. | The cause was a misunderstanding of rules and responsibilities, insufficient airlock operating guidance and prejob briefing. |  | 1 - For information only, containment isolation, human error, limiting condition of operation, procedure adherence | OP.1  |
| [**WER PAR 17-0819**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30314) | 16.11.2017 | Fessenheim 1 | 11.12.2016 | Excursion from operating limit due to low primary pressure during pressuriser bubble collapse | 00 | 16.11.2017 | Trending | While shutting down the reactor, after turning off two automatic pressurizer heaters steam bubble in the pressurizer collapsed causing the reactor coolant system (RCS) temperature to drop. The temperature drop was not detected by the operators. The spray line opened excessively to control let-down flow rate, the RCS pressure dropped below the technical specifications limit. | The root causes were misunderstanding of the operating procedure, inadequate operating procedures and insufficient monitoring of the pressuriser temperature. The other root cause was inadequate training related to the use of the general pressure controller actuator for the spray valve. | SOER 2013-1 Rec 3 | 1 - For information only, human error, procedure adherence, procedure inadequacy, technical specification | NP.1 , OP.1 , OP.2 , TR.1  |
| [**WER PAR 17-0818**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30313) | 16.11.2017 | Fangchenggang 1 | 25.07.2017 | Local Control Cabinet of Auxiliary Feedwater System Turbine Driven Pump Failed to Switch to Backup Power Supply | 00 | 16.11.2017 | Trending | During normal operation and while handling the problems that auxiliary feedwater system (ASG) control boxes field cables were too short, it was found that the power plugs of control boxes did not match the sockets of hydrotest pump diesel driven generator set (LLS) control boxes. This resulted in inability of the local control cabinet power of the auxiliary feedwater turbine driven pump to switch to backup power supply. | The direct cause was that control boxes socket model were not designed consistently. The root cause was improper design of control boxes socket. The contributing factors were inadequate ASG system commissioning procedure and manufacturer did not supply in accordance with the design requirements. |  | 1 - For information only, auxiliary feedwater pump, design criteria / design basis, power supply, procedure inadequacy, procurement | EN.1 , ER.3  |
| [**WER PAR 17-0816**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30311) | 16.11.2017 | Doel 3 | 23.05.2017 | Turbine trip and SCRAM due to wire break on the coil of the turbine stop valve | 00 | 16.11.2017 | Trending | During normal operation, a turbine trip followed by an automatic reactor scram occurred due to a wire break at the terminal connection from an actuator coil that interrupted the control current in the series connected actuator coils of the six steam turbine stop valves. | The cause was wire break probably caused by damaged conductor core when dismantling wire insulation, already present poor conductor resistance in the wire or wire and conductor damage by mechanical clamping or rubbing. The other cause was inadequate logic design of the steam turbine control system and the series-connected actuator-coils of six steam turbine valves. |  | 1 - For information only, automatic scram, design criteria / design basis, single point vulnerability, turbine stop valve, turbine trip, wiring | CM.1 , MA.1  |
| [**WER PAR 17-0815**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30310) | 16.11.2017 | Cattenom 4 | 16.08.2017 | Quarter of the regulatory skin dose limit due to the presence of an active particle | 00 | 16.11.2017 | Trending | During an outage and while operating the refuelling machine, a contractor was highly contaminated with a estimated skin dose of 240 mSv, exceeding a quarter of the annual regulatory skin dose limit. | The direct cause was presumed to be a puff of aerosol from the decontamination of the mast of the refuelling machine. The other causes were a lack of overall risk assessment and failure to properly classify the operating station of the refuelling machine as a very contaminated zone. inconsistency of the zoning compounded by ineffective treatment of a person with a high level of head contamination. |  | 1 - For information only, contamination, contractor, radiation dose, risk assessment | RP.3 , RS.1  |
| [**WER PAR 17-0813**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30308) | 16.11.2017 | Asco 2 | 27.01.2017 | Inadequate review process led to lower load than specified on the batteries for safety-related loads during the capacity tests | 00 | 16.11.2017 | Trending | As a result of the transition to the enhanced technical specifications, the load applied during the capacity tests of the direct current system batteries for safety-related loads and the minimum voltage value required during those tests were lower than specified by the battery service test included in the current safety study. This situation had existed since the replacement of the chargers implemented through a design change in both units. | The direct cause was the batteries discharge profile and minimum voltage acceptance criterion included in the surveillance procedures did not match and the acceptance criterion associated with the minimum current required for the charger did not match the value included in the new calculation for batteries and chargers, derived from the design modification. The root causes were an inadequate technical review process and incomplete documentation. The contributing cause was a lack of questioning attitude and a lack of self-checking. |  | 1 - For information only, battery, design change, human error | CM.3 , EN.1  |
| [**WER PAR 17-0810**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30246) | 09.11.2017 | Sizewell B 1 | 16.08.2017 | Incorrect isolation applied whilst working on the lighting and small power system | 00 | 09.11.2017 | Trending | While working on a 240V single phase lighting circuit, it was found that the circuit could be made live by operating a light switch close to the work area. This could have resulted in electric shock to the workers. | The root cause was lack of specific written instruction for the work. The contributing causes were inadequate prejob brief and inadequate layout drawings. |  | 1 - For information only, contractor, drawing, human error, industrial safety, procedure inadequacy | IS.1 , MA.1 , MA.2  |
| [**WER PAR 17-0808**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30244) | 09.11.2017 | Saint-Alban 2 | 11.03.2017 | Leak on chemical and volumetric system filter caused by insufficient torque on bolts | 00 | 09.11.2017 | Trending | During normal operation, a reactor coolant leak of 3000 litre per hour from a filter in the chemical and volume control system resulted in an entry into a limiting condition of operation. | The cause was inadequate torqueing of the filter cover bolts, resulting in loss of metal-to-metal contact and extrusion and distortion of the seal, causing it to break. The root causes were insufficient lubrication of the filter studs, inappropriate use of tools and shortfalls in the component post-maintenance testing process. |  | 1 - For information only, chemical volume control system, human error, leak, limiting condition of operation, reactor coolant, seal, torque | MA.1 , MA.2  |
| [**WER PAR 17-0807**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30243) | 09.11.2017 | Saint-Alban 1 | 01.03.2017 | Functional loss of 2 source range channels due to isolations failure | 00 | 09.11.2017 | Trending | During an outage and while defueling, due to improper isolation of the 200 volts breaker the "high flux on shutdown" alarms annunciate and the function of two 2 source range channels was lost. A group-1 limiting condition of operations was entered and incident procedures were entered. | The main cause was a lack of planning of the preparation of isolations during outage mode changes. During mode changes in planned outages, there are no formal plans for certain isolation requests which were approved whilst the required reactor conditions have not yet been fulfilled. Station departments did not use consistent methods for processing isolations. The tagging officer did not comply with the isolation requests. | SOER 1998-1 Rec 1 | 1 - For information only, human error, limiting condition of operation, procedure adherence, procedure inadequacy, risk assessment, source range monitor, tagging | OP.1 , OP.2 , WM.1  |
| [**WER PAR 17-0806**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30242) | 09.11.2017 | Saint-Alban 1 | 19.02.2017 | Surveillance test on the Emergency turbogenerator not performed as required | 00 | 09.11.2017 | Trending | During shutdown and while testing an emergency turbo generator, the test was performed at a primary pressure of 75 bar instead of below 45 bar as required. This resulted in unavailability of the emergency turbo generator and changeover of its switchboard to 380V normal power supply and caused entry into two limiting conditions of operation. | The root cause was incomplete analysis of the change in strategy for cooling the reactor up to the left-hand-side of the pressure - temperature operating range and the conditions for performing the surveillance test. The other cause was shortfalls in procedure adherence. | SOER 2013-1 Rec 3 | 1 - For information only, chemical volume control system, human error, limiting condition of operation, power supply, procedure adherence | OP.1 , OP.2  |
| [**WER PAR 17-0805**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30241) | 09.11.2017 | Saint-Alban 2 | 02.02.2017 | Quality-assurance shortfalls during trouble-shooting and repair on control-room iodine ventilation system | 00 | 09.11.2017 | Trending | During normal operation, a bearing for motor-driven fan for the control-room iodine ventilation system was damaged, this resulted in entry into a group-1 limiting condition of operations for about 10 hours. Additionally the maintenance work associate with the repair was performed without work package. | The root causes was the failure to comply with expectations and the mechanical maintenance department had no expectations relating to the diagnosis of faults on safety-related components. |  | 1 - For information only, bearing, control room, fan, heating ventilating and air conditioning, limiting condition of operation, procedure adherence, risk assessment | MA.1 , NP.1  |
| [**WER PAR 17-0804**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30240) | 09.11.2017 | Ningde 4 | 31.03.2017 | Failure to modify the temperature control rod low limit and low-low limit duing first fuel cycle | 00 | 09.11.2017 | Trending | While decreasing power to shut down the unit, the low limit and low-low limit of a temperature control rod were found not modified according to the fuel burnup. This may lead to the control rod inserted too deep during operation and reduce the shutdown margin. | The direct cause was omission of control rod low and low-low modification items from the monthly plan. The root cause was inadequate enforcement of the monthly plans approval process by the fuel management department. The contributing factor was vulnerabilities in management of the periodic physics test programme. |  | 1 - For information only, control rod, procedure adherence, work control | CM.2 , CM.4 , WM.1  |
| [**WER PAR 17-0801**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30237) | 09.11.2017 | Ningde 3 | 28.01.2017 | Cracks on an Emergency Diesel Generator Cylinder Starting Valve | 00 | 09.11.2017 | Trending | During an outage and while performing maintenance on a cylinder starting valve of an emergency diesel generator, cracks were found on the valve body. | The direct cause was metal fatigue of the valve body. The root cause was installation defects from the manufacturer. There was uneven contact between the cracks of the valve body and corresponding seal face of the cylinder. |  | 1 - For information only, diesel generator, fatigue cracking, valve, vendor | ER.3  |
| [**WER PAR 17-0800**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30236) | 09.11.2017 | Ningde 3 | 23.01.2017 | Degraded Insulation of a Temperature Probe in Reactor Coolant System Caused Abnormal Measurement | 00 | 09.11.2017 | Trending | During normal operation, a temperature probe in the reactor coolant system read low. This degraded over temperature and overpower protections. | The direct cause was failure of the probe insulation. The root cause was lack of protection for the probe during its installation or quality defect in the probe. |  | 1 - For information only, insulation electrical, reactor coolant, reactor protection system | ER.3  |
| [**WER PAR 17-0798**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30234) | 09.11.2017 | Ningde 2 | 11.01.2017 | Auxiliary Feedwater System Tripped by Electrical Overspeed preotection during a Test | 00 | 09.11.2017 | Trending | During normal operation and while testing an auxiliary feedwater pump, the pump tripped on electromagnetic overspeed signal. This resulted in an entry into a limiting condition for operation. | The direct cause was melting of the control valve packing and its wrapping due to high temperature and the solute flowed to the gap between yoke and stem, resulting in the valve slow operation and consequently overspeed trip of the pump. The root causes were abnormal quality of the valve packing and abnormalities in pump speed measurement loop. |  | 2 - Important lessons, auxiliary feedwater, limiting condition of operation, procurement, valve | ER.3  |
| [**WER PAR 17-0795**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30231) | 09.11.2017 | Ningde 1 | 17.11.2016 | Deficiency on Expansion Joints of an Emergency Diesel Generator | 00 | 09.11.2017 | Trending | During normal operation, an annular crack (about 1/3 circle and 2mm in depth) was found on the surface of a preheating inlet expansion joint of an emergency diesel generator (EDG). During a requalification test after the replacement of the rubber expansion joint, cracks and leakages in two metal bellows for the high temperature cooling water from the intercooler was identified. The unavailability of the EDG was three days. | The direct cause of the cracks on the rubber expansion joint was excessive stress. The root cause was manufacturing issues. A contributor was the installing space was too big and the expansion joint was excessively stretched for a long time. The root cause for the cracks of metal bellows was inadequate welding procedure of several metal bellows and excess weld reinforcement accelerated the stress concentration. |  | 1 - For information only, diesel cooling water, diesel generator, expansion joint, fatigue cracking, leak, vendor, weld | ER.3  |
| [**WER PAR 17-0794**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30230) | 09.11.2017 | Ningde 2 | 14.11.2016 | Oxygen Analyzer of Gaseous Waste Treatment System Failed Several Times leading to a LCO | 00 | 09.11.2017 | Trending | During startup and while performing hydrogen purge for chemical and volume control system volume control tank, gaseous waste treatment system (TEG) oxygen analyzer fault alarm occurred. The alarm disappeared after implementing sampling line purge but triggered again several times. As a result, the TEG compressors failed to start and a limiting condition for operation was entered. | The direct cause was insufficient output of oxygen content analyzer sampling pump. The root cause was ageing. The contributing cause was inadequate preventive maintenance strategy of the oxygen content analyzer. |  | 1 - For information only, ageing, limiting condition of operation, outage extension, preventive maintenance | ER.2 , ER.3  |
| [**WER PAR 17-0788**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30223) | 09.11.2017 | Hinkley Point B1 | 13.03.2017 | Marine ingress in the cooling water intake initiated two manual shutdowns as a result of vacuum reduction | 00 | 09.11.2017 | Trending | During startup and at 31% power, a rapid condenser vacuum deterioration occurred and consequently turbine load started decreasing. The reactor was manually scrammed. After three days, the same event occurred during startup at 60% power and the reactor was again manually scrammed. The events resulted in loss of generation equivalent to about six days of full power operation. | The direct cause was degradation of vacuum maintaining units (VMUs) performance due to marine ingress in the cooling water intake. Loading on the VMUs was further increased due to nitrogen in the condenser which leaked from the deaerator through a defective control valve. A procedure step to remove nitrogen blanketing from the deaerator was missed. The root cause was accumulation of defects on the circulating water (CW) system, which degraded the effectiveness of the CW screens. | SOER 2007-2 Rec 1, 3, 4 | 1 - For information only, condenser air ejector, condenser vacuum, intake, leak, manual scram, procedure adherence, travelling screen, valve | OF.2 , OP.1 , OP.2  |
| [**WER PAR 17-0787**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30222) | 09.11.2017 | Heysham B1 | 03.08.2017 | Unplanned automatic trip following Main Boiler Feed Pump fault | 00 | 09.11.2017 | Trending | During normal operation, with a main boiler feed pump (MBFP) unavailable for maintenance, the second MBFP tripped due to a fault, resulting in an automatic reactor scram. The unit was off line for about a day. | The direct Cause was a loose terminal connection from the motor windings of an lube oil pump. The root cause was inadequate review of historical tolerable risks, a lack of challenge to produce short strategies and insufficient mitigations. There was a knowledge gap in the risk assessment. The other causes were inadequate cause analysis from the previous similar events regarding the design weaknesses and a lack of maintenance standard. |  | 1 - For information only, automatic scram, feedwater pump, human error, lube oil pump, risk assessment | ER.3 , OF.2 , OP.1 , PI.2  |
| [**WER PAR 17-0786**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30221) | 09.11.2017 | Gravelines 1 | 07.07.2017 | Isolation fault on emergency-supplied 380 V switchboard during a surveillance test | 00 | 09.11.2017 | Trending | During normal operation and while testing switchover of a fuel pool cooling system level sensor.&nbsp;A connection error in the input used to check valve&nbsp;closure led to the&nbsp;isolation of the 380V&nbsp;emergency-supplied switchboard and the entry into a limiting condition of operation. | The cause was a connection error due to lack of questioning attitude. The connection error caused a mixture of polarities between the plates. The other cause was inadequate procedure.&nbsp; |  | 1 - For information only, human error, limiting condition of operation, power supply, procedure inadequacy | MA.1 , MA.2  |
| [**WER PAR 17-0782**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30217) | 09.11.2017 | Blayais 1 | 07.07.2017 | Wrong electronic card installed in the rod-control system lead to unplanned rod drop | 00 | 09.11.2017 | Trending | During shutdown while performing testing of the control rod position alarm after replacing an electronic, one of the rods dropped. This resulted in entry into a limiting condition of operation.&nbsp; | The cause was replacement of the electronic card with a wrong card, which resulted in an insulation resistance fault due to component ageing. The other causes were inadequate risk assessment, incomplete procedure used during planning phase and lack of knowledge and technical skill of the worker. |  | 1 - For information only, ageing, circuit card, control rod, human error, limiting condition of operation, procedure inadequacy, risk assessment | ER.3 , MA.1 , MA.2  |
| [**WER PAR 17-0780**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30191) | 02.11.2017 | Ningde 1 | 05.04.2015 | Cooling System Safety Valves actuated during Startup of Cooling Pump due to system pressure exceeding set point  | 00 | 02.11.2017 | Trending | During normal operation, the component cooling water (CCW) safety valves actuated on four occasions during startup of the CCW pumps or during the switchover between train A and train B. There was a potential for losing one train of CCW if safety valves had failed to reseat. | The direct cause was the system pressure exceeded the set point of safety valves during pump startup. The root cause was insufficient consideration of the transient conditions of centrifugal pump into design. |  | 1 - For information only, design criteria / design basis, pump, safety relief valve, setpoint | CM.1  |
| [**WER PAR 17-0779**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30190) | 02.11.2017 | Hinkley Point B1 | 07.05.2017 | Reactor 4 hot gas release damper defect and unplanned entry into limited condition of operation | 00 | 02.11.2017 | Trending | During normal operation and while performing work opening the heating and ventilation dampers, the unanticipated needs to isolate the hot gas release dampers (HGR) caused an unplanned entry to a limiting condition of operation (LCO). This increased the risk of entering reactor shutdown action. | The direct causes were ambiguous information in the work order card and insufficient information during isolation. The other cause was a HGR damper did not open without recognised and the unreliable HGR dampers failed to open in the past. |  | 1 - For information only, damper, heating ventilating and air conditioning, human error, limiting condition of operation, tagging, work control | PI.3 , WM.1  |
| [**WER PAR 17-0778**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30186) | 02.11.2017 | Yangjiang 1 | 01.06.2017 | 3-phase short circuit fault caused a trip of a power breaker resulting in a loss of backup power | 00 | 02.11.2017 | Trending | During normal operation, a power circuit breaker tripped due to a 3-phase short circuit fault that resulted in the loss of 220kV backup power supply to the auxiliary transformer 6.6kV switchboard system for 82 hour. | The direct cause was weak insulation at&nbsp;expansion joint points generated due to submergence during a 2013 typhoon. The root cause was insufficient technical analysis of the risk of insulation failure due to submergence. The contributing factors were lack of outage maintenance and failure to perform visual inspection due to non transparent material of protective hood. |  | 1 - For information only, breaker, insulation electrical, power supply, risk assessment, water intrusion | EN.1 , ER.3  |
| [**WER PAR 17-0777**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30185) | 02.11.2017 | Sellafield - Waste Vitrification Plant 1 | 07.09.2017 | Plant configuration issue identified during implementation of isolation | 00 | 02.11.2017 | Trending | During verification checks on the isolation of an extract fan, discrepancies between as constructed and as design documentation&nbsp;used to implement the isolation were identified. As a result, intrusive works could have been performed on a live system, increasing risk of personal injury. | The cause was using a schematic drawing that was not modified after modifications. |  | 1 - For information only, design change, drawing, industrial safety, tagging | CM.2 , CM.3 , IS.1  |
| [**WER PAR 17-0773**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30181) | 02.11.2017 | Saint-Alban 1 | 17.06.2016 | Noncompliant seismic qualification of 2 containment isolation valves on the nuclear effluents system  | 00 | 02.11.2017 | Trending | Two containment isolation valves on the nuclear island vent and drain system in both units were installed without support structures. This is noncompliant with seismic qualification requirements. | The cause was inadequate original installation and multiple missed opportunities to detect the issue during maintenance activities. There were gaps in maintenance worker knowledge and experience. |  | 1 - For information only, containment isolation, drain valve, seismic qualification | EN.1 , MA.1  |
| [**WER PAR 17-0772**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30180) | 02.11.2017 | Saint-Alban 1 | 14.05.2016 | Noncompliance with requirements for low-flux operation  | 00 | 02.11.2017 | Trending | During operation below 2% power level while performing a test, the neutron flux could not be maintained at the required level without operator intervention and it continued to decrease to 10-9 ampere at which point the operator extracted the control rods to reinstate a neutron flux above 10-6 ampere. This was not compliant with requirements for low-flux operation which require unit fallback to hot shutdown. | The root causes included non-adherence to the decision-making process, inadequate transient monitoring and supervision, shortfalls in team internal organisation and communication, an inappropriate shutdown procedure and a misrepresentation of the status of the plant. | SOER 2013-1 Rec 3, SOER 2007-1 Rec 1 | 1 - For information only, human error, procedure adherence, procedure inadequacy, reactivity management | OP.1 , OP.2  |
| [**WER PAR 17-0771**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30179) | 02.11.2017 | Penly 1 | 03.08.2017 | Emergency diesel generator unavailability resulting from a level sensor fault  | 00 | 02.11.2017 | Trending | During normal operation and while performing fault diagnostics, an emergency diesel generator was declared unavailable due to a connection fault in a level sensor plug. A limiting condition of operations was entered. | There cause was tensile stress that exposed to the cable core due to works in the area a month ago. The cable linking the sensor to the instrumentation entry point was not well supported. |  | 1 - For information only, diesel generator, limiting condition of operation | ER.1 , MA.1  |
| [**WER PAR 17-0770**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30178) | 02.11.2017 | Penly 2 | 18.05.2017 | Overrun of deadline for reaching required boron concentration in cold shutdown conditions  | 00 | 02.11.2017 | Trending | In July 2016 during hot standby condition after an automatic scram, the auxiliary feedwater tank level was below technical specification requirements but the limiting condition of operation was not entered. This was identified during a safety review performed in May 2017 and the required action to reach the cold shutdown boron concentration was not met. | The direct cause was insufficient monitoring of the alarm indicating a low-level in the tank. The root cause was mis-interpretation of the action statement defined in the technical specifications. The contributing cause was insufficient supervision. | SOER 2013-1 Rec 3 | 1 - For information only, auxiliary feedwater, human error, limiting condition of operation, management oversight, technical specification | OP.1 , OP.2  |
| [**WER PAR 17-0768**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30176) | 02.11.2017 | Hunterston B 1 | 16.03.2017 | Automatic turbine trip | 00 | 02.11.2017 | Trending | During normal operation, a leak at the fire resistant fluid (FRF ) filter resulted in low FRF system pressure and subsequent automatic turbine trip and reactor scram. The event resulted in a 5-day outage.&nbsp; | The direct cause was failure of the FRF filter gasket because it was inadequately tensioned when installed during last maintenance. The contributing cause was small margin for installation errors in the gasket type being used. |  | 1 - For information only, automatic scram, design criteria / design basis, gasket, human error, hydraulic fluid, leak, turbine trip | ER.3 , MA.1  |
| [**WER PAR 17-0767**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30175) | 02.11.2017 | Heysham B2 | 18.08.2017 | Passing steam isolation caused hazardous energy within isolated zone | 00 | 02.11.2017 | Trending | During normal operation and while conducting system line up for an auxiliary boiler maintenance, the combination of the closure of the vent line and a passing valve caused steam pressure to build up in the system, increasing the risk of personal injury. | The root cause was the failure to apply safety precautions to ensure that safety from the system was maintained for the duration of the work. A contributor was the acceptance to work with a slightly passing isolation and inadequate communication. |  | 1 - For information only, human error, industrial safety, leak, risk assessment, vent valve | IS.1 , WM.1  |
| [**WER PAR 17-0765**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30172) | 02.11.2017 | Heysham A2 | 12.09.2017 | Level 1 Safety Rule Event - Auxiliary Steam supplies incorrect isolation | 00 | 02.11.2017 | Trending | During normal operation, an incorrect isolation with subsequent failure to check a cleared isolation point increased the risk of personnel being exposed to high energy steam. | The incorrectly applied isolation was done by mistake due to absence of rigor to correctly identify the steam trap set. The other cause was the isolation point was not checked in the correct state during a safety document revision. |  | 1 - For information only, human error, industrial safety, procedure inadequacy, tagging | IS.1 , OP.1  |
| [**WER PAR 17-0763**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30170) | 02.11.2017 | Gravelines 4 | 09.06.2017 | Unavailability of turbine-driven auxiliary feedwater pump due to valve trip caused LCO and SCRAM | 00 | 02.11.2017 | Trending | During normal operation, an auxiliary feedwater (AFW) valve spuriously closed, requiring entry into a limiting condition of operations. A month after, on automatic reactor scram occurred following degradation in condenser vacuum and the same valve spuriously closed when it was opened for actuation of turbo AFW turbo pump. | The cause was inadequate corporate baseline maintenance procedure to adjust the valve that was used 2 months before. The corporate baseline maintenance procedure did not specify tolerance ranges and a criterion for maintaining the two points of contact between roller and latching hook over time. The AFW was unavailable for more than 2 months. The other cause was inadequate requalification test. |  | 1 - For information only, auxiliary feedwater pump, common mode failure, limiting condition of operation, procedure inadequacy, technical specification, valve | MA.1 , MA.2  |
| [**WER PAR 17-0761**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30168) | 02.11.2017 | Forsmark 3 | 19.05.2017 | Weaknesses in fire cell integrity | 00 | 02.11.2017 | Trending | During normal operation, a fire cell door to the diesel generator switchgear was ajar, hanging on the latch. During investigation, an exhaust damper was found almost closed. | The cause was the door closing function did not work due to a high differential pressure between the rooms during passage. The overpressure in the room was a known issue caused by the defective damper. |  | 1 - For information only, damper, fire door, heating ventilating and air conditioning, technical specification | FP.1 , OF.1  |
| [**WER PAR 17-0758**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30165) | 02.11.2017 | Forsmark 3 | 12.04.2017 | Fuel failure | 00 | 02.11.2017 | Trending | During normal operation, elevated activity levels in the exhaust gas system indicated fuel leakage.&nbsp; | The root cause of the fuel failure will be determined after inspecting the fuel in the next outage.&nbsp; |  | 1 - For information only, fuel defect | CM.4  |
| [**WER PAR 17-0757**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30164) | 02.11.2017 | Forsmark 3 | 24.11.2016 | Confirmed primary fuel failure 2016-11-24 | 00 | 02.11.2017 | Trending | A fuel failure was identified about two weeks after connection to the grid following an outage. | The cause is to be identified after the next outage. |  | 1 - For information only, fuel defect | CM.4  |
| [**WER PAR 17-0756**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30163) | 02.11.2017 | Forsmark 1 | 15.08.2016 | Confirmed fuel failure | 00 | 02.11.2017 | Trending | During normal operation, radiation measurement in the exhaust gas system were found increased. Water samples from the reactor were taken, which confirmed a fuel failure. | The likely cause was continuous abrasion of the fuel cladding by a metallic foreign object shaped like a wire stuck in a spreader. The likely underlying cause was deficient cleanliness following work in the primary system or wire objects were formed in rotating components or by a valve closing. |  | 1 - For information only, FME, fuel defect | CM.4  |
| [**WER PAR 17-0755**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30162) | 02.11.2017 | Fessenheim 1 | 04.04.2017 | Documentation discrepancy regarding valve position resulting in an operating anomaly | 00 | 02.11.2017 | Trending | During an outage in two units, the position of 4 residual heat removal valves in the site instruction list of safety related equipment was different from the position indicated in the operation reference database. It resulted in a loss of 2 equivalent full power days. In the event of an earthquake, system integrity of the parts downstream of these valves could not be ensured. | The information on presentation and understanding of line-up requirements in the corporate safety requirements design report for safety-related plant did not enable the site safety-related plant coordinators to understand and transpose the requirement for closed manual valves. The definition and expectations of the comments column were not described in detail in the corporate design report. |  | 1 - For information only, outage extension, procedure inadequacy, seismic qualification, valve misposition | CM.2  |
| [**WER PAR 17-0754**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30161) | 02.11.2017 | Fessenheim 1 | 08.02.2017 | Unavailability of an emergency diesel generator due to unplanned limiting conditions of operation on a recorder | 00 | 02.11.2017 | Trending | During normal operation and after disconnecting socket of a recorder used to perform testing on an emergency diesel generator (EDG), it was observed that the housing to which it was connected was broken. This resulted in an unidentified unavailability of the EDG for one month and entry into a limiting conditions of operation. | The cause for the testing socket was not determined. The risk assessment in the work package did not cover the risk of impact on the diesel generator. |  | 1 - For information only, diesel generator, limiting condition of operation, risk assessment | ER.1  |
| [**WER PAR 17-0753**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30160) | 02.11.2017 | Dampierre 4 | 22.06.2017 | Unavailability of manual start-up and shutdown for the 2 emergency diesel generators from the control room | 00 | 02.11.2017 | Trending | During an outage and while performing the realignment of the exhaust support anchors for 2 emergency diesel generator, a breaker module was tagged out on several occasions for maintenance work, resulting in the EDGs being not able to start manually from the control room. A limiting condition of operations was entered. | The cause was human error. Procedures were on used. Additionally, the causes were incomplete baseline documents, insufficient impact analysis, inadequate response to the alarm in the control room and insufficient use of error reduction tools. | SOER 2010-1 Rec 6 | 1 - For information only, configuration control, diesel generator, human error, limiting condition of operation, procedure adherence, procedure inadequacy, risk assessment | CM.2 , OP.1  |
| [**WER PAR 17-0751**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30158) | 02.11.2017 | Blayais 4 | 30.11.2016 | Primary leak rate greater than 2300 L/h during sampling of the primary system | 00 | 02.11.2017 | Trending | During normal operation, a mistake by not closing a nuclear sampling line resulted in a reactor coolant leak and an entry into a group-1 limiting condition of operations. Another limiting condition of operations was entered on ventilation system while isolating the leak. | The cause was a drain valve not fully closed. The other causes were the operator did not report to maintenance manager when he was not sure about the valve's position and the valve was not easy to access and difficult to operate. |  | 1 - For information only, drain valve, heating ventilating and air conditioning, human error, leak, limiting condition of operation, reactor coolant | CM.2 , OP.1  |
| [**WER PAR 17-0750**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30157) | 02.11.2017 | Atucha 1 | 20.06.2017 | Reactor instability and overcoming the operative limit of the lineal power  | 00 | 02.11.2017 | Trending | During normal operation, an operator manually connected the influence of the axial asymmetry to the reactor power regulation system. This caused a sudden reaction of the regulation black rods bench and a very fast variation of the fluctuation amplitude of the axial neutron fluctuation. The operative limit of the lineal power (NUmax limit) was exceeded during 5.5 hours, reaching a maximum of 254%. This could lead to a fuel failure. | The cause was deficiencies in operating procedure. |  | 1 - For information only, procedure inadequacy, reactivity management | CM.4 , OP.2  |
| [**WER PAR 17-0650**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30154) | 18.10.2017 | Brokdorf 1 | 28.07.2017 | Malfunction of a control piston for a charge air flap of an emergency diesel | 02 | 02.11.2017 | Trending | During hot shutdown and while performing an inspection, a charge air flap of one turbocharger group did not open as expected. As a consequence, the affected emergency diesel engine would not have reached a higher load than 4.6 MW in case of demand. This resulted in an entry into a limiting condition of operation. | The cause was presumably a rough-running control piston of the air flap control due to loosening of a stop screw, which delimits the positioning distance of the middle control piston. |  | 1 - For information only, diesel engine, diesel generator, emergency bus, limiting condition of operation | ER.1  |
| [**WER MOW 17-0250**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30438) | 29.11.2017 | Temelin 2 | 10.09.2017 | CONTRACTOR’S WORKER CONTAMINATION | 00 | 29.11.2017 | Trending | While checking an on-line boric acid measurement analyser, a contract worker's hands got contaminated with surface contamination of 4.5 Bq/cm2. After repeated decontamination, the worker left the plant with hands in cotton gloves due to surface contamination above the monitoring reference level. | The direct cause was that the worker did not follow the radiation order instructions. He used defective gloves and changed them during the work without informing radiation protection personnel. The root causes were inadequate communication, ALARA principles non-observance and violation of general radiation protection rules. |  | 1 - For information only, contamination, human error, procedure adherence, radiation dose, radiation protection | NP.1 , RS.1  |
| [**WER MOW 17-0248**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30436) | 29.11.2017 | Dukovany 3 | 08.08.2017 | Foreign material found in the drainage pipe when changing the safety valve YA16S03 | 00 | 29.11.2017 | Trending | During an outage and while performing work related to replacement of a steam generator safety valve, a washer of size 3x3 cm was found in its drainage pipe. This may affect heat removal from the reactor core or valve function in primary circuit. | The most likely cause was fall of the washer during works performed on the steam generator in 2010. The root cause was failure to exclude foreign material. | SER 2015-1 | 1 - For information only, FME, steam generator / boiler | MA.2  |
| [**WER MOW 17-0246**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30431) | 28.11.2017 | Kursk 3 | 09.05.2017 | Kursk Unit 3’s Load Reduction by More Than 5% to Repair Raw Water In-Leaks into a Turbine Condenser  | 00 | 28.11.2017 | Trending | During normal operation, conductivity at a turbine condensate polisher inlet was found increased. The load on the turbine generator was reduced to 60%. | The direct cause was condenser tube rupture due to erosion. The root cause was inadequate condenser design as the tube material was prone to intensive pitting corrosion. | SER 2003-4 | 1 - For information only, condenser tube, conductivity, design criteria / design basis, erosion/corrosion, leak, power reduction | ER.3  |
| [**WER MOW 17-0245**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30430) | 28.11.2017 | Kursk 4 | 06.05.2017 | Kursk Unit 4’s Load Reduction by More Than 5% to Repair Raw Water In-Leaks into a Turbine Condenser  | 00 | 28.11.2017 | Trending | During normal operation, conductivity increased at the inlet of a turbine condensate polisher. As a result, the associated turbine generator was reduced to 300 Mwe. This represents a capacity lost of approximately 3.5-day. | The direct cause was the rupture a heat exchanger tube wall. The failure was cause by induced heat erosion on the turbine condenser due to long term effect of the operational environment. The root cause was a deficient design of the heat exchanger tube material. The material is prone to intensive pitting corrosion. |  | 1 - For information only, condenser tube, conductivity, design criteria / design basis, erosion/corrosion, fatigue cracking, leak, power reduction | ER.4  |
| [**WER MOW 17-0244**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30429) | 27.11.2017 | Leningrad 2 | 11.08.2017 | Unit 2 Turbine Generator trip and Unit 2 power reduction due to opening of the 330 kV circuit breaker on actuation of the reverse-sequence current protection in the generator-transformer set.  | 00 | 27.11.2017 | Trending | During normal operation, a turbine generator circuit breaker tripped on actuation of the reverse-sequence current protection in the generator-transformer set. This resulted in a turbine trip and the unit power reduced to 50%. | The direct cause was partial breakdown of the insulating barrier in the connector of the resistance relay due to long-term operation. The root cause was that the manufacturer's and maintenance documentation did not provide requirements to verify the condition of the contact connectors in the resistance relay module during maintenance. A contributor was absence of the alarm/control circuitry for the relay actuation. |  | 1 - For information only, design criteria / design basis, documentation, insulation electrical, power reduction, preventive maintenance, turbine trip | ER.2 , ER.3  |
| [**WER MOW 17-0243**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30418) | 27.11.2017 | Novovoronezh 5 | 25.11.2017 | #PRELIMINARY# One of the Two Turbine Generators Tripped Off Line Due to Control Cable Conductor Rupture | 00 | 27.11.2017 | Trending | During normal operation, a 500 kV circuit breaker and the main transformer tripped off from differential protection actuation. One of the two turbines tripped and the reactor power reduced to 52%. | The direct cause was failure of a conductor of control cable. The root cause is under investigation. |  | 1 - For information only, breaker, power reduction, transformer, turbine trip | ER.1  |
| [**WER MOW 17-0241**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30415) | 24.11.2017 | Dukovany 3 | 04.08.2017 | Foreign material detected in refueling pit during it filling | 00 | 24.11.2017 | Trending | During an outage and while filling the refuelling pit, foreign object of an aluminium foil was identified on the pool surface. | The direct cause could not be identified. The root cause was the failure to exclude foreign material. |  | 1 - For information only, FME, reactor cavity | MA.2  |
| [**WER MOW 17-0240**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30414) | 24.11.2017 | Dukovany 4 | 07.11.2017 | #PRELIMINARY# Controlled shut down of the unit due to increased inflow to the floor drainage tank | 00 | 24.11.2017 | Trending | During normal operation, a leak of 200-300 litres/hour at weld for a level measurement nozzle on the secondary side of a steam generator was identified. The reactor was shut down to carry out repair. | The event is being investigated. |  | 1 - For information only, leak, reactor shutdown, steam generator / boiler, weld | ER.1  |
| [**WER MOW 17-0239**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30377) | 21.11.2017 | Zaporozhye 3 | 27.10.2017 | Taking an Emergency Diesel Generator (EDG) out of service for maintenance while the reactor was in cold shutdown | 00 | 21.11.2017 | Trending | During an outage, the drain valve of the left&nbsp;exhaust collector for a standby emergency diesel generator (EDG) was found leaking. The EDG was taken off for maintenance. | The direct cause was cooling fluid entered the exhaust collector from the sealing surface of the injector nozzle due to cracks on the threaded hole of the left injector nozzle. The probable cause was manufacturing defects in combination with latent defects on the cylinder bushing and the stresses from installation. |  | 1 - For information only, diesel engine, diesel generator, leak, vendor | ER.3  |
| [**WER MOW 17-0238**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30347) | 17.11.2017 | Kola 3 | 17.04.2017 | During an in-service inspection of the reactor pressure vessel (RPV) head, traces of boric acid were found on one in-core temperature measurement nozzle flange.  | 00 | 17.11.2017 | Trending | During an outage and following a reactor coolant system heat up for hydraulic testing, traces of boric acid were found on an in-core temperature measurement nozzle flange of the reactor pressure vessel head. The plant was cooled down to repair the defect. | The direct cause was insufficient tightening of the in-core temperature measurement nozzle flange gasket. The root causes were deficiencies in the maintenance documentation and maintenance managers did not take timely actions to resolve the discrepancies between the manufacturer's documentation and the maintenance procedures. |  | 1 - For information only, documentation, human error, leak, nozzle, procedure inadequacy, reactor coolant, reactor vessel head | MA.1 , MA.2  |
| [**WER MOW 17-0237**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30346) | 17.11.2017 | Balakovo 2 | 25.03.2017 | Defects of the studs in the main joint of Reactor Coolant Pump (RCP) 2YD0D01 revealed during the outage in 2017.  | 00 | 17.11.2017 | Trending | During a planned outage, 30 studs in the main joint of a reactor coolant pump (RCP) were found with defects on the fillet part. | The cause was the corrosive and erosive damage caused by their contact with aggressive boric acid solution contained in the RCP sealing water. The end seal water leaked due to clogging of a discharge collector. |  | 1 - For information only, erosion/corrosion, leak, procedure inadequacy, reactor coolant, reactor coolant pump, seal | ER.1 , MA.2  |
| [**WER MOW 17-0236**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30300) | 15.11.2017 | Bushehr 1 | 02.04.2017 | Fire on the normal operating Busbar10CC | 00 | 15.11.2017 | Trending | During hot standby mode, a fire occurred on a normal 660V busbar associated with the electrical feeder for the second group of primary circuit compensatory heaters. The fire was extinguished using dry and CO2 fire extinguishers. | The direct cause was a loose connection between the fixed and moving contacts of electrical power unit, which led to over heating of these contacts and causing the holding plastic parts to catch on fire. The root cause was erosion of main electrical power units. |  | 1 - For information only, ageing, bus bar, fire | ER.2 , ER.3 , FP.1  |
| [**WER MOW 17-0235**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30299) | 15.11.2017 | Mochovce 1 | 12.05.2017 | Emergency core cooling system 2 unavailable because of unavailability of the power-operated valve | 00 | 15.11.2017 | Trending | During startup after an outage, a closed low-pressure emergency system valve could not be opened remotely from the main control room. A limiting condition of operation was entered. | The direct cause was insufficient contact on a servo drive terminal board. The root cause was that an incipient gradual degradation of servo drive terminal boards identified during the overhaul was not recorded and inadequately evaluated. A contributing cause was inadequate troubleshooting. |  | 1 - For information only, emergency core cooling system, leak, limiting condition of operation, valve | ER.1 , MA.1 , PI.2  |
| [**WER MOW 17-0234**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30294) | 14.11.2017 | Paks 1 | 07.09.2017 | The presence of foreign material was identified by camera inspection of the Sprinkler System Train Y pipeline during the maintenance outage of Unit 1 | 00 | 14.11.2017 | Trending | During an outage and while performing an inspection, foreign materials were found in all the three sprinkler system headers of the containment spray system. The technical analysis revealed that less than 10% of the total number of nozzles could have been blocked. Due to the diversion of water from the failed nozzles to the intact ones, the total volume of water sprayed into the containment would have remained unchanged. | The direct cause was that the foreign objects had not been removed from the pipelines and nozzles at the time of installation of the sprinkler system. It was not possible to identify the root cause. |  | 1 - For information only, containment spray, FME, nozzle | MA.2  |
| [**WER MOW 17-0232**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30275) | 10.11.2017 | Smolensk 1 | 08.11.2017 | #PRELIMINARY# Turbine Generator No.1 Tripped Off from Stator Winding Ground Fault Protection Actuation | 00 | 10.11.2017 | Trending | During normal operation, the main generator trip on the actuation of the&nbsp;stator winding ground fault protection. One of the two turbine generators tripped and the reactor power was reduced to 50%.&nbsp; | The direct cause was a&nbsp;short circuit. The root cause is under investigation. |  | 1 - For information only, power reduction, stator, turbine generator, turbine trip | ER.1  |
| [**WER MOW 17-0231**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30248) | 09.11.2017 | Kudankulam 2 | 25.06.2017 | UNIT 2 EMERGENCY PROTECTION ACTUATION ON GAMMA ACTIVITY IN SG STEAM LINE > 7X10-7 GREY/HR | 00 | 09.11.2017 | Trending | During normal operation, two gamma sensors actuated on one steam generator, causing turbine trip and an automatic reactor scram. The unit was off line for 64 hours. | The direct cause was false signals of high gamma activity in the steam line. |  | 1 - For information only, automatic scram, reactor protection system, turbine trip | ER.1  |
| [**WER MOW 17-0229**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30209) | 08.11.2017 | Temelin 2 | 26.06.2017 | FOREIGN MATERIAL FOUND IN HOT COLLECTOR OF SG | 00 | 08.11.2017 | Trending | During an outage, broken pieces of graphite were found in the steam generator hot collector. The workers did not report the foreign material but only removed them. | The direct cause was adherence of the sealing material to the sealing surfaces and its subsequent disintegration when the lid was dismantled. The root cause was inadequate sealing design and absence of check before the plug was removed. The cause of not reporting the findings was insufficient self-check. | SER 2015-1 | 1 - For information only, design criteria / design basis, FME, human error, steam generator / boiler | MA.1 , MA.2 , NP.1  |
| [**WER MOW 17-0228**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30208) | 08.11.2017 | Temelin 2 | 26.06.2017 | EDG shutdown during 3-min testing run | 00 | 08.11.2017 | Trending | During an outage the emergency diesel generator (EDG)&nbsp;&nbsp;trip during the&nbsp;3-minute test run. This resulted in an entry into a limiting condition of operation. | The direct cause was the malfunction of a key switch in the EDG control cabinet. The root cause was ageing of the key switch. |  | 1 - For information only, ageing, diesel generator, limiting condition of operation, switch | ER.3  |
| [**WER MOW 17-0227**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30207) | 07.11.2017 | Dukovany 1 | 13.07.2017 | LOSS OF UNDERPRESSUREIN HERMETIC ZONE DUE TO INCORRECT ACTION OF THE OPERATOR | 00 | 07.11.2017 | Trending | During normal operation and after flushing the level measuring sensor on a steam generator, a valve was closed on the wrong division, causing deterioration of the negative pressure in the hermetic zone. | The cause was a human error due to not paying due attention to the action. |  | 1 - For information only, configuration control, containment penetration, human error, limiting condition of operation | CM.2 , OP.1  |
| [**WER MOW 17-0218**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30381) | 24.10.2017 | Khmelnitsky 2 | 24.10.2017 | Reactor Protection System Actuation on a Spurious ‘Steam Generator Level Lo-Lo’ Input | 01 | 22.11.2017 | Trending | During startup and at 69% power and while performing in-core nuclear instrumentation system operability test, the reactor scrammed automatically on a spurious steam generator level low signal. | The direct cause was sludge accumulation in the shut-off protective valve of the pulse line for the steam generator level sensor .The root cause was a design deficiency. The contributing cause was that the industry requirements for blowdown were not met due procedure inadequacy. |  | 1 - For information only, automatic scram, design criteria / design basis, level instrument, procedure inadequacy, sludge | ER.3 , OP.1 , OP.2  |
| [**WER MOW 17-0202**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30417) | 28.09.2017 | South Ukraine 2 | 28.09.2017 | Unit 2 was disconnected from the grid by electric protection actuation | 01 | 26.11.2017 | Trending | During operation at 60% power, the turbine generator's loss of excitation protection actuated to disconnect the unit from the grid and trip the turbine. The reactor power reduced automatically. The unit was shut down for repair of the turbine generator. The event is Noteworthy because it resulted in a 34-day outage. | The direct cause was a short circuit in the exciter armature winding due to isolation breakdown in the end parts. The root cause was deficiencies in the manufacturers documentation which did not provide instructions for the exciter armature inspections in inaccessible locations. A contributor was inadequate design which did not provide a fast-acting protection against short circuits in the exciter windings. |  | 1 - For information only, design criteria / design basis, documentation, exciter, reactor shutdown, turbine trip | ER.3  |
| [**WER MOW 17-0183**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30174) | 29.08.2017 | Leningrad 3 | 29.08.2017 | Unit 3 reactor scrammed from minimum controlled power. | 01 | 02.11.2017 | Trending | During startup and while reducing power from3.3 to 2.7% to maintain the reactor main circulation circuit (RMCC) warm uprate, an automatic reactor scram occurred on hi-hi level in drum separators of the right side. | The cause was human errors due to deficiencies in inadequate operator's motivation and competence. The other causes was inadequate procedure and supervision. The similar events occurred in the past. |  | 1 - For information only, automatic scram, human error, management oversight | OP.1 , OP.2 , PI.2  |
| [**WER MOW 17-0181**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30202) | 26.08.2017 | Rovno 4 | 25.08.2017 | Generator 6 of Unit 4 tripped followed by reactor scram | 02 | 03.11.2017 | Trending | During normal operation, the turbine generator tripped on ground protection actuation. It resulted in reactor scram on reactor protection actuation. Diesel generator automatically started to energize the vital bus. | The direct cause was degradation of the control cable insulation in the protection circuit. The root cause was insufficient preventive maintenance. A contributor was the design of the DC boards did not allow prompt and efficient identification of connections. |  | 1 - For information only, automatic scram, design criteria / design basis, insulation electrical, preventive maintenance | ER.2 , ER.3  |
| [**WER MOW 17-0173**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30440) | 15.08.2017 | Rovno 1 | 06.08.2017 | Reactor Power Reduction to 10% to Repair a Leak from the Non-isolable portion of the Oil Line Associated with the Circulating Water Pump | 01 | 29.11.2017 | Trending | During normal operation, an oil leak from the non-isolable section of the drain line of circulating water pump was identified.The power was reduced to about 75% for repair. | The direct cause was a crack developed in the threaded joint of the oil discharge pipeline connected to the upper oil tank of a circulating pump motor. The crack resulted from fatigue of the pipeline metal with concentrated alternating cyclic stresses. The root cause was a design deficiency caused an unreliable fitting for connection. No questioning attitude during installation contributed to the event. |  | 1 - For information only, design criteria / design basis, fatigue cracking, human error, leak, oil, power reduction | ER.3 , MA.1  |
| [**WER MOW 17-0155**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30152) | 13.07.2017 | Armenia 2 | 11.07.2017 | A Motor Emergency Feedwater Pump (MEFP) No1 failed during a periodic test. | 01 | 01.11.2017 | Trending | During operation at 92% power, one of two emergency feedwater pumps failed during a periodic test and was removed from service for repairs. | The direct cause was a mechanical failure of the bearing because the oil baffle friction against the bearing due to the loose oil baffle fastening attachment on the shaft. The root cause was deficient maintenance due to inadequate training and experience. |  | 1 - For information only, bearing, emergency feedwater, lube oil, pump, pump shaft | MA.1  |
| [**WER MOW 17-0094**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30378) | 22.05.2017 | Zaporozhye 1 | 21.05.2017 | A Non-Vital Bus De-energized During Switchover of Non-Vital Loads at the Shutdown Unit | 01 | 22.11.2017 | Trending | During operation at 10% reactor power following a transmission line trip (WER MOW 17-0093), a non-vital bus de-energized during loads switchover from backup transformer to the unit in-house transformer. This resulted in tripping of a reactor coolant pump and actuation of a diesel generator. | The direct cause was non-actuation of the signal to close the circuit breaker connecting the bus to the normal power supply during the switchover. The root cause was an error during manipulations to de-block the circuit breaker while acknowledging the alarm. An electrician did not hold the alarm clearance button pressed for a sufficient time due to procedure inadequacy. |  | 1 - For information only, human error, power supply, procedure inadequacy, reactor coolant pump | MA.1 , MA.2  |
| [**WER MOW 17-0065**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30210) | 03.04.2017 | Mochovce 2 | 28.03.2017 | Spurious closure of valve on the feed water line to first steam generator. | 01 | 08.11.2017 | Trending | During normal operation, a spurious high level protection actuation in one steam generator (SG) caused closure of the feedwater valve and the relevant signal was not handled properly without successive operator actions. This resulted in insufficient water supply to the SG, and one main cooling pump was tripped and the reactor power was reduced to 71,4%. | The direct cause was spurious actuation of the SG level signal due to an air bubble in the instrument pipe. The root cause was human-machine interface issue because too many messages in the information systems for operators to observe. The other cause was insufficient use of human error prevention tools. |  | 1 - For information only, design criteria / design basis, digital control system / digital components, feedwater pump, human error, level instrument, power reduction, steam generator / boiler | CM.1 , ER.1 , OP.1  |
| [**WER ATL 17-1330**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30475) | 30.11.2017 | Bruce A 4 | 10.08.2017 | Emergency Stop Valves Reduce Steam Flow and Cause Unit Derate | 00 | 30.11.2017 | Trending | During normal operation and while measuring servo valve amplifier (SVA) voltages during turbine on load valve testing, an emergency stop valve (ESV1) closed unexpectedly. While analysing the initial valve trip, ESV2 also closed. The reactor was down powered to 60% to prevent a reactor stepback due to the increased risk of the turbine trip. | The ESV1 trip was caused by an electrical trip signal which is suspected to have been caused by an intermittent open or short in the SVA or associated electrical components. The removal of the SVA then caused a similar condition which lead to the trip of ESV2. The other cause was inadequate design of the governing system, which was susceptible to this event. |  | 1 - For information only, design criteria / design basis, governor valve, power reduction, turbine control, turbine stop valve | ER.1 , ER.3  |
| [**WER ATL 17-1329**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30474) | 30.11.2017 | Bruce A 2 | 29.10.2017 | Unit 2 Conservatively Shutdown Due to Elevated Primary Heat Transport Leak Rate | 00 | 30.11.2017 | Trending | During normal operation, the unit was shut down for 6 days to resolve an elevated primary heat transport (PHT) system leak rate. | The leak was on a PHT instrument line due to contact between the instrument line and the insulation panel steel mesh. |  | 1 - For information only, leak, reactor coolant, reactor shutdown | ER.3  |
| [**WER ATL 17-1326**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30471) | 30.11.2017 | Bruce A 3 | 30.11.2017 | Shutdown Cooling Pump Circuit Breaker Failure | 00 | 30.11.2017 | Trending | During an outage, a shutdown cooling pump circuit breaker failed to trip when the pump was shut down during a pump duty swap. Smoke was observed at the breaker cubicle and fire response was initiated. A 4.16kV bus was de-energized in order to electrically isolate the breaker and open it manually. This affected the Unit 0 qualified power supply (QPS) and the diesel generators started to secure the QPS supply temporarily. | The cause was malfunctioning of the circuit breaker trip coil. The breaker's internals allowed the trip coil to overheat and begin smoking instead of blowing a fuse as expected. |  | 1 - For information only, breaker, fire, residual heat removal pump, shutdown cooling | ER.1  |
| [**WER ATL 17-1323**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30467) | 30.11.2017 | Laguna Verde 1 | 12.09.2017 | Reactor Protection System Train A over voltage protection actuation | 00 | 30.11.2017 | Trending | During an outage and while performing preventive maintenance of the reactor protection system (RPS) uninterruptible power source, one train of reactor protection system tripped, causing the de-energization of the related electrical bus. The actuation of the RPS train logic caused a half scram and half isolation signal and the primary containment integrity loss and the loss of shutdown cooling during three minutes. | The root cause was inadequate operating procedures without the precautions required if a transitory occurs when the RPS is electrically fed from its bypass source. |  | 1 - For information only, containment isolation, procedure inadequacy, reactor protection system, shutdown cooling | CM.2 , OP.2  |
| [**WER ATL 17-1322**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30435) | 28.11.2017 | Darlington 4 | 18.10.2017 | Level 3 Impairment of Emergency Coolant Injection System  | 00 | 28.11.2017 | Trending | During normal operation, a failure of a programmable controller associated with the emergency coolant injection (ECI) system resulted in a loss of redundancy and impairment of the ECI system. | The apparent cause was a faulty input board due to ageing. |  | 1 - For information only, ageing, circuit board, digital control system / digital components, emergency core cooling system | ER.3  |
| [**WER ATL 17-1321**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30434) | 28.11.2017 | Darlington 1 | 29.09.2017 | Level 3 Impairment of Emergency Coolant Injection System  | 00 | 28.11.2017 | Trending | During normal operation and while conducting maintenance on an emergency service water pneumatic valve, the associated isolation valve became stuck in a partially closed position, restricting flow to a post accident water cooling system heat exchanger and impairment of emergency cooling injection system. | The apparent cause was the isolation valve gear box was not set-up properly, causing wrong indications. The worm gear roll pin fails first to prevent damage when operations over-torqued to the valve. |  | 1 - For information only, emergency core cooling system, isolation valve, torque | ER.1 , MA.1  |
| [**WER ATL 17-1319**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30427) | 27.11.2017 | Cook 1 | 13.12.2016 | Emergency Diesel Generator Fuel Oil Leak from Fuel Injector | 00 | 27.11.2017 | Trending | During normal operation, an emergency diesel generator (EDG) developed a fuel oil leak from a fuel injector and was declared inoperable, resulting in an unplanned entry into a 72-hour limiting condition for operation. A subsequent extent of condition evaluation identified 7 additional fuel injection pumps installed on the Unit 1 EDGs and 12 additional fuel injection pumps installed on the Unit 2 EDGs that were susceptible to the same failure mechanism. | The cause was a manufacturing defect delivery valve holder. The fatigue failure resulted from a stress riser due to an undersized internal radius on the fuel injection pump delivery valve holder. | SOER 2002-2 Rec 1 | 2 - Important lessons, common mode failure, diesel fuel, diesel generator, leak, limiting condition of operation, vendor | ER.1 , ER.3  |
| [**WER ATL 17-1317**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30425) | 27.11.2017 | Barakah 1 | 19.10.2017 | Transformer Fire in Operations and Maintenance Building | 00 | 27.11.2017 | Trending | During construction, popping and crackling noises was heard from a transformer and light smoke and a hot spot on the transformer was identified. While de-energizing the associated breakers to protect the transformer, the fire alarm sounded and the fire suppression system discharged. | The direct cause was arcing between the contact bar and its restraints due to a fabrication defect. The contact bar between upper and lower contact points was almost destroyed by a rise in the temperature. |  | 1 - For information only, fire, fire suppression, transformer | ER.3 , FP.1  |
| [**WER ATL 17-1316**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30424) | 27.11.2017 | Darlington 1 | 04.10.2017 | Standby Generator #1 Tripped result in Reduced Redundancy Margin on Class III Power System  | 00 | 27.11.2017 | Trending | During normal operation and while testing a standby generator (SG), the SG tripped on high power turbine cooling temperature and became unavailable. This reduced the redundancy of the system to meet all safety related loads.&nbsp; | The direct cause was degraded and faulty thermocouples. The apparent cause was lack of timely maintenance and lack of integrated work schedule for SG outages. The other cause was lack of communication and documentation to identify the requirement for power turbine overhauls. |  | 1 - For information only, documentation, power supply, preventive maintenance, thermocouple, vibration | ER.2 , WM.1  |
| [**WER ATL 17-1315**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30423) | 27.11.2017 | Bruce B 7 | 30.08.2017 | Impairment due to Elevated Continuous Blowdown | 00 | 27.11.2017 | Trending | During run-up following an outage, the boiler blowdown flow rate had been increased by procedure for proper boiler chemistry control, but the flow rate was not verified to be in the correct range. This resulted in an impairment of both shutdown systems and the emergency water system for 4.5 days. | The causes were inadequate operations and chemistry procedures, a lack of barriers to prevent and identify incorrect boiler blowdown valve manipulations and ineffective use of human error reduction tools. |  | 1 - For information only, chemistry, human error, procedure inadequacy, steam generator / boiler | CY.2 , OP.1 , OP.2  |
| [**WER ATL 17-1314**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30422) | 27.11.2017 | Cernavoda 2 | 20.09.2017 | Maintenance work started on equipment not drained - work protection hazard  | 00 | 27.11.2017 | Trending | While performing work related to the replacement of two pipelines of circulating water pump bearing cooling system, water began to flow after the pipe was cut. There was risk of electrocution and flooding the closed space in which the work was executed. | The cause was inadequate isolation due to incorrect identification of the tank to which the pipe belonged. The other cause was inadequate verification of the isolation by the working group. |  | 1 - For information only, configuration control, human error, industrial safety, risk assessment, work control | CM.2 , IS.1 , OP.1  |
| [**WER ATL 17-1313**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30419) | 27.11.2017 | Point Lepreau 1 | 18.09.2017 | Sump Pump Removed from Service without Authorization | 00 | 27.11.2017 | Trending | During normal operation, the mechanical maintainers removed the in-service 600 VAC inactive liquid waste sump pump by mistake. This increased the risk of personal injury. | The cause was the maintainers did not verify the identity of the pump and the supervisor inexplicably failed to communicate that the pump had already been removed several months ago. |  | 1 - For information only, human error, industrial safety, pump, work control | MA.1 , WM.1  |
| [**WER ATL 17-1312**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30375) | 21.11.2017 | Davis Besse 1 | 13.05.2017 | Inadequate Operator Response Results in Feedwater Temperature Excursion | 00 | 21.11.2017 | Trending | During normal operation and while resetting a high pressure feed water (HPFW) heater high level trip by closing a motor operated isolation valve for the extraction steam, the feed water temperature decreased resulting in a 0.8% rise in reactor power. | The causes was inadequate procedure guidance for resetting the heater and insufficient operator training. | SOER 2013-1 Rec 3 | 1 - For information only, feedwater heater, human error, power surge, procedure inadequacy, reactivity management | OP.1 , OP.2 , TR.1  |
| [**WER ATL 17-1311**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30374) | 21.11.2017 | Brunswick 1 | 05.06.2017 | Unplanned Inoperability of Control Room Emergency Ventilation System | 00 | 21.11.2017 | Trending | While performing the inspection of the damper seals of the control room emergency ventilation (CREV) system, the damper actuator airlines was disconnected twice, rendering the associated dampers and the CREV system unavailable. A limiting condition of operations was entered on each time. | The direct cause was human errors. Maintenance technician&nbsp;decided to work outside the work scope while in the field. The root cause was maintenance leadership failed to effectively enforce work control standards. There were deficiencies in preventive maintenance model instructions, communications, questioning attitude, procedure adherence and post job analysis. |  | 1 - For information only, control room, heating ventilating and air conditioning, human error, limiting condition of operation, work control | MA.1 , WM.1  |
| [**WER ATL 17-1309**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30372) | 21.11.2017 | Sequoyah 1 | 23.05.2017 | Emergency Diesel Generators Auto Started During Transfer of Shutdown Board for Testing | 00 | 21.11.2017 | Trending | During normal operation and while transferring the shutdown board to normal power source for testing, a failure occurred which resulted in the loss of the shutdown board, initiating auto start of all four emergency diesel generators (EDGs). During the board stripping, a normal feeder breaker to the shutdown board failed to trip, resulting in a shutdown board remained deenergised, preventing the cooling water supply valve for the associated EDG from opening. | The cause was an overcurrent relay actuation on a single phase. The contributing cause was the legacy power system protection technology which did not provide comprehensive indication of status. |  | 1 - For information only, power supply, relay | CM.3  |
| [**WER ATL 17-1308**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30371) | 21.11.2017 | Seabrook 1 | 10.06.2016 | Unexpected Voltage Found Inside a Tagging Boundary | 00 | 21.11.2017 | Trending | While replacing circuit boards in a non-vital inverter, two conductors arced when they came in contact due to presence of 125V dc within the clearance boundary. This resulted in damage to the leads and terminal lugs. There was a potential for worker injury. | The cause was inadequate isolation because vendor drawing was not used during clearance order preparation. The root cause was that the clearance process did not comply with requirements. The contributing cause was failure to comply with the procedure regarding clearance process and lack of expectations to perform live-dead-live test at component level. |  | 1 - For information only, configuration control, human error, industrial safety, procedure adherence, procedure inadequacy | CM.2 , IS.1  |
| [**WER ATL 17-1306**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30369) | 21.11.2017 | Grand Gulf 1 | 07.08.2017 | Station Downpower Due to Feed Pump Leak | 00 | 21.11.2017 | Trending | During normal operation, steam leakage occurred from a drain pipe attached to a reactor feed pump. The unit was down powered to 48% to repair the leak. | The cause was pitting around a weld on the drain pipe. |  | 1 - For information only, ageing, feedwater pump, leak, power reduction, steam, weld | ER.3  |
| [**WER ATL 17-1305**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30350) | 20.11.2017 | Darlington 1 | 01.09.2017 | Turbine Tripped during Execution of Loss of Lube Oil Pressure Trip | 00 | 20.11.2017 | Trending | During normal operation and while performing loss of lube oil pressure test, after shutdown of the auxiliary lube oil pump&nbsp;the turbine trip, indicating low emergency oil pressure on one train. The reactor power reduced to 52%. | The direct cause was deemed to be the premature actuation of motorized valve. The root cause was ineffective implementation of preventive maintenance. The contributors were no visible or physical way to identify degradation and the periodic testing could not confirm degradation within the system. |  | 1 - For information only, ageing, lube oil, motor operated valve, power reduction, preventive maintenance, turbine trip | ER.2 , ER.3  |
| [**WER ATL 17-1301**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30335) | 16.11.2017 | Arkansas Nuclear One 2 | 18.04.2017 | Equipment Damage Due to Core Bore Activities | 00 | 16.11.2017 | Trending | During an outage and while performing shutdown cooling heat exchanger replacement, an electrical conduit and associated conductors were cut and damaged during blind drillings (greater than 3 inches in depth). This conduit housed 277-volt electrical wiring for a lighting panel and a receptacle powering a temporary room cooler, increasing the risk of personal injury. | The direct cause was a required stop box was not used during the drillings. The intent of the procedure requiring using a stop box was not met because the procedure was not adequate and included exceptions. The reviews of the procedure did not identify and eliminate the step, causing management to circumvent the intent of the procedure and the project leadership team chose an allowable path with potential consequences over a more prudent path to problem resolution. |  | 1 - For information only, human error, industrial safety, procedure inadequacy, risk assessment, work control | NP.1 , WM.1  |
| [**WER ATL 17-1300**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30334) | 16.11.2017 | Palo Verde 1 | 17.04.2017 | Loss of Refrigerant on Essential Chiller | 00 | 16.11.2017 | Trending | While performing readings&nbsp;on an essential chiller, the technician found refrigerant leaking from the air purge vent line filter housing cap and that&nbsp;there was no visible refrigerant in the chiller. This resulted in the chiller being not able to supply chilled water to the essential air cooling units and consequently entry into a limiting condition of operation. | The direct cause was leak from a swagelok fitting due to a legacy design issue and the maintenance planner failing to provide appropriate instructions to the technician. The contributing cause was that no leak test was performed around the filter assembly at the time the isolation valve was left open following the engineering evaluation. | SER 2005-3 | 1 - For information only, chiller, design change, heating ventilating and air conditioning, human error, leak, limiting condition of operation | CM.3 , MA.1  |
| [**WER ATL 17-1299**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30333) | 16.11.2017 | Nine Mile Point 2 | 01.07.2017 | Reheater Drain Tank Level Control Causes Moisture Separator Reheater Isolation | 00 | 16.11.2017 | Trending | During normal operation, power was reduced to 82% to respond to the occurrence of high reheater drain tank level that initiated emergency draining and ultimately an isolation of both reheaters. | The direct cause was that the failure of reheater drain tank normal level transmitter resulted in high drain tank level. The apparent cause was a wrong assumption that the drifting normal level indication was correct when adverse trend was identified. |  | 1 - For information only, level instrument, moisture separator reheater, power reduction | ER.1 , OP.1  |
| [**WER ATL 17-1298**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30298) | 14.11.2017 | Bruce B 5 | 27.04.2017 | Vulnerability Emergency Transfer Scheme | 00 | 14.11.2017 | Trending | During a review of emergency transfer scheme (ETS) safety system tests (SSTs), a vulnerability in the ETS was identified that could cause a standby generator (SG) to trip if a loss of class four power occurs while the SG is synchronized to the grid. This could only occur during the short time period of time while ETS SSTs are being performed and a SG is running. | The direct cause was overlapping time delays on no volt feeder trips on 4.16 kV and 600V buses that often prevent 600 volt buses from properly tripping their motor loads prior to the restoration of power by ETS. The time delay on the 600V trip was increased at both Bruce A and B during commissioning of Bruce B to prevent class three loads from tripping as a result of a slow transfer of class four power initiated by the ETS. | SER 2005-3 | 1 - For information only, common mode failure, design change, design criteria / design basis, emergency bus, human error, power supply | CM.1 , CM.3  |
| [**WER ATL 17-1296**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30296) | 14.11.2017 | Bruce B 6 | 09.10.2017 | Worker received finger laceration in Door of Small Article Monitor  | 00 | 14.11.2017 | Trending | A maintenance worker pinched his hand in the door of a small article monitor (SAM) while putting a plastic suit in the SAM and closing its door. The worker was immediately transported to a hospital for treatment. | The cause was human error. The task was repetitive in nature and the worker had become complacent while closing the door. |  | 1 - For information only, human error, industrial safety, injury | IS.1 , MA.1  |
| [**WER ATL 17-1294**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30274) | 10.11.2017 | St. Lucie 1 | 11.09.2017 | Environmental Conditions Following Hurricane Irma Drives Conservative Decision to Shutdown Unit | 00 | 10.11.2017 | Trending | During normal operation, the reactor was shut down due to conditions in the switchyard during hurricane Irma. The environmental conditions associated with the hurricane caused salt buildup on the insulators for the&nbsp;switchyard ring bus. The east switchyard bus subsequently de-energized due to a bus lockout. | The cause was environmental conditions created by a hurricane, which caused the plating of salt on the switchyard insulators leading to insulator grounds. |  | 1 - For information only, reactor shutdown, transmission line | ER.1  |
| [**WER ATL 17-1292**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30263) | 09.11.2017 | Surry 2 | 11.12.2015 | Turbine Control Transient Caused a 50MW Excursion With No Operator Action | 00 | 09.11.2017 | Trending | While&nbsp;operating at 30% reactor power&nbsp;the generator picked up 50MWs of load during the performance of the automatic voltage regulator testing. The reactor power increased by 2% and&nbsp;a limiting condition of operation was entered. | The direct cause was the failure of an impulse pressure transmitter&nbsp;power supply. The apparent cause was an incorrect equipment reliability classification which led to an incorrect maintenance strategy. |  | 1 - For information only, limiting condition of operation, power supply, power surge, preventive maintenance, reactivity management, turbine control | ER.1 , ER.2  |
| [**WER ATL 17-1291**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30262) | 09.11.2017 | Indian Point 2 | 07.03.2016 | Emergency Diesel Generator Trip Due To Overcurrent | 00 | 09.11.2017 | Trending | During cold shutdown and while supplying voltage to one of the 480 V buses, one of the emergency diesel generators tripped due to an over-current condition. The event caused the loss of both residual heat removal pumps and the limiting conditions of operations were entered. | The cause was the degradation of connections on the automatic voltage regulator (AVR). The apparent cause was a cancellation of a preventative maintenance (PM) task of biannual AVR solder joints inspections. |  | 1 - For information only, power supply, preventive maintenance, residual heat removal pump | ER.2  |
| [**WER ATL 17-1289**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30260) | 09.11.2017 | Browns Ferry 2 | 29.03.2017 | Intermediate Range Monitor Failure Results in Manual Scram During Startup | 00 | 09.11.2017 | Trending | During startup after an outage, an intermediate range monitor (IRM) instrument failure resulted in multiple rods inserting into the core, leading to a manual reactor scram. | Three likely direct causes were a degraded IRM drawer, inadequate grounding loop or inductive pickup as a result of overlapping wire locations. The root cause was electromagnetic interference and radio-frequency interference noise testing was not performed as needed. |  | 1 - For information only, intermediate power range monitor, manual scram, nuclear instrumentation, risk assessment | ER.1 , ER.2 , MA.1 , PI.2  |
| [**WER ATL 17-1288**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30259) | 09.11.2017 | Beaver Valley 2 | 21.06.2017 | Hydramotor Failed to Open Outside Air Damper During Emergency Diesel Test | 00 | 09.11.2017 | Trending | During a diesel generator (EDG) operation test, the room ambient temperatures was slightly higher than normal,&nbsp;and remained elevated after the EDG was shutdown. It was&nbsp;determined that the outside air intake damper was fully closed. The EDG was declared inoperable and limiting condition of operation was entered.&nbsp; | The cause was failure of the hydramotor actuator pump motor, which resulted in the damper not being repositioned to open as expected. |  | 1 - For information only, actuator, damper, diesel generator, heating ventilating and air conditioning, limiting condition of operation | ER.1  |
| [**WER ATL 17-1287**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30258) | 09.11.2017 | Surry 2 | 09.03.2016 | Confirmation of Leaking Fuel Rod | 00 | 09.11.2017 | Trending | In-mast sipping performed during core offload confirmed a previously suspected leaking fuel rod. | The direct cause was a through-wall hole near the bottom of a peripheral fuel rod. The root cause was intrusion of foreign material into the reactor coolant system due to either a lapse in foreign material exclusion program or a component failure that resulted in a loose part. A contributing cause was the fuel assembly design allows a clearance between the fuel assembly bottom nozzles. |  | 2 - Important lessons, design criteria / design basis, FME, fuel defect, loose part | CM.4  |
| [**WER ATL 17-1286**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30257) | 09.11.2017 | Indian Point 3 | 14.05.2017 | Containment Crane Wall Gate Unbolted Causing Failure of Emergency Core Cooling System | 00 | 09.11.2017 | Trending | During hot shutdown and while performing residual heat removal check valve testing, the crane wall gate which serves as a sump barrier to the lowest level of containment was opened to perform valve manipulations inside the vapor containment. This could have prevented adequate post-accident core cooling due to design basis accident debris blockage of the recirculation or the containment sump. | The root cause was a lack of adherence to the requirements of the containment entry and egress procedure. The contributing causes were lack of proper human performance tools use and a lack of proper barrier to prevent such an event. |  | 1 - For information only, configuration control, containment sump, emergency core cooling system, human error, procedure adherence | CM.2 , OP.1 , WM.1  |
| [**WER ATL 17-1284**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30255) | 09.11.2017 | Seabrook 1 | 29.04.2017 | Manual Reactor Trip Following Feed Water Isolation Due to High Steam Generator Level Caused by a Component Mispositioning | 00 | 09.11.2017 | Trending | During start-up at 12% power, high water&nbsp;level in a steam generator resulted on a feedwater isolation. The reactor was manually scrammed. | The direct cause was slow response of the wide range steam generator level indication due to a mispositioned instrumentation valve. The root cause was failure to properly implement maintenance fundamentals for configuration controls.The contributing cause was improper characterization of steam generator level backfill activity as skill-of-the-craft due to which no procedure was developed. |  | 1 - For information only, configuration control, feedwater control system, human error, manual scram, procedure inadequacy, valve misposition | CM.2 , MA.1 , MA.2  |
| [**WER ATL 17-1283**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30254) | 09.11.2017 | Browns Ferry 3 | 01.05.2017 | Power Reduction to Support Condenser Tube Leak Repairs | 00 | 09.11.2017 | Trending | During normal operation, a condenser waterbox was removed from service for a maintenance activity, requiring the power reduction to approximately 60% . | The direct cause was a condenser tube leak, causing the reactor coolant system chemistry parameters to become elevated. The most likely cause of the leak was debris impact and vibration on the tube exterior. |  | 1 - For information only, chemistry, condenser tube, condenser vacuum, debris / crud, leak, power reduction, vibration | ER.1  |
| [**WER ATL 17-1282**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30253) | 09.11.2017 | River Bend 1 | 23.06.2017 | Generator Lockout During Voltage Regulator Testing | 00 | 09.11.2017 | Trending | During normal operation and while the main generator voltage regulator was being taken to manual to perform a test, an equipment failure caused a generator lockout which resulted in a turbine trip and reactor scram. | The cause was infant mortality failure of the voltage regulator mode transfer relay. The other cause was inadequate ageing management as the voltage regulator was obsolete and not replaced/upgraded in a timely manner. |  | 1 - For information only, ageing, automatic scram, preventive maintenance, relay, turbine generator, turbine trip, voltage regulator | ER.2 , ER.3  |
| [**WER ATL 17-1281**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30252) | 09.11.2017 | Davis Besse 1 | 13.05.2017 | High Level Trip of Feedwater Heaters | 00 | 09.11.2017 | Trending | During normal operation, a feedwater heater drain valve did not respond appropriately to system demands, resulting in the trip of two feedwater heaters. During the transient, operator conservatively reduced the power to 99% and the power increase was 0.3%. | The cause was sticking/slow response of the valve which was a known issue. |  | 1 - For information only, deaerator, drain valve, feedwater heater | ER.1  |
| [**WER ATL 17-1280**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30251) | 09.11.2017 | Watts Bar 1 | 04.06.2017 | Loss of Main Feedpump Speed Control | 00 | 09.11.2017 | Trending | During normal operation, foreign material in the main feed pump (MFP) control system caused a loss of speed control for the running MFP and subsequent MFP trip. This resulted in an automatic reactor runback to 75% power. | The apparent cause was excessive sealant applied to the gasket and control block, resulting in insufficient oil flow, causing damage to the speed governor. Contributing causes were inadequate supervisor oversight and inadequate work document details. |  | 1 - For information only, feedwater pump, FME, human error, management oversight, power reduction, procedure inadequacy | MA.1 , MA.2  |
| [**WER ATL 17-1279**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30250) | 09.11.2017 | Diablo Canyon 2 | 28.07.2017 | Alert Declaration for High Pressure Nitrogen Leak in the Reactor Containment Building | 00 | 09.11.2017 | Trending | During normal operation, oxygen concentration in the containment building dropped below the threshold, leading to activation of the emergency response organization. | The direct cause was nitrogen leak from a relief valve of the backup nitrogen supply system . The root causes were inadequate priority for gaseous leaks and a lack of urgency in addressing the long-term nitrogen leak from operations. The contributing causes were shortfalls in troubleshooting, corrective action implementation, operating procedures and engineering personnel accountability. |  | 1 - For information only, industrial safety, leak, procedure inadequacy | EN.1 , IS.1 , OF.2 , OP.1 , PI.2  |
| **[WER ATL 17-1277](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30213)** | 08.11.2017 | Nine Mile Point 2 | 13.07.2017 | Instrument Air Piping Line Break Resulted in Rapid Power Reduction | 00 | 08.11.2017 | Trending | During normal operation, the closure of the excess flow check valves of the feedwater heater system caused a plant transient, resulting in the opening of moisture separator drain tank dump valve, trip of two heater drain pumps and a feedwater pump and a recirculation pump runback. The power was reduced to 51%. | The direct cause was an instrument air piping section experienced an immediate longitudinal separation due to the un-annealed red brass piping in the associate instrument air section. The previous action to replace all remaining un-annealed red brass throughout the instrument air system did not identified this un-annealed red brass piping. A contributing cause was unsatisfactory accountability and an inadequate legacy corrective action program. |  | 1 - For information only, check valve, feedwater heater, leak, power reduction | OE.1 , PI.2  |
| [**WER ATL 17-1276**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30212) | 08.11.2017 | Grand Gulf 1 | 21.08.2017 | Isolation of Reactor Core Isolation Cooling During Surveillance | 00 | 08.11.2017 | Trending | While performing a surveillance, a technician lifted a wrong lead which caused isolation of the reactor core isolation cooling system. This resulted in an entry into a limiting condition of operation. | The direct cause was lack of procedure use and adherence. The contributing causes were a hidden label and lack of oversight by the supervisor due to inadequate risk assessment. |  | 1 - For information only, human error, label, limiting condition of operation, management oversight, procedure adherence, reactor core isolation cooling, risk assessment | MA.1 , MA.2  |
| [**WER ATL 17-1271**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30200) | 02.11.2017 | Columbia Generating Station | 23.11.2015 | Fuel Failure Located During Control Rod Sequence Exchange | 00 | 02.11.2017 | Trending | During a control rod sequence exchange, a fuel failure was detected in the cell around a control rod. | The cause was debris fretting from foreign material (FM) intrusion. A contributing cause was system degradation was not documented well and the risk of FM identified in the reactor was not adequately assessed. |  | 1 - For information only, FME, fuel defect, risk assessment | CM.4  |
| [**WER ATL 17-1270**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30199) | 02.11.2017 | River Bend 1 | 07.06.2017 | Downpower Due to Feedwater Regulating Valve Out of Alignment | 00 | 02.11.2017 | Trending | During normal operation, erratic operation of a feed water regulating valve required an unplanned down power to 85% to repair the valve. | The cause was that the magnetic feedback array was out of alignment and its screws were loose. It was most likely that the new assembly arrived this way from the supplier and was not detectable when installed. |  | 1 - For information only, feedwater control system, power reduction, procurement, spare part, valve | ER.3  |
| [**WER ATL 17-1268**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30197) | 02.11.2017 | Grand Gulf 1 | 09.07.2017 | Loss of Control Room Envelope Due to Unsecured Door | 00 | 02.11.2017 | Trending | A station employee left a security door to the control room unsecured. The control room envelope was inoperable for one minute, at which time the door was closed. This resulted in loss of a safety function due to inoperability of both trains of control room standby fresh air systems. | The direct cause was that the door was degraded, resulting in the door dragging on the floor such that the automatic door closer did not function properly. The root cause was inadequate preventive maintenance and accepting long standing performance issues with the door. |  | 1 - For information only, control room, human error, preventive maintenance | CM.2 , ER.2 , OF.1  |
| [**WER ATL 17-1265**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30194) | 02.11.2017 | Grand Gulf 1 | 13.07.2017 | Reactor Power Reduced to Repair Reactor Feed Pump Governor Oil Leak | 00 | 02.11.2017 | Trending | During normal operation, the power was reduced to 50% to repair a governor oil leak on a reactor feed pump. | The direct cause was a rod seal assembly was installed backwards due to maintenance procedures being not used. The contributor was inadequate procedure and drawings. |  | 1 - For information only, drawing, feedwater pump, leak, oil, power reduction, procedure adherence, procedure inadequacy | MA.1 , MA.2  |
| [**WER ATL 17-1181**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30420) | 04.10.2017 | Point Lepreau 1 | 04.10.2017 | Reactor “Setback” as a result of Unit Electrical Protection operating  | 01 | 27.11.2017 | Trending | During normal operation, the turbine tripped and a reactor setback occurred, the reactor was manually scrammed to investigate actuation of a station unit transformer protective relay protection. | The cause was a faulty gas relay on the main output transformer due to ageing and moisture ingress. | SOER 2011 Rec 3 | 1 - For information only, ageing, manual scram, relay, single point vulnerability, switch, transformer, water intrusion | ER.3  |
| [**WER ATL 17-1160**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30421) | 27.09.2017 | Pickering A4 | 12.09.2017 | During Online Fueling Two out of Four Fresh Fuel Bundles not Loaded in a Fuel Channel Resulted in a Non-Standard Configuration | 01 | 27.11.2017 | Trending | During operation at 95% power and while fuelling, two out of four fresh fuel bundles were not loaded in a fuel channel as planned. This resulted in operation in a non-standard configuration for eight days when the missing fuel bundles were loaded in the fuel channel. | The apparent cause was inadequate oversight by fuel handling supervisor. The contributing cause were incorrect behaviours and work practices by the fuelling operators and inadequate documentation of fuel handling operations. |  | 1 - For information only, configuration control, documentation, fuelling machine, human error, management oversight | CM.4 , FA.1  |

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| **Report Identifier(click to view report)** | **Original Published Date** | **ReferenceUnit** | **Event Date** | **Event Title** | **RevisionNumber** | **RevisionPublished Date** | **Significance** | **OECT****Summary** | **OECT****Cause** | **OECT References** | **Keywords** | **PO and CS** |
| [**WER TYO 17-0531**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30412) | 23.11.2017 | Sanmen 1 | 02.07.2017 | False Triggering of Signal S during Channel Operational Test for Train C of Protection and Safety Monitoring System | 00 | 23.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0530**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30411) | 23.11.2017 | Sanmen 1 | 06.06.2017 | Rotor Seizure of Compressor 1A in Loop 1 of High Capacity Chiller 4A of Unit 1 | 00 | 23.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0529**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30380) | 22.11.2017 | Sanmen 1 | 06.06.2017 | Unexpected Trip of Auxiliary Boiler A During External Inspection of Auxiliary Boiler B | 00 | 22.11.2017 | Other | See summary below. | See cause below. |  | 1 - For information only |  |
| [**WER TYO 17-0528**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30379) | 22.11.2017 | Sanmen 1 | 11.06.2017 | Unexpected Trip of Main Feedwater Pump during Heat-up and Pressure-rise of Unit 1 | 00 | 22.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0527**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30376) | 21.11.2017 | Sanmen 2 | 06.06.2017 | A Signboard Fell as A Foreign Material during Preoperational Test of Reactor System in Unit 2 | 00 | 21.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0524**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30366) | 21.11.2017 | Shin-Wolsong 2 | 18.10.2017 | Low Surge Tank Level Alarm of Closed Loop Cooling System | 00 | 21.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0522**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30364) | 21.11.2017 | Wolsong 3 | 29.08.2017 | Fluctuation of End Shield Cooling Water Level Indication in Calandria Vault | 00 | 21.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0521**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30363) | 21.11.2017 | Hanbit 2 | 04.07.2017 | False Alarm of Steam Generator Tube Leak Detector  | 00 | 21.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0519**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30361) | 20.11.2017 | Shin-Wolsong 2 | 03.08.2017 | Binding of a High Pressure Heater 7B Normal Drain Valve  | 00 | 20.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0518**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30360) | 20.11.2017 | Hanul 2 | 16.08.2017 | Increase in Sodium Concentration of Steam Generator due to Power Loss of 48 VDC Rectifier for Condensate Polishing System  | 00 | 20.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0514**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30356) | 20.11.2017 | Shin-Kori 2 | 18.07.2017 | Rotating Diode Open Circuit Alarm Occurred during Emergency Diesel Generator Surveillance Test | 00 | 20.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0513**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30355) | 20.11.2017 | Shin-Wolsong 1 | 29.08.2017 | Trip of Reverse Osmosis Treatment System for Liquid Radwaste System during preparation of Boric Acid Concentrator Operation  | 00 | 20.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0512**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30354) | 20.11.2017 | Wolsong 4 | 08.07.2017 | Failure of Absorber Rod Clutch Power Supply  | 00 | 20.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0509**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30351) | 20.11.2017 | Hanbit 4 | 05.08.2017 | Increase of Dose-Equivalent Rate in Containment during Refueling Outage | 00 | 20.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0507**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30344) | 17.11.2017 | Chasnupp 2 | 29.04.2017 | Unavailability of Turbine Emergency Trip System Test Control Panel (Touch Panel) | 00 | 17.11.2017 | Other | See summary below. | See caused below. |  | 1 - For information only |  |
| [**WER TYO 17-0506**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30343) | 17.11.2017 | Qinshan 1 | 03.08.2017 | Water Leakage of 6# Generator Air Cooler | 00 | 17.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0505**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30342) | 17.11.2017 | Fangjiashan 2 | 06.08.2017 | Personnel were Scalded during Replacement of Strainer at Outlet of the Feedwater Booster Pump A | 00 | 17.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0503**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30340) | 16.11.2017 | Qinshan 3 1 | 11.05.2017 | Failure of the LOCKOUT Relay on the New Protection Panel of Start-Up/Standby Transformer  | 00 | 16.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0502**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30339) | 16.11.2017 | Takahama 4 | 26.05.2017 | Interruption of Transmission of No.2 Monitoring Post Data | 00 | 16.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0498**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30304) | 16.11.2017 | Hanbit 2 | 03.07.2017 | Pinhole Leakage on Expansion Joint of Stator Cooling Water Pump Outlet | 00 | 16.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0497**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30303) | 15.11.2017 | Fuqing 4 | 14.06.2017 | Fuel Transfer Device was Deformed due to Squeezing When closing the Isolation Valve (4PMC728VB) for Fuel Transfer Bunker Channel | 00 | 15.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0496**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30302) | 15.11.2017 | Qinshan 2 1 | 02.08.2017 | Dissolved Oxygen in 2# Makeup Tank of Reactor Boron and Water Makeup System Deviated from Requirements | 00 | 15.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0495**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30301) | 15.11.2017 | Tokai 2 | 21.09.2017 | OCCURRENCE OF ILL-HEALTH OF A WORKER ON THE 6TH FLOOR OF THE REACTOR BUILDING | 00 | 15.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0494**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30292) | 14.11.2017 | Kuosheng 1 | 15.06.2017 | Steam Bypass and Pressure Regulator Control (SB&PR) System modification | 00 | 14.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0492**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30289) | 13.11.2017 | Shin-Kori 2 | 23.08.2017 | Turbine Power Reduced by Condenser Vacuum Pump Abnormality | 00 | 13.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0491**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30288) | 13.11.2017 | Shin-Kori 2 | 24.07.2017 | Low Net Positive Suction Head (NPSH) Alarm Not Activated for Main Feedwater Booster Pump  | 00 | 13.11.2017 | Other | <span style="background-color: rgb(245, 245, 245);"><p><span style="background-color: rgb(245, 245, 245);">See summary below.</span></p></span> | <p><span style="background-color: rgb(245, 245, 245);">See summary below.</span></p> |  | 1 - For information only |  |
| [**WER TYO 17-0490**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30287) | 13.11.2017 | Wolsong 3 | 27.08.2017 | Failure of Controller for Auxiliary Level Control Valve of Steam Generator #2  | 00 | 13.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0489**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30286) | 13.11.2017 | Wolsong 2 | 27.08.2017 | Equipment Failure Alarm from Heavy Water-in-Air Monitoring System | 00 | 13.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0488**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30285) | 13.11.2017 | Hanul 2 | 29.07.2017 | Speed Fluctuation of Main Feedwater Pump Turbine  | 00 | 13.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0486**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30283) | 12.11.2017 | Hanbit 3 | 02.09.2017 | Plant Fire Alarm Due to Overheated LED Lantern Charger  | 00 | 12.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only, fire |  |
| [**WER TYO 17-0485**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30282) | 12.11.2017 | Hanul 2 | 04.09.2017 | Reduction of Boron Concentration after the Test of Boron Injection Tank Isolation Valve  | 00 | 12.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0483**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30280) | 12.11.2017 | Kori 4 | 07.09.2017 | Early Detection of Abnormally Operated Air Compressor for Emergency Diesel Generator ‘B’  | 00 | 12.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0482**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30279) | 12.11.2017 | Shin-Wolsong 1 | 07.09.2017 | Detection of a Burned Ballast for Lights in the Controlled Area  | 00 | 12.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0481**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30278) | 12.11.2017 | Shin-Wolsong 1 | 13.09.2017 | 10% Turbine Load Pressure Switch Spuriously Activated  | 00 | 12.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0480**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30277) | 12.11.2017 | Hanbit 3 | 19.09.2017 | Power Reduction Due to Opening of High-Pressure Feedwater Heater Emergency Drain Valve  | 00 | 12.11.2017 | Other | See summary below. | See causes below. |  | 2 - Important lessons |  |
| [**WER TYO 17-0477**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30272) | 10.11.2017 | Kanupp 1 | 15.01.2017 | Spurious opening of protective channel ‘B’ during plant operation | 00 | 10.11.2017 | Other | See summary below. | see causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0476**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30271) | 10.11.2017 | Fuqing 4 | 01.01.2017 | High Vibration Alarm and High Bearing Temperature Appeared for 2# Motor-Driven Auxiliary Feedwater Pump of Unit 4 | 00 | 10.11.2017 | Other | See summary below. | See causes below. |  | 2 - Important lessons |  |
| [**WER TYO 17-0473**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30268) | 10.11.2017 | Fuqing 3 | 25.06.2017 | False Fire Alarm for C Phase of the Main Transformer resulted in False Spraying | 00 | 10.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0472**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30267) | 10.11.2017 | Fuqing 4 | 12.05.2017 | Leakage Occurred during Diesel Filling of the Main Oil Tank in Diesel Generator Building | 00 | 10.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0471**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30266) | 10.11.2017 | Genkai 3 | 05.10.2017 | Injury of personnel while installing the jig for hanging an underwater pump | 00 | 10.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER TYO 17-0469**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30215) | 08.11.2017 | Qinshan 2 2 | 21.06.2017 | Shutdown Button of Reactor Protection System of Unit 2 Could Not Bounce Up Automatically after being Pressed Down | 00 | 08.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0891**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30465) | 30.11.2017 | Saint-Laurent B1 | 03.06.2017 | Indication found on a steam generator tube sheet | 00 | 30.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0888**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30462) | 30.11.2017 | Ningde 4 | 21.04.2017 | Unit Turbine Governing System Valve Opening Fluctuated Frequently | 00 | 30.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0886**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30460) | 30.11.2017 | Ningde 2 | 22.03.2017 | Unexpected Alarms were Triggered during Plant Radiation Monitoring System Channel Inspection | 00 | 30.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0883**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30457) | 30.11.2017 | La Hague 1 | 07.08.2017 | Drop of a part of a metallic box in the pool during handling operation | 00 | 30.11.2017 | Other | see summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0881**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30455) | 30.11.2017 | Hongyanhe 2 | 05.05.2017 | Auxiliary feedwater storage tank Oxygen Concentration exceeding limit due to human error | 00 | 30.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0873**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30447) | 30.11.2017 | Embalse 1 | 11.09.2017 | Contractor personnel splashed with sodium hydroxide | 00 | 30.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0869**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30443) | 30.11.2017 | Cattenom 4 | 11.09.2017 | "High flux rate upon shutdown" alarm during update of related activation thresholds | 00 | 30.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0865**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30409) | 23.11.2017 | Sizewell B 1 | 10.08.2017 | Insufficient configuration control of 400kV Grid Circuits | 00 | 23.11.2017 | Other | See summary below. | See cause below. |  | 1 - For information only |  |
| [**WER PAR 17-0859**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30403) | 23.11.2017 | Ringhals 3 | 22.06.2017 | Non-representative watergap penalties in reload safety evaluation calculations related to fuel assembly bow amplitudes | 00 | 23.11.2017 | Other | See summary below. | See causes below. |  | 2 - Important lessons |  |
| [**WER PAR 17-0857**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30401) | 23.11.2017 | Krsko 1 | 21.07.2017 | Transient caused by digital recorder connection to the pressurizer master controller | 00 | 23.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0854**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30398) | 23.11.2017 | Hinkley Point B1 | 04.05.2017 | Gas controllers with potential internal contamination removed from the radiologically controlled area | 00 | 23.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0852**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30396) | 23.11.2017 | Heysham A2 | 01.08.2017 | Low pH prevents flask being loaded into the pond | 00 | 23.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0851**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30395) | 23.11.2017 | Heysham A1 | 18.08.2017 | Lloyds Register Quality Audit non conformity - No Appointed Persons identified | 00 | 23.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0845**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30389) | 23.11.2017 | Fessenheim 1 | 22.07.2017 | Late detection of isolation module failure resulting in unavailability of one of the core cooling monitor trains | 00 | 23.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0844**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30388) | 23.11.2017 | Embalse 1 | 05.10.2017 | Ingress of foreign object into the spray dousing system piping | 00 | 23.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0841**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30385) | 23.11.2017 | Cofrentes 1 | 23.07.2017 | Minor electric arc in the switch cabinet activates the incipient fire detection system | 00 | 23.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0832**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30327) | 16.11.2017 | Torness 2 | 14.08.2017 | Software modification to the fuelling machine increased the incidence of the seismic clamps jamming  | 00 | 16.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0831**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30326) | 16.11.2017 | Sellafield - Waste Vitrification Plant 1 | 15.02.2017 | Uranium found in Suspect Active Steam Condensate System  | 00 | 16.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0828**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30323) | 16.11.2017 | Sellafield - Infrastructure 1 | 13.07.2017 | Laboratory Contamination  | 00 | 16.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0826**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30321) | 16.11.2017 | Muehleberg 1 | 25.09.2017 | Temporary Unavailability of the iodine accounting and aerosol activity measuring | 00 | 16.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0825**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30320) | 16.11.2017 | Isar 2 | 25.07.2017 | Automatic reconnection failure of rectifiers in one bus train | 00 | 16.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0823**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30318) | 16.11.2017 | Hinkley Point B1 | 26.05.2017 | Charge machine hoist fault. | 00 | 16.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0822**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30317) | 16.11.2017 | Heysham B2 | 17.08.2017 | Maintenance Schedule routine signed off without work being performed on the Burst Can Detection System | 00 | 16.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0812**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30307) | 16.11.2017 | Asco 2 | 24.07.2017 | High temperature circuit cooling water leak in an emergency diesel generator caused by aging | 00 | 16.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0803**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30239) | 09.11.2017 | Ningde 3 | 24.02.2017 | Cement Solidification Test Caused a spurious Fire Alarm | 00 | 09.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0802**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30238) | 09.11.2017 | Ningde 1 | 20.02.2017 | Inadvertent Locking of a Radioactivity Measurement Channel triggered an alarm  | 00 | 09.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0799**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30235) | 09.11.2017 | Ningde 1 | 15.01.2017 | Leakage on the Upper Head of Oil Cooler in a Reactor Coolant Pump | 00 | 09.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0796**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30232) | 09.11.2017 | Ningde 1 | 20.12.2016 | Screws on the Fixed-End Extension Rod of Steam Pipe Damper in Main Steam System Detached | 00 | 09.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0792**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30228) | 09.11.2017 | Ningde 2 | 18.10.2016 | Pneumatic Rod Fracture in Chemical and Volume Control System Pneumatic Isolating Valve  | 00 | 09.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0790**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30226) | 09.11.2017 | Ningde 3 | 09.08.2016 | Circulating Water Pump Trip due to Shaft Seal Low Pressure | 00 | 09.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0785**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30220) | 09.11.2017 | Gravelines 3 | 06.07.2017 | Safety lockout installation error on power range channels | 00 | 09.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0776**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30184) | 02.11.2017 | Sellafield - Magnox East River 1 | 05.09.2017 | Evaporator Tripped on High Concentration  | 00 | 02.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0775**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30183) | 02.11.2017 | Sellafield - Magnox East River 1 | 26.08.2011 | Corrosion of Pond Chiller allowed release of Refrigerant to Atmosphere  | 00 | 02.11.2017 | Other | See summary below. | see causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0774**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30182) | 02.11.2017 | Sellafield - Infrastructure 1 | 31.07.2017 | Lifting Plan not in place for one off lift  | 00 | 02.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0769**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30177) | 02.11.2017 | Krsko 1 | 06.07.2017 | Corrective work performed on a valve with incorrect power source tagging | 00 | 02.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0766**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30173) | 02.11.2017 | Heysham B1 | 19.07.2017 | Fuelling Machine software modification error leads to delayed fuel route outage | 00 | 02.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0764**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30171) | 02.11.2017 | Heysham A1 | 14.07.2017 | Chromate Dosing Quality Issues with Flange Joint Installation | 00 | 02.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER PAR 17-0759**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30166) | 02.11.2017 | Forsmark 2 | 18.05.2017 | Activity monitoring in the reactor hall not ready for operation | 00 | 02.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER MOW 17-0249**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30437) | 29.11.2017 | Temelin 2 | 31.08.2017 | Work surface contamination | 00 | 29.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER MOW 17-0247**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30433) | 28.11.2017 | Bilibino 2 | 05.05.2017 | Rework Required on Turbine Condensate Piping Due to Centralized Maintenance Workers Departure from Engineering Solution Requirements  | 00 | 28.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER MOW 17-0242**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30416) | 26.11.2017 | Bushehr 1 | 12.11.2017 | Earthquake of 970 Km far distance from BNPP with a magnitude 7.4 Richter | 00 | 26.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER MOW 17-0233**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30291) | 14.11.2017 | Tianwan 2 | 02.09.2017 | Loss of power leading to the stack sampling apparatus H-3C-14 of Unit 2 unavailable | 00 | 14.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER MOW 17-0230**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30211) | 08.11.2017 | Temelin 2 | 02.07.2017 | Coolant Leakage during the Filling of the Safety Systems | 00 | 08.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER MOW 17-0226**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30153) | 01.11.2017 | Tianwan 4 | 15.07.2017 | The switch of the first series of 6.3KV bus bar of the emergency power supply system(40BEA) for Unit 4 tripped | 00 | 01.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER MOW 17-0220**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30432) | 25.10.2017 | Mochovce 2 | 15.10.2017 | Floating foreign material found in the reactor pit | 01 | 28.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1328**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30473) | 30.11.2017 | Bruce A 3 | 27.06.2017 | Component Obsolescence Findings from Digital Control Computer Stalls | 00 | 30.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1327**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30472) | 30.11.2017 | Bruce A 2 | 15.06.2017 | Turbine Vibration Monitoring System Power Supply Degradation | 00 | 30.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1325**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30470) | 30.11.2017 | Bruce A 3 | 02.10.2017 | Gland Extraction Fan Accelerated Degradation Discovery | 00 | 30.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1324**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30468) | 30.11.2017 | Pickering B6 | 21.09.2017 | Temporary Change Record for System Modification Not Applied Resulting in Overloading of Boiler Blowdown Lines and Potential Safety Concern to Employees | 00 | 30.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1318**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30426) | 27.11.2017 | Browns Ferry 2 | 11.07.2017 | Downpower to Address Reactor Feedwater Temperature Element Connection Leakage | 00 | 27.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1307**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30370) | 21.11.2017 | Millstone 3 | 20.03.2017 | Reactor Downpower due to Moisture Separator Drain Line Level Control Valve Actuator Air Leak | 00 | 21.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1304**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30349) | 20.11.2017 | Koeberg 2 | 09.10.2017 | The unit 2 Reactor Coolant System 2/3 logic alarm verification was not tested during the unit 2 Refuelling Shutdown as per the statutory surveillance program. | 00 | 20.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1303**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30337) | 16.11.2017 | Millstone 3 | 25.10.2016 | Unplanned Power Reduction Due to Malfunctioning Feedwater Heater Normal Level Control Valve | 00 | 16.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1302**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30336) | 16.11.2017 | Millstone 2 | 10.05.2014 | Vacuum Fill of the Reactor Coolant System Evolution Terminated Due To Unexpected Changes In Reactor Coolant System Level Indication | 00 | 16.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1297**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30297) | 14.11.2017 | Bruce B 5 | 18.09.2017 | Degraded Fueling Machine power track lessons learned | 00 | 14.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1295**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30295) | 14.11.2017 | Pickering A1 | 23.08.2017 | Improperly Disconnected Wires Inside the Main Security Building Radio Room Resulted in a Work Protection Violation | 00 | 14.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1293**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30264) | 09.11.2017 | Millstone 3 | 13.04.2013 | Steam Generator Level Perturbation During Downpower | 00 | 09.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1285**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30256) | 09.11.2017 | Browns Ferry 1 | 24.02.2017 | Power Reduction to Support Control Valve Alarm Troubleshooting | 00 | 09.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1278**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30214) | 08.11.2017 | Grand Gulf 1 | 21.07.2017 | Condensate Booster Pump Repair Delays Power Ascension | 00 | 08.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1275**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30206) | 07.11.2017 | Darlington 1 | 30.08.2017 | Safety Related System Response Challenged due to Low Pressure Service Water Valve Component Degradation | 00 | 07.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1274**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30469) | 07.11.2017 | Cernavoda 2 | 22.07.2017 | Spurious Trip of Reactor Building Air Conditioning unit due to Condensing Unit Compressor Failure  | 01 | 30.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1273**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30204) | 07.11.2017 | Cernavoda 2 | 08.08.2017 | Inadevertent Spraying of Operator with Heavy Water During Performing Standard Operating Sequence on D2O Purification System  | 00 | 07.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1272**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30201) | 02.11.2017 | Perry 1 | 18.03.2017 | Worker Injured During Tube Extraction from the Steam Jet Air Ejector | 00 | 02.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1269**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30198) | 02.11.2017 | Cook 1 | 06.04.2016 | Unplanned Internal Dose Due To Unexpected Contamination Levels | 00 | 02.11.2017 | Other | See summary below. | see causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1267**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30196) | 02.11.2017 | Oyster Creek 1 | 03.07.2017 | Automatic SCRAM While Shutdown Due to Low Reactor Level | 00 | 02.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1266**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30195) | 02.11.2017 | Columbia Generating Station | 27.07.2017 | Boxes Stored at Locked High Radiation Area Fence Violate Regulatory Requirements | 00 | 02.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1264**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30193) | 02.11.2017 | Columbia Generating Station | 15.08.2017 | Lost Time Injury Incurred While Performing Janitorial Duties | 00 | 02.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1263**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30188) | 02.11.2017 | Koeberg 1 | 02.10.2017 | Unit 1 Vent and Drains System (Nuclear Island) valves found in the incorrect position. | 00 | 02.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |
| [**WER ATL 17-1262**](http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=30187) | 02.11.2017 | Pickering A1 | 19.09.2017 | Failure to Manually Close the Transfer Breaker During Unit Outage Delayed Restoring Class IV Power to the Unit | 00 | 02.11.2017 | Other | See summary below. | See causes below. |  | 1 - For information only |  |

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