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|  | |  | | --- | | **Date Range (Published Date): 01.05.2020 To 31.05.2020** | |  |
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|  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Report Identifier (click to view report)** | **Original  Published Date** | **Reference Unit** | **Event Date** | **Event Title** | **Revision Number** | **Revision Published Date** | **Significance** | **OECT**  **Summary** | **OECT**  **Cause** | **OECT  References** | **Consequences** | **Root**  **Causes** | **Keywords** | **PO and CS** | | [**WER PAR 19-0902**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37720','_blank'))) | 16.12.2019 | Forsmark 2 | 29.11.2019 | Unplanned high dose (up to 1.7 mSv) to 5 people due to faulty telescoping radiation monitoring instrument | 01 | 11.05.2020 | Significant | During normal operation and while replacing the fuel pool remediation filters, a worker's personal electronic dose meter and the building's installed radiation monitoring went into alarm. The work was terminated, the workers withdrew and the area was quarantined. It was established that the worker received a dose of one point seven millisieverts and was exposed to a dose rate of one point seven sieverts per hour. The event is categorised as significant due to the receipt of an unplanned dose rate greater that one sieverts per hour in an accessible area. | The cause was a malfunctioning telescopic radiation measuring instrument due to a inadequacies in the calibration and maintenance processes for pre use and storage. | SOER 2001-1, rec. 3, 6 | 06 - Unforeseen personnel exposure | 0201 - Self checking not used or ineffectively applied | 1 - For information only, procedure inadequacy, radiation dose, radiation protection, risk assessment, work control | Z2.RP.1 , Z2.RP.2 , Z2.RS.1 , Z2.SC.1 | | [**WER PAR 18-0765**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37704','_blank'))) | 13.11.2018 | Borssele 1 | 04.08.2018 | Power failure in module reactor safety system leads to scram | 02 | 11.05.2020 | Significant | During normal operation, and following the initiation of the reactor protection system (RPS) an automatic scram occurred resulting in the opening of the sump suction valves and a closure of sealing water and lubrication oil to the reactor coolant pumps (RCP). One RCP failed to stop causing significant damage to its bearings and sealing gland and 150 m3 of borated water was lost from the reactor water storage tank to the containment sump. Three further instances of RPS signal initiation occurred over the next two days one of which resulted in the loss of the residual heat removal pumps and the loss of one train of emergency power. A 42 day outage was incurred to repair the pump and a second outage was required to carry out RPS design modifications. This event is significant due to the extensive damage to the reactor cooling pump and the extensive outages. | The direct cause was the initiation of the RPS pulse train due to whisker formation on the control circuit card transistors. The root cause of the RCP damage was due to the acceptance of the known probability of damage to the RCP following pulse train protection initiation at power which was identified in a design review in 1997. |  | 02 - Station transient, 03 - Equipment damage; fires | 2001 - Original design inadequate, 2100 - EQUIPMENT SPECIFICATION, MANUFACTURE, TRANSPORTATION, INSTALLATION AND CONSTRUCTION | 1 - For information only, automatic scram, bearing, circuit card, design change, leak, power supply, reactor coolant pump, reactor protection system, residual heat removal, risk assessment, seal, shutdown cooling | Z2.CM.1 , Z2.EN.1 , Z2.ER.2 | | [**WER MOW 20-0145**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37739','_blank'))) | 12.05.2020 | Zaporozhye 6 | 09.05.2020 | #PRELIMINARY# A Fatality Event During Operations on the 10 kV Busbar | 00 | 12.05.2020 | Significant | During normal operation and while performing maintenance on a 10 kV cubicle and switchgear a worker was electrocuted and died. This event is significant because of the fatality. | The cause was electrocution, the root cause is being investigated. | SER 2002-4 | 07 - Personal injuries |  | 1 - For information only, electric shock, fatality, industrial safety, injury | IS.1 | | |

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A limiting condition of operation was entered. Following the deterioration in the leak rate the reactor was shutdown incurring an outage of 18 days. This event is categorised as noteworthy due to the loss of RPV integrity. | The cause were inadequacies in the maintenance standards, inspection and acceptance of the gasket replacement and surface preparation during the outage. |  | 01 - Degraded plant operating conditions, 08 - Degradation of a safety barrier | 0211 - Independent checking not used or ineffectively applied, 0807 - Control of contractors inadequate | 1 - For information only, contractor, gasket, leak, limiting condition of operation, management oversight, reactor shutdown, reactor vessel head | MA.1 , MA.2 | | [**WER ATL 20-0341**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37913','_blank'))) | 29.05.2020 | Darlington 2 | 05.04.2020 | Access Control Barriers inadequate during Trolley Traverse with Irradiated Fuel | 00 | 29.05.2020 | Noteworthy | During a lifetime refurbishment outage on unit two and normal operation on the other units, while preparing for access to enter the unit vault through the opened shield door, during their communications equipment testing the workers discovered that a fuel handling trolley loaded with irradiated fuel was currently travelling past. The work was suspended. This event is categorised as noteworthy due to the strong potential for significant radiation exposure. | The apparent cause was inadequate vault access control arrangements. | SOER 2001-1 Recs 3, 6 and 8 SOER 2015-2 Rec 4 | 10 - Non consequential or near miss | 0509 - Inadequate signage or barriers | 1 - For information only, configuration control, interlock, management oversight, procedure adherence, radiation protection, risk assessment, spent fuel, work control | NF.2 , RM.1 , RS.1 , WM.1 | | [**WER ATL 20-0278**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37723','_blank'))) | 11.05.2020 | Turkey Point 4 | 18.02.2020 | Operator Error During Maintenance Results In Turbine Runback To 85% Power | 00 | 11.05.2020 | Noteworthy | During normal operation and while performing a steam header pressure instrument calibration, the steam dump valves to the condenser opened resulting in a power increase to 102%. During the ensuing transient the turbine ran back to 85% and the control rods inserted past the technical specification (TS) rod insertion limit and the reactor coolant pressure fell below the departure from nucleate boiling TS Limit incurring entries into limiting conditions of operation. This event is categorised as noteworthy due to the power increase to 102%. | The cause was that the steam dump system configuration as required for the system calibration was not configured to manual and the system continued to respond during the calibration. | SER 2005-2 | 02 - Station transient | 0200 - PERSONNEL WORK PRACTICES, 0201 - Self checking not used or ineffectively applied, 0203 - Required procedures, drawings, or other references not used, 0206 - Task not adequately researched prior to start, 0217 - Lack of questioning attitude, 0218 - Violation of policies/rules/procedures, 0706 - Not formally stated, 0707 - Unclear or complex wording, 0708 - Format deficiencies, 2010 - Inappropriate reliance on human action | 1 - For information only, configuration control, limiting condition of operation, power reduction, power surge, procedure adherence, procedure inadequacy, technical specification, turbine runback | CM.2 , OF.2 , OP.1 , OP.2 | | [**WER ATL 20-0256**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37664','_blank'))) | 07.05.2020 | Diablo Canyon 2 | 30.11.2019 | Both Trains of Containment Spray Removed from Service in Error Prior to Mode Change | 00 | 07.05.2020 | Noteworthy | Following an entry into a cold shutdown from a hot shutdown, the next shift discovered that both trains of the containment spray system had been made inoperable while still in the hot shutdown mode and in breach of the technical specification. This event is categorised as noteworthy because of the loss of the containment spray system. | The cause was a failure to adhere to the mode change operating instruction. An additional cause was the decision to change modes was forced and unplanned and the subsequent decision making, configuration control and risk assessment processes were inadequate. |  | 04 - Degradation of safety systems | 0200 - PERSONNEL WORK PRACTICES, 0203 - Required procedures, drawings, or other references not used, 0218 - Violation of policies/rules/procedures, 0306 - Time pressure to complete task, 0900 - WORK ORGANISATION, 1780 - Lack of conservative approach in control room, 1790 - Lack of teamwork in control room, 2010 - Inappropriate reliance on human action | 1 - For information only, configuration control, containment spray, procedure adherence, procedure inadequacy, risk assessment, technical specification | CM.2 , OF.2 , OP.1 , OP.2 | |

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A limiting condition of operation was entered. | The direct cause was that local rigging and lifting operations were causing structural vibrations and initiating the seismic protection signal. |  | 09 - Other | 0902 - Special conditions or requirements not identified | 1 - For information only, limiting condition of operation, risk assessment, vibration, work control | ER.1 , OF.2 , WM.1 | | [**WER TYO 20-0228**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37853','_blank'))) | 25.05.2020 | Hanbit 5 | 06.04.2020 | Entry into LCO Due to Broken Fixing Bolt Used to Connect Signal Cable for EDG Surveillance Test | 00 | 25.05.2020 | Trending | During normal operation and while installing the test equipment for a technical surveillance test on an emergency diesel generator (EDG), a test recorder termination bolt broke resulting in the inoperability of the EDG. The test was suspended and a limiting condition of operation was entered. | The direct cause was an overtightened cable connection fixing bolt on the control cable between the recorder and the local EDG controller during installation. |  | 04 - Degradation of safety systems | 0212 - Unsafe working practices applied, 0217 - Lack of questioning attitude | 1 - For information only, control cable, diesel generator, limiting condition of operation | MA.1 | | [**WER TYO 20-0225**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37850','_blank'))) | 25.05.2020 | Kori 2 | 16.03.2020 | Leakage Through Component Cooling Water Pump Seal due to Decreased Hydrazine Concentration | 00 | 25.05.2020 | Trending | During an outage and while performing an evolution to place C train of the component cooling water system into service, all three trains were unavailable for approximately ten minutes resulting in a spent fuel pool temperature increase of approximately half a degree celsius. | The direct causes were the deterioration of the pump seal on B train while the A train was unavailable on maintenance. The root cause was the system design inadequacy as all three trains have to be shut down for the evolution. The direct cause of the B pump seal degradation was due to the corrosion following inadequate control of the hydrazine concentration and inadequate positioning of the sampling point. |  | 04 - Degradation of safety systems | 1320 - Inadequate establishment/support of programs or processes, 2305 - Component monitoring or parameter trending inadequate | 1 - For information only, chemistry, decay heat removal, erosion/corrosion, fuel pool, leak, limiting condition of operation, pump seal | CM.1 , CY.2 , EN.1 | | [**WER TYO 20-0222**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37847','_blank'))) | 25.05.2020 | Shin-Kori 4 | 21.01.2020 | Emergency Diesel Generator Trip due to Auxiliary Relay Contact Failure during Surveillance | 00 | 25.05.2020 | Trending | During normal operation and following a technical specification surveillance test on an emergency diesel generator (EDG), problems were experienced with the load control and the EDG tripped. The test was terminated and the EDG was declared inoperable. | The direct cause was a relay failure to change the governor control mode from no load control to on load control. The apparent cause was a failure to include relay inspection and testing in the preventive maintenance programme. |  | 04 - Degradation of safety systems | 2203 - Preventive maintenance inadequate | 1 - For information only, control circuit, diesel generator, diesel start system, limiting condition of operation, preventive maintenance, relay | ER.2 | | [**WER TYO 20-0221**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37846','_blank'))) | 25.05.2020 | Hanbit 2 | 05.03.2020 | Measurement Mismatch between Step Counters due to Control Card Failure | 00 | 25.05.2020 | Trending | During normal operation and while performing a technical specification surveillance test to check the sequential movement of control rod bank A groups, a rod control alarm and mismatch indication between the group one and two step counters was received preventing the group two control rods from being inserted. The test was terminated and control rod group two deemed inoperable. | The cause was a failure of a control card due to inadequacies in the preventive maintenance programme. |  | 01 - Degraded plant operating conditions | 2309 - Failed within expected lifetime | 1 - For information only, circuit card, control rod drive, limiting condition of operation, preventive maintenance, reactivity management | ER.2 | | [**WER TYO 20-0219**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37831','_blank'))) | 22.05.2020 | Qinshan 3 2 | 09.02.2020 | Single Channel Trip of Shutdown System Due to Fuse Failure of Regional Overpower Protection Trip Comparator | 00 | 22.05.2020 | Trending | During normal operation a control room alarm was received indicating the loss of a channel of the regional overpower trip protection of shutdown system number one and the channel automatically tripped. The channel was declared inoperable. | The cause was a blown fuse within the trip comparator was broken due to inadequacies in the fuse manufacturing and pre use checks. |  | 04 - Degradation of safety systems | 2102 - Manufacturer fabrication / construction inadequate | 1 - For information only, documentation, fuse, reactor protection system, vendor | ER.3 , MA.1 , MA.2 | | [**WER TYO 20-0213**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37825','_blank'))) | 21.05.2020 | Fuqing 5 | 29.02.2020 | Contractor Mistakenly Cut Drain Line on Component Cooling Water Side of Containment Spray Pump Heat Exchanger, Causing Water Leakage | 00 | 21.05.2020 | Trending | During construction and while performing containment spray pump heat exchanger component cooling water drain pipework replacement, a worker cut into the pressurised side of the system causing a leak and a fall in the component cooling water surge tank. | The causes were inadequacies in the working instructions and supervision. |  | 09 - Other | 0218 - Violation of policies/rules/procedures, 1130 - Policies, official guidance (standards), expectations, administrative controls:-Not adequate (not strict enough, confusing or incomplete) | 1 - For information only, contractor, human error, industrial safety, label, leak, management oversight, procedure inadequacy, risk assessment, tagging | IS.1 , PM.1 | | [**WER TYO 20-0211**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37822','_blank'))) | 21.05.2020 | Sanmen 1 | 01.04.2020 | Abnormal Quality Bit Signal of Plant Control System Triggered Signal C-4 and Caused Unit Power Reduction | 00 | 21.05.2020 | Trending | During normal operation and following the return to service of the B train protection and safety monitoring system (PMS) from trouble shooting, the plant control system (PCS) immediately triggered a number of plant changes resulting in a power reduction to 99%. | The direct cause was the B train PMS and PCS settings were not aligned prior to the B train return to service due to the change in the PCS settings following the earlier A train trouble shooting. The root causes were inadequacies in the operational risk decision making and configuration control processes. | SOER 2013-1 Rec 3 SOER 2015-2 Rec 4 SER 2003-5 | 02 - Station transient | 2012 - Inadequate risk analysis performed, including design or modification risk assessment and maintenance vulnerability | 1 - For information only, computer, configuration control, power reduction, reactor protection system, risk assessment, setpoint | CM.2 , OF.2 , OP.1 , OP.2 , RM.1 | | [**WER TYO 20-0207**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37779','_blank'))) | 18.05.2020 | Kori 2 | 17.02.2020 | Reactor Trip Signal Triggered by Defective Soldering on Backplane Used to Mount Signal Amplifier Cards for Source Range Monitor during Power Reduction | 00 | 18.05.2020 | Trending | While shutting down for an outage and following an entry into sub critical condition, a protection signal was received from the source range monitor power protection initiating a reactor scram. A limiting condition of operation was entered. | The direct cause was a defective circuit card due to defective soldering. Additional causes include inadequacies in the preventive maintenance programme and manufacturing defects. |  | 04 - Degradation of safety systems | 2102 - Manufacturer fabrication / construction inadequate | 1 - For information only, automatic scram, circuit card, intermediate power range monitor, limiting condition of operation, preventive maintenance, solder, source range monitor, vendor | ER.2 , ER.3 | | [**WER TYO 20-0206**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37778','_blank'))) | 18.05.2020 | Hanbit 1 | 04.02.2020 | Failed Detector Encoder Card Resulted in Rod Position Mismatch and Entry into LCO | 00 | 18.05.2020 | Trending | During normal operation an operator observed that a control rod position indication (CRPI) had changed on the control panel display without the rod being manipulated. The rod was deemed inoperable and a limiting condition of operation was entered. | The direct cause was a failed CRPI display system circuit card. The apparent cause was likely to be manufacturing defects of the transistor installed in the card. |  | 04 - Degradation of safety systems | 2304 - Degraded sub-component contributed to failure | 1 - For information only, circuit card, limiting condition of operation, rod position indicator, vendor | ER.3 | | [**WER TYO 20-0202**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37764','_blank'))) | 15.05.2020 | Mihama 3 | 10.04.2020 | Deviation from limiting conditions for operation of emergency diesel generators following automatic shutdown of a seawater pumps | 00 | 15.05.2020 | Trending | During a shutdown the cooling water supply was lost to an emergency diesel generator (EDG) rendering it inoperable. A limiting condition of operation was entered. | The cause was an automatic trip of the cooling water pump supplying the EDG due to the generation of a bearing cooling water flow protection signal. |  | 04 - Degradation of safety systems | 0014 - Former : Unknown | 1 - For information only, bearing, diesel cooling water, diesel generator, essential service water, limiting condition of operation, pump | ER.1 | | [**WER TYO 20-0200**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37805','_blank'))) | 13.05.2020 | Ikata 3 | 20.01.2020 | Generation of Fuel Assembly Fall Signals | 01 | 19.05.2020 | Trending | During an outage and while lowering a fuel assembly to the equipment inspection rack it landed on the rack frame generating a lost load / fuel fall alarm. The fuel assembly was recovered. | The cause was inadequate visibility. Additional causes were inadequacies in the operating procedure and supervision. |  | 09 - Other | 2001 - Original design inadequate | 1 - For information only, contractor, fuelling machine, management oversight, procedure inadequacy, risk assessment | NF.2 | | [**WER TYO 20-0199**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37744','_blank'))) | 12.05.2020 | Shin-Wolsong 1 | 01.03.2020 | Internal Contact and Rubbing of Charging Pump Thrust Bearing Resulted in High Temperature Alarm and Pump Switchover | 00 | 12.05.2020 | Trending | During normal operation and following the receipt of a bearing temperature alarm on the duty charging pump, the pump was declared inoperable and the standby pump put into service. | The direct cause was a failed pump thrust bearing due to inadequate bearing clearances. |  | 04 - Degradation of safety systems | 0702 - Technically incorrect | 1 - For information only, charging pump, limiting condition of operation, procedure inadequacy, thrust bearing | MA.1 , MA.2 | | [**WER TYO 20-0198**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37743','_blank'))) | 12.05.2020 | Shin-Kori 2 | 27.02.2020 | Power Reduction Due to Unexpected Closing of Turbine Control Valve during Turbine Valve Test | 00 | 12.05.2020 | Trending | During operation at 97% power and while performing turbine main steam valve testing of turbine control valve (TCV) number three, TCV number two closed resulting in a reactor power reduction to 81%. During the transient conditions the reactor coolant system cold leg temperature and the pressuriser level fell outside their technical specification limits so limiting conditions of operation were entered for each. | The direct cause was a stuck spool in TCV number two servo valve due to foreign material ingress. |  | 02 - Station transient | 2217 - Failure to exclude foreign material | 1 - For information only, FME, hydraulic fluid, limiting condition of operation, pilot valve, power reduction, turbine control valve | ER.1 , ER.2 | | [**WER TYO 20-0195**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37740','_blank'))) | 12.05.2020 | Hanul 4 | 16.02.2020 | Pressure Relief Valve Opened and Failed to Seat Due to Overpressure during RCS Heatup | 00 | 12.05.2020 | Trending | Following a mode change and on achieving hot standby conditions, continuous increases in the equipment drain tank (EDT) level and pressure were observed. Start up operations were suspended. | The cause was a passing let down heat exchanger inlet pressure relief valve which was feeding the EDT. The root cause was the failure to recognise the potential for a pressure transient following the closure of the backpressure regulating valve during the mode change and this failure was compounded by additional operator failures to recognise that the pressure transient had resulted in the lifting of the pressure relief valve and that it had failed to reseat and was feeding the EDT. | SER 2005-2 | 01 - Degraded plant operating conditions | 0210 - Inattention to detail | 1 - For information only, configuration control, leak, pressure relief valve, procedure adherence, reactor coolant, risk assessment | CM.2 , ER.1 , OF.2 , OP.1 | | [**WER TYO 20-0194**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37776','_blank'))) | 12.05.2020 | Ikata 3 | 06.01.2020 | Wrong setting of the time of past inspection of main control room emergency air circulation system | 01 | 18.05.2020 | Trending | During an outage and while carrying out the technical specification (TS) surveillance test on the main control room emergency air circulation system it was discovered that when the test was carried out # during the previous outage it had been done so before defuelling and in violation of the TS configuration conditions.# | The cause was an inadequacy in the # technical specification compliance # process. |  | 01 - Degraded plant operating conditions, 04 - Degradation of safety systems | 1003 - Skill of the craft less than adequate / Not familiar with job performance standards | 1 - For information only, configuration control, control room, heating ventilating and air conditioning, technical specification | CM.2 , EN.1 | | [**WER TYO 20-0190**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37672','_blank'))) | 08.05.2020 | Changjiang 2 | 20.01.2020 | Inadequate Maintenance of Main Steam Safety Valve Caused Steam Leakage and Impacted Power Rising of the Unit | 00 | 08.05.2020 | Trending | While returning from an outage and at 30% power, a main steam safety relief valve (SRV) was discovered leaking. The reactor power was reduced for the repair. | The direct cause was the SRV nozzle ring was incorrectly adjusted preventing the valve disc from seating. The root causes were a failure to adhere to the maintenance instruction, inadequate post maintenance testing and inadequacies in supervision. |  | 01 - Degraded plant operating conditions | 0218 - Violation of policies/rules/procedures, 0703 - Technically incomplete | 1 - For information only, leak, main steam safety valve, procedure adherence, steam | MA.1 , MA.2 | | [**WER TYO 20-0189**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37671','_blank'))) | 08.05.2020 | Fuqing 3 | 20.01.2020 | Damaged Fuel Assembly Caused Abnormal Radioactivity Indicator | 00 | 08.05.2020 | Trending | During an outage and while performing fuel assembly inspections of three suspected leaking fuel assembles, one assembly was confirmed to have a leak. The fuel assembly was quarantined and stored in the damaged assembly store. | The cause was the impact of foreign material either while in the reactor or during manufacture. |  | 08 - Degradation of a safety barrier | 1120 - Policies, official guidance (standards), expectations, administrative controls:-Not enforced, 2102 - Manufacturer fabrication / construction inadequate | 1 - For information only, FME, fuel defect, vendor | ER.3 , NF.1 , NF.2 | | [**WER TYO 20-0188**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37670','_blank'))) | 08.05.2020 | Fuqing 3 | 23.02.2020 | Damage of Fan Motor Bearing of Control Rod Drive Mechanism Due to Wrong Bearing Selection Caused Fan Unavailability | 00 | 08.05.2020 | Trending | During operation at partial load, the control room received a control rod drive mechanism ventilation system duty fan high vibration alarm with an accompanying fire alarm. The duty fan was removed from service, declared unavailable and the standby fan put into service. | The cause was a failed fan motor bearing due to the fitting of an incorrect design by the vendor during manufacture. |  | 03 - Equipment damage; fires | 2102 - Manufacturer fabrication / construction inadequate | 1 - For information only, bearing, control rod drive, fan, fire suppression, heating ventilating and air conditioning, limiting condition of operation, vendor | ER.3 , FP.1 | | [**WER TYO 20-0183**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37665','_blank'))) | 08.05.2020 | Sanmen 1 | 10.04.2020 | Falling off of Movable Scaffold Caster Caused Scaffold Toppling and Personal Injury | 00 | 08.05.2020 | Trending | During the use of a mobile scaffold, the scaffold collapsed and two workers fell off. One worker sustained a fractured left leg. | The direct cause was the scaffold was moved on uneven ground and toppled over. The root causes were the scaffold wheels were inadequately secured and the scaffold was inadequately constructed, inspected and maintained |  | 07 - Personal injuries | 0218 - Violation of policies/rules/procedures, 1130 - Policies, official guidance (standards), expectations, administrative controls:-Not adequate (not strict enough, confusing or incomplete), 1330 - Inadequate monitoring of the effectiveness of programs or processes, 2005 - Material selection inadequate | 1 - For information only, contractor, industrial safety, injury, management oversight, risk assessment, scaffold, work control | IS.1 , MA.1 , MA.2 | | [**WER TYO 20-0182**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37656','_blank'))) | 06.05.2020 | Shin-Kori 3 | 20.12.2019 | Lube Oil Leakage and Manual EDG trip due to Turbocharger Lube Oil Line Flange Welding Crack during Comprehensive EDG Testing | 00 | 06.05.2020 | Trending | During an outage and while performing a test run on an emergency diesel generator (EDG), a lubricating oil leak was discovered. The test was suspended and the EDG was deemed unavailable. | The direct cause was a crack on a pipe work flange weld due to inadequate tightening of a lock nut during installation and vibration during operation. |  | 01 - Degraded plant operating conditions, 04 - Degradation of safety systems | 2001 - Original design inadequate | 1 - For information only, diesel generator, fatigue cracking, leak, limiting condition of operation, lube oil, vibration, weld | MA.1 | | [**WER TYO 20-0180**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37654','_blank'))) | 06.05.2020 | Kori 3 | 29.01.2020 | Shutdown Bank Rods Failed to Withdraw | 00 | 06.05.2020 | Trending | During an outage and while performing a control rod inspection and calibration test, eight group one control rods in shutdown banks A and B failed to withdraw. The test was terminated. | The direct cause was failed control cards and rectifiers due to age related degradation. An additional cause was inadequate post maintenance testing. |  | 04 - Degradation of safety systems | 2304 - Degraded sub-component contributed to failure | 1 - For information only, circuit card, control rod, preventive maintenance, reactivity management, rectifier | EN.1 , ER.2 | | [**WER TYO 20-0179**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37653','_blank'))) | 06.05.2020 | Hanul 2 | 29.01.2020 | Surveillance Test Failure due to Seat Leakage of Safety Injection Line Check Valve | 00 | 06.05.2020 | Trending | During an outage and while performing a test on the safety injection check valve leakage rates, one valve failed to meet the test criteria. The test was suspended and the valve replaced incurring an outage extension of 68 hours. | The direct cause was the valve disc failed to seat due to foreign material sticking between the disc and the seat. An additional cause was the valve leak was known about before the outage but had been accepted as satisfactory. |  | 04 - Degradation of safety systems | 2211 - Test results review inadequate | 1 - For information only, check valve, FME, leak, outage extension, safety injection, surveillance | MA.1 , OF.1 , OF.2 | | [**WER TYO 20-0064**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37657','_blank'))) | 03.03.2020 | Ikata 3 | 25.01.2020 | Interruption of power receiving from 187kV transmission lines | 01 | 07.05.2020 | Trending | During an outage and following the actuation of the protection system on the four 187kV transmission lines, unit 1 and 2 immediately transferred the power supply to a standby 66kV transmission line. The emergency diesel generator (EDG) on unit 3 automatically started and supplied power to the unit and then the power supply was switched to 500kV transmission lines. | The direct cause was a 187KV circuit breaker short circuit. |  | 01 - Degraded plant operating conditions, 04 - Degradation of safety systems | 2304 - Degraded sub-component contributed to failure | 1 - For information only, breaker, loss of offsite power, power supply, preventive maintenance, transmission line | ER.1 | | [**WER TYO 20-0011**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37816','_blank'))) | 24.01.2020 | Ikata 3 | 12.01.2020 | Raising of a control rod during hoisting of the upper core internals of the reactor vessel | 01 | 21.05.2020 | Trending | During an outage and while hoisting the reactor vessel upper core internals it was observed that one of the control rod clusters had not separated and was being raised with the upper core internals. The load was re-lowered and the operation suspended. | The direct cause was the control rod drive shaft and cluster were seized within the upper core internals due to sludge deposits. An additional cause was the absence of a check in the removal procedure to ensure that the control rod drive shaft and cluster were free before raising the upper internals. |  | 04 - Degradation of safety systems, 10 - Non consequential or near miss | 2217 - Failure to exclude foreign material | 1 - For information only, control rod, debris / crud, procedure inadequacy, reactivity management | ER.1 , NF.2 | | [**WER PAR 20-0315**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37863','_blank'))) | 27.05.2020 | Taishan 2 | 19.12.2019 | Faulty 400V Emergency supply not declared unavailable for 38 hours | 00 | 27.05.2020 | Trending | During normal operation and following the receipt of a voltage alarm on the 400V emergency electrical system, it was confirmed that the voltage was below the technical specification surveillance test (TSST) criteria but the system was not declared inoperable. An intervention by a safety engineer the following day resulted in the system being declared inoperable and a limiting condition of operation (LCO) was entered. A delay to declaring the inoperability and LCO entry was also reported. | The direct cause of the voltage drop was not stated. The causes of the failure to enter the LCO following the receipt of the alarm were because the operability had not been questioned and a second opportunity to do so was lost when maintenance declared that the voltage failed to meet the TSST criteria. | SER 2005-2 | 04 - Degradation of safety systems | 0712 - Inadequate safety assessment provided | 1 - For information only, emergency bus, limiting condition of operation, power supply, procedure adherence, procedure inadequacy, risk assessment | ER.1 , OF.2 , OP.1 | | [**WER PAR 20-0314**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37862','_blank'))) | 27.05.2020 | Almaraz 1 | 13.02.2020 | Low Efficiency of the Active Carbon Filters in the Area of Controlled Access to the Safeguard Building. | 00 | 27.05.2020 | Trending | During normal operation and following a technical specification (TS) surveillance test on a safeguards building ventilation carbon filter, the filter efficiency was discovered below the TS limit and a limiting condition of operation was entered. A TS breach was also reported as a delay in analysing the results meant that the action condition (AC) time criteria was breached. | The direct cause of the carbon degradation was not stated. The causes of the failure to analyse the sample within the TS AC time criteria was due to inadequate technical compliance procedures and a failure to implement actions from a previous occurrence. |  | 01 - Degraded plant operating conditions | 1640 - Consequences of change not adequately assessed, 1660 - Change-related documentation alteration inadequate | 1 - For information only, charcoal filter, heating ventilating and air conditioning, limiting condition of operation, procedure inadequacy, technical specification | CY.1 , PI.1 | | [**WER PAR 20-0312**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37808','_blank'))) | 20.05.2020 | Beznau 1 | 21.02.2020 | Loss of off-site 50 kV power supply for both units | 00 | 20.05.2020 | Trending | During normal operation on both units, the 50 kV grid system supply was lost and the electrical differential protection initiated the automatic start of the two emergency diesel generators. | The cause was a short term three phase short on a grid system transmission line and probably due to a bird strike. |  | 01 - Degraded plant operating conditions | 2304 - Degraded sub-component contributed to failure | 1 - For information only, loss of offsite power, transmission line | ER.1 | | [**WER PAR 20-0309**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37800','_blank'))) | 19.05.2020 | Tihange 1 | 27.02.2020 | Failure to carry out the mandatory monitoring measures concerning external nuclear instrumentation | 00 | 19.05.2020 | Trending | During an outage and while carrying out a compliance review of external nuclear instrumentation system maintenance testing procedures, it was discovered that a condition of the technical specification to carry out a specific test was not included in the maintenance test procedure. The investigation confirmed that the test had not been carried out since 2012. | The direct cause was the condition had been removed from the maintenance test procedure due to inadequacies in the documentation revision and technical specification compliance processes. |  | 01 - Degraded plant operating conditions | 0211 - Independent checking not used or ineffectively applied | 1 - For information only, management oversight, nuclear instrumentation, procedure adherence, procedure inadequacy, technical specification | EN.1 | | [**WER PAR 20-0308**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37799','_blank'))) | 19.05.2020 | Tihange 1 | 07.01.2020 | Collision between the polar bridge cabin and the handling tripod for the reactor vessel head during outage | 00 | 19.05.2020 | Trending | During a shut down and while preparing to lift the vessel lower internals using the polar crane auxiliary hook, the operator was alerted by adjacent workers to immediately cease the operation. The crane cabin had collided with the handling tripod. | The cause was the operator had not ensured that he had an unobstructed load path before he had began the lifting operation. | SOER 2008-1 Recs 4 and 5 | 03 - Equipment damage; fires | 0201 - Self checking not used or ineffectively applied, 0205 - Conditions not verified prior to work, 0702 - Technically incorrect, 0703 - Technically incomplete, 0705 - Not up to date with plant design, 2001 - Original design inadequate | 1 - For information only, crane, management oversight, procedure adherence, risk assessment | NF.2 , NP.1 | | [**WER PAR 20-0307**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37798','_blank'))) | 19.05.2020 | Tihange 2 | 04.10.2019 | Unplanned shutdown for 40 days due to a leaking valve in the primary system | 00 | 19.05.2020 | Trending | During normal operation a number of primary coolant pump motor stator temperature alarms were received and the reactor was shut down for repairs incurring an outage of 40 days. | The direct cause was a blockage of the pump motor cooling system by boric crystals emanating from a leak on a primary coolant system instrument valve weld. The root causes were inadequate preventive inspections of the weld and an inadequate weld repair in 2001. |  | 01 - Degraded plant operating conditions | 2204 - Maintenance performed incorrectly | 1 - For information only, boric acid, debris / crud, instrument valve, leak, reactor coolant, reactor coolant pump motor, reactor shutdown, weld | EN.1 , ER.2 , MA.1 | | [**WER PAR 20-0306**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37797','_blank'))) | 19.05.2020 | Taishan 1 | 29.12.2019 | The emergency diesel generator trip due to reverse power protection during the low load test | 00 | 19.05.2020 | Trending | During operation at 90% power and while performing a technical specification surveillance test on an emergency diesel generator (EDG), on completion of the test the reverse power protection initiated, the EDG tripped and was declared inoperable. | The direct cause was the operator operated the local selection control in the wrong sequence due to inadequacies in the operating instruction and peer checking. |  | 04 - Degradation of safety systems | 0103 - Message misunderstood / misinterpreted | 1 - For information only, diesel generator, limiting condition of operation, management oversight, procedure inadequacy | OP.1 , OP.2 | | [**WER PAR 20-0302**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37793','_blank'))) | 19.05.2020 | Paluel 4 | 16.09.2019 | Steam generator cooling instability due to unavailability of the emergency supply system | 00 | 19.05.2020 | Trending | During a hot standby, an auxiliary turbine driven feed pump tripped causing a loss of feedwater and a steam generator water level instability. Three out of four auxiliary pumps were unavailable and a limiting condition of operation was entered. The same event occurred eight days later. | The direct cause on both occasions was due to a closure of its steam supply valve, on the second occasion it was discovered that the steam supply valve solenoid had been obstructed by an insulator incorrectly installed during the outage. The root cause was a failure to provide a diverse electrical supply for the remaining auxiliary feed pumps as part of the outage planning plant risk assessment, defence in depth and plant release processes. |  | 04 - Degradation of safety systems | 0706 - Not formally stated, 0712 - Inadequate safety assessment provided, 0803 - Supervision levels not decided prior to task | 1 - For information only, auxiliary feedwater pump, limiting condition of operation, risk assessment, solenoid valve, valve, work control | MA.1 , OF.2 , OP.1 , OP.2 , PI.1 , WM.1 | | [**WER PAR 20-0301**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37792','_blank'))) | 19.05.2020 | Oskarshamn 3 | 20.02.2020 | Feed water pump control error caused low level in the reactor pressure vessel and partial scram | 00 | 19.05.2020 | Trending | During normal operation and while performing a periodic test of a reactor feed water pump (FWP) speed control system, the hydraulic control pressure fell resulting in a reduced SG feed flow, the initiation of a protection signal and an automatic power reduction to 75%. A manual attempt to start the standby FWP was unsuccessful. Further attempts to reinstate the standby FWP were not attempted due to turbine reheating system steam leaks but after three days and the emergence of further operational problems the reactor was shutdown. | The cause of the loss of hydraulic pressure of the test FWP was due to the disconnection of the hydraulic speed control electrical drive and hydraulic components. The cause of the failure of the standby FWP to start was due to an incorrectly set lubrication oil pressure. The cause of the turbine reheating system steam leaks was due to gasket and seal failures due to inadequate maintenance tightening techniques. |  | 01 - Degraded plant operating conditions, 02 - Station transient | 2200 - MAINTENANCE / TESTING / SURVEILLANCE | 1 - For information only, feedwater control system, feedwater pump, gasket, hydraulic fluid, leak, lube oil, power reduction, reactor shutdown, reactor water level, seal, setpoint, steam, torque | ER.1 , MA.1 | | [**WER PAR 20-0300**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37791','_blank'))) | 19.05.2020 | Ningde 1 | 16.01.2020 | N2 power control bank wasn’t inserted to the 5th step in the normal shutdown with steam generator cooling mode | 00 | 19.05.2020 | Trending | During normal operation and while reducing power for a reactor outage and following insertion of the power control bank, the operator discovered the power control bank position counter to read position 10 instead of position five as expected. The shutdown reactivity margin was reduced for a number of hours. | The cause was the operator had incorrectly adjusted the power control rod bank. | SOER 2007-1 recs 1,2 and 4 SER 2005-2 | 01 - Degraded plant operating conditions | 0611 - Shortfall in on-job training / experience | 1 - For information only, control rod, management oversight, procedure adherence, reactivity management | CM.2 , OP.1 | | [**WER PAR 20-0299**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37790','_blank'))) | 19.05.2020 | Cattenom 4 | 09.05.2018 | Fracture of third and fourth finger of left hand | 00 | 19.05.2020 | Trending | During a mechanical inspection of a fan a worker jammed two fingers between the pulley and belts causing fractures on both fingers and resulting in a 101 day lost time accident. | The cause was an attempt to highlight a specific location on the motor axis. |  | 07 - Personal injuries | 0810 - Safety aspects of task not emphasised | 1 - For information only, industrial safety, injury | IS.1 , MA.1 | | [**WER PAR 20-0298**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37738','_blank'))) | 12.05.2020 | Nogent S/Seine 1 | 01.10.2019 | Discovery of 6 flow rate sensors on loops 1 and 4 of the primary system non-compliant with the functional validation criterion following plugging of steam generator tubes. | 00 | 12.05.2020 | Trending | During normal operation and during a technical specification (TS) surveillance test on the primary coolant loop flow rate sensors, six sensors on two loops failed the test criteria. The protection was deemed inoperable. | The cause was the requirement to revalidate the sensors following tube plugging on the steam generator tubes six months previously had not been incorporated into the outage work planning. |  | 10 - Non consequential or near miss | 0911 - Co-ordination of relevant on-site and off-site departments not achieved | 1 - For information only, limiting condition of operation, reactor protection system, sensor, technical specification | CM.1 , EN.1 , WM.1 | | [**WER PAR 20-0297**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37737','_blank'))) | 12.05.2020 | Beznau 2 | 03.03.2020 | Turbine 22 shutdown to repair a leak on the main feedwater discharge line | 00 | 12.05.2020 | Trending | During normal operation a leak was discovered on a main feedwater pipe line. The leak deteriorated after two days and the system was isolated, the turbine shutdown and the reactor power reduced to 50%. | The cause was a weld failure due to inadequate installation and testing during manufacture at the vendors works. |  | 01 - Degraded plant operating conditions | 2102 - Manufacturer fabrication / construction inadequate, 2304 - Degraded sub-component contributed to failure | 1 - For information only, leak, nondestructive examination, power reduction, vendor, vibration, weld | ER.3 | | [**WER PAR 20-0296**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37736','_blank'))) | 12.05.2020 | Ringhals 3 | 30.04.2020 | #PRELIMINARY# - Damage to the containment steel liner due to corrosion. | 00 | 12.05.2020 | Trending | During an outage and while performing an inspection of a known and monitored leak in the secondary containment, the leak was investigated further by removing concrete and a spot of corrosion approximate five cm in diameter was discovered on the liner around a penetration. | The cause is under investigation. |  | 03 - Equipment damage; fires, 08 - Degradation of a safety barrier | 2200 - MAINTENANCE / TESTING / SURVEILLANCE, 2300 - EQUIPMENT PERFORMANCE, 2308 - Equipment erosion / corrosion | 1 - For information only, containment penetration, erosion/corrosion | ER.1 | | [**WER PAR 20-0294**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37734','_blank'))) | 12.05.2020 | Olkiluoto 1 | 12.11.2019 | Pressure in auxiliary feedwater system pressure accumulator set lower than Tech Spec limit for 2 weeks | 00 | 12.05.2020 | Trending | During normal operation and while performing a surveillance test on an auxiliary feed system pressure accumulator, it was discovered that the pressure was below the technical specification criteria. The test was terminated, declared unsuccessful, the system deemed inoperable and a limiting condition of operation was entered. | The direct cause was the system had been not been set correctly following the return from maintenance due to inadequacies in the plant configuration control and technical specification compliance processes. | SER 2005-2 | 01 - Degraded plant operating conditions | 0106 - Communications incorrect / inadequate, 0701 - No document available | 1 - For information only, auxiliary feedwater, configuration control, limiting condition of operation, procedure inadequacy, technical specification | CM.2 , OP.1 , OP.2 | | [**WER PAR 20-0293**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37733','_blank'))) | 12.05.2020 | Olkiluoto 2 | 26.08.2019 | Inoperability of containment dew point measurement since 2015 | 00 | 12.05.2020 | Trending | During normal operation and following an anomaly in the dew point reading, the investigation discovered that the associated trace heating was not in operation and this had been the case for significant periods over a four year period and in breach of the technical specification requirements on each one. | The causes were inadequacies in the technical specification compliance, plant configuration control and documentation control processes. |  | 01 - Degraded plant operating conditions, 04 - Degradation of safety systems | 0701 - No document available, 0705 - Not up to date with plant design | 1 - For information only, configuration control, documentation, heat tracing, procedure inadequacy, technical specification | CM.2 , EN.1 , OP.2 | | [**WER PAR 20-0290**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37730','_blank'))) | 12.05.2020 | Ningde 4 | 16.12.2019 | Failure of the lower bearing of a circulating water pump | 00 | 12.05.2020 | Trending | During normal operation and while performing condition monitoring on a main circulating water pump, the bearing vibrations exceeded the test criteria. The pump was removed from service incurring a power reduction to 60% for over six days. | The cause was a bearing failure due to inadequate manufacturing quality. An additional cause was the bearing sealing water pipe was blocked resulting in a loss of cooling to the bearing and the degradation of its lubricant. |  | 01 - Degraded plant operating conditions | 2102 - Manufacturer fabrication / construction inadequate, 2309 - Failed within expected lifetime | 1 - For information only, bearing, documentation, grease, power reduction, pump, seal water, vendor, vibration | ER.3 , OP.1 | | [**WER PAR 20-0287**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37726','_blank'))) | 12.05.2020 | Lingao 3 | 15.01.2020 | A worker was splashed with a small amount of hydrochloric acid on his face | 00 | 12.05.2020 | Trending | During normal operation and while attaching a label to a hydrochloric acid tank valve, the plastic pipework fractured and splashed acid on the workers face. He was taken to hospital for treatment. | The cause was the plastic pipework was brittle due to ageing. An additional cause was an inadequate risk assessment. |  | 07 - Personal injuries | 1130 - Policies, official guidance (standards), expectations, administrative controls:-Not adequate (not strict enough, confusing or incomplete), 2302 - Ageing of component | 1 - For information only, contractor, injury, management oversight, risk assessment | IS.1 , MA.2 | | [**WER PAR 20-0286**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37725','_blank'))) | 12.05.2020 | Gravelines 3 | 30.09.2019 | Compliance deviation from the test rule during the period start-up test on a single air line of the 6.6 kV emergency diesel generating set train A | 00 | 12.05.2020 | Trending | During normal operation and while performing outage work preparation it was discovered that the technical specification (TS) general operating rule outage test for the air supply to the emergency diesel generator train had not been carried out in accordance with the criteria on the four outages since 2014. | The cause was inadequacies in the outage work management on each occasion. An additional cause was inadequate test instructions. |  | 04 - Degradation of safety systems | 0202 - System alignment / isolation not verified, 0211 - Independent checking not used or ineffectively applied | 1 - For information only, configuration control, diesel generator, procedure adherence, procedure inadequacy, surveillance, technical specification, work control | OP.1 , OP.2 , WM.1 | | [**WER PAR 20-0285**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37722','_blank'))) | 11.05.2020 | Forsmark 2 | 29.01.2020 | Fire alarm control computer failure due to inadequate software upgrade | 00 | 11.05.2020 | Trending | During normal operation and while performing a technical specification surveillance test on the fire monitoring and protection system, the expected alarm was not received on the fire computer monitor. The test was terminated and deemed to have failed. The system was declared inoperable and a limiting condition of operation was entered. | The direct cause was the fire monitoring system had failed without providing an indication or an alarm. The root cause was a design modification carried out in 2017 had been inadequately conceived and implemented. | SER 2005-3 | 04 - Degradation of safety systems | 1660 - Change-related documentation alteration inadequate | 1 - For information only, computer, design change, fire suppression, limiting condition of operation, surveillance | CM.3 , EN.1 , FP.1 | | [**WER PAR 20-0284**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37721','_blank'))) | 11.05.2020 | Forsmark 3 | 28.12.2019 | Exceeded test interval on control rod | 00 | 11.05.2020 | Trending | During normal operation it was discovered that the previous control rod motion surveillance test on H45 carried out three weeks earlier had been restricted to two percent travel instead of five percent making the test invalid and the test interval had by then been exceeded breaching the TS. | The direct cause was an operational decision making committee had sanctioned the control rod motion test travel from five to two percent travel without considering the technical specification compliance issues. | SER 2005-2  SER 2003-5 | 04 - Degradation of safety systems | 1320 - Inadequate establishment/support of programs or processes | 1 - For information only, control rod, procedure adherence, risk assessment, surveillance, technical specification | OF.2 , OP.1 , OP.2 | | [**WER PAR 20-0281**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37717','_blank'))) | 11.05.2020 | Fangchenggang 1 | 21.01.2020 | Turbine hall auxiliary annexe crane control cabinet door fell from height onto the main feed water pipe | 00 | 11.05.2020 | Trending | During normal operation and while performing crane maintenance, an electrical control cabinet door was knocked off and fell onto the main feed water system pipework below causing thermal insulation damage. The work was suspended. | The direct cause the door dislodged when touched due to restricted access. The root cause was an inadequate door design. |  | 03 - Equipment damage; fires | 2004 - Component selection inadequate | 1 - For information only, fall, industrial safety | ER.1 , IS.1 , MA.1 | | [**WER PAR 20-0276**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37712','_blank'))) | 11.05.2020 | Cofrentes 1 | 02.12.2019 | Depressurization of North damper seal in refueling floor during refueling outage 22. | 00 | 11.05.2020 | Trending | During an outage the refuelling floor coordinator discovered a leak of water through the north pool damper seals and running into the cavity. The damper seal pneumatic pressure was found to have been lost and was reinstated using a nitrogen bottle supply. | The cause was the temporary air supply to the damper seal was lost following an isolation of the service air system. The root cause was an inadequately conceived and controlled temporary modification to the damper seal air supply for the outage. | SER 2005-3 | 01 - Degraded plant operating conditions | 2012 - Inadequate risk analysis performed, including design or modification risk assessment and maintenance vulnerability | 1 - For information only, configuration control, damper, design change, instrument air, jumper, leak, risk assessment, seal, service air, temporary modification | CM.3 , OF.2 , OP.2 , RM.1 , WM.1 | | [**WER PAR 20-0275**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37711','_blank'))) | 11.05.2020 | Cofrentes 1 | 27.11.2019 | Excessive degradation of coupling bearing in reactor water cleanup system pump | 00 | 11.05.2020 | Trending | During an outage and while cooling on the reactor water clean up system, the control room received a system fire alarm and it was discovered that a pump bearing had overheated. The system was shut down and declared unavailable. | The direct cause was due to operating beyond the design flow rate and continuing to do so after a trip on the motor thermal over protection. | SOER 2013-1 Rec 3 | 03 - Equipment damage; fires | 2304 - Degraded sub-component contributed to failure | 1 - For information only, bearing, fire suppression, pump motor, reactor water cleanup | FP.1 , OF.2 , OP.1 , OP.2 | | [**WER PAR 20-0274**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37710','_blank'))) | 11.05.2020 | Cofrentes 1 | 02.12.2019 | Failure to perform leak surveillance tests on three electrical penetrations following modification in 1995 | 00 | 11.05.2020 | Trending | During an outage and while performing a defect assessment on a primary containment penetration pressure gauge it was discovered that the technical specification (TS) surveillance on a number of electrical penetrations had not been carried out since 1995. A TS breach was reported. | The cause was that when the gauges were fitted as part of a design safety modification, the associated technical specification surveillances were not written into the TS compliance and surveillance programme. An additional cause was that subsequent technical reviews failed to identify the non compliance. | SER 2005-3 | 04 - Degradation of safety systems | 2012 - Inadequate risk analysis performed, including design or modification risk assessment and maintenance vulnerability | 1 - For information only, containment penetration, design change, sensor, surveillance, technical specification | CM.3 , EN.1 , EN.2 | | [**WER PAR 20-0272**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37708','_blank'))) | 11.05.2020 | Cofrentes 1 | 25.01.2020 | Decreased shielding ring depression while switching over ventilation discharge system fans. | 00 | 11.05.2020 | Trending | During normal operation and while performing a routine changeover from the duty to standby train of the secondary containment recirculating system, the standby fan failed after an initial start, a low pressure alarm was received and the duty fan restarted. During the transient the shielding ring pressure fell below the technical specification (TS) limit. | The direct cause was a failed fan coupling due to inadequately performed maintenance. The apparent cause leading to the TS limit breach was the latent hazard presented by the methodology employed in shutting down the duty fan before instating the standby fan. |  | 01 - Degraded plant operating conditions | 2203 - Preventive maintenance inadequate | 1 - For information only, containment pressure, fan, heating ventilating and air conditioning, limiting condition of operation, preventive maintenance, procedure inadequacy | ER.2 , MA.2 , OF.2 , OP.2 | | [**WER PAR 20-0271**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37707','_blank'))) | 11.05.2020 | Chooz B 1 | 21.09.2019 | Loss of 1.2 days generation equivalent following tube damage on a heat exchanger on the grid connection system | 00 | 11.05.2020 | Trending | During normal operation and following the receipt of a grid connection system heat exchanger water in air alarm, the reactor power was reduced to 50%. | The cause was tube erosion due to an inadequate preventive maintenance programme. |  | 01 - Degraded plant operating conditions | 2203 - Preventive maintenance inadequate, 2305 - Component monitoring or parameter trending inadequate | 1 - For information only, erosion/corrosion, power reduction, preventive maintenance | ER.2 | | [**WER PAR 20-0268**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37703','_blank'))) | 11.05.2020 | Atucha 1 | 08.01.2020 | Manual SCRAM during reactor startup | 00 | 11.05.2020 | Trending | During a start up and at two percent power, a start up control error alarm was received followed by the startup controller disconnecting. The reactor was manually scrammed. | The cause was the start up was too fast due to inadequacies in the decision making in selecting the method of start up. |  | 02 - Station transient | 0505 - Alarm masking / cancelling | 1 - For information only, management oversight, manual scram, procedure inadequacy, reactivity management, risk assessment | OF.2 , OP.1 , OP.2 | | [**WER PAR 20-0267**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37702','_blank'))) | 11.05.2020 | Asco 1 | 10.02.2020 | Failure to verify 2 channels out of 4 on the refuelling water storage tank low level safety actuation system | 00 | 11.05.2020 | Trending | During normal operation it was discovered that the shiftly surveillance test for the semi automatic transfer of water to the containment sumps due to a low level in the refuelling water storage tank coincident with a safety injection was only being carried out on two of the four channels. The two untested channels were declared inoperable and a limiting condition of operation was entered. It was discovered that this had existed for years and a technical specification breach was reported. | The direct cause was the surveillance procedure only called for two channels to be tested. The root cause was the design safety change during construction and commissioning requiring the semi automatic recirculation availability of the system required two actions both of which were not enacted. The first was that all four channels must be fitted with level indicators to enable the testing and the second was the revision of the surveillance instruction to carry it out. An additional cause was previous design compliance reviews had not picked up the gap. |  | 04 - Degradation of safety systems | 1320 - Inadequate establishment/support of programs or processes | 1 - For information only, configuration control, design change, level instrument, limiting condition of operation, procedure adherence, procedure inadequacy, reactor protection system, surveillance, technical specification | CM.1 , EN.1 , OP.2 | | [**WER PAR 20-0266**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37701','_blank'))) | 11.05.2020 | Almaraz 2 | 18.12.2019 | Containment sampling valve failed closing time test | 00 | 11.05.2020 | Trending | During normal operation and while performing a surveillance test, a containment sample valve failed to close within the set criteria. The system was declared inoperable and a limiting condition of operation was entered. | The cause was an inadequate sized actuator resulting in inadequate opening /closing torque for the valve. |  | 08 - Degradation of a safety barrier | 0014 - Former : Unknown | 1 - For information only, containment isolation, limiting condition of operation, torque, valve actuator | ER.1 , MA.2 | | [**WER PAR 20-0265**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37646','_blank'))) | 05.05.2020 | Taishan 1 | 20.10.2019 | Fire alarm due to smoke release by a circulating water treatment 10 KV transformer. | 00 | 05.05.2020 | Trending | During normal operation, a fire alarm was received for a circulating water treatment plant transformer. The investigation discovered thick smoke and the fire brigade were called to assist. The transformer was isolated and declared unavailable. | The direct cause was an interturn short circuit igniting the surrounding insulating material. The root cause was a loose terminal connecting bar. |  | 03 - Equipment damage; fires | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, fire, insulation electrical, transformer | ER.1 , FP.1 | | [**WER PAR 20-0262**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37643','_blank'))) | 05.05.2020 | Lingao 4 | 11.12.2019 | Unit power decrease due to a motor-driven main feedwater standby pump failure to automatically start after online pump trip due to motor failure | 00 | 05.05.2020 | Trending | During normal operation, a main boiler feed pump (MBFP) trip alarm was received and the pump was confirmed to have tripped. The loss of feed initiated a start signal for the duty standby feed pump but it failed to start and with the second standby pump also unavailable, an automatic load reduction was initiated. The operator started the duty standby pump manually and the load was stabilised at 50%. | The cause was a failure of the MBFP motor due to damaged winding insulation. The cause of the failure of the duty standby feed pump to start was a design failure of the control logic to reconfigure to the current plant state following the MBFP trip. |  | 01 - Degraded plant operating conditions, 02 - Station transient | 0206 - Task not adequately researched prior to start, 0502 - Interface design inappropriate for task | 1 - For information only, control logic, digital control system / digital components, feedwater control system, feedwater pump, insulation electrical, power reduction, preventive maintenance, pump motor, vendor | ER.1 , ER.2 | | [**WER PAR 20-0261**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37642','_blank'))) | 05.05.2020 | Leibstadt 1 | 04.07.2019 | Delay to start up due to seal leakage at the recirculation flow control valve hydraulic actuator | 00 | 05.05.2020 | Trending | During a reactor start up and at 51% reactor power, a recirculating flow control valve hydraulic power unit (HPU) level alarm for the A loop was received together with an indication that the flow control valve was seized. The loop was declared inoperable and the reactor shutdown incurring an outage delay of two and a half days. | The cause was the hydraulic hose between the recirculating flow control valve and the HPU was inadequately tightened due to inadequate maintenance standards. |  | 01 - Degraded plant operating conditions | 2105 - Lack of proper tools / materials used do not meet specifications | 1 - For information only, hydraulic fluid, leak, limiting condition of operation, o-ring , outage extension, procedure adherence, procedure inadequacy, reactor recirculation, reactor shutdown, torque, valve actuator | MA.1 , MA.2 | | [**WER PAR 20-0260**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37641','_blank'))) | 05.05.2020 | Leibstadt 1 | 07.06.2019 | Primary water leakage during exchange of a slide ring seal | 00 | 05.05.2020 | Trending | During an outage and while exchanging the slide ring seal on a recirculating water pump outlet flange, a leak occurred from the flange. The water was redirected to the drainage sumps enabling the slide ring seal replacement and cessation of the leak. | The direct cause was the simultaneous exchange of the recirculating pump suction valve actuator by another work team resulted in the flow of water thorough the pump. The root cause was inadequacies in the outage work planning, plant configuration, safety management and supervision processes. | SOER 2010-1 Rec 8 | 08 - Degradation of a safety barrier | 0306 - Time pressure to complete task, 0903 - Co-ordination of all relevant on-site departments not achieved, 0907 - Scheduling conflicts not identified, 0911 - Co-ordination of relevant on-site and off-site departments not achieved, 0912 - Planning of parallel tasks inadequate, 1230 - Inadequate co-ordination/communication between departments, 1510 - Insufficient resources allocated for identified objectives (includes resources such as training, supervision, documentation, tools, materials, and equipment), 1740 - Taking of short-cuts allowed/tolerated | 1 - For information only, configuration control, industrial safety, leak, procedure inadequacy, radioactive contamination, reactor coolant, reactor recirculation, risk assessment, tagging, work control | CM.2 , IS.1 , MA.2 , WM.1 | | [**WER PAR 20-0259**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37640','_blank'))) | 05.05.2020 | Leibstadt 1 | 12.05.2019 | Two automatic reactor trips (SCRAMs) due to pressure transmitter failure (Rosemount 1151) | 00 | 05.05.2020 | Trending | During normal operation and following the receipt of a turbine control system main steam pressure control loop pressure transmitter signal, the turbine control valves tripped closed incurring a turbine trip and an automatic reactor scram. Following the return to service the event reoccurred. | The direct cause was a pressure transmitter circuit board failure. The reoccurrence was due to inadequate diagnosis of the initial event. |  | 02 - Station transient | 2015 - Safety function redundancy or diversification is insufficient, including cable or function separation, 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, automatic scram, circuit board, preventive maintenance, turbine control, turbine trip | ER.2 , MA.1 | | [**WER PAR 20-0258**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37639','_blank'))) | 05.05.2020 | Krsko 1 | 21.10.2019 | Events Caused by Dropped Tools | 00 | 05.05.2020 | Trending | During an outage, three industrial accidents occurred involving dropped tools or objects. In the first an object was dropped but missed the workers below, in the second a worker was struck on the head but was protected by his helmet and received medical attention on site and then at hospital. In the third, a worker was hit on the shoulder by a dropped wrench and required medical attention on site. | The causes were inadequate work practices and housekeeping. |  | 07 - Personal injuries | 0212 - Unsafe working practices applied | 1 - For information only, fall, industrial safety, injury, management oversight, procedure adherence, risk assessment, scaffold | IS.1 , MA.1 , MA.2 | | [**WER PAR 20-0257**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37638','_blank'))) | 05.05.2020 | Forsmark 2 | 29.11.2019 | Unsealed reactor building | 00 | 05.05.2020 | Trending | During normal operation and while reinstating the reactor building ventilation to the normal supply route, the pressure in the reactor building was observed to be worse than before the change. Trouble shooting discovered gaps in the reactor hall pressure relief hatches. The normal supply system was declared inoperable and a limiting condition of operation was entered. | The direct cause was some hatches had broken hinge cotter pins preventing them from sealing. The root cause was a prior large pressure transient. |  | 01 - Degraded plant operating conditions | 2303 - Known problems not corrected, including deficiencies in reporting findings | 1 - For information only, containment hatch, heating ventilating and air conditioning, leak, limiting condition of operation | CM.2 , ER.1 , OP.2 | | [**WER PAR 20-0256**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37637','_blank'))) | 05.05.2020 | Daya Bay 1 | 25.12.2019 | Loss of circulating-water-pumps seal water supply due 48V DC battery short circuit by painter’s ladder. | 00 | 05.05.2020 | Trending | During normal operation, an alarm was received in the demineralised water production building indicating a power loss to the conventional and nuclear islands demineralised water distribution systems incurring the loss of the potable water system and the seal water to the main circulating water pumps. | The direct cause was a loss of electrical power supplies following their grounding by a painters ladder. The root cause was the power supplies were not physically isolated allowing unrestricted access. |  | 04 - Degradation of safety systems | 1330 - Inadequate monitoring of the effectiveness of programs or processes | 1 - For information only, battery, contractor, industrial safety, management oversight, power supply, pump, risk assessment, seal water, service water, work control | ER.1 , IS.1 , WM.1 | | [**WER PAR 20-0255**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37636','_blank'))) | 05.05.2020 | Daya Bay 1 | 06.12.2019 | The travelling crane motor fan cover in the fifth diesel generator building fell off during the operation | 00 | 05.05.2020 | Trending | During normal operation, a diesel generator (DG) building overhead crane drive motor fan cover fell off the crane and landed on a DG sustaining some damage. | The direct cause was inadequate maintenance fitting standards during the fan replacement a few days previously. |  | 03 - Equipment damage; fires | 0801 - Duties and tasks not clearly explained | 1 - For information only, crane, diesel engine, fan, industrial safety, management oversight | IS.1 , MA.1 | | [**WER PAR 20-0254**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37635','_blank'))) | 05.05.2020 | Daya Bay 2 | 03.12.2019 | Emergency diesel generator entered single-motor operation mode during a test due to speed regulation control circuit failure | 00 | 05.05.2020 | Trending | During normal operation and while performing an emergency diesel generator (EDG) surveillance test, loss of power alarms and frequency converter indications were received. The test was terminated and the EDG declared inoperable. | The cause was a loss of the speed regulation system power supply control circuit due to a relay failure. |  | 04 - Degradation of safety systems | 2301 - Equipment operated outside of design specifications | 1 - For information only, control circuit, diesel generator, limiting condition of operation, relay | ER.1 | | [**WER PAR 20-0253**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37634','_blank'))) | 05.05.2020 | Cattenom 1 | 25.10.2019 | SCRAM during unit fallback due to faulty main steam flow rate sensor and inappropriate operator response | 00 | 05.05.2020 | Trending | During a load reduction and while performing a surveillance test on the safety injection system the outlet valve failed to open. The test was terminated and the system was deemed inoperable incurring entry into a one hour limiting condition of operation to shut down. The load was reduced and at 30% power the main steam flow rate sensor drifted leading to a change in the steam generator (SG) level. The sensor was changed from the duty sensor to the standby sensor and was followed by an automatic scram on receipt of a high SG water level protection signal. | The cause of the safety injection valve failure to open was not stated. The cause of the main steam flow rate sensor failure was the failure to change or disqualify the sensor following a calibration failure. A contributing cause of the scram was the operator should have switched to manual operation to stabilise the transient prior to changing the steam flow rate sensor from duty to standby. | SER 2003-5 | 02 - Station transient, 04 - Degradation of safety systems | 1440 - Risks and consequences of decision not identified or assessed before decision made | 1 - For information only, automatic scram, configuration control, isolation valve, limiting condition of operation, operator workaround, power reduction, procedure adherence, safety injection, sensor, work control | CM.2 , ER.1 , OF.2 , OP.1 , WM.1 | | [**WER PAR 20-0252**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37633','_blank'))) | 05.05.2020 | Cattenom 3 | 26.09.2019 | Failure to comply with Group 1 LCO due to unavailability of the “high upper flow at shutdown” alarm from the 5th pick-up of the fuel assembly. | 00 | 05.05.2020 | Trending | During an outage it was discovered that the high neutron flux reactor protection had not been reconfigured in accordance with the reloading instruction enacting the technical specification (TS) requirement prior to loading the fifth assembly. The protection was reconfigured and a TS breach reported. | The cause was the operator had failed to adhere to the reloading instruction. | SER 2005-2 | 04 - Degradation of safety systems | 0702 - Technically incorrect | 1 - For information only, nuclear instrumentation, procedure adherence, reactor protection system, technical specification | CM.2 , NF.2 , NP.1 , OP.1 | | [**WER PAR 20-0249**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37630','_blank'))) | 05.05.2020 | Atucha 1 | 06.01.2020 | Manual plant shutdown in order to repair a failed valve of the emergency shutdown safety system | 00 | 05.05.2020 | Trending | During normal operation, an emergency shutdown safety system low pressure alarm was received, the loop was deemed inoperable and a limiting condition of operation (LCO) was entered. The fault could not be remedied within the LCO time criteria so the reactor was shut down. | The cause was a motive power air leak on an ESSS quick closing valve due to obsolescence and the failure to change out the valve within its lifetime. |  | 04 - Degradation of safety systems | 2102 - Manufacturer fabrication / construction inadequate, 2304 - Degraded sub-component contributed to failure | 1 - For information only, ageing, air operated valve, leak, limiting condition of operation, o-ring , reactor protection system, reactor shutdown, service air, spare part | EN.1 , ER.2 | | [**WER PAR 20-0248**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37629','_blank'))) | 05.05.2020 | Almaraz 2 | 16.10.2019 | Increased environmental contamination during eddy current inspection of steam generators | 00 | 05.05.2020 | Trending | During an outage and while performing non destructive testing on steam generator (SG) tubes, the internal air pressure increased resulting in the release of contamination, the establishment of respiratory protection measures and the suspension of the work. | The direct causes were the injection of air to move the probe and working on two sections of SG tube simulataeaneously resulting in the change of conditions. The apparent causes were inadequacies in the method of work and configuration control. |  | 05 - Uncontrolled release of radioactivity | 0212 - Unsafe working practices applied | 1 - For information only, airborne contamination, contamination control, management oversight, nondestructive examination, procedure inadequacy | CM.2 , RS.1 | | [**WER PAR 19-0562**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37746','_blank'))) | 27.08.2019 | Philippsburg 2 (Shutdown) | 17.05.2019 | Automatic shut-down of the EDG XJA20 due to turbocharger damage, with fire outbreak. | 01 | 13.05.2020 | Trending | During normal operations and while performing a load test for an emergency diesel generator (EDG) connection to the grid, alarms were received for the cooling water system and local high temperatures. The test was terminated, the EDG declared inoperable and a limiting condition of operation entered. | The coolant loss was caused by a failure of the turbocharger resulting in damage to the cooling tank and exhaust pipe resulting in an escape of exhaust gas and steam from the damaged pipe and the ignition of a fire due to lubricant leakage. The apparent cause was a turbo charger bearing failure. |  | 03 - Equipment damage; fires, 04 - Degradation of safety systems |  | 1 - For information only, bearing, diesel cooling water, diesel generator, fire, leak, limiting condition of operation | Z2.ER.1 , Z2.FP.1 | | [**WER MOW 20-0170**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37911','_blank'))) | 29.05.2020 | Kudankulam 1 | 12.02.2020 | Emergency Protection (EP) actuation due to mal functions of seismic sensors | 00 | 29.05.2020 | Trending | During operation at 90% power, the reactor protection system initiated on an emergency protection signal initiating a reactor scram and tripping the turbine generator. | The cause was a seismic protection signal due to failed seismic sensors. |  | 02 - Station transient | 2302 - Ageing of component | 1 - For information only, automatic scram, reactor protection system, sensor, turbine trip | ER.1 | | [**WER MOW 20-0168**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37898','_blank'))) | 29.05.2020 | Temelin 1 | 27.03.2020 | Fuel Leak During U1C17 Campaign | 00 | 29.05.2020 | Trending | During an outage and while performing on line sipping, four irradiated fuel assemblies (IFAs) were discovered with leaks. The leaking IFAs were precluded from further use and stored in the spent fuel storage pool. | The causes were either operational bowing and distortion or vendor quality issues. |  | 08 - Degradation of a safety barrier | 2102 - Manufacturer fabrication / construction inadequate | 1 - For information only, documentation, fuel defect, leak, vendor | NF.1 | | [**WER MOW 20-0167**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37876','_blank'))) | 28.05.2020 | Paks 1 | 26.02.2020 | Low level protection actuation at steam generator 5 due to inadequate operator intervention and start of the reactor coolant pump 5 at reactor power below 10% | 00 | 28.05.2020 | Trending | During start up and at eight percent power, a steam generator (SG) protection signal was received actuating the SG isolation protection and reactor coolant pump (RCP) trip. During the subsequent reconnection of the SG the RCP was started below 10% power in violation of the technical specification limiting condition of operation (TS LCO). | The direct cause of the low SG level was inadequate SG water level control. The direct cause of the TS violation was that the operator failed to apply the limiting condition of operation applicable to placing the sixth RCP into service. The root cause was that the TS LCO limit was not written into the operating instruction. |  | 01 - Degraded plant operating conditions, 02 - Station transient | 0704 - Cautionary information not included | 1 - For information only, procedure adherence, procedure inadequacy, reactivity management, reactor coolant pump, steam generator / boiler, technical specification | OP.1 , OP.2 , SC.1 | | [**WER MOW 20-0165**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37870','_blank'))) | 27.05.2020 | Icebreaker Fleet 1 | 27.05.2020 | #PRELIMINARY# 50 Years of Victory Nuclear Icebreaker: Steam and feedwater supply to shipboard steam generator No. 8 (PG-28) was discontinued by the double isolation valves due to high gas activity. | 00 | 27.05.2020 | Trending | During operation at 45% and 25% on reactors one and two repectively, high radioactive gas activity levels were confirmed from a deaerator and ejector air sample. The steam generator was isolated and the power reduced on both reactors. | The likely cause of the event is a leaking steam generator tube failure. |  | 08 - Degradation of a safety barrier |  | 1 - For information only, leak, radioactive contamination, steam generator / boiler | ER.1 | | [**WER MOW 20-0162**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37865','_blank'))) | 27.05.2020 | Tianwan 3 | 18.03.2020 | Oil Leakage at the Connection of Hood and Barrel shell due to Blockage of Fuel Filter Leaking Pipeline Manifold by Foreign Materials Led to Shutdown of Emergency Diesel | 00 | 27.05.2020 | Trending | During normal operation and while performing a technical specification surveillance test on an emergency diesel generator (EDG), fuel oil leaks were discovered at the fuel filters. The test was terminated, the EDG declared inoperable and a limiting condition of operation was entered. The same event occurred at the following months test. | The direct cause was blockages in the fuel oil pump and filter spill lines resulting in over filling and over pressurising the filters. The root causes were debris in the fuel oil as supplied and inadequacies in its quality testing and acceptance. |  | 04 - Degradation of safety systems | 2217 - Failure to exclude foreign material | 1 - For information only, chemistry, debris / crud, diesel fuel, diesel generator, documentation, leak, limiting condition of operation, vendor | CY.1 , PI.1 | | [**WER MOW 20-0161**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37855','_blank'))) | 26.05.2020 | Dukovany 3 | 27.01.2020 | Seal Water Leak from Main Circulation Pump | 00 | 26.05.2020 | Trending | Shortly after shutting down the reactor, seal water leaks from two reactor coolant pumps were found and it was confirmed that the accompanying radioactivity exceeded the operation limit. | The cause was a leak through the pump seals and probably caused by a combination of the operational transient and damaged seals. |  | 01 - Degraded plant operating conditions, 05 - Uncontrolled release of radioactivity | 2007 - Inadequate review of design changes | 1 - For information only, leak, limiting condition of operation, pump seal, radioactive contamination, reactor coolant pump | EN.1 , ER.1 | | [**WER MOW 20-0160**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37840','_blank'))) | 25.05.2020 | Paks 2 | 02.03.2020 | Stator earth fault protection actuation on generator 3 | 00 | 25.05.2020 | Trending | During normal operation, an intermittent turbine generator stator earth fault protection signal was received over two days and the turbine generator shut down and disconnected for repairs with a corresponding reactor power reduction. | The direct cause was an intermittent turbine generator stator earth fault protection signal, the root cause was not discovered. |  | 01 - Degraded plant operating conditions | 0014 - Former : Unknown | 1 - For information only, insulation electrical, power reduction, turbine generator | ER.1 | | [**WER MOW 20-0159**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37839','_blank'))) | 24.05.2020 | Novovoronezh-2 2 | 23.05.2020 | #PRELIMINARY# Unit 2 of Novovoronezh NPP-2 was disconnected from the grid for a flow controller repairing. | 00 | 24.05.2020 | Trending | During normal operation and while performing routine exercising of the main feed water and condensate flow controller the flow rate was unresponsive. The reactor power was reduced to minimum load and the turbine generator shut down and disconnected from the grid. | The cause of the failure event is being investigated. |  | 01 - Degraded plant operating conditions |  | 1 - For information only, feedwater control system, power reduction | ER.1 | | [**WER MOW 20-0158**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37824','_blank'))) | 21.05.2020 | Dukovany 3 | 19.01.2020 | Unit Shutdown Caused by Damaged Main Circulation Pump Seal | 00 | 21.05.2020 | Trending | During normal operation and while operating with a degraded reactor coolant pump seal and increased seal water flow, a further degradation in seal water flow occurred after five days and the reactor was shut down incurring an outage of ten days. | The cause was a first stage seal failure. A number of root causes were considered as possible and include a short term interruption or reduction of the pressure sealing water supply to the seal at some time during the cycle, insufficient venting seal water venting and the use of sub standard spare seals. |  | 01 - Degraded plant operating conditions, 03 - Equipment damage; fires | 2007 - Inadequate review of design changes | 1 - For information only, reactor coolant pump, reactor coolant pump seal, reactor shutdown, seal water | CM.3 , EN.1 , ER.1 , OP.1 | | [**WER MOW 20-0157**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37817','_blank'))) | 21.05.2020 | Khmelnitsky 2 | 20.05.2020 | #PRELIMINARY# The unit was down powered due to a human error. | 00 | 21.05.2020 | Trending | During operation at 75% power and while performing turbine generator protection testing, the reactor protection initiated and the power automatically reduced to 40%. The test was terminated. | The cause was the operator failed too switch the turbine generator protection switch to the test position but switched an adjacent switch that initiated a turbine protection signal that then fed into the reactor power limitation and protection system. |  | 02 - Station transient |  | 1 - For information only, human error, power reduction, procedure adherence, reactor protection system, turbine protection | OP.1 | | [**WER MOW 20-0156**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37815','_blank'))) | 20.05.2020 | Kudankulam 1 | 12.01.2020 | Manual trip of Turbine for rectifying sea water leak at the discharge header of Non essential load cooling water system pumps | 00 | 20.05.2020 | Trending | During operation at 90% power, a leak was discovered from the non essential load cooling water system pipework and the attempts to stem the leak were unsuccessful. The reactor power was reduced to 22% and the turbine was manually tripped. | The cause was a corroded pipework spool piece due to a damaged lining. |  | 02 - Station transient | 2309 - Failed within expected lifetime | 1 - For information only, erosion/corrosion, leak, power reduction, service water, turbine trip | ER.1 | | [**WER MOW 20-0153**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37804','_blank'))) | 19.05.2020 | Zaporozhye 6 | 14.05.2020 | #PRELIMINARY# The Unit Was Tripped Off Line to Identify the Causes of Aerosol Activity. | 00 | 19.05.2020 | Trending | During operation at 74% power, alarms and indications of high aerosol activity in the containment were received invoking technical specification limits and conditions and resulting in the reactor being manually shut down. | The cause was a reactor coolant system instrument pipe weld leak between a steam generator and reactor coolant pump. |  | 01 - Degraded plant operating conditions |  | 1 - For information only, airborne contamination, leak, reactor coolant, reactor shutdown, weld | ER.1 | | [**WER MOW 20-0152**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37803','_blank'))) | 19.05.2020 | Rovno 1 | 18.05.2020 | #PRELIMINARY# A reactor protection (AZ-1) actuated on loss of four out of six operating Reactor Coolant Pumps (RCP) as a result of flow loss in the RCP intermediate circuit. | 00 | 19.05.2020 | Trending | During normal operation, an alarm was received indicating a loss of coolant to the reactor coolant pump (RCP) intermediate cooling system and was followed by RCP motor high temperature alarms. All six RCPs were manually tripped and the reactor automatically scrammed. | The cause was the loss of cooling to the RCP motors. The root cause investigation is in progress. |  | 02 - Station transient |  | 1 - For information only, automatic scram, reactor coolant pump, reactor coolant pump motor | ER.1 | | [**WER MOW 20-0149**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37772','_blank'))) | 15.05.2020 | Novovoronezh-2 2 | 11.05.2020 | #PRELIMINARY# Turbo-generator tripped and disconnected from the grid on the vacuum degradation protection actuation. | 00 | 15.05.2020 | Trending | During operation at 91% power, a main circulating water pump (MCWP) tripped on a high motor bearing temperature protection signal initiating the reactor protection system to reduce power to 80%. This was followed by a turbine trip on a high condenser pressure protection signal initiating the reactor protection system to reduce power to 40%. | The cause of the high MCWP motor bearing oil temperature was a blocked oil cooler. The cause of the turbine trip is being investigated. |  | 02 - Station transient |  | 1 - For information only, bearing, condenser vacuum, debris / crud, lube oil, power reduction, pump motor, turbine trip | ER.1 | | [**WER MOW 20-0148**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37757','_blank'))) | 14.05.2020 | Temelin 1 | 17.02.2020 | Failure of One Narrow Range Pressure Sensor in Pressurizer | 00 | 14.05.2020 | Trending | During normal operations and following the discovery of a pressuriser pressure protection sensor decreasing performance, the sensor was declared inoperable and a limiting condition of operation was entered. | The cause was a leak within the pressure sensor. |  | 01 - Degraded plant operating conditions | 2309 - Failed within expected lifetime | 1 - For information only, leak, limiting condition of operation, pressuriser, sensor | ER.1 | | [**WER MOW 20-0147**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37756','_blank'))) | 14.05.2020 | Kursk 4 | 14.05.2020 | #PRELIMINARY# A high condensate level of the low pressure heater led to turbo-generator TG-8 was shut down. | 00 | 14.05.2020 | Trending | During normal operation and following the receipt of a low pressure feed heater (LPFH) high water level alarm, the turbine was shutdown incurring a reactor power reduction. | The direct cause was a LPFH high water level. The root cause is being investigated. |  | 01 - Degraded plant operating conditions |  | 1 - For information only, feedwater heater, power reduction, turbine generator | ER.1 | | [**WER MOW 20-0146**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37762','_blank'))) | 14.05.2020 | Bushehr 1 | 04.12.2019 | Reactor protection actuation at the reactor minimum control power level. | 01 | 15.05.2020 | Trending | During normal operation and while reducing power from two percent to the minimum controllable level, the neutron flux protection signal was received initiating an automatic scram. | The direct cause was a failure of the neutron flux protection frequency converter module due to a bad contact in a control card. The apparent cause was a control card manufacturing defect. |  | 02 - Station transient | 2102 - Manufacturer fabrication / construction inadequate | 1 - For information only, automatic scram, circuit card, intermediate power range monitor, nuclear instrumentation, reactivity management, reactor protection system, vendor | ER.3 | | [**WER MOW 20-0143**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37696','_blank'))) | 11.05.2020 | Paks 1 | 04.02.2020 | Foreign material entry into the 10YA22W001 steam generator | 00 | 11.05.2020 | Trending | During an outage and while performing a steam generator internal inspection a metallic object 300mm x 35mm x 5mm was located. Attempts to remove it were unsuccessful. The analysis suggested that it had probably been in situ since construction. | The direct cause was probably a failure to exclude foreign material during construction. An additional cause was the failure to locate the debris during the succeeding years. |  | 01 - Degraded plant operating conditions | 0014 - Former : Unknown | 1 - For information only, FME, preventive maintenance, steam generator / boiler | ER.2 , PM.1 | | [**WER MOW 20-0139**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37648','_blank'))) | 06.05.2020 | Tianwan 2 | 04.03.2020 | Air or Foreign Materials in Recirculation Pipeline of High-pressure Safety Injection Pump Caused Flow Fluctuation | 00 | 06.05.2020 | Trending | During normal operation and while performing a high pressure safety injection pump test, the flow rate fluctuated and failed to meet the test criteria. The test was deemed unsuccessful and terminated. The pump was declared inoperable. | The cause was either the pump recirculating line was blocked with foreign material or air. |  | 04 - Degradation of safety systems | 2001 - Original design inadequate, 2217 - Failure to exclude foreign material | 1 - For information only, FME, limiting condition of operation, safety injection pump | ER.1 , MA.1 | | [**WER MOW 20-0138**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37647','_blank'))) | 06.05.2020 | Temelin 1 | 20.12.2019 | Unit Shutdown Due to Increase in Hydrogen Leakage Rate in the Main Generator | 00 | 06.05.2020 | Trending | During normal operation and following the receipt of turbine generator high vibration alarms an emergency turbine shutdown was carried out followed by a reactor shutdown. | The cause was due to increased hydrogen leakage and the source of the leakage were threefold. The first were numerous minor joint leaks, the second was on a generator phase bush flange joint due to degradation possibly accelerated via a thermal effect, the third was a cracked weld in the generator hydrogen detraining system pipework as a result of an inadequate preventive maintenance programme. |  | 01 - Degraded plant operating conditions | 2208 - Retest requirements not specified | 1 - For information only, hydrogen, leak, preventive maintenance, reactor shutdown, turbine trip, vibration, weld | ER.1 , ER.2 | | [**WER MOW 20-0137**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37621','_blank'))) | 04.05.2020 | Rostov 1 | 01.05.2020 | #PRELIMINARY# Unit 1 was down loaded to address main condenser pipes leakage. | 00 | 04.05.2020 | Trending | During operation at 90% power and following the deterioration in feed water and condensate conductivity the reactor power was reduced to 60% for investigation. | The direct cause was a failed condenser tube. The root cause is under investigation. |  | 02 - Station transient, 03 - Equipment damage; fires |  | 1 - For information only, condenser tube, conductivity, leak, power reduction | ER.1 | | [**WER MOW 20-0136**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37620','_blank'))) | 04.05.2020 | Armenia 2 | 01.05.2020 | #PRELIMINARY# Turbo-generator TG-4 was tripped due to water chemistry deterioration. | 00 | 04.05.2020 | Trending | During operation at 80% and following an increase in the feed water and condensate conductivity levels, the steam generator was blown down but the trend continued. The turbine was shutdown and the reactor power reduced proportionately. | The direct cause was a number of leaking condenser tubes, the root cause is being investigated. |  | 01 - Degraded plant operating conditions |  | 1 - For information only, condenser tube, leak, power reduction | ER.1 | | [**WER MOW 20-0135**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37617','_blank'))) | 03.05.2020 | Akademik Lomonosov 1 | 02.05.2020 | #PRELIMINARY# Turbo-generator TG-1 disconnected from the grid by electric protection actuation. | 00 | 03.05.2020 | Trending | During operation at 43% power, the turbine generator (TG) circuit breaker tripped disconnecting the TG from the grid. The reactor protection automatically reduced power to 26% on the loss of the TG. The reactor power was later manually lowered to 10% and the TG tripped due to turbine steam exhaust temperature limits. | The cause of the breaker trip is being investigated. |  | 02 - Station transient |  | 1 - For information only, breaker, power reduction, turbine trip | ER.1 | | [**WER MOW 20-0134**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37615','_blank'))) | 01.05.2020 | Armenia 2 | 29.04.2020 | #PRELIMINARY# A drip oil leak from the seal of low-voltage 15.75 kV bushing of the unit transformer T-4 led to the turbo-generator TG-4 disconnection from the grid. | 00 | 01.05.2020 | Trending | During operation at 85% power, an oil leak was discovered on a unit transformer low voltage bushing. The power was reduced to 52% and the associated turbine generator was shut down. | The cause of the leak is being investigated. |  | 02 - Station transient, 03 - Equipment damage; fires |  | 1 - For information only, leak, oil, power reduction, transformer | ER.1 | | [**WER MOW 20-0115**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37788','_blank'))) | 20.04.2020 | Khmelnitsky 2 | 17.04.2020 | A criterion for DG No. 2 start and connection to the bus during safety train testing was not met | 01 | 18.05.2020 | Trending | During operation at 80% power and while performing a technical specification surveillance test on safety train 2, the emergency diesel generator failed to connect to the bus within the start criteria of 15 seconds. The test was suspended, the train deemed inoperable and a limiting condition of operation was entered. | The cause was # a failure of the EDG control air system due to a blocked filter caused in turn by an inadequate preventive maintenance programme.# |  | 04 - Degradation of safety systems | 0703 - Technically incomplete | 1 - For information only, diesel generator, diesel start system, emergency bus, instrument air, limiting condition of operation, preventive maintenance | EN.1 , ER.2 | | [**WER MOW 20-0050**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37859','_blank'))) | 19.02.2020 | Icebreaker Fleet 1 | 19.02.2020 | A leak from the steam generator internal tubing | 01 | 27.05.2020 | Trending | With reactors 1 and 2 running at 17% and 15% respectively, a leak from the steam generator internal tubing was determined based on a noble gas activity analysis. The steam generator was isolated and the reactor power was lowered. | A preliminary cause attributed to equipment wearing or the manufacture defect. The event is being investigated. |  | 08 - Degradation of a safety barrier | 0014 - Former : Unknown | 1 - For information only, leak, power reduction, pressure tube, steam generator / boiler | ER.1 , ER.3 | | [**WER MOW 20-0025**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37899','_blank'))) | 31.01.2020 | Icebreaker Fleet 1 | 30.01.2020 | Urgent Reactor Power Reduction of“50 Years of Victory” Icebreaker | 01 | 29.05.2020 | Trending | During operation with reactors one and two at power levels of 73% and 83% respectively, a reactor protection and load limiting protection condenser low vacuum signal was received from condenser two initiating a load reduction of 50% on both reactors. | The direct cause was the influx of frazil ice into the condenser ice box intakes and the subsequent reduction in circulating water flow rate. The root causes were inadequacies in the navigational decisions compounded by the extreme environmental conditions. |  | 02 - Station transient | 0107 - Internal team communication inadequate | 1 - For information only, condenser vacuum, debris / crud, power reduction, risk assessment | OF.2 , OP.1 , OP.2 | | [**WER MOW 20-0012**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37914','_blank'))) | 14.01.2020 | Icebreaker Fleet 1 | 04.01.2020 | Icebreaker’s Yamal both reactors scrammed automatically on reactor protection actuation. | 01 | 31.05.2020 | Trending | While operating the reactors at 52% nominal power and 36% nominal power for reactors one and two respectively, during a plant evolution to place an evaporator into service a loss of condenser vacuum occurred initiating a turbine protection signal and all four of the turbine generators tripped resulting in the loss of control rod drive mechanisms power supplies which in turn initiated an automatic scram on both reactors. | The direct cause was during the preparation for the plant evolution, the system was incorrectly configured allowing the condensers to overfill and resulting in a loss of vacuum. A contributing cause was the operators failure to respond to the condenser vacuum plant alarms. | SER 2005-2 | 02 - Station transient | 0903 - Co-ordination of all relevant on-site departments not achieved | 1 - For information only, automatic scram, condenser vacuum, configuration control, procedure adherence | CM.2 , OP.1 | | [**WER ATL 20-0336**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37907','_blank'))) | 29.05.2020 | Fermi 2 | 03.03.2020 | Emergency Equipment Cooling Water Supply Isolation Valve Failed To Close | 00 | 29.05.2020 | Trending | During normal operation and while performing a technical specification surveillance test on the emergency equipment cooling water system, the supply valve failed to close. The test was terminated, the system deemed inoperable and a limiting condition of operation was entered. | The cause was a failure of the valves power supply following a fatigue failure of the supply transformer fuse clip. |  | 04 - Degradation of safety systems | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, fuse, isolation valve, limiting condition of operation, power supply | EP.2 , ER.1 | | [**WER ATL 20-0333**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37886','_blank'))) | 28.05.2020 | Laguna Verde 2 | 04.04.2020 | Unit 2 power decrease to 65% rated power due to feed water heaters drain system transitory | 00 | 28.05.2020 | Trending | During normal operation and following the receipt of a control room feed water heaters (FWH) train level alarm, the deaerator level fell so the operators isolated the FWHs. Subsequently the feed water flow, the feed water pumps suction pressure and the reactor vessel water level all fell so the operator decreased the reactor power to 65%. | The cause was a FWH level control valve had failed due to the fracture of its air actuator control supply pipework. Additional causes were inadequacies in the pipework installation and system vibrations. |  | 02 - Station transient | 2106 - Installation workmanship inadequate | 1 - For information only, air operated valve, deaerator, feedwater heater, power reduction, reactor water level, valve actuator, vibration | ER.1 , MA.1 | | [**WER ATL 20-0329**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37881','_blank'))) | 28.05.2020 | Callaway 1 | 07.02.2020 | Injury Sustained While Ascending Stairway Resulted In OSHA Recordable | 00 | 28.05.2020 | Trending | While ascending an external stairway, a worker tripped and fell sustaining an elbow abrasion and shoulder soreness. The worker was treated on site and placed on restricted duties. | The cause was a mis step during the ascension. A contributing cause was the varied height of the steps. |  | 07 - Personal injuries | 0212 - Unsafe working practices applied | 1 - For information only, fall, industrial safety, injury | IS.1 | | [**WER ATL 20-0327**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37879','_blank'))) | 28.05.2020 | Cook 2 | 08.03.2020 | Lower Containment Water Level Indication Transmitter Failed Low | 00 | 28.05.2020 | Trending | During normal operation an operator discovered a lower containment water level indicator had failed off scale, it was declared inoperable and a limiting condition of operation was entered. | The cause was corrosion on the instrument connection terminals. |  | 01 - Degraded plant operating conditions | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, containment sump, erosion/corrosion, level instrument, limiting condition of operation | ER.1 | | [**WER ATL 20-0324**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37866','_blank'))) | 27.05.2020 | Pickering A1 | 11.03.2020 | Vendor Representative Performed Voltage Testing on a Live Equipment Resulting in High MRPH Event | 00 | 27.05.2020 | Trending | While performing trouble shooting on a mal functioning welding machine in a training workshop it was discovered that the work was being carried out live and without the relevant personal protective equipment. The work was suspended. | The causes were inadequate contractor industrial safety work standards and inadequate control and supervision of contractors. |  | 10 - Non consequential or near miss | 0201 - Self checking not used or ineffectively applied | 1 - For information only, contractor, industrial safety, management oversight, procedure adherence, procedure inadequacy, risk assessment, work control | IS.1 , MA.1 , MA.2 | | [**WER ATL 20-0322**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37845','_blank'))) | 25.05.2020 | Susquehanna 1 | 13.04.2018 | Supplemental Workers Entered A High Radiation Area Without Radiation Protection Briefing. | 00 | 25.05.2020 | Trending | During an outage two workers working in the primary containment (drywell) incurred doses of 8.0 mrem and 7.5 mrem respectively and were subject to dose rates of 26.4 mrem per hour and 21.7 mrem per hour respectively breaching the radiologically controlled area access and radiation work permit system and the high radiation areas technical specification. | The cause was the workers bypassed the primary containment (Drywell) radiological protection control point and proceed directly to their working area and consequently were not directly supervised. An additional cause was they had not attended a company radiological protection briefing. |  | 09 - Other | 0200 - PERSONNEL WORK PRACTICES, 0201 - Self checking not used or ineffectively applied, 0204 - Administrative controls circumvented or intentionally not performed, 0217 - Lack of questioning attitude, 0800 - SUPERVISORY METHODS, 0810 - Safety aspects of task not emphasised, 1120 - Policies, official guidance (standards), expectations, administrative controls:-Not enforced, 2010 - Inappropriate reliance on human action | 1 - For information only, contractor, procedure adherence, radiation dose, radiation protection, radiation work permit, technical specification | MA.2 , RS.1 , SC.1 | | [**WER ATL 20-0321**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37844','_blank'))) | 25.05.2020 | Fitzpatrick 1 | 20.02.2020 | RCIC Outboard Steam Isolation Valve Unexpectedly Closed During Testing | 00 | 25.05.2020 | Trending | During normal operation and while performing a technical specification surveillance test of the reactor core isolation cooling (RCIC) system high exhaust pressure isolation protection, on the receipt of the test signal the outboard steam supply valve unexpectedly closed. The test was terminated and the RCIC system was declared inoperable. | The cause was that the operations staff had incorrectly configured the system for the test. |  | 04 - Degradation of safety systems | 0102 - Pre-job briefing inadequate / not performed, 0200 - PERSONNEL WORK PRACTICES, 0203 - Required procedures, drawings, or other references not used, 0218 - Violation of policies/rules/procedures | 1 - For information only, configuration control, containment isolation, isolation valve, limiting condition of operation, reactor core isolation cooling , steam | CM.2 , OP.1 | | [**WER ATL 20-0317**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37838','_blank'))) | 23.05.2020 | Virgil C. Summer 1 | 27.11.2019 | Reactor Building Cooling Unit Leak Detection Flow Switches Failed | 00 | 23.05.2020 | Trending | During normal operation and following the receipt of the reactor building cooling unit leak detection system flow switch alarm, the system was declared inoperable and a limiting condition of operation was entered. | The direct cause was a blockage of the flow switches due to debris and biological growth. The root causes were an inadequate preventive maintenance programme and a failure to implement actions from previous events. |  | 01 - Degraded plant operating conditions | 1370 - Information or monitoring system does not give accurate and in-time information, 2203 - Preventive maintenance inadequate | 1 - For information only, containment sump, debris / crud, limiting condition of operation, preventive maintenance, switch | ER.2 , PI.1 | | [**WER ATL 20-0316**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37837','_blank'))) | 23.05.2020 | Palo Verde 2 | 28.02.2020 | Atmospheric Dump Valve Failed To Open | 00 | 23.05.2020 | Trending | During normal operation and while performing a technical specification surveillance availability test on an atmospheric dump valve it failed to open and was declared unavailable. | The cause was due to a failed current to pressure converter. The root cause is in progress. |  | 01 - Degraded plant operating conditions | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, control circuit, limiting condition of operation, steam dump valve, transducer | ER.1 | | [**WER ATL 20-0310**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37820','_blank'))) | 21.05.2020 | Hope Creek 1 | 20.02.2020 | Loss of Power to Feedwater Heater Control Panel | 00 | 21.05.2020 | Trending | During normal operation and while performing a changeover in power supplies to the C train feed water heater (FWH) control panel, the power supply was lost and all six FWHs tripped initiating protection signals to the associated reactor feed water pump (FWP) causing a FWP trip. The FWP trip resulted in the reactor water level falling and initiating a reactor low level protection signal resulting in the reactor recirculation pumps running back and a power reduction. The plant was stabilised at 70% power. | The direct cause was a failure to complete the changeover of the supplies from the line power supply to the uninterruptible power supply. The root cause was a UPS control circuit card failure due to an inadequate preventive maintenance programme. |  | 02 - Station transient | 1440 - Risks and consequences of decision not identified or assessed before decision made, 1690 - Changes to plant equipment, procedures and processes not systematically planned and implemented, 2205 - Testing not performed as required, inadequate testing and maintenance program | 1 - For information only, circuit card, control panel, feedwater control system, feedwater heater, feedwater pump, power supply, power surge, preventive maintenance, reactor water level | ER.2 | | [**WER ATL 20-0308**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37818','_blank'))) | 21.05.2020 | Koeberg 1 | 10.02.2020 | Delay in notification of Operating Shift Manager and Station Senior Management of partial loss of public notification system due to inadequate guidance in Emergency Planning procedures. | 00 | 21.05.2020 | Trending | During normal operation, and during the routine shift emergency staff brief with the shift manager (SM), the emergency physicist tabled the failure of the site emergency siren earlier in the shift and discovered that the SM had not been informed of the unavailability. An unusual event was declared and the emergency control centre was established. | The cause was the testing procedure did not include the requirement to advise the SM following a failure. |  | 01 - Degraded plant operating conditions | 0703 - Technically incomplete | 1 - For information only, procedure inadequacy | EP.2 | | [**WER ATL 20-0307**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37814','_blank'))) | 20.05.2020 | Callaway 1 | 28.10.2019 | Steam Generator Pressure Transmitter Failure | 00 | 20.05.2020 | Trending | During normal operation and following the receipt of a reactor partial trip annunciator alarm, one of the three steam generator low pressure safety injection system channels of protection was declared inoperable and the two out of three protection logic was reduced from to one out of two. | The cause was a pressure transmitter failure. |  | 04 - Degradation of safety systems | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, limiting condition of operation, reactor protection system | ER.1 | | [**WER ATL 20-0306**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37813','_blank'))) | 20.05.2020 | Fermi 2 | 04.02.2020 | Remote Shutdown Panel Transfer Switch Lock Core Dislodged | 00 | 20.05.2020 | Trending | During normal operation and while carrying out breaker relay testing, a remote shutdown panel transfer switch core became dislodged rendering the operation of the control rod drive pumps from the remote shutdown panel inoperable and incurring an entry into a limiting condition of operation. | The cause was the transfer switch core became dislodged. |  | 01 - Degraded plant operating conditions | 2001 - Original design inadequate, 2101 - Material used inadequate | 1 - For information only, control panel, limiting condition of operation, switch | ER.1 | | [**WER ATL 20-0303**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37810','_blank'))) | 20.05.2020 | Callaway 1 | 07.03.2020 | Unable To Secure Upper Cable Spreading Room Missile Door | 00 | 20.05.2020 | Trending | During normal operation, when leaving the upper cable spreading room a worker was unable to close the door. The design safety functions including missile protection and control room habitability were lost and were declared unavailable. | The cause was due to the seizure of the inner door closing pins due to a lack of lubrication. |  | 08 - Degradation of a safety barrier | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, control room, grease, limiting condition of operation, reactor protection system | ER.1 | | [**WER ATL 20-0301**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37786','_blank'))) | 18.05.2020 | Limerick 1 | 28.01.2020 | Total Core Flow Indication Lower Than Actual Total Core Flow | 00 | 18.05.2020 | Trending | During a coast down and while performing engineering performance monitoring for the end of cycle operations, the recirculating pump speeds were discovered to be higher than expected for corresponding core flows and it was confirmed that the core flow exceeded the operating criteria during operation. The investigation confirmed that the situation had existed for the duration of the operating cycle. | The direct cause was an incorrect total core flow summation setting due to an incorrect gain adjustment on it. The root cause was an inaccurate calibration procedure. |  | 02 - Station transient | 0702 - Technically incorrect, 0703 - Technically incomplete, 0704 - Cautionary information not included, 0705 - Not up to date with plant design, 0900 - WORK ORGANISATION, 2212 - Surveillance schedule not followed, 2213 - Situational surveillance not performed | 1 - For information only, calibration, procedure inadequacy, reactor recirculation, reactor recirculation pump, technical specification | CM.1 , EN.1 , MA.2 | | [**WER ATL 20-0299**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37784','_blank'))) | 18.05.2020 | Wolf Creek 1 | 01.02.2020 | Technical Specification Shutdown Due to Containment Purge Valve Excessive Leakage | 00 | 18.05.2020 | Trending | During normal operation and while performing a technical specification (TS) surveillance leak rate test on the containment system, the shutdown purge supply penetration exceeded the TS criteria. The test was terminated, the system deemed inoperable, a limiting condition of operation was entered and the reactor was shut down. | The cause was the purge valve was passing due inadequacies in its preventive maintenance programme. |  | 04 - Degradation of safety systems | 0700 - WRITTEN PROCEDURES AND DOCUMENTS, 0703 - Technically incomplete | 1 - For information only, containment isolation, containment penetration, isolation valve, leak, preventive maintenance, reactor shutdown, surveillance | EN.1 , ER.2 | | [**WER ATL 20-0297**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37782','_blank'))) | 18.05.2020 | Peach Bottom 2 | 26.02.2020 | Emergency Diesel Generator Shutdown Due To Intercooler Coolant Low Pressure | 00 | 18.05.2020 | Trending | During normal operation and while performing a technical speciation surveillance test on an emergency diesel generator (EDG), the EDG tripped on a low intercooler coolant pressure protection signal after a few minutes. The test was terminated, the EDG declared inoperable and a limiting condition of operation was entered. | The cause was a failure to adequately vent the engine and intercooling system on the return to service from an outage. |  | 04 - Degradation of safety systems | 0700 - WRITTEN PROCEDURES AND DOCUMENTS, 0703 - Technically incomplete, 2307 - Externally damaging condition not properly evaluated or correlated | 1 - For information only, configuration control, diesel cooling water, diesel engine, limiting condition of operation, procedure inadequacy | CM.2 , OP.1 , OP.2 | | [**WER ATL 20-0296**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37774','_blank'))) | 15.05.2020 | Pickering B7 | 24.02.2020 | Shutdown Cooling Pump Tripped during Unit Startup Resulting in Transfer of Primary Heat Sink to Backup Heat Sink | 00 | 15.05.2020 | Trending | During a start up the control room received a shut down cooling pump alarm indication and confirmed that it had tripped. The pump was declared unavailable and the cooling transferred to the in service backup heat sink loops. | The cause was an overload relay protection probably due to a conservative calibration. |  | 10 - Non consequential or near miss | 2309 - Failed within expected lifetime | 1 - For information only, preventive maintenance, pump motor, reactor coolant, relay, setpoint, shutdown cooling | EN.1 | | [**WER ATL 20-0295**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37771','_blank'))) | 15.05.2020 | Virgil C. Summer 1 | 27.11.2019 | Reactor Shutdown To Address Non-radiological Steam Leak | 00 | 15.05.2020 | Trending | During normal operation and following a reactor building plant alarm a steam leak was discovered. The power was reduced to 30% to enable radiological access and the leak was identified as coming from the A steam generator wide range level transmitter pipework. The transmitter was deemed inoperable and a limiting condition of operation was entered. The reactor was shut down to enable the repair. | The cause was a weld failure due to high cycle fatigue at the stress concentration at the weld toe. |  | 01 - Degraded plant operating conditions | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, fatigue cracking, leak, limiting condition of operation, power reduction, reactor shutdown, vibration | ER.1 | | [**WER ATL 20-0285**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37753','_blank'))) | 13.05.2020 | Point Beach 2 | 12.08.2019 | Control Rod Dropped During Quarterly Rod Exercise Testing | 00 | 13.05.2020 | Trending | During normal operation and while performing a control rod bank movement surveillance test, a control rod dropped into the core resulting in an entry into a limiting condition of operation and a power reduction to 39%. | The direct cause was the control rod drive movable coil gripper fuses failed resulting in the control rod dropping. The apparent cause was the fuses failed due to a control rod drive mechanism cable grounding due to poor cable installation. |  | 02 - Station transient | 2000 - DESIGN CONFIGURATION AND ANALYSIS, 2011 - Deficiency in engineering of modification, including follow-up of implementation, 2106 - Installation workmanship inadequate | 1 - For information only, control cable, control rod, control rod drive, fuse, limiting condition of operation, power reduction, power supply, reactivity management | MA.1 , MA.2 | | [**WER ATL 20-0284**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37752','_blank'))) | 13.05.2020 | Browns Ferry 2 | 18.08.2019 | Loss of Power to Cooling Towers Due to Breaker Failure Caused by Lightning Strike at Offsite Transmission Network | 00 | 13.05.2020 | Trending | During normal operation on all three units and following the loss of a transmission line, the electrical supply was lost to the cooling towers and unit two was removed from the cooling tower supply. During the transient and reconfiguration a further transmission line was lost and additional cooling tower supplies lost resulting in units one and two being reduced to 50% and unit three to 70%. | The cause of the first failure was due to a lightning strike off site and the initiation of the transmission lines electrical protection. The cause of the second failure was due to a transmission line protection relay failure resulting in the opening of a circuit breaker. |  | 02 - Station transient | 2000 - DESIGN CONFIGURATION AND ANALYSIS | 1 - For information only, breaker, cooling pond, lightening protection system , loss of offsite power, power reduction, relay, transmission line | ER.1 | | [**WER ATL 20-0281**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37749','_blank'))) | 13.05.2020 | Sequoyah 1 | 10.02.2020 | Unplanned Internal Dose During Reactor Cavity Decontamination | 00 | 13.05.2020 | Trending | During an outage and while performing the reactor cavity decontamination, two workers received unplanned internal radiation doses. | The cause was inadequacies in the radiation dose risk assessment due to a failure to recognise the airborne contamination arising from the work method. |  | 06 - Unforeseen personnel exposure | 0200 - PERSONNEL WORK PRACTICES, 0204 - Administrative controls circumvented or intentionally not performed, 0217 - Lack of questioning attitude, 0709 - User aids deficient / not provided, 0900 - WORK ORGANISATION, 0911 - Co-ordination of relevant on-site and off-site departments not achieved, 1320 - Inadequate establishment/support of programs or processes, 2010 - Inappropriate reliance on human action | 1 - For information only, airborne contamination, contractor, management oversight, procedure inadequacy, radiation dose, radiation protection, radioactive contamination, risk assessment | RP.1 , RP.2 | | [**WER ATL 20-0279**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37747','_blank'))) | 13.05.2020 | Pickering B5 | 30.12.2019 | Unit 5 Turbine Trip on Boiler High Level | 00 | 13.05.2020 | Trending | During power raising and at 60% power with quadrant one in manual control, following an increase in quadrant one water level the operator attempted to decrease the flow but it continued to rise initiating the boiler water high level protection signal and resulting in a turbine trip. | The direct cause was that while attempting to regain the water level the operator pressed the wrong button. Additional causes were the quadrant was under manual control due to a boiler defect and the risk and decision making process of operating under manual control had not been fully evaluated or enacted. | SER 2003-5 | 02 - Station transient | 1440 - Risks and consequences of decision not identified or assessed before decision made | 1 - For information only, human error, operator workaround, risk assessment, steam generator / boiler, turbine trip | OF.2 , OP.1 , OP.2 , RM.1 | | [**WER ATL 20-0277**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37700','_blank'))) | 11.05.2020 | Quad Cities 2 | 08.01.2020 | Unit 2 Feedwater Regulating Valve Locked Up | 00 | 11.05.2020 | Trending | During normal operation a feed water regulating valve (FRV) seized a number of times requiring transfer to manual operation to maintain the reactor water level. The power was reduced to 68% to enable repairs and to provide reactor stability in the event of a transient. | The causes were a servo valve control failure and defective circuit cards. |  | 01 - Degraded plant operating conditions | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, circuit card, digital control system / digital components, feedwater control system, flow control valve, motor operated valve, power reduction, reactor water level, setpoint, solenoid | ER.1 | | [**WER ATL 20-0274**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37694','_blank'))) | 08.05.2020 | Bruce B 5 | 11.02.2020 | Worker injured by Freight Elevator Door | 00 | 08.05.2020 | Trending | While pushing a goods cart into a freight elevator the elevator door closed and struck the worker who received abrasions on his forehead. The worker was taken to hospital for examination. The elevator was quarantined. | The cause was the worker failed to hear the door closing warning bell. |  | 07 - Personal injuries | 0210 - Inattention to detail | 1 - For information only, contractor, industrial safety, injury | IS.1 , MA.1 | | [**WER ATL 20-0273**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37693','_blank'))) | 08.05.2020 | Cernavoda 2 | 27.11.2019 | Injury of an operator falling off a ladder resulting in lost time accident | 00 | 08.05.2020 | Trending | While using a portable ladder to access and operate a valve, an operator fell from the fifth step and hit his head on the floor sustaining injuries. He was treated on site and transported to the local hospital where he was diagnosed with concussion and mild trauma to the cervical vertebrae incurring an absence from work of 50 days. | The direct causes were a loss of balance and the three points of contact. |  | 07 - Personal injuries | 0212 - Unsafe working practices applied | 1 - For information only, fall, industrial safety, injury | IS.1 , OP.1 | | [**WER ATL 20-0267**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37686','_blank'))) | 08.05.2020 | Mcguire 2 | 03.02.2020 | Containment Hydrogen Ignitor Coils Failed Quarterly Surveillance Testing | 00 | 08.05.2020 | Trending | During normal operation and while performing a surveillance test on the containment combustible gas control system, two hydrogen ignitor coils failed to achieve the temperature criteria. The train was declared inoperable and a limiting condition of operation was entered. | The cause of failure is unknown and the coils have been returned to the manufacturer for further testing and failure analysis. |  | 01 - Degraded plant operating conditions | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, hydrogen, limiting condition of operation | ER.1 | | [**WER ATL 20-0266**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37685','_blank'))) | 08.05.2020 | Millstone 2 | 08.02.2020 | Vent Stack Radiation Monitor Sample Pump Failure | 00 | 08.05.2020 | Trending | During normal operation a vent stack effluent radiation monitor failure alarm was received and it was confirmed that the ability to monitor discharges through the stack was lost. The system was declared inoperable and a limiting condition of operation was entered. | The direct cause was an auxiliary sample pump had tripped on thermal overload protection. The apparent cause was an inadequate preventive maintenance programme. |  | 01 - Degraded plant operating conditions | 2205 - Testing not performed as required, inadequate testing and maintenance program | 1 - For information only, limiting condition of operation, preventive maintenance, pump, relay | CY.3 , ER.2 | | [**WER ATL 20-0265**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37684','_blank'))) | 08.05.2020 | Palo Verde 3 | 08.02.2020 | Unit Shutdown To Replace Reactor Coolant Pump Seal | 00 | 08.05.2020 | Trending | During normal operation and after running since the return from the outage a few months earlier with a degraded reactor coolant pump (RCP) seal, the leakage rate reached the limit set by the operational decision making body and the reactor was shut down incurring an outage of nine days. | The cause was a misalignment of the second and third stage shaft protection sleeves and drive pins due to inadequacies in the workmanship, maintenance instruction and supervision during the seal rebuild. |  | 01 - Degraded plant operating conditions | 0200 - PERSONNEL WORK PRACTICES, 0201 - Self checking not used or ineffectively applied, 0218 - Violation of policies/rules/procedures, 1400 - DECISION PROCESS, 1440 - Risks and consequences of decision not identified or assessed before decision made, 2010 - Inappropriate reliance on human action | 1 - For information only, contractor, procedure inadequacy, reactor coolant pump seal, reactor shutdown, vendor | MA.1 , MA.2 | | [**WER ATL 20-0261**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37680','_blank'))) | 08.05.2020 | Palisades 1 | 03.03.2020 | Thermal Margin Monitor Channel Display Failure | 00 | 08.05.2020 | Trending | During normal operation, a control room operator discovered a blank display on a thermal margin monitor (TMM). The TMM was declared inoperable and a limiting condition of operation was entered. | The cause was a failure of a cathode ray oscilloscope due to the failure to implement corrective actions following previous failures. |  | 01 - Degraded plant operating conditions, 04 - Degradation of safety systems | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, limiting condition of operation, management oversight, reactor protection system | ER.1 , PI.1 | | [**WER ATL 20-0260**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37679','_blank'))) | 08.05.2020 | Palisades 1 | 05.03.2020 | Thermal Margin Monitor Channel Display Failure | 00 | 08.05.2020 | Trending | During normal operation, a control room operator discovered a blank display on a thermal margin monitor (TMM). The TMM was declared inoperable and a limiting condition of operation (LCO) was entered. | The cause was a failure of a video driver board due to an inadequate preventive maintenance programme. |  | 01 - Degraded plant operating conditions | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, circuit board, limiting condition of operation, preventive maintenance, reactor protection system | ER.2 | | [**WER ATL 20-0259**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37678','_blank'))) | 08.05.2020 | Point Beach 2 | 14.03.2020 | Turbine Trip During Scheduled Refueling Shutdown | 00 | 08.05.2020 | Trending | On entering an outage and while preparing for a main turbine mechanical overspeed trip test, the turbine sped up initiating the mechanical overspeed trip setting and tripped. | The cause was due to known governor valve steam leakage due to the design valve bias setting failing to ensure full valve seating. |  | 01 - Degraded plant operating conditions | 0702 - Technically incorrect | 1 - For information only, governor valve, leak, operator workaround, steam, turbine trip | EN.1 , ER.1 , OF.2 | | [**WER ATL 20-0255**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37663','_blank'))) | 07.05.2020 | Fermi 2 | 11.01.2020 | Feedwater Heater Oscillations Results In Unplanned Power Increase | 00 | 07.05.2020 | Trending | During operation at 71.5% for power suppression testing, a power increase to 74% was experienced. | The cause was a feedwater heater flow transient caused by the power reduction. The root cause was the chronic heater design deficiency. |  | 02 - Station transient | 2301 - Equipment operated outside of design specifications | 1 - For information only, feedwater control system, feedwater heater, operator workaround, power surge, reactivity management, risk assessment | ER.1 , OF.2 | | [**WER ATL 20-0248**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37626','_blank'))) | 04.05.2020 | Brunswick 2 | 06.05.2019 | Heater Drain Pump Motor Fire and Declaration of Unusual Event | 00 | 04.05.2020 | Trending | During normal operation, the control room received a fire alarm for the turbine building heater drain pump room together with a heater drain pump motor overload alarm and pump trip. Flames and electrical arcing were seen coming from the motor. The fire brigade were called to assist and the power was reduced to 78%. | The cause was an failed motor bearing due to overheating probably caused by over filling its oil reservoir. |  | 01 - Degraded plant operating conditions | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, bearing, debris / crud, feedwater heater, fire, lube oil, power reduction, pump motor | FP.1 , OP.1 | | [**WER ATL 20-0244**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37622','_blank'))) | 04.05.2020 | North Anna 1 | 24.02.2020 | Gaseous Waste Effluent Charcoal Filter Did Not Meet Test Acceptance Criteria | 00 | 04.05.2020 | Trending | During normal operation, following a surveillance test, the gaseous waste effluent charcoal filter sample results failed the acceptance criteria. A maintenance rule impairment of operation was entered. | The cause was probably an ingress of moisture. |  | 03 - Equipment damage; fires, 04 - Degradation of safety systems | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, charcoal filter, limiting condition of operation, preventive maintenance, surveillance, water intrusion | ER.2 | | [**WER ATL 20-0243**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37619','_blank'))) | 04.05.2020 | Barakah 1 | 23.02.2020 | Pre-Service Foreign Material Search and Recovery – Unit 1 Steam Generators 1 and 2 | 00 | 04.05.2020 | Trending | During construction and commissioning, the pre service foreign object search and retrieval (FOSAR) operation discovered 91 foreign objects in steam generator one, and 84 foreign objects in steam generator two consisting of wires, tape, crud type materials and hard sludge. | The cause was a failure to exclude foreign materials during construction and commissioning. |  | 10 - Non consequential or near miss | 2217 - Failure to exclude foreign material | 1 - For information only, FME, steam generator / boiler | PM.1 | | [**WER ATL 20-0026**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37692','_blank'))) | 22.01.2020 | Cernavoda 2 | 13.01.2020 | Unit 2 transient induced by a partial SDS1 shutoff rods drop due to Electromagnetic Interference | 01 | 08.05.2020 | Trending | During normal operation and following the receipt of the main control room alarms on shutdown system (SDS1) number one, it was confirmed that 11 out of the 28 control rods had partially inserted resulting in an automatic power reduction to 97.5 percent. A further manual reduction to 88 percent was carried out, SDS1 was declared inoperable and an impairment of operation was declared. | The direct cause was the initiation of the short circuit protection due to electromagnetic induction (EMI) interference created by high currents in the fuel handling machine. The apparent cause was inadequate separation of the cables during installation and a failure to identify the shortfall during acceptance testing and handover. |  | 02 - Station transient | 2012 - Inadequate risk analysis performed, including design or modification risk assessment and maintenance vulnerability, 2307 - Externally damaging condition not properly evaluated or correlated | 1 - For information only, configuration control, control circuit, control rod, design criteria / design basis, limiting condition of operation, power reduction, reactivity management | EN.1 , PM.1 | |

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|  | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Report Identifier (click to view report)** | **Original  Published Date** | **Reference Unit** | **Event Date** | **Event Title** | **Revision Number** | **Revision Published Date** | **Significance** | **OECT**  **Summary** | **OECT**  **Cause** | **OECT  References** | **Consequences** | **Root**  **Causes** | **Keywords** | **PO and CS** | | [**WER TYO 20-0241**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37893','_blank'))) | 29.05.2020 | Qinshan 3 2 | 08.03.2020 | Air Leakage Caused by Insufficient Seal Between Air Compressor Cooler Seal Ring and Moisture Separator Led to Failure of Post-maintenance Test | 00 | 29.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 1003 - Skill of the craft less than adequate / Not familiar with job performance standards, 2308 - Equipment erosion / corrosion | 1 - For information only, air compressor, leak, management oversight, o-ring , procedure adherence | MA.1 | | [**WER TYO 20-0237**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37889','_blank'))) | 29.05.2020 | Qinshan 2 3 | 03.04.2020 | Scouring of Seawater Butterfly Valve Seat of Essential Service Water System Resulted in Generation of Penetrating Scars | 00 | 29.05.2020 | Other | See the summary below. | See the causes below. |  | 10 - Non consequential or near miss | 2308 - Equipment erosion / corrosion | 1 - For information only, butterfly valve, erosion/corrosion, preventive maintenance, service water | ER.2 | | [**WER TYO 20-0227**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37852','_blank'))) | 25.05.2020 | Shin-Wolsong 2 | 29.03.2020 | Fire Extinguishing Agent Spuriously Discharged by Faulted Manual Control Box of Fire Protection System | 00 | 25.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2203 - Preventive maintenance inadequate | 1 - For information only, circuit card, fire suppression, insulation electrical, preventive maintenance | ER.2 , FP.1 | | [**WER TYO 20-0226**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37851','_blank'))) | 25.05.2020 | Kori 2 | 27.03.2020 | Manual Trip of Charging Pump when Started up without Fully Opening Manual Inlet Shutoff Valve | 00 | 25.05.2020 | Other | See the summary below. | See the causes below. | SER 2005-2 | 10 - Non consequential or near miss | 0603 - Training not provided on relevant system(s) / components | 1 - For information only, charging pump, configuration control, management oversight, procedure adherence, valve misposition | CM.2 , OP.1 | | [**WER TYO 20-0224**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37849','_blank'))) | 25.05.2020 | Hanbit 1 | 29.02.2020 | Circulating Water Pump Trip due to Failure of Cable Lug for Pump Motor | 00 | 25.05.2020 | Other | See the summary below. | See the causes below. |  | 01 - Degraded plant operating conditions | 2106 - Installation workmanship inadequate | 1 - For information only, insulation electrical, management oversight, power supply, preventive maintenance, pump motor | ER.2 , MA.1 , MA.2 | | [**WER TYO 20-0223**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37848','_blank'))) | 25.05.2020 | Shin-Kori 4 | 05.02.2020 | Increased Hydrogen Consumption Rate due to Leakage at 2 Locations | 00 | 25.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0703 - Technically incomplete | 1 - For information only, hydrogen, leak, preventive maintenance, turbine generator | ER.2 , OP.1 , OP.2 | | [**WER TYO 20-0220**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37832','_blank'))) | 22.05.2020 | Qinshan 2 2 | 01.04.2020 | Leakage of Chiller Condenser in Electrical Building Led to High Fluoride Ion Content in Component Cooling Water | 00 | 22.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, essential service water, expansion joint, leak, preventive maintenance, service water, vendor | ER.2 , ER.3 | | [**WER TYO 20-0218**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37830','_blank'))) | 22.05.2020 | Sanmen 2 | 16.03.2020 | Interturn Short Circuit of Rectifier Bridge Fan Power Transformer of Excitation System Caused Fan to Lose One Power Source | 00 | 22.05.2020 | Other | See the summary below | See the causes below. |  | 03 - Equipment damage; fires, 09 - Other | 2102 - Manufacturer fabrication / construction inadequate | 1 - For information only, fan, fuse, insulation electrical, power supply, vendor | ER.3 | | [**WER TYO 20-0217**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37829','_blank'))) | 22.05.2020 | Qinshan 2 3 | 01.04.2020 | Small Opening of Isolation Valve Caused Water Makeup Valve to Fail to Open Normally and Fire Water Tank to Fail to be Normally Made up | 00 | 22.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0705 - Not up to date with plant design | 1 - For information only, fire suppression, storage tank, valve misposition | FP.1 , OP.1 , OP.2 | | [**WER TYO 20-0216**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37828','_blank'))) | 22.05.2020 | Qinshan 2 3 | 01.04.2020 | Internal Leakage of Demineralized Water Inlet Valve of Battery Room Led to Water Accumulation in Battery Room | 00 | 22.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2304 - Degraded sub-component contributed to failure | 1 - For information only, diaphragm valve, leak, preventive maintenance | ER.2 | | [**WER TYO 20-0215**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37827','_blank'))) | 22.05.2020 | Fangjiashan 2 | 12.04.2020 | Failure of Power Supply Module of Non-safety-class Power Station Process Control Cabinet Triggered Alarm in Main Control Room | 00 | 22.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2302 - Ageing of component | 1 - For information only, circuit card, power supply, preventive maintenance | ER.2 | | [**WER TYO 20-0214**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37826','_blank'))) | 21.05.2020 | Qinshan 2 3 | 28.03.2020 | Cracking and Leaking of Weld Seam of Sodium Hypochlorite Lift Pump Casing and Inlet Seat of Circulating Water Treatment System Led to Unavailability of Pump | 00 | 21.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2102 - Manufacturer fabrication / construction inadequate | 1 - For information only, documentation, erosion/corrosion, leak, pump, vendor, weld | ER.3 , ER.4 , PI.1 | | [**WER TYO 20-0212**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37823','_blank'))) | 21.05.2020 | Sanmen 2 | 28.03.2020 | Blockage of Sealing Water Inlet Isolation Valve of Circulating Water Pump Caused Low Flow Rate of Sealing Water and Back-up Sealing Water Being Automatically Put into Service | 00 | 21.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2005 - Material selection inadequate | 1 - For information only, debris / crud, seal water | ER.1 , OP.1 | | [**WER TYO 20-0210**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37789','_blank'))) | 19.05.2020 | Hamaoka 3 | 10.09.2019 | Erroneous inputs used in effectiveness evaluation and other analyses | 00 | 19.05.2020 | Other | See the summary below. | See the causes below. |  | 10 - Non consequential or near miss | 0014 - Former : Unknown | 1 - For information only, design criteria / design basis | CM.1 | | [**WER TYO 20-0209**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37781','_blank'))) | 18.05.2020 | Hanbit 6 | 23.03.2020 | Steam Leakage from Damaged Gasket of Deaerator Storage Tank Sight Glass | 00 | 18.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0703 - Technically incomplete | 1 - For information only, deaerator, gasket, leak, steam | ER.2 | | [**WER TYO 20-0208**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37780','_blank'))) | 18.05.2020 | Hanul 1 | 16.03.2020 | Activity Alarm Triggered by Leaking Heater Tubes during Startup of Liquid Waste Treatment System Evaportor | 00 | 18.05.2020 | Other | See the summary below. | See the causes below. |  | 05 - Uncontrolled release of radioactivity | 2308 - Equipment erosion / corrosion | 1 - For information only, leak, preventive maintenance, radioactive contamination | CY.3 , ER.2 | | [**WER TYO 20-0205**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37777','_blank'))) | 18.05.2020 | Hanbit 4 | 20.12.2019 | Seawater Leakage into Common Header Room at the CWP Discharge due to Inadequate Sealing at Water Intake Stop Gate | 00 | 18.05.2020 | Other | See the summary below. | See the causes below. |  | 01 - Degraded plant operating conditions | 0807 - Control of contractors inadequate, 2302 - Ageing of component | 1 - For information only, contractor, leak, management oversight, seal, water intrusion, work control | MA.1 , MA.2 | | [**WER TYO 20-0204**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37775','_blank'))) | 18.05.2020 | Hanbit 4 | 02.04.2019 | Pinholes on Condenser Water Box Drain Lines Made of Carbon Steel | 00 | 18.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2001 - Original design inadequate | 1 - For information only, condenser tube, erosion/corrosion, preventive maintenance | ER.2 | | [**WER TYO 20-0203**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37765','_blank'))) | 15.05.2020 | Hamaoka 2 (Shutdown) | 13.02.2020 | Water leakage on the basement 2nd floor in reactor building | 00 | 15.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2007 - Inadequate review of design changes, 2011 - Deficiency in engineering of modification, including follow-up of implementation | 1 - For information only, management oversight, risk assessment, service water, tagging, work control | OP.1 , OP.2 , PM.1 , WM.1 | | [**WER TYO 20-0201**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37763','_blank'))) | 15.05.2020 | Hamaoka 1 (Shutdown) | 28.01.2020 | Errors in the contents of the report, etc. on radiation doses of occupationally exposed persons, etc. | 00 | 15.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0106 - Communications incorrect / inadequate, 0203 - Required procedures, drawings, or other references not used, 2109 - Post procurement requirements not used / performed | 1 - For information only, management oversight, radiation protection | CY.3 , RP.1 , RP.2 | | [**WER TYO 20-0197**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37742','_blank'))) | 12.05.2020 | Hanbit 6 | 27.02.2020 | Instrument Air Supply Header Pressure Drop due to Inadequate Operation of Air Intake Control Valve of Instrument Air Compressor | 00 | 12.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2203 - Preventive maintenance inadequate | 1 - For information only, air compressor, bypass valve, flow control valve, instrument air, instrument valve, leak, preventive maintenance, solenoid valve, switch | ER.2 | | [**WER TYO 20-0196**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37741','_blank'))) | 12.05.2020 | Hanul 4 | 25.02.2020 | Power Reduction due to High Concentration of Boric Acid Ingress while Removing Lithium from Reactor Coolant System | 00 | 12.05.2020 | Other | See the summary below. | See the causes below. |  | 02 - Station transient | 0702 - Technically incorrect | 1 - For information only, boric acid, leak, power reduction, procedure inadequacy, reactivity management | EN.1 , OF.2 , OP.1 , OP.2 | | [**WER TYO 20-0193**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37675','_blank'))) | 08.05.2020 | Changjiang 1 | 13.02.2020 | Internal Leakage of Flow Amplifier of Main Feedwater Flow Regulating Valve Caused Valve Not Being Fully Closed | 00 | 08.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0703 - Technically incomplete, 2306 - Component beyond expected lifetime | 1 - For information only, feedwater control system, flow control valve, leak, o-ring , preventive maintenance | ER.2 | | [**WER TYO 20-0192**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37674','_blank'))) | 08.05.2020 | Qinshan 3 1 | 21.02.2020 | Power Module Failure of Excitation Transformer Overcurrent Relay of Protection Device of Generator-Transformer Set Caused Indicator Abnormality | 00 | 08.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0703 - Technically incomplete | 1 - For information only, exciter, power supply, preventive maintenance, relay, transformer, turbine protection | ER.2 | | [**WER TYO 20-0191**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37673','_blank'))) | 08.05.2020 | Fangjiashan 1 | 14.01.2020 | Handling Abnormal Sound of Main Transformer Cooling Fan Motor Caused Main Transformer to Lose One Train of Cooling | 00 | 08.05.2020 | Other | See the summary below. | See the causes below. |  | 03 - Equipment damage; fires | 2309 - Failed within expected lifetime | 1 - For information only, bearing, documentation, grease, service water, transformer, vendor, vibration | ER.2 , ER.3 | | [**WER TYO 20-0187**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37695','_blank'))) | 08.05.2020 | Changjiang 1 | 28.02.2020 | Aging Cracks and Leakage of Sealing Ring of Internals Pool Gate Caused Abnormal Water Accumulation at the Bottom of Core Pool | 01 | 10.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0703 - Technically incomplete | 1 - For information only, leak, preventive maintenance, seal | ER.2 | | [**WER TYO 20-0186**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37668','_blank'))) | 08.05.2020 | Qinshan 1 | 06.03.2020 | Incorrect Calibration Value Taken During Cold Test of Water Chamber Safety Valve of HP Heater Resulted in Internal Leakage of Safety Valve | 00 | 08.05.2020 | Other | See the summary below. | See the causes below. |  | 10 - Non consequential or near miss | 0703 - Technically incomplete | 1 - For information only, leak, procedure adherence, procedure inadequacy, safety relief valve, steam | MA.1 , MA.2 | | [**WER TYO 20-0185**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37667','_blank'))) | 08.05.2020 | Sanmen 1 | 19.03.2020 | Working Personnel Maloperation Caused Mistaken Spraying of Generator Transformer Deluge Valves | 00 | 08.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0210 - Inattention to detail, 0217 - Lack of questioning attitude, 0218 - Violation of policies/rules/procedures | 1 - For information only, fire suppression, procedure adherence, procedure inadequacy | FP.1 , MA.1 , MA.2 | | [**WER TYO 20-0184**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37666','_blank'))) | 08.05.2020 | Qinshan 1 | 27.03.2020 | Small Return Difference Band Value of Gray Code Shaping Card of Rod Position Indication System Caused Abnormal Fluctuation of Rod Position Light Spot Display | 00 | 08.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2302 - Ageing of component | 1 - For information only, circuit card, preventive maintenance, rod position indicator, setpoint | ER.2 | | [**WER TYO 20-0181**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37655','_blank'))) | 06.05.2020 | Hanul 2 | 22.01.2020 | Degraded Condenser Vacuum due to Incorrect Assembly of a Valve Position Indicator on a New Valve | 00 | 06.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0704 - Cautionary information not included | 1 - For information only, butterfly valve, condenser vacuum, configuration control, contractor, human error, management oversight, procedure adherence, procedure inadequacy | CM.2 , MA.1 , MA.2 | | [**WER TYO 20-0178**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37652','_blank'))) | 06.05.2020 | Hanul 4 | 31.01.2020 | Partially Open Equalization Valve of Steam Generator Pressure Differential Transmitter Led to Reactor Coolant Leak during Outage | 00 | 06.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0202 - System alignment / isolation not verified, 2218 - Incorrect restoration of plant following maintenance / isolation / testing | 1 - For information only, configuration control, leak, reactor coolant, reactor water level, valve misposition | CM.2 , MA.1 , OP.1 | | [**WER TYO 20-0177**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37651','_blank'))) | 06.05.2020 | Shin-Kori 4 | 05.03.2020 | Unintentional Start Up of Stator Cooling Water Pump due to Inadvertent Operation of Pump Test Button | 00 | 06.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0201 - Self checking not used or ineffectively applied | 1 - For information only, human error, procedure adherence, pump | OP.1 | | [**WER PAR 20-0313**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37861','_blank'))) | 27.05.2020 | Almaraz 2 | 23.12.2019 | Emergency diesel generator room water ingress due to loss of voltage at a regular service busbar | 00 | 27.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0210 - Inattention to detail | 1 - For information only, procedure adherence, procedure inadequacy, risk assessment, water intrusion | MA.1 | | [**WER PAR 20-0311**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37802','_blank'))) | 19.05.2020 | Trillo 1 | 21.12.2019 | Quarterly turbine valve test delayed by failure of one of the turbine steam inlet valve test motors | 00 | 19.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0703 - Technically incomplete | 1 - For information only, grease, preventive maintenance, turbine protection, turbine stop valve | EN.1 , ER.2 , MA.2 | | [**WER PAR 20-0310**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37801','_blank'))) | 19.05.2020 | Trillo 1 | 18.12.2019 | Failure of the bypass isolation valve in the nuclear component exchanger system. | 00 | 19.05.2020 | Other | See the summary below. | See the causes below. |  | 04 - Degradation of safety systems | 0703 - Technically incomplete, 0903 - Co-ordination of all relevant on-site departments not achieved, 2013 - Failure mode or risk or consequences of a failure is not adequately taken into account, 2203 - Preventive maintenance inadequate | 1 - For information only, motor operated valve, preventive maintenance, service water, work control | ER.2 , WM.1 | | [**WER PAR 20-0305**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37796','_blank'))) | 19.05.2020 | Taishan 1 | 04.12.2019 | Involuntary simultaneous shut-down of two charging pumps (RCV) when running simultaneously by mistake. | 00 | 19.05.2020 | Other | See the summary below. | See the causes below. |  | 04 - Degradation of safety systems | 0217 - Lack of questioning attitude | 1 - For information only, procedure inadequacy, risk assessment | ER.1 , OP.1 , OP.2 | | [**WER PAR 20-0304**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37795','_blank'))) | 19.05.2020 | Taishan 2 | 21.05.2019 | Compressor damage of chiller in the safety chilled water system | 00 | 19.05.2020 | Other | See the summary below. | See the causes below. |  | 03 - Equipment damage; fires | 2003 - Design analysis deficiency | 1 - For information only, bearing, compressor, essential service water, fatigue cracking, vendor | PM.1 | | [**WER PAR 20-0303**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37794','_blank'))) | 19.05.2020 | Sizewell B 1 | 03.04.2020 | Unexpected Plant Transient Due to Loss OF Clean Air Transit System Train X Pressure | 00 | 19.05.2020 | Other | See the summary below. | See the causes below. |  | 01 - Degraded plant operating conditions | 2102 - Manufacturer fabrication / construction inadequate | 1 - For information only, documentation, flow control valve, heating ventilating and air conditioning, single point vulnerability, vendor | ER.3 , PM.1 | | [**WER PAR 20-0295**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37735','_blank'))) | 12.05.2020 | Paluel 2 | 28.08.2019 | Tripping of an alarm on dose equivalent rate on an operator when ejecting a gammagraph source during a radiographic exposure. | 00 | 12.05.2020 | Other | See the summary below. | See the causes below. |  | 06 - Unforeseen personnel exposure | 0102 - Pre-job briefing inadequate / not performed, 0107 - Internal team communication inadequate, 0206 - Task not adequately researched prior to start, 0209 - Radiological / ALARA work practices not followed, 0401 - Lighting inadequate, 0712 - Inadequate safety assessment provided, 1000 - PERSONAL FACTORS | 1 - For information only, management oversight, procedure adherence, radiation protection | MA.1 , NP.1 , RS.1 | | [**WER PAR 20-0292**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37732','_blank'))) | 12.05.2020 | Nogent S/Seine 1 | 26.08.2019 | Dose equivalent rate alarm on an operation to replace an irradiating filter | 00 | 12.05.2020 | Other | See the summary below. | See the causes below. |  | 06 - Unforeseen personnel exposure | 0209 - Radiological / ALARA work practices not followed, 0712 - Inadequate safety assessment provided, 2105 - Lack of proper tools / materials used do not meet specifications | 1 - For information only, contractor, human error, management oversight, procedure adherence, procedure inadequacy, radiation dose, radiation protection | OP.1 , PI.1 , RP.1 | | [**WER PAR 20-0289**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37729','_blank'))) | 12.05.2020 | Neckar 2 | 31.03.2020 | Small leak and boron deposit from a differential pressure line | 00 | 12.05.2020 | Other | See the summary below. | See the causes below. |  | 04 - Degradation of safety systems | 2308 - Equipment erosion / corrosion | 1 - For information only, boric acid, erosion/corrosion, instrument valve, leak | ER.1 | | [**WER PAR 20-0288**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37727','_blank'))) | 12.05.2020 | Lingao 3 | 16.01.2020 | A steam dump valve in turbine bypass system failed to open due to electro-pneumatic positioner failure | 00 | 12.05.2020 | Other | See the summary below. | See the causes below. |  | 10 - Non consequential or near miss | 2309 - Failed within expected lifetime | 1 - For information only, circuit card, control circuit, turbine steam bypass valve | ER.1 | | [**WER PAR 20-0283**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37719','_blank'))) | 11.05.2020 | Forsmark 1 | 07.11.2019 | Deficiencies related to the replacement of the control unit to reactor hall crane | 00 | 11.05.2020 | Other | See the summary below. | See the causes below. |  | 10 - Non consequential or near miss | 0103 - Message misunderstood / misinterpreted | 1 - For information only, configuration control, crane, work control | NF.2 , WM.1 | | [**WER PAR 20-0282**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37718','_blank'))) | 11.05.2020 | Fangchenggang 2 | 29.01.2020 | The leakage of the mechanical seal of the non-driven end of the main feed-water pressure stage pump exceeded the standard | 00 | 11.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, feedwater pump, leak, preventive maintenance, pump seal, seal | ER.2 | | [**WER PAR 20-0280**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37716','_blank'))) | 11.05.2020 | Fangchenggang 1 | 17.01.2020 | Generator stator cooling water pump 2 trip on start | 00 | 11.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2001 - Original design inadequate | 1 - For information only, pump, stator, turbine generator | ER.1 | | [**WER PAR 20-0279**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37715','_blank'))) | 11.05.2020 | Fangchenggang 1 | 08.01.2020 | New fuel assembly handling tool impact on fuel top nozzle due to maloperation | 00 | 11.05.2020 | Other | See the summary below. | See the causes below. |  | 03 - Equipment damage; fires | 0210 - Inattention to detail, 0704 - Cautionary information not included | 1 - For information only, fuelling machine, procedure adherence | NF.2 | | [**WER PAR 20-0278**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37714','_blank'))) | 11.05.2020 | Fangchenggang 1 | 28.11.2019 | Hydrogen leak from safety valve | 00 | 11.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2302 - Ageing of component | 1 - For information only, hydrogen, leak, o-ring , preventive maintenance, safety relief valve | ER.2 , MA.1 , MA.2 | | [**WER PAR 20-0277**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37713','_blank'))) | 11.05.2020 | Fangchenggang 2 | 19.11.2019 | Abnormal Fluctuation of Water Level Difference between Upstream and Downstream Of Circulating Water Filtration System Drum Filter Screen(upgraded) | 00 | 11.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2301 - Equipment operated outside of design specifications | 1 - For information only, level instrument, service water | ER.1 | | [**WER PAR 20-0273**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37709','_blank'))) | 11.05.2020 | Cofrentes 1 | 29.10.2019 | Failure to conduct routine vibration checks on emergency diesel generator gas-oil transfer pumps as per ASME code | 00 | 11.05.2020 | Other | See the summary below. | See the causes below. |  | 04 - Degradation of safety systems | 0703 - Technically incomplete | 1 - For information only, diesel fuel, diesel generator, preventive maintenance, vibration | EN.1 , ER.2 | | [**WER PAR 20-0270**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37706','_blank'))) | 11.05.2020 | Bugey 3 | 01.10.2019 | Primary circuit leak due to undertaking two incompatible activities on the nuclear sampling system. | 00 | 11.05.2020 | Other | See the summary below. | See the causes below. |  | 10 - Non consequential or near miss | 0108 - Inter-team communication inadequate, 0202 - System alignment / isolation not verified | 1 - For information only, configuration control, containment isolation, leak, reactor coolant | CM.2 , OF.2 , OP.1 | | [**WER PAR 20-0269**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37705','_blank'))) | 11.05.2020 | Bugey 2 | 27.09.2019 | Detection of Cobalt-60 at the level of the nuclear auxiliary building stack outlet | 00 | 11.05.2020 | Other | See the summary below. | See the causes below. | SER 2005-3 | 10 - Non consequential or near miss | 0807 - Control of contractors inadequate, 2204 - Maintenance performed incorrectly | 1 - For information only, airborne contamination, design change, heating ventilating and air conditioning, management oversight, procedure inadequacy | CM.3 , CY.3 | | [**WER PAR 20-0264**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37645','_blank'))) | 05.05.2020 | Olkiluoto 2 | 15.01.2020 | Critical Power Ratio error due to calculation software issue. | 00 | 05.05.2020 | Other | See the summary below. | See the causes below. |  | 10 - Non consequential or near miss | 1640 - Consequences of change not adequately assessed | 1 - For information only, computer, design criteria / design basis | CM.1 | | [**WER PAR 20-0263**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37644','_blank'))) | 05.05.2020 | Olkiluoto 1 | 05.11.2019 | Unit power decrease to 92% due to loss of one main coolant pump generated by a faulty digital card. | 00 | 05.05.2020 | Other | See the summary below. | See the causes below. |  | 02 - Station transient | 2304 - Degraded sub-component contributed to failure | 1 - For information only, circuit card, digital control system / digital components, power reduction, reactor recirculation pump | ER.1 | | [**WER PAR 20-0250**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37631','_blank'))) | 05.05.2020 | Beznau 2 | 19.02.2020 | Activation of fire detector in bunkered emergency building | 00 | 05.05.2020 | Other | See the summary below. | See the causes below. |  | 03 - Equipment damage; fires, 09 - Other | 0703 - Technically incomplete, 0706 - Not formally stated, 0902 - Special conditions or requirements not identified, 1440 - Risks and consequences of decision not identified or assessed before decision made, 2304 - Degraded sub-component contributed to failure | 1 - For information only, debris / crud, fan, fire suppression, temporary modification | CM.3 , FP.1 , MA.1 , MA.2 | | [**WER PAR 18-0035**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37728','_blank'))) | 25.01.2018 | Neckar 2 | 22.12.2017 | Room contamination due to leakage from a pipline for treatment of radioactive concentrates. | 01 | 12.05.2020 | Other | See summary below. | See causes below. |  | 01 - Degraded plant operating conditions | 2308 - Equipment erosion / corrosion | 1 - For information only, contamination, erosion/corrosion, leak | Z2.ER.1 | | [**WER MOW 20-0166**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37874','_blank'))) | 28.05.2020 | Tianwan 4 | 15.03.2020 | Loss of Power of Tritium and Carbon Sampling Cabinet Due to Trip of Upstream Power Supply Switch Prevented Tritium and Carbon Samplers from Sampling | 00 | 28.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2102 - Manufacturer fabrication / construction inadequate | 1 - For information only, gas analyser, power supply, vendor, vibration | ER.3 , MA.1 | | [**WER MOW 20-0164**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37868','_blank'))) | 27.05.2020 | Tianwan 3 | 21.03.2020 | Opening Atmospheric Relief Valve Without Closing Pre-isolating Valve Led to Unexpected Discharge of Main Steam | 00 | 27.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0218 - Violation of policies/rules/procedures, 0703 - Technically incomplete, 0802 - Progress not adequately monitored | 1 - For information only, configuration control, management oversight, procedure adherence, valve | CM.2 , OP.1 | | [**WER MOW 20-0163**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37867','_blank'))) | 27.05.2020 | Tianwan 2 | 20.03.2020 | High Chlorinity in Rinse Water Sample Caused Deviation of Blowdown Water Quality of Steam Generator After Cation Bed Being Put into Operation | 00 | 27.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2101 - Material used inadequate | 1 - For information only, chemistry, chlorine, configuration control, documentation | CM.2 , CY.1 , CY.2 , ER.3 | | [**WER MOW 20-0155**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37807','_blank'))) | 20.05.2020 | Tianwan 2 | 19.03.2020 | Unit Power Reduction to Treat Steam Leakage of Feedwater Thermowell Before HP Heater | 00 | 20.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2001 - Original design inadequate | 1 - For information only, erosion/corrosion, feedwater heater, leak, power reduction, preventive maintenance, steam | EN.1 , ER.2 | | [**WER MOW 20-0154**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37806','_blank'))) | 20.05.2020 | Dukovany 4 | 07.01.2020 | Foreign Material (Sealing Parts) in Spray System Tank of Emergency Core Cooling System | 00 | 20.05.2020 | Other | See the summary below. | See the causes below. |  | 10 - Non consequential or near miss | 0217 - Lack of questioning attitude, 2217 - Failure to exclude foreign material | 1 - For information only, emergency core cooling system, FME, gasket | MA.1 | | [**WER MOW 20-0151**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37787','_blank'))) | 18.05.2020 | Kozloduy 6 | 16.02.2020 | Reactor Coolant System Draining in the Active Drains System (6TZ) During Water Cleanup System Filter (6TE20N01) Cleanup | 00 | 18.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0703 - Technically incomplete | 1 - For information only, configuration control, management oversight, procedure adherence, reactor water cleanup | CM.2 , OP.1 | | [**WER MOW 20-0144**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37697','_blank'))) | 11.05.2020 | Paks 1 | 08.02.2020 | Employee’s radiation dose exceeded the daily screening level during inspection of the control rod intermediate shaft on unit 1 | 00 | 11.05.2020 | Other | See the summary below. | See the causes below. |  | 06 - Unforeseen personnel exposure | 0209 - Radiological / ALARA work practices not followed | 1 - For information only, procedure adherence, radiation dose, radiation protection, risk assessment | MA.1 , NP.1 , RS.1 | | [**WER MOW 20-0142**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37658','_blank'))) | 07.05.2020 | Tianwan 1 | 22.02.2020 | Loosening of Fastening Bolts of Circulating Cooling Water Pump Motor Led to High Vibration of Motor and Required Shutdown for Maintenance | 00 | 07.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2011 - Deficiency in engineering of modification, including follow-up of implementation | 1 - For information only, design change, pump motor, vibration | CM.3 , ER.1 , MA.1 | | [**WER MOW 20-0141**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37650','_blank'))) | 06.05.2020 | Tianwan 2 | 03.03.2020 | Failure of Module at I/O Layer of I&C System Caused Vacuum Valve of Main Condenser to be Opened by Mistake | 00 | 06.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2302 - Ageing of component | 1 - For information only, circuit card, control circuit, digital control system / digital components, preventive maintenance | ER.2 | | [**WER MOW 20-0140**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37649','_blank'))) | 06.05.2020 | Tianwan 1 | 15.03.2020 | Burnout of Contactor in Humidifier Power Cabinet of Emergency Diesel Generator Building Resulted in Protection Shutdown of Ventilation Fan | 00 | 06.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2302 - Ageing of component | 1 - For information only, fan, heating ventilating and air conditioning, motor control centre, power supply, preventive maintenance, relay, switch | ER.2 | | [**WER MOW 20-0133**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37618','_blank'))) | 01.05.2020 | Temelin 1 | 30.12.2019 | Using incorrect checklist during operator's walkdowns | 01 | 04.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0203 - Required procedures, drawings, or other references not used, 0210 - Inattention to detail, 0211 - Independent checking not used or ineffectively applied, 0217 - Lack of questioning attitude, 0218 - Violation of policies/rules/procedures, 1120 - Policies, official guidance (standards), expectations, administrative controls:-Not enforced | 1 - For information only, configuration control, management oversight, procedure adherence, reactivity management | NP.1 , OP.1 | | [**WER ATL 20-0340**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37912','_blank'))) | 29.05.2020 | Cernavoda 1 | 01.04.2020 | Malfunction on motor operated valve 1-7131-MV306 - discharge line of 1-7131-P004. | 00 | 29.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2203 - Preventive maintenance inadequate | 1 - For information only, limit switch, motor operated valve, preventive maintenance, service water, setpoint | EN.1 , ER.1 | | [**WER ATL 20-0339**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37910','_blank'))) | 29.05.2020 | Cernavoda 1 | 14.04.2020 | Fuelling Machine ‘B’ Ram Head missing ball observed during the overhaul | 00 | 29.05.2020 | Other | See the summary below. | See the causes below. |  | 10 - Non consequential or near miss | 2210 - Test acceptance criteria inadequate | 1 - For information only, fuelling machine, preventive maintenance, procedure inadequacy, risk assessment | ER.2 , NF.2 , RM.1 | | [**WER ATL 20-0338**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37909','_blank'))) | 29.05.2020 | Pickering B6 | 06.03.2020 | Incorrect Button Pushed by Operator during Testing Resulted in Reduced Heat Transport Pressure | 00 | 29.05.2020 | Other | See the summary below. | See the causes below. |  | 10 - Non consequential or near miss | 0201 - Self checking not used or ineffectively applied | 1 - For information only, human error, label, management oversight, risk assessment | OF.2 , OP.1 , OP.2 | | [**WER ATL 20-0337**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37908','_blank'))) | 29.05.2020 | Haiyang 1 | 05.03.2020 | Gas Fire Extinguishing System Actuated Unexpectedly During Quarterly Test of Gas Fire Extinguishing System in Site Radwaste Treatment Facility | 00 | 29.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2013 - Failure mode or risk or consequences of a failure is not adequately taken into account | 1 - For information only, circuit card, fire suppression, procedure inadequacy, risk assessment | FP.1 , MA.2 , OF.2 | | [**WER ATL 20-0335**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37906','_blank'))) | 29.05.2020 | Millstone 2 | 04.03.2020 | Switchgear Cooling Fan Degraded Bearing | 00 | 29.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2200 - MAINTENANCE / TESTING / SURVEILLANCE | 1 - For information only, bearing, fan, heating ventilating and air conditioning, preventive maintenance, vibration | ER.2 | | [**WER ATL 20-0334**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37887','_blank'))) | 28.05.2020 | Laguna Verde 1 | 21.03.2020 | Unit 1 power ascension delay due to feed water heaters drain system instrumentation | 00 | 28.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2001 - Original design inadequate | 1 - For information only, feedwater heater, management oversight, procedure inadequacy, risk assessment | OF.2 , OP.1 , PI.1 | | [**WER ATL 20-0332**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37885','_blank'))) | 28.05.2020 | Laguna Verde 2 | 09.03.2020 | Reactor Building fire barrier hatch failed surveillance | 00 | 28.05.2020 | Other | See the summary below. | See the causes below. |  | 10 - Non consequential or near miss | 2106 - Installation workmanship inadequate | 1 - For information only, fire barrier, management oversight, preventive maintenance, procedure inadequacy | ER.2 , FP.1 , MA.1 | | [**WER ATL 20-0331**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37884','_blank'))) | 28.05.2020 | Point Lepreau 1 | 13.04.2020 | Motor Control Center Annunciation Blocking Switches Found in “On” Position for Closed Breakers | 00 | 28.05.2020 | Other | See the summary below. | See the causes below. |  | 10 - Non consequential or near miss | 0201 - Self checking not used or ineffectively applied | 1 - For information only, breaker, configuration control, fuelling machine, motor control centre, procedure adherence, tagging | CM.2 , NF.2 , OP.1 | | [**WER ATL 20-0330**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37882','_blank'))) | 28.05.2020 | Cernavoda 1 | 11.03.2020 | Spent Fuel Port Discharge Valve 1-35311-PV1(C Failed to Open due to Seal Damage of the Actuator Cylinder | 00 | 28.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2203 - Preventive maintenance inadequate | 1 - For information only, air operated valve, fuelling machine, preventive maintenance, seal, valve actuator | ER.2 | | [**WER ATL 20-0328**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37880','_blank'))) | 28.05.2020 | Brunswick 1 | 12.02.2020 | Valve Found Out Of Position | 00 | 28.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0200 - PERSONNEL WORK PRACTICES, 0203 - Required procedures, drawings, or other references not used, 2010 - Inappropriate reliance on human action | 1 - For information only, configuration control, management oversight, procedure adherence, valve misposition | CM.2 , OP.1 | | [**WER ATL 20-0326**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37878','_blank'))) | 28.05.2020 | Bruce A 2 | 24.04.2019 | South West Fueling machine Head Ram Clutch Failed | 00 | 28.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2204 - Maintenance performed incorrectly | 1 - For information only, fuelling machine, power reduction, procedure adherence | NF.2 | | [**WER ATL 20-0325**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37869','_blank'))) | 27.05.2020 | Point Lepreau 1 | 10.04.2020 | Moderator Purification Sampling Circuit Valve Misposition | 00 | 27.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0210 - Inattention to detail | 1 - For information only, configuration control, industrial safety, procedure adherence, tagging, valve misposition | CM.2 , OP.1 | | [**WER ATL 20-0323**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37864','_blank'))) | 27.05.2020 | Haiyang 2 | 05.04.2020 | Conventional Island Medium Voltage (10.5kV) Electrical Bus Backup Power Potential Transformer Damaged | 00 | 27.05.2020 | Other | See the summary below. | See the causes below. |  | 03 - Equipment damage; fires | 0217 - Lack of questioning attitude | 1 - For information only, contractor, management oversight, procedure adherence | MA.1 , MA.2 | | [**WER ATL 20-0320**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37843','_blank'))) | 25.05.2020 | Indian Point 2 | 27.02.2020 | Instrument Air Desicant Dryer In Alarm | 00 | 25.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, air dryer, instrument air, leak, preventive maintenance, valve | ER.2 | | [**WER ATL 20-0319**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37842','_blank'))) | 25.05.2020 | Turkey Point 3 | 28.02.2020 | Diesel Driven Instrument Air Compressor Failed To Start | 00 | 25.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0710 - Inadequate technical review process, 1640 - Consequences of change not adequately assessed, 1680 - Results of change not monitored for correctness, 1690 - Changes to plant equipment, procedures and processes not systematically planned and implemented, 2203 - Preventive maintenance inadequate, 2205 - Testing not performed as required, inadequate testing and maintenance program | 1 - For information only, air compressor, battery, instrument air, power supply, preventive maintenance | ER.2 | | [**WER ATL 20-0315**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37836','_blank'))) | 23.05.2020 | Palo Verde 3 | 11.03.2020 | Steam Generator Blowdown Manual Valve Degraded | 00 | 23.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, debris / crud, preventive maintenance, valve | ER.1 | | [**WER ATL 20-0314**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37835','_blank'))) | 23.05.2020 | South Texas 1 | 17.03.2020 | Hydraulic Fluid Leak During Dredging Operation Into State Waterway | 00 | 23.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 1500 - ALLOCATION OF RESOURCES | 1 - For information only, contractor, hydraulic fluid, leak | CY.3 | | [**WER ATL 20-0313**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37834','_blank'))) | 23.05.2020 | North Anna 1 | 26.03.2020 | Service Water Pump House Ventilation Fan Found Tripped | 00 | 23.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, fan, heating ventilating and air conditioning, preventive maintenance | ER.2 | | [**WER ATL 20-0312**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37833','_blank'))) | 22.05.2020 | Cernavoda 2 | 24.02.2020 | Abnormal indication of loop 2-68231-ROPT2D (SDS#1) | 00 | 22.05.2020 | Other | See the summary below. | See the causes below. |  | 10 - Non consequential or near miss | 2309 - Failed within expected lifetime | 1 - For information only, circuit board, circuit card, nuclear instrumentation, preventive maintenance, setpoint | ER.2 | | [**WER ATL 20-0311**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37821','_blank'))) | 21.05.2020 | Palisades 1 | 14.02.2020 | Charging Pump Oil Filter Oil Leak | 00 | 21.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2200 - MAINTENANCE / TESTING / SURVEILLANCE, 2216 - Incorrect parts / consumables installed / used | 1 - For information only, charging pump, leak, lube oil, management oversight, o-ring , procedure adherence | MA.1 | | [**WER ATL 20-0309**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37819','_blank'))) | 21.05.2020 | Turkey Point 4 | 24.02.2020 | Containment Pressure Recorder Failure | 00 | 21.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, containment pressure, preventive maintenance | ER.2 | | [**WER ATL 20-0305**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37812','_blank'))) | 20.05.2020 | Palo Verde 1 | 07.02.2020 | Battery Charger Output Breaker Found In The Open Position | 00 | 20.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0200 - PERSONNEL WORK PRACTICES | 1 - For information only, battery, breaker, configuration control | CM.2 , EP.2 , OP.1 | | [**WER ATL 20-0304**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37811','_blank'))) | 20.05.2020 | Callaway 1 | 14.02.2020 | Radiation Waste Building Vent Radiation Monitor Heat Trace Failure | 00 | 20.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2302 - Ageing of component | 1 - For information only, heat tracing, preventive maintenance, radiation protection | CY.3 , ER.2 | | [**WER ATL 20-0302**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37809','_blank'))) | 20.05.2020 | Barakah 1 | 28.02.2020 | Under load in load sequence 223 due to encoder gap | 00 | 20.05.2020 | Other | See the summary below. | See the causes below. |  | 10 - Non consequential or near miss | 2305 - Component monitoring or parameter trending inadequate | 1 - For information only, fuel rod, fuelling machine | NF.2 | | [**WER ATL 20-0300**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37785','_blank'))) | 18.05.2020 | Beaver Valley 1 | 28.01.2020 | Loss Of Seal Injection Flow To All Reactor Coolant Pumps Due to Vent Valve Mispositioning | 00 | 18.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0702 - Technically incorrect, 0703 - Technically incomplete, 0704 - Cautionary information not included, 0705 - Not up to date with plant design, 2010 - Inappropriate reliance on human action | 1 - For information only, human error, reactor coolant pump, risk assessment, seal injection, valve misposition | OP.1 , OP.2 | | [**WER ATL 20-0298**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37783','_blank'))) | 18.05.2020 | Beaver Valley 1 | 12.02.2020 | Steam Generator Large Bore Snubber Piston Seal Integrity Testing Deficiency | 00 | 18.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0700 - WRITTEN PROCEDURES AND DOCUMENTS | 1 - For information only, 2 - Important lessons, damper, preventive maintenance, steam generator / boiler | EN.1 , ER.2 | | [**WER ATL 20-0294**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37770','_blank'))) | 15.05.2020 | Palo Verde 2 | 25.02.2020 | Level Switch High Failed To Actuate | 00 | 15.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, level instrument, preventive maintenance, switch | ER.2 | | [**WER ATL 20-0293**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37769','_blank'))) | 15.05.2020 | North Anna 2 | 01.03.2020 | Failure Of Main Steam N-16 Radiation Monitoring Indicator Due To Parameter Fault | 00 | 15.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 1300 - MANAGEMENT MONITORING AND ASSESSMENT | 1 - For information only, computer, preventive maintenance, radiation protection, setpoint | ER.2 , RP.2 | | [**WER ATL 20-0292**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37768','_blank'))) | 15.05.2020 | Susquehanna 1 | 18.03.2020 | Bypass Indication System Failed To Alarm When Diesel Generator Fuel Oil Transfer Pump Handswitch Taken Out Of Auto Position | 00 | 15.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, control circuit, diesel fuel, pump, relay, switch | ER.1 , MA.1 | | [**WER ATL 20-0291**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37767','_blank'))) | 15.05.2020 | Palo Verde 1 | 10.04.2020 | Service Air Compressor Failed To Maintain Header Pressure | 00 | 15.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, compressor, diaphragm valve, leak, preventive maintenance, service air | ER.2 | | [**WER ATL 20-0290**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37766','_blank'))) | 15.05.2020 | Koeberg 1 | 13.04.2020 | Radiation worker exited the Nuclear Auxiliary Building controlled zone via the roof door from the 11.5m level stairs, without being monitored for contamination. | 00 | 15.05.2020 | Other | See the summary below. | See the causes below. |  | 10 - Non consequential or near miss | 0204 - Administrative controls circumvented or intentionally not performed, 0218 - Violation of policies/rules/procedures | 1 - For information only, procedure adherence, radiation protection, security | NP.1 , RP.1 , RS.1 | | [**WER ATL 20-0289**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37761','_blank'))) | 14.05.2020 | Pickering A1 | 12.01.2020 | Tripped Bus Results in Partial Loss of Class IV Power | 00 | 14.05.2020 | Other | See the summary below. | See the causes below. |  | 10 - Non consequential or near miss | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, ageing, bus bar, control circuit, feedwater pump, loss of offsite power, preventive maintenance, pump motor, relay | ER.2 | | [**WER ATL 20-0288**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37760','_blank'))) | 14.05.2020 | North Anna 2 | 28.01.2020 | Unit Downpower To Repair Leaking High Pressure Heater Drain Pump | 00 | 14.05.2020 | Other | See the summary below. | See the causes below. |  | 01 - Degraded plant operating conditions, 02 - Station transient | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, leak, o-ring , power reduction, pump seal | ER.1 , MA.1 | | [**WER ATL 20-0287**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37759','_blank'))) | 14.05.2020 | Brunswick 1 | 11.02.2020 | Safety Parameter Display System Availability Interrupted | 00 | 14.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, ageing, computer, control panel, preventive maintenance | ER.2 | | [**WER ATL 20-0286**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37758','_blank'))) | 14.05.2020 | Susquehanna 2 | 23.02.2020 | Loss Of Appendix R Emergency Lighting Units | 00 | 14.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, power supply | ER.1 | | [**WER ATL 20-0283**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37751','_blank'))) | 13.05.2020 | Diablo Canyon 1 | 02.02.2020 | Blown Instrument Power Fuse De-Energized Component Cooling Water Header Radiation Monitor | 00 | 13.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, computer, control panel, fuse, radiation protection, service water | ER.1 | | [**WER ATL 20-0282**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37750','_blank'))) | 13.05.2020 | Callaway 1 | 04.02.2020 | Radiation Monitor Control Console Not Responsive To Keyboard Controls | 00 | 13.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, computer, radiation protection | ER.1 | | [**WER ATL 20-0280**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37748','_blank'))) | 13.05.2020 | Point Beach 1 | 23.03.2020 | Dose Rate Alarm Received During Unauthorized High Radiation Area Entry | 00 | 13.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0102 - Pre-job briefing inadequate / not performed, 0200 - PERSONNEL WORK PRACTICES, 0204 - Administrative controls circumvented or intentionally not performed, 0206 - Task not adequately researched prior to start, 0217 - Lack of questioning attitude, 0709 - User aids deficient / not provided, 0807 - Control of contractors inadequate, 2010 - Inappropriate reliance on human action | 1 - For information only, contractor, management oversight, procedure adherence, radiation protection | RP.1 | | [**WER ATL 20-0276**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37699','_blank'))) | 11.05.2020 | South Texas 1 | 02.03.2020 | Bumped Main Lube Oil Temperature Control Valve Instrument Air Isolation Valve | 00 | 11.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0102 - Pre-job briefing inadequate / not performed, 0807 - Control of contractors inadequate, 2010 - Inappropriate reliance on human action | 1 - For information only, configuration control, flow control valve, instrument valve, lube oil, management oversight, risk assessment, work control | MA.1 , MA.2 | | [**WER ATL 20-0275**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37698','_blank'))) | 11.05.2020 | Vogtle 3 | 22.10.2019 | Asme Valves Welded With Trim Installed Contrary To Vendor Manual | 00 | 11.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0200 - PERSONNEL WORK PRACTICES | 1 - For information only, procedure adherence, valve, weld | PM.1 | | [**WER ATL 20-0272**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37691','_blank'))) | 08.05.2020 | Vogtle 3 | 01.11.2019 | Preservation Of Plant Material (Storage) | 00 | 08.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0200 - PERSONNEL WORK PRACTICES | 1 - For information only, contractor, management oversight | PM.1 | | [**WER ATL 20-0271**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37690','_blank'))) | 08.05.2020 | Vogtle 3 | 14.11.2019 | Concrete Wall And Slab Thickness Out Of Tolerance | 00 | 08.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2100 - EQUIPMENT SPECIFICATION, MANUFACTURE, TRANSPORTATION, INSTALLATION AND CONSTRUCTION | 1 - For information only, contractor, management oversight | PM.1 | | [**WER ATL 20-0270**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37689','_blank'))) | 08.05.2020 | North Anna 2 | 17.09.2019 | Breaker For Circulating Water Motor Operated Valve Found Open | 00 | 08.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 0200 - PERSONNEL WORK PRACTICES | 1 - For information only, breaker, configuration control, motor operated valve, valve misposition | CM.2 , OP.1 | | [**WER ATL 20-0269**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37688','_blank'))) | 08.05.2020 | Surry 1 | 27.01.2020 | Floor Drain Backflow Preventer Non-functional Due To Boric Acid Deposits | 00 | 08.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2001 - Original design inadequate | 1 - For information only, boric acid, check valve, leak, preventive maintenance | ER.2 | | [**WER ATL 20-0268**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37687','_blank'))) | 08.05.2020 | Perry 1 | 31.01.2020 | Combustible Gas Control System Hydrogen Analyzer Found Outside of Operational Requirement Manual Allowable Values | 00 | 08.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 1370 - Information or monitoring system does not give accurate and in-time information | 1 - For information only, gas analyser, hydrogen, limiting condition of operation, preventive maintenance, setpoint | ER.2 | | [**WER ATL 20-0264**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37683','_blank'))) | 08.05.2020 | Turkey Point 4 | 14.02.2020 | Unexpected Trip of Air Compressor Due to Corrosion Product Deposits | 00 | 08.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2205 - Testing not performed as required, inadequate testing and maintenance program | 1 - For information only, air compressor, erosion/corrosion, preventive maintenance | ER.2 , ER.3 | | [**WER ATL 20-0263**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37682','_blank'))) | 08.05.2020 | Palo Verde 3 | 21.02.2020 | Atmospheric Dump Valve Failed To Stay Fully Open | 00 | 08.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, setpoint, steam dump valve | ER.1 | | [**WER ATL 20-0262**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37681','_blank'))) | 08.05.2020 | Turkey Point 4 | 25.02.2020 | Spent Fuel Pool Radiation Monitor Declared Nonfunctional | 00 | 08.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, fuel pool, radiation protection | ER.1 | | [**WER ATL 20-0258**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37677','_blank'))) | 08.05.2020 | Diablo Canyon 1 | 16.03.2020 | 480V Switchgear Room Fans Failed to Auto Start During Weekly Swap | 00 | 08.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2203 - Preventive maintenance inadequate | 1 - For information only, damper, fan, heating ventilating and air conditioning, preventive maintenance, setpoint | ER.2 | | [**WER ATL 20-0257**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37676','_blank'))) | 08.05.2020 | Susquehanna 1 | 18.03.2020 | Bypass Indication System Control Room Alarm Not Received | 00 | 08.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, preventive maintenance, relay, valve | ER.2 | | [**WER ATL 20-0254**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37662','_blank'))) | 07.05.2020 | Diablo Canyon 2 | 17.02.2020 | Fuel Handling Building Ventilation System Supply Fan Tripped | 00 | 07.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2205 - Testing not performed as required, inadequate testing and maintenance program | 1 - For information only, damper, fan, heating ventilating and air conditioning, preventive maintenance | ER.2 | | [**WER ATL 20-0253**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37661','_blank'))) | 07.05.2020 | Koeberg 1 | 20.02.2020 | Component Cooling System valve actuator, 1 RRI 058 VN opened spuriously during switch pack inspection due to the switch mechanism cover short circuiting the limit switch terminals. | 00 | 07.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2012 - Inadequate risk analysis performed, including design or modification risk assessment and maintenance vulnerability | 1 - For information only, essential service water, human error, limit switch, procedure inadequacy, risk assessment | OF.2 , OP.1 , OP.2 | | [**WER ATL 20-0252**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37660','_blank'))) | 07.05.2020 | Cernavoda 1 | 10.02.2020 | Spurious trip alarm on Shutdown System #1 channel F during “ROPT Detector Calibration Checks” routine execution | 00 | 07.05.2020 | Other | See the summary below. | See the causes below. |  | 10 - Non consequential or near miss | 0704 - Cautionary information not included | 1 - For information only, human error, management oversight, procedure adherence, procedure inadequacy, reactor protection system, risk assessment | MA.1 , MA.2 | | [**WER ATL 20-0251**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37659','_blank'))) | 07.05.2020 | Diablo Canyon 2 | 04.03.2020 | Loss of Condenser Air Ejector Discharge Radiation Monitors Due to Recurring Sample Pump Trips | 00 | 07.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2304 - Degraded sub-component contributed to failure | 1 - For information only, condenser air ejector, control board, preventive maintenance, pump, radiation protection | ER.2 | | [**WER ATL 20-0250**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37628','_blank'))) | 04.05.2020 | Turkey Point 4 | 22.01.2020 | Diesel Driven Instrument Air Compressor Failed To Run | 00 | 04.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2300 - EQUIPMENT PERFORMANCE, 2305 - Component monitoring or parameter trending inadequate | 1 - For information only, air compressor, diesel fuel, instrument air, level instrument, preventive maintenance | ER.2 , OP.1 | | [**WER ATL 20-0249**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37627','_blank'))) | 04.05.2020 | Surry 1 | 27.01.2020 | Floor Drain Backflow Preventer Non-functional Due To Boric Acid Deposits | 00 | 04.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2001 - Original design inadequate | 1 - For information only, boric acid, charging pump, debris / crud, drain valve, preventive maintenance | ER.2 | | [**WER ATL 20-0247**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37625','_blank'))) | 04.05.2020 | Davis Besse 1 | 31.01.2020 | Main Transformer Cooling Oil Tank Drain Valve Found Out of Position During Oil Sampling | 00 | 04.05.2020 | Other | See the summary below. | See the causes below. |  | 01 - Degraded plant operating conditions | 0200 - PERSONNEL WORK PRACTICES | 1 - For information only, configuration control, drain valve, label, management oversight, oil, procedure adherence, transformer, valve misposition | MA.1 | | [**WER ATL 20-0246**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37624','_blank'))) | 04.05.2020 | Cook 2 | 04.02.2020 | Lower Containment Water Level Indication Transmitter Failed High | 00 | 04.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2300 - EQUIPMENT PERFORMANCE | 1 - For information only, containment sump, level instrument, preventive maintenance | ER.2 | | [**WER ATL 20-0242**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37616','_blank'))) | 02.05.2020 | Palo Verde 3 | 29.01.2020 | Containment Spray Pump Room Level Switch Failed To Actuate | 00 | 02.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2304 - Degraded sub-component contributed to failure | 1 - For information only, containment spray, level instrument, preventive maintenance, surveillance, switch, wiring | ER.2 , MA.2 , PI.1 | | [**WER ATL 20-0151**](javascript:void(window.open('http://www.wano.org/OperatingExperience/OE_Database_2012/Pages/EventReportDetail.aspx?ids=37754','_blank'))) | 25.03.2020 | Darlington 3 | 02.02.2020 | Reactor Regulating System Setback resulted in Unplanned Power Reduction | 01 | 13.05.2020 | Other | See the summary below. | See the causes below. |  | 09 - Other | 2304 - Degraded sub-component contributed to failure | 1 - For information only, computer, erosion/corrosion, leak, nuclear instrumentation, power reduction, preventive maintenance, reactor protection system | ER.2 | |
|  |  |