

August 10, 2011

The Honorable Edward J. Markey
Unites States House of Representatives
Washington, D.C. 20515

Dear Congressman Markey:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your letter of May 13, 2011, regarding a recent scram at the Pilgrim Nuclear Power Station and seeking information about all scrams in the U.S over the past 10 years. You also posed several questions arising out of recent events in Japan.

Enclosed with this letter are our responses to your inquiries. As discussed with your staff, our investigation of the recent scram at Pilgrim is still underway; therefore we are providing only a partial response to that information request at this time. When the investigation of the scram is complete, we will be able to provide a more complete response.

If you have any additional questions, please contact me or Ms. Rebecca Schmidt, Director of the Office of Congressional Affairs, at (301) 415-1776.

Sincerely,

/RA/

Gregory B. Jaczko

Enclosure:
[As stated](#)

**Responses to Questions from Representative Edward J. Markey
Letter of May 13, 2011**

1. Please fully describe the circumstances that led to the emergency shutdown at the Pilgrim nuclear power plant, and the results of your investigation thereof.

Reactor operators were restarting the reactor on May 10, 2011, after a planned outage. The reactor was declared critical, or capable of a self-sustaining nuclear chain reaction, just after noon that day. At this point, the reactor is generating no measurable amount of heat. Shortly thereafter, operators commenced the portion of the start-up process where heat begins to be generated by the reactor by withdrawing certain control rods, thus increasing the rate of nuclear fission. While attempting to establish a specified heat-up rate, the operators identified a higher than anticipated reactor heat-up rate, albeit still within the NRC licensed limit. In trying to manage the higher than anticipated heat-up rate, the operators made several manipulations of the control rods that reduced the heat generation rate of the reactor to a very low value. The operators later recommenced the withdrawal of control rods to again establish the specified reactor heat-up rate. However, during this manipulation of the control rods, the operators did not take into account the effects of a higher operating temperature and exceeded the predetermined setpoint established on two separate nuclear instruments (i.e., the Intermediate Power Range Monitors). This resulted in an automatic reactor scram, or shutdown, from a very low level of reactor power. After the reactor scram, all equipment operated as expected and the shutdown was completed safely. The event did not challenge any limits on the nuclear fuel.

In response to the potential operator performance issues raised by this event, an additional NRC inspector arrived on site on May 11 to assist the resident inspectors with their initial inspection efforts, and a Special Inspection Team (SIT) was dispatched to the site on May 16 to continue the NRC's review of this event. The NRC SIT is reviewing operator performance and decision-making prior to and during the reactor scram, Entergy Nuclear Operations' (Entergy or the licensee) response to the event, the lessons learned to date by the licensee, and the steps taken by Entergy to prevent this event from recurring. The SIT is currently awaiting Entergy's completion of its detailed root cause analysis of the event. Following the completion of the SIT's onsite review of the root cause report and additional inspection in this matter, an inspection report documenting the team's findings will be issued, typically within 45 days, and made available to the public.

2. For each of the last ten years, please provide me with a list of each "scram" that has occurred in the United States, including the name and location of the reactor, the date of the event, the cause of the scram, whether or not the NRC investigated the events, and if so, what the outcome of the investigation was (including any enforcement actions taken).

Attached is a list of all unplanned scrams since 2000. Additional information is provided for all scrams since 2007 for which a reactive inspection was conducted. In accordance with NRC's management directives and Inspection Manual Chapter 0309, events occurring at power reactor sites are analyzed to determine if they meet or exceed certain deterministic and risk criteria. When these deterministic and risk thresholds are exceeded, a reactive inspection team is dispatched to the site to gather additional information. All identified findings, regardless of their significance, have been entered into the licensee's corrective action program for resolution. Those findings identified as greater than very low safety significance (Green) will receive additional follow-up inspections.

Enclosure

3. Does the Commission concur that the events in Japan represent “new and significant” information regarding the potential duration, extent and circumstances of radiation releases that could accompany a catastrophic accident at or attack on a nuclear power plant? If not, why not, especially in light of the list of circumstances that have taken place in Japan that is included in Appendix A?

The Commission Near-Term Task Force has completed a review of the recent events in Japan. The report dated July 12, 2011, is publicly available. We will begin a longer-term review following the Commission’s review of the Near-Term report, and as soon as the staff has sufficient technical information regarding the events in Japan.

4. Will the NRC require licensees to amend their Environmental Reports for all pending license or re-license applications in light of the requirements of NEPA to include any “new and significant” information regarding the environmental consequences of their proposed activities? If not, why not, and how can the Commission conclude that the absence of a requirement to do so is consistent with the legal requirements of NEPA?

The staff will make any recommendations to the Commission for changes to current requirements following completion of the planned longer-term review. Once those recommendations have been received, the Commission will determine what changes, if any, should be implemented.

5. Will the NRC require the development or utilization of new software that is capable of modeling the duration and extent of the radiation releases that have been experienced at Fukushima as part of its requirements for licensees to comply with NEPA and/or other Commission-mandated analysis? If not why not, since the software used is apparently unable to provide realistic information?

The quality of estimates from existing modeling software is going to vary depending upon the nature of the inputs. Our ability to model releases from the Fukushima site was significantly limited because of the large degree of uncertainty we had regarding plant conditions. We used a number of prudent and conservative estimates for various factors considered by our model. A similar modeling activity conducted for a U.S.-based facility would be expected to rely on substantial real-time information regarding meteorological conditions and actual release data, thus substantially increasing the certainty of the information produced.

[Attachment 1: Unplanned Scrams 2000 - Present](#)

[Attachment 2: Scrams with Reactive Inspections 2007 - Present](#)

Unplanned Scrams 2000 - Present

PLANT NAME	EVENT DATE	DOCKET	REGION	Licensee Event Report Number	Event Notification	UNIT MODE	SCRAM	Scram Cause / Description	NOTES
ARKANSAS 1	04/18/10	313	4	3132010003	45854	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED WHEN IT WAS DETERMINED THAT A REACTOR COOLANT PUMP SEAL WAS DEGRADED AND A SMALL FIRE WAS REPORTED IN THE HP TURBINE ENCLOSURE AT GOVERNOR VALVE 3.	
ARKANSAS 1	04/25/10	313	4	3132010004	45872	OPERATE	AUTO	DURING A HEAT BALANCE FOR NI CALIBRATION, AN AUTOMATIC ROD WITHDRAWL OCCURRED. THIS RESULTED IN ONE CHANNEL OF HIGH REACTOR POWER TRIPPING SIMULTANEOUSLY WITH A CHANNEL OF HIGH RCS PRESSURE. THE ROOT CAUSE WAS FAILURE TO FOLLOW PROCEDURES.	
ARKANSAS 1	02/05/09	313	4	3132009001	44831	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO HIGH CRDM TEMPERATURES. THE HIGH TEMPERATURES WERE CAUSED BY LOSS OF INTERMEDIATE COOLING WATER FLOW.	
ARKANSAS 1	02/07/09	313	4	3132009002	44837	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO A FIRE IN THE TURBINE BUILDING. THE CAUSE OF THE FIRE WAS A FAILED MANUAL VALVE BONNET ON THE HYDROGEN SYSTEM NEAR THE HYDROGEN ADD STATION. THE VALVE FAILED DUE TO OPERATOR ERROR IN OPERATING THE VALVE.	
ARKANSAS 1	12/12/08	313	4	3132008001	44716	OPERATE	MAN	WHILE HOLDING POWER AT 32% FOR NUCLEAR INSTRUMENT CALIBRATIONS, THE REACTOR WAS MANUALLY TRIPPED UPON RECEIPT OF AN ASYMMETRIC ROD ALARM WITH AN ABNORMAL ROD PATTERN AND LOWERING REACTOR POWER NOTED.	
ARKANSAS 1	12/20/08	313	4	3132008001	44736	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FROM 100% POWER WHEN AN ASYMMETRIC ROD ALARM WAS RECEIVED.	
ARKANSAS 1	12/26/05	313	4	3132005003	42229	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON LOW TURBINE BEARING LUBE OIL PRESSURE. THE CAUSE WAS A FAILED LUBE OIL EJECTOR DISCHARGE CHECK VALVE RESULTING IN BLOCKAGE OF LUBE OIL FLOW.	
ARKANSAS 1	08/29/03	313	4	3132003001	40119	OPERATE	AUTO	A RX/TURBINE TRIP OCCURRED ON HIGH RCS PRESSURE FOLLOWING THE INADVERTENT CLOSURE OF THE MAIN TURBINE GOVERNOR VALVES. THE CAUSE WAS MOST LIKELY A LIGHTNING INDUCED EHC SYSTEM MALFUNCTION.	
ARKANSAS 1	10/04/02	313	4	3132002002	39248	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED DURING A MAIN TURBINE OVERSPEED TRIP TEST. THE CAUSE WAS BINDING OF THE MECHANICAL TRIP SPOOL VALVE IN A PARTIALLY TRIPPED CONDITION DUE TO INADEQUATE PREVENTIVE MAINTENANCE.	
ARKANSAS 1	01/05/01	313	4	3132001001	37650	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO AN EXCESSIVE MAIN TURBINE GENERATOR HYDROGEN LEAK. THE CAUSE WAS A FAILED PIPE SUPPORT THAT ALLOWED EXCESSIVE VIBRATION AND ULTIMATE FAILURE OF A HYDROGEN VENT PIPE.	
ARKANSAS 1	07/24/01	313	4	3132001004	38165	OPERATE	AUTO	A RX TRIP OCCURRED ON HIGH RX COOLANT SYSTEM PRESSURE FOLLOWING RAPID CLOSURE OF THE MAIN TURBINE GOVERNOR VALVES. THE CAUSE WAS FAILURE OF A CARD IN THE MAIN TURBINE EHC SYSTEM.	
ARKANSAS 1	03/14/00	313	4	3132000004	36791	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED IN RESPONSE TO THE RAPID CLOSURE OF THE MAIN TURBINE STEAM SUPPLY VALVES. THE CAUSE WAS A STUCK CONTACT IN THE VALVE POSITION LIMIT LOWER PUSHBUTTON SWITCH.	

PLANT NAME	EVENT DATE	DOCKET	REGION	Licensee Event Report Number	Event Notification	UNIT MODE	SCRAM	Scram Cause / Description	NOTES
ARKANSAS 2	03/13/09	368	4	3682009001	44906	OPERATE	MAN	WITH POWER REDUCED TO 84% DUE TO SECURING A MAIN FEED PUMP BECAUSE OF BEARING DEGRADATION, A FAILURE OF A MAIN FEEDWATER REG VALVE CAUSED SG LEVEL TO LOWER. THE REACTOR WAS MANUALLY SCRAMMED. THE LIKELY CAUSE WAS FOREIGN MATERIAL THE MFRV IP CONVERTER.	
ARKANSAS 2	12/08/09	368	4	3682009005	45549	OPERATE	MAN	A MAIN FEEDWATER PUMP WAS TRIPPED DUE TO HIGH BEARING TEMPERATURE. THIS WAS FOLLOWED BY A MANUAL REACTOR TRIP DUE TO LOWERING STEAM GENERATOR LEVELS. THE HIGH BEARING TEMP WAS CAUSED BY EXCESSIVE THRUST LOADING DUE TO DEGRADATION OF THE PUMP INTERNALS.	
ARKANSAS 2	12/19/02	368	4	3682002002	39460	OPERATE	AUTO	A TURBINE/RX TRIP RESULTED FROM FAILURE OF THE MAIN GENERATOR REVERSE POWER RELAY. THE ROOT CAUSE OF THE RELAY FAILURE IS INDETERMINATE PENDING COMPLETION OF INSPECTION AND TESTING BY THE MANUFACTURER.	
ARKANSAS 2	11/01/01	368	4	3682001002	38457	OPERATE	AUTO	A RX TRIP OCCURRED ON A CORE PROTECTION CALCULATOR TRIP WHEN AN OPERATOR INADVERTENTLY INSERTED A GROUP OF RODS INSTEAD OF A SINGLE ROD WHILE TROUBLESHOOTING A DROPPED ROD.	
VOGTLE 1	12/07/09	424	2	4242009002	45547	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP. THE TURBINE TRIPPED ON LOW CONDENSER VACUUM CAUSED BY A LOSS OF NON-1E ELECTRICAL SWITCHGEAR DUE TO INADVERTENT OPERATION OF THE CONTROL ROOM HANDSWITCH.	
VOGTLE 1	12/09/09	424	2	4242009003	45557	OPERATE	MAN	WHILE ATTEMPTING TO BRING THE MAIN TURBINE ONLINE, HIGH TURBINE VIBRATIONS RESULTED IN A MANUAL TURBINE TRIP REQUIRING THE SUBSEQUENT BREAKING OF CONDENSER VACUUM. THE REACTOR WAS TRIPPED IN ANTICIPATION OF LOSS OF FEEDWATER.	
VOGTLE 1	04/17/06	424	2	4242006001	42506	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED AFTER A FEED REGULATING VALVE FAILED TO CONTROL SG WATER LEVEL. THE LICENSEE IS INVESTIGATING THE CAUSE.	
VOGTLE 1	01/11/05	424	2	4242005001	41323	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON GENERATOR PROTECTIVE RELAYING. THE CAUSE WAS AN INVALID FAULT RESULTING WHEN A HIGH RESISTANCE CONNECTION DEVELOPED OVER TIME ON A PROTECTIVE RELAY.	
VOGTLE 1	04/29/05	424	2	4242005003	41653	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL AFTER THE FEED REGULATING VALVE SHUT UNEXPECTEDLY WHILE REPLACING A FAILED SGWLC CARD. THE CAUSE WAS AN INADEQUATE REPAIR PROCEDURE.	
VOGTLE 1	10/17/05	424	2	4242005004	42058	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON LOWERING SG WATER LEVEL AFTER A MAIN FEEDWATER REGULATING VALVE FAILED CLOSED. THE CAUSE WAS AN ELECTRONIC CIRCUIT BOARD FAILURE RESULTING FROM MOISTURE INTRUSION INTO THE VALVE'S ELECTRO-PNEUMATIC TRANSDUCER.	
VOGTLE 1	03/27/04	424	2	4242004001	40615	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED FOLLOWING A LOSS OF FEEDWATER PUMP SPEED CONTROL. THE CONTROL VALVE HYDRAULIC OPERATING CYLINDER STUCK OPEN DUE TO MISALIGNED BUSHINGS.	
VOGTLE 1	04/20/02	424	2	4242002003	38867	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED IN ANTICIPATION OF LOW SG LEVEL FOLLOWING A LOSS OF FEEDWATER. THE FEEDWATER TRIP OCCURRED ON HIGH WATER LEVEL FOLLOWING A FEEDWATER TRANSIENT MADE WORSE BY OPERATOR ERRORS.	

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VOGTLE 1	08/24/01	424	2	4242001001	38234	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON A LOSS OF MAIN GENERATOR EXCITATION WHILE A GENERATOR RECTIFIER BANK WAS BEING PLACED BACK INTO SERVICE FOLLOWING REPAIRS. THE CAUSE WAS A FAILED SCR IN ANOTHER RECTIFIER BANK.	NO CHANGES PER LER REV 01
VOGTLE 1	06/05/00	424	2	4242000002	37058	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED FOLLOWING THE CLOSURE OF AN MSIV. THE CLOSURE RESULTED FROM A BLOWN FUSE. THE CAUSE OF THE FUSE FAILURE IS UNKNOWN.	
VOGTLE 1	12/09/00	424	2	4242000004	37583	OPERATE	AUTO	A RX TRIP OCCURRED WHILE PERFORMING SOLID STATE PROTECTION SYSTEM AND RX TRIP BREAKER TESTING. THE CAUSE WAS AN INADEQUATE PROCEDURAL CHANGE WHICH HAD BEEN RECENTLY IMPLEMENTED.	
VOGTLE 2	12/23/09	425	2	4252009001	45588	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO LOSS OF INSTRUMENT AIR TO THE TURBINE BUILDING. THE INSTRUMENT AIR LOSS WAS CAUSED BY AN INAPPROPRIATE LINEUP WHILE RESTORING AN INSTRUMENT AIR DRYER TO SERVICE FOLLOWING MAINTENANCE.	
VOGTLE 2	04/23/07	425	2	4252007002	43313	OPERATE	AUTO	A GENERATOR NEUTRAL GROUND RELAY ACTUATED CAUSING A TURBINE TRIP AND SUBSEQUENT REACTOR TRIP.	
VOGTLE 2	08/27/06	425	2	4252006003	42806	OPERATE	AUTO	A REACTOR COOLANT PUMP TRIPPED, RESULTING IN A LOW FLOW REACTOR SCRAM.	
VOGTLE 2	11/20/04	425	2	4252004004	41213	OPERATE	AUTO	A RX TRIP OCCURRED ON A GENERAL WARNING WHEN AN OPERATOR ERRONEOUSLY OPERATED THE OPPOSITE TRAIN TEST SWITCH DURING SSPS AND RX TRIP BREAKER SURVEILLANCE.	
VOGTLE 2	11/13/02	425	2	4252002002	39367	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED WHEN HIGH SG WATER LEVEL TRIPPED THE MAIN TURBINE AND MAIN FEEDWATER. THE CAUSE WAS FAILURE OF THE SGWL CONTROL OPERATOR TO FOLLOW PROCEDURE WHILE TRANSFERING TO THE MAIN FEEDWATER REGULATING VALVES.	
VOGTLE 2	04/07/01	425	2	4252001001	37898	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON A LOSS OF FEEDWATER FLOW WHILE TESTING THE FEEDWATER PUMP TRIP SIGNAL. THE LINK THAT DISABLES THE TRIP SIGNAL WAS NOT FULLY OPENED, ALLOWING THE TRIP SIGNAL TO TRIP THE OPERATING FEED PUMP.	
BRUNSWICK 1	05/05/10	325	2	3252010003	45902	OPERATE	AUTO	FOLLOWING LOSS OF A REACTOR FEEDWATER PUMP WITH FAILURE OF THE RECIRC PUMPS TO RUN BACK, THE REACTOR TRIPPED ON LOW REACTOR WATER LEVEL. THE CAUSE OF THE FEEDWATER PUMP TRIP WAS A PULSATION DAMPER INSTALLED IN THE RFP FLOW SENSING LINE.	
BRUNSWICK 1	11/26/08	325	2	3252008007	44685	OPERATE	AUTO	AN APPARENT MALFUNCTION OF THE EHC WHILE SYNCHRONIZING THE MAIN GENERATOR TO THE GRID RESULTED IN THE MSIVS GOING CLOSED AND A SUBSEQUENT AUTOMATIC REACTOR SCRAM.	
BRUNSWICK 1	07/13/05	325	2	3252005005	41837	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED WHEN ONE PHASE OF THE GENERATOR NO-LOAD DISCONNECT SWITCH SHORTED TO GROUND. THE CAUSE WAS INADEQUATE DESIGN AND TESTING OF THE SWITCH BY THE VENDOR; RESULTING IN THE SWITCH NOT MEETING ITS NAMEPLATE DESIGN RATING.	
BRUNSWICK 1	08/14/04	325	2	3252004002	40954	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED FOLLOWING A LOSS OF OFFSITE POWER AND RESULTING LOSS OF RX RECIRCULATION PUMPS. THE CAUSE WAS A SWITCHYARD BREAKER FAILURE AND BREAKER SCHEME IN AFFECT DURING AN OFFSITE WEATHER RELATED TRANSMISSION LINE FAULT.	

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BRUNSWICK 1	01/12/03	325	2	3252003001	39504	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW RX VESSEL WATER LEVEL FOLLOWING A FEED PUMP TRIP. THE CAUSE WAS INSUFFICIENT LUBE OIL PRESSURE MARGIN ON THE RX FEED PUMP BEARING HEADER AFTER THE RUNNING FEEDPUMP LUBE OIL PUMP TRIPPED.	
BRUNSWICK 2	08/30/08	324	2	3242008001	44453	OPERATE	AUTO	A MALFUNCTION OF THE ELECTRO-HYDRAULIC CONTROL SYSTEM CAUSED THE TURBINE BYPASS VALVES TO CYCLE. THE REACTOR AUTOMATICALLY TRIPPED JUST PRIOR TO BEING MANUALLY TRIPPED. THE TRIP WAS PROBABLY DUE TO A SHORT IN THE MAIN GENERATOR'S CURRENT MONITOR CIRCUIT.	THE EXACT CAUSE OF THE REACTOR TRIP IS NOT CERTAIN. THE MOST PROBABLE CAUSE WAS A SHORT IN THE MAIN GENERATOR'S CURRENT MONITORING CIRCUIT RESULTING IN A TURBINE TRIP.
BRUNSWICK 2	11/09/08	324	2	3242008002	44647	OPERATE	MAN	AN SRV SPURIOUSLY OPENED AND WOULD NOT SHUT. THE REACTOR WAS MANUALLY TRIPPED WHEN TORUS TEMPERATURE REACHED 109.8-DEGREES.	
BRUNSWICK 2	11/01/06	324	2	3242006001	42955	OPERATE	MAN	THE REACTOR WAS MANUALLY SCRAMMED FOLLOWING LOSS OF THE STARTUP AUXILIARY TRANSFORMER.	
BRUNSWICK 2	12/25/06	324	2	3242006003	43062	OPERATE	AUTO	THE REACTOR TRIPPED UPON RECEIPT OF TWO CHANNELS OF OPRM NEUTRON MONITORING TRIP SIGNALS.	THE REACTOR SCRAMMED ON NEUTRON MONITORING SYSTEM OSCILLATION POWER RANGE MONITORS (OPRM) TRIP SIGNALS.
BRUNSWICK 2	11/11/06	324	2	3242006002	42986	STARTUP	MAN	DURING STARTUP AT 1% POWER, THE REACTOR WAS MANUALLY TRIPPED DUE TO HIGH CONDUCTIVITY IN THE CONDENSER. THE CAUSE OF THE HIGH CONDUCTIVITY WAS LEAKING TUBES DUE TO MISSING TUBE PLUGS.	
BRUNSWICK 2	04/09/05	324	2	3242005002	41582	OPERATE	AUTO	A RX SCRAM OCCURRED ON LOW RX WATER LEVEL AFTER THE ONLY OPERATING FEEDPUMP TRIPPED ON LOW SUCTION PRESSURE DURING POWER ASCENSION TESTING. THE CAUSE WAS NO PROCEDURAL GUIDANCE EXISTED FOR LIMITING CONDENSATE SYSTEM FLOW RATE DURING THE TESTING.	
BRUNSWICK 2	04/04/03	324	2	3242003003	39733	OPERATE	AUTO	A RX SCRAM OCCURRED ON AN MSIV CLOSURE AFTER AN ELECTROHYDRAULIC CONTROL MALFUNCTION CAUSED THE MAIN TURBINE BYPASS VALVES TO OPEN. THE CAUSE WAS AN INTERMITTENT ERROR SIGNAL FROM AN EHC CARD THAT WAS IMPROPERLY ENGAGED IN ITS HARDWARE SLOT.	
BRUNSWICK 2	11/04/03	324	2	3242003004	40297	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON LOSS OF EXCITATION. THE CAUSE WAS FAILURE OF THE GENERATOR EXCITER INNER COLLECTOR RING AND BRUSH HOLDERS WHICH RESULTED FROM A FABRICATION DEFICIENCY AT INITIAL INSTALLATION.	
BRUNSWICK 2	02/23/01	324	2	3242001001	37777	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED FOLLOWING A TURBINE EHC SYSTEM FAILURE. THE CAUSE WAS AN INTERMITTENT ELECTRICAL CONNECTION THAT RESULTED IN A FALSE HIGH TURBINE SPEED SIGNAL AND TURBINE TRIP.	
BRUNSWICK 2	09/22/00	324	2	3242000002	37364	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED FOLLOWING A MAIN TRANSFORMER FAULT. THE TRANSFORMER FAULT RESULTED FROM A LOSS OF COOLING. THE BREAKER SUPPLYING POWER TO THE COOLING COMPONENTS TRIPPED FOR UNKNOWN REASONS.	
BROWNS FERRY 1	02/18/09	259	2	2592009001	44860	OPERATE	AUTO	THE RX TRIPPED FOLLOWING A MAIN TURBINE TRIP. THE TURBINE TRIP WAS CAUSED BY A POWER LOAD UNBALANCED SIGNAL DUE TO A NEUTRAL OVER VOLTAGE CONDITION. THE CAUSE OF THE TRIP WAS A GROUND CAUSED BY WATER ENTRAINED IN THE ISOPHASE BUS DUCT COOLING SYSTEM.	
BROWNS FERRY 1	05/24/07	259	2	2592007002	43381	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DURING STARTUP DUE TO AN OIL LEAK IN THE MAIN TURBINE ELECTRO-HYDRAULIC CONTROL SYSTEM.	

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BROWNS FERRY 1	06/09/07	259	2	2592007005	43414	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP. THE TURBINE TRIPPED DUE TO HIGH LEVEL IN A MOISTURE SEPARATOR DRAIN TANK. THE ROOT CAUSE IS THE SIZING OF THE MOISTURE SEPARATOR LEVEL CONTROL DUMP VALVE.	
BROWNS FERRY 1	08/11/07	259	2	2592007007	43560	OPERATE	AUTO	THE REACTOR SCRAMMED DUE TO AN APRM TRIP SIGNAL. THE CAUSE WAS THE RECIRCULATION SYSTEM FLOW TRANSMITTER SENSING LINE BECOMING SEPARATED, GIVING A LOW FLOW SIGNAL TO THE NEUTRON MONITORING SYSTEM.	
BROWNS FERRY 1	09/03/07	259	2	2592007008	43613	OPERATE	MAN	A REACTOR TRIP WAS MANUALLY INITIATED DUE TO AN INCREASING LEAK IN THE TURBINE GENERATOR'S ELECTRO-HYDRAULIC CONTROL SYSTEM. THE CAUSE WAS A THROUGH WALL LEAK DUE TO FRETTING OF THE EHC TUBING AGAINST A STEEL SUPPORT MEMBER.	
BROWNS FERRY 1	10/12/07	259	2	2592007009	43718	OPERATE	AUTO	AN AUTOMATIC REACTOR SCRAM OCCURRED FOLLOWING A TURBINE TRIP. THE CAUSE OF THE TURBINE TRIP WAS A FALSE HIGH MOISTURE SEPARATOR LEVEL SIGNAL.	
BROWNS FERRY 2	06/09/10	260	2	2602010003	45990	OPERATE	AUTO	DURING RPS BUS TRANSFER FOR MAINTENANCE, THE MSIVS CLOSED, RESULTING IN A REACTOR SCRAM. THE CAUSE OF THE MSIV CLOSURE WAS INDETERMINATE.	
BROWNS FERRY 2	02/16/09	260	2	2602009001	44854	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO LOSS OF STATOR WATER COOLING TO THE MAIN GENERATOR. THE CAUSE OF THE LOSS OF STATOR WATER COOLING WAS THE SINGLE-POINT FAILURE OF THE TEMPERATURE CONTROL VALVE.	
BROWNS FERRY 2	09/29/09	260	2	2602009007	45391	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE RAPIDLY LOWERING REACTOR VESSEL LEVEL CAUSED BY LOSS OF ONE OF THE TWO AVAILABLE CONDENSATE BOOSTER PUMPS. WITH ONE PUMP UNAVAILABLE FOR MAINTENANCE, A SECOND PUMP TRIPPED WHILE REMOVING A FEEDWATER PUMP FROM SERVICE.	
BROWNS FERRY 2	10/04/08	260	2	2602008001	44540	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE-GENERATOR LOAD REJECTION SIGNAL. THE CAUSE OF THE LOAD REJECTION SIGNAL WAS A FAILED RELAY IN THE TURBINE GENERATOR VOLTAGE REGULATOR.	
BROWNS FERRY 2	01/11/07	260	2	2602007001	43092	OPERATE	AUTO	THE REACTOR SCRAMMED DUE TO A TURBINE TRIP. THE TURBINE TRIPPED DUE TO THE MAIN 500KV OUTPUT BREAKER OPENING. THE CAUSE OF THE GENERATOR LOAD REJECTION WAS A FAILED RELAY IN THE MAIN GENERATOR VOLTAGE REGULATOR.	
BROWNS FERRY 2	08/05/05	260	2	2602005007	41896	OPERATE	AUTO	A SCRAM OCCURRED ON LOW RX WATER LEVEL FOLLOWING THE LOSS OF THE "2C" AND "2B" RX FEED PUMPS. THE CAUSE WAS DISCONNECTED CONTROL VALVE LINKAGE FOR ONE PUMP AND A THRUST BEARING WEAR DETECTOR TRIP ON THE OTHER PUMP.	
BROWNS FERRY 2	07/08/04	260	2	2602004001	40858	OPERATE	AUTO	A RX SCRAM OCCURRED ON A SPURIOUS TURBINE GENERATOR LOAD REJECT SIGNAL. THE CAUSE WAS AN INADEQUATE PROCEDURE GOVERNING TRANSFER OF A 120 VAC UPS BUS AND A CONTRIBUTING FACTOR WAS AN INADEQUATE EHC SYSTEM SOFTWARE CONFIGURATION.	
BROWNS FERRY 2	07/10/04	260	2	2602004002		STARTUP	AUTO	A SCRAM OCCURRED ON A SPURIOUS UPSCALE TRIP ON THE INTERMEDIATE RANGE MONITORS. THE CAUSE WAS ELECTRICAL NOISE GENERATED BY MOVEMENT OF IRM "C".	

PLANT NAME	EVENT DATE	DOCKET	REGION	Licensee Event Report Number	Event Notification	UNIT MODE	SCRAM	Scram Cause / Description	NOTES
BROWNS FERRY 2	03/26/03	260	2	2602003003	39702	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED FOLLOWING A TRIP OF THE '2B' RX RECIRCULATION PUMP, THE "2A" RX RECIRCULATION PUMP HAD TRIPPED EARLIER IN THE SHIFT. THE CAUSE WAS SPIKING IN THE NEUTRAL VOLTAGE SIGNALS IN THE VARIABLE FREQUENCY DRIVES FOR UNKNOWN REASONS.	
BROWNS FERRY 2	07/27/02	260	2	2602002002	39100	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED ON A MAIN GENERATOR TRIP RESULTING FROM A GROUND FAULT ON A MAIN BANK TRANSFORMER BUSHING. THE CAUSE WAS THERMAL DEGRADATION OF THE PAPER INSULATION OF THE BUSHING'S INTERNAL CONDENSER.	
BROWNS FERRY 2	07/25/01	260	2	2602001003	38171	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON AN ERRONEOUS POWER-LOAD UNBALANCE SIGNAL DURING COMBINED INTERMEDIATE VALVE TESTING. THE SIGNAL RESULTED FROM AN ERROR IN THE EHC CONTROLLER SOFTWARE.	
BROWNS FERRY 3	12/26/10	296	2	2962010004	46511	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO HIGH VIBRATIONS ON THE GENERATOR EXCITER INBOARD AND OUTBOARD JOURNAL BEARINGS.	
BROWNS FERRY 3	08/24/09	296	2	2962009001	45290	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FOLLOWING THE LOSS OF 2 OF THE 3 CONDENSATE BOOSTER PUMPS. THE PUMPS TRIPPED ON LOW SUCTION PRESSURE. THE CAUSE OF THE LOW CONDENSATE SUCTION PRESSURE WAS FAILURE OF THE CONDENSATE DEMINERALIZERS LOGIC CONTROL.	
BROWNS FERRY 3	02/09/07	296	2	2962007001	43159	OPERATE	AUTO	LOWERING CONDENSATE FLOW RESULTED IN LOWERING FEEDWATER FLOW, CAUSING THE REACTOR TO SCRAM ON LOW REACTOR WATER LEVEL. THE CAUSE OF THE LOWERING CONDENSATE FLOW WAS LOSS OF THE CONDENSATE DEMINERALIZER DUE TO PERSONNEL ERROR.	
BROWNS FERRY 3	12/31/07	296	2	2962007005	43878	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A MAIN GENERATOR LOAD REJECTION. THE CAUSE OF THE LOAD REJECTION WAS A SPURIOUS OPERATION OF THE GENERATOR PHASE DISCORDANCE RELAY.	
BROWNS FERRY 3	08/19/06	296	2	2962006002	42787	OPERATE	MAN	THE REACTOR WAS MANUALLY SCRAMMED FOLLOWING THE TRIP OF BOTH REACTOR RECIRCULATION PUMPS. THE CAUSE OF THE PUMPS TRIPPING WAS A MALFUNCTION OF THE VARIABLE FREQUENCY DRIVE MICROPROCESSORS.	
BROWNS FERRY 3	08/29/06	296	2	2962006003	42813	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED AT 78% POWER DUE TO AN OIL LEAK IN THE #2 MAIN TURBINE CONTROL VALVE HYDRAULIC SYSTEM.	
BROWNS FERRY 3	02/11/05	296	2	2962005001	41404	OPERATE	AUTO	A RX SCRAM OCCURRED ON LOAD REJECT WHEN THE OUTPUT BREAKER TRIPPED DURING A RESTORATION FROM SWITCHYARD MAINTENANCE. A SWITCHYARD DISCONNECT DEVICE WAS INSERTED OUT OF SEQUENCE FROM THE INSTRUCTIONS GIVEN IN A SWITCHING ORDER.	
BROWNS FERRY 3	09/17/05	296	2	2962005002	41997	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED ON LOW MAIN CONDENSER VACUUM DURING A MAINTENANCE ACTIVITY TO REPAIR IN PLACE A SECONDARY PLANT HIGH PRESSURE FEEDWATER HEATER LEVEL CONTROL VALVE. AN AIR INLEAKAGE PATH WAS CREATED DURING THE MAINTENANCE ACTIVITY.	

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BROWNS FERRY 3	10/31/05	296	2	2962005003	42102	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED DURING AN ELECTRICAL DISTURBANCE WHEN A SWITCHYARD BREAKER WAS CLOSED ONTO A GROUNDED TRANSMISSION LINE. THE CAUSE WAS FAILURE TO ENSURE THE GROUNDING SWITCHES ON THE TRANSMISSION LINE WERE OPENED PRIOR TO THE ACTIVITY.	
BROWNS FERRY 3	11/23/04	296	2	2962004002	41219	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED AS THE RESULT OF A GRID DISTURBANCE CAUSED BY A LIGHTNING STRIKE.	
BROWNS FERRY 3	04/15/00	296	2	2962000001	36892	OPERATE	AUTO	A RX SCRAM OCCURRED ON LOW RX VESSEL WATER LEVEL FOLLOWING A MARKED SPEED REDUCTION OF A RX FEED PUMP. THE CAUSE WAS A CLOGGED FEED PUMP CONTROL OIL FILTER. AFTER RECEIVING A HIGH DP ALARM, OPERATORS DELAYED SWAPPING THE FILTER WITH A CLEAN ONE.	
BROWNS FERRY 3	05/24/00	296	2	2962000005	37027	OPERATE	AUTO	A RX SCRAM OCCURRED ON AN INVALID LOW RX WATER LEVEL SIGNAL GENERATED WHILE RETURNING A FEEDWATER LEVEL TRANSMITTER TO SERVICE. THE CAUSE WAS A LACK OF SPECIFIC PROCEDURALIZED VALVING SEQUENCES FOR THE LEVEL TRANSMITTER.	
BRAIDWOOD 1	08/16/10	456	3	4562010001	46178	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE GENERATOR TRIP. THE TURBINE TRIPPED DUE TO LOSS OF CONDENSER VACUUM CAUSED BY THE LOSS OF THE ELECTRICAL BUS SUPPLYING THE CIRC WATER PUMPS. THE BUS WAS LOST WHEN WATER OVERFLOWED FROM THE AFW STANDPIPES.	
BRAIDWOOD 1	09/20/10	456	3	4562010004	46262	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP. THE TURBINE TRIP WAS CAUSED WHEN TESTING A S/G WATER LEVEL CHANNEL. ONE CHANNEL OF THE SSPS LOGIC WAS FAILED, AND WHEN THE OTHER CHANNEL WAS PLACED IN TEST, A TURBINE TRIP OCCURRED.	
BRAIDWOOD 1	06/27/07	456	3	4562007001	43449	OPERATE	AUTO	A REACTOR COOLANT PUMP BREAKER TRIPPED DURING A THUNDERSTORM DUE TO A GRID DISTURBANCE ON A 345 KV TRANSMISSION LINE. THIS RESULTED IN A REACTOR COOLANT PUMP TRIP AND SUBSEQUENT REACTOR TRIP.	
BRAIDWOOD 2	08/16/10	457	3	4572010003	46178	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TRIP OF THE TURBINE GENERATOR. THE TURBINE GENERATOR TRIPPED DUE TO A GENERATOR LOCKOUT RELAY ACTUATION. THE LOCKOUT RELAY ACTUATION WAS CAUSED BY A PHASE-TO-GROUND FAULT IN THE ISOLATED PHASE (ISOPHASE) BUS DUCT.	
BRAIDWOOD 2	04/24/09	457	3	4572009001	45017	OPERATE	AUTO	THE REACTOR TRIPPED WHILE PERFORMING REACTOR TRIP INSTRUMENTATION CALIBRATION. WITH THE "B" TRAIN OF PZR PRESSURE IN TEST, A SPIKE OCCURRED ON THE "D" TRAIN OF RCS HIGH-TEMPERATURE-DELTA-TEMPERATURE, RESULTING IN A SCRAM.	SCRAMMED ON HIGH TEMPERATURE DELTA TEMPERATURE SIGNAL SPIKE.
BRAIDWOOD 2	07/30/09	457	3	4572009002	45238	OPERATE	AUTO	A FAULT ON THE SAT SUDDEN PRESSURE RELAY TRIPPED THE TRANSFORMER. A SLOW AUTOMATIC BUS TRANSFER RESULTED IN A REACTOR COOLANT PUMP TRIPPING ON OVER CURRENT. THIS RESULTED IN A REACTOR TRIP.	
BRAIDWOOD 2	12/27/08	457	3	4572008002	44743	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP. THE TURBINE TRIP WAS CAUSED BY ACTUATION OF THE UNIT AUXILIARY TRANSFORMER'S SUDDEN PRESSURE RELAY. THE DIRECT CAUSE WAS A PHASE-TO-PHASE MOTOR FAULT ON A HEATER DRAIN PUMP.	

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BRAIDWOOD 2	08/23/07	457	3	4572007001	43590	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO LOWERING CONDENSER VACUUM FOLLOWING THE TRIP OF TWO CIRC WATER PUMPS. THE CAUSE OF THE CIRC WATER PUMP TRIPS WAS A FALSE HIGH DIFFERENTIAL LEVEL INDICATION ACROSS THE TRAVELING SCREENS.	
BRAIDWOOD 2	03/28/05	457	3	4572005002	41535	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED DUE TO GENERATOR PROTECTIVE CIRCUITRY. THE CAUSE WAS A FAILED MAIN GENERATOR "C" PHASE BUSHING RESULTING FROM AN INADEQUATE REDESIGN OF THE BUSHING IN THE 2000 TIME PERIOD.	
BRAIDWOOD 2	12/22/04	457	3	4572004002	41280	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL FOLLOWING THE FAILURE OF A STEAM FLOW ISOLATION CARD IN THE SG WATER LEVEL CONTROL SYSTEM.	
BRAIDWOOD 2	12/03/03	457	3	4572003004	40370	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG LEVEL DURING WEEKLY FEEDWATER SURVEILLANCE OF THE HP STOP VALVE. THE CAUSE WAS A CASCADING LOSS OF THE "2C" AND "2B" FEEDWATER PUMPS CAUSED BY A LACK OF PREVENTIVE MAINTENANCE.	
BRAIDWOOD 2	05/19/01	457	3	4572001001	38012	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW RX COOLANT FLOW WHEN A RCP LOST POWER DURING AN ELECTRICAL PLANT MANIPULATION. PERSONNEL OPENED THE WRONG POTENTIAL TRANSFORMER FUSE DOOR, DEENERGIZING THE RCP'S 6.9 KV BUS.	
BRAIDWOOD 2	04/15/00	457	3	4572000002	36893	OPERATE	AUTO	A RX TRIP OCCURRED ON HIGH NEGATIVE FLUX RATE FOLLOWING A DROPPED ROD. A CONTROL BANK STATIONARY GRIPPER FUSE WAS FOUND BLOWN, WHICH WAS BELIEVED TO BE AN ISOLATED FAILURE.	
BEAVER VALLEY 1	09/07/06	334	1	3342006004	42834	OPERATE	AUTO	AN AUTOMATIC REACTOR TRIP OCCURRED FOLLOWING THE SPURIOUS OPENING OF THE B REACTOR TRIP BREAKER. THE REACTOR TRIP BREAKER OPENED DUE TO FAILURE OF THE UNIVERSAL LOGIC CARD OUTPUT GATE IN THE SOLID STATE PROTECTION SYSTEM.	
BEAVER VALLEY 1	02/24/03	334	1	3342003001	39616	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW STEAM LINE PRESSURE. THE CAUSE WAS CLOSURE OF THE "C" MSIV WHEN ITS WEST CYLINDER RUPTURE DISK WAS DAMAGED BY HUMAN ERROR DURING A MAINTENANCE ACTIVITY AND FAILED.	
BEAVER VALLEY 1	11/13/03	334	1	3342003007	40320	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED WHEN TECHNICIANS CONNECTED A DIGITAL VOLT METER ACROSS THE INCORRECT TERMINALS DURING TESTING IN THE RX TRIP BREAKER SWITCHGEAR CABINET.	
BEAVER VALLEY 1	11/11/02	334	1		39363	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO A TURBINE MOTORING CONDITION ALARM. THE LICENSEE IS INVESTIGATING THE CAUSE.	
BEAVER VALLEY 1	06/22/01	334	1	3342001001	38086	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED WHEN DEGRADED INSTRUMENT AIR PRESSURE RESULTED IN THE LOSS OF COOLING WATER TO THE REACTOR COOLANT PUMPS. THE CAUSE WAS AGING/CYCLIC FATIGUE FAILURE OF AN INSTRUMENT AIR SYSTEM BLOWDOWN VALVE.	
BEAVER VALLEY 1	11/06/01	334	1	3342001003	38472	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL AFTER A FEEDWATER CONTROL VALVE FAILED CLOSED. THE CAUSE WAS A FAILED DIODE IN THE PROCESS RACK MODULE THAT CONTROLS THE VALVE ACTUATOR.	

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BEAVER VALLEY 1	12/07/01	334	1	3342001004	38548	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON DECREASING STATION INSTRUMENT AIR PRESSURE. ONE COMPRESSOR WAS OUT OF SERVICE FOR MAINTENANCE WHEN THE OTHER COMPRESSOR TRIPPED DUE TO A BLOWN CONTROL CIRCUIT FUSE. THE CAUSE WAS A FAILURE OF THE STATION WORK PROCESS.	
BEAVER VALLEY 1	04/17/00	334	1	3342000005	36901	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO DEGRADING CONDENSER VACUUM. THE CAUSE WAS INADEQUATE STEAM SUPPLY TO THE AIR EJECTORS DUE TO A MALFUNCTIONING AUXILIARY STEAM PRESSURE CONTROL VALVE.	
BEAVER VALLEY 1	07/05/00	334	1	3342000006	37145	OPERATE	AUTO	A TURBINE TRIP/RX TRIP OCCURRED FOLLOWING A MOMENTARY LOSS OF DC CONTROL POWER TO THE ANALOG ELECTROHYDRAULIC (AEH) CONTROL SYSTEM ASSOCIATED WITH THE MAIN TURBINE. THE CAUSE WAS A FAULT IN THE AEH CONTROL CABINET BUT THE SPECIFIC CAUSE IS UNKNOWN.	
BEAVER VALLEY 2	04/10/11	412	1		46744	OPERATE	MAN	DURING STARTUP, A LEAK WAS DISCOVERED ON AN AFW CONTAINMENT PENETRATION LINE. A SHUTDOWN WAS COMMENCED. THE REACTOR WAS MANUALLY TRIPPED WHEN STEAM GENERATOR 21A LEVEL DROPPED TO THE MANUAL TRIP CRITERIA OF 25%.	
BEAVER VALLEY 2	04/02/06	412	1	4122006001	42467	OPERATE	AUTO	A RX TRIP OCCURRED ON A GENERATOR TRIP. THIS WAS CAUSED BY IMPROPER ASSEMBLY OF THE GENERATOR FIELD POLE SUPPORT BLOCKS.	
BEAVER VALLEY 2	10/14/03	412	1	4122003003	40247	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL WHILE DECREASING POWER FOR HEATER DRAIN PUMP REPAIRS. THE "B" MAIN FEEDWATER REGULATING VALVE DID NOT RESPOND PROPERLY. THE CAUSE WAS A FAILED CARD IN THE FEEDWATER SG WATER LEVEL CONTROL SYSTEM.	
BEAVER VALLEY 2	03/17/01	412	1	4122001001	37845	OPERATE	AUTO	A RX TRIP OCCURRED ON DECREASING SG WATER LEVELS FOLLOWING A CONDENSATE PUMP TRIP AND SUBSEQUENT FEEDWATER PUMP TRIP. THE CAUSE WAS A FAILED ELECTRICAL JOINT ON ONE PHASE OF THE CONDENSATE PUMP POWER LEAD.	
BYRON 1	10/15/02	454	3	4542002003	39286	OPERATE	AUTO	A RX TRIP OCCURRED ON OVERTEMPERATURE DELTA-TEMPERATURE WHEN THE TURBINE GOVERNOR VALVES FAILED CLOSED. THE CAUSE WAS AN INTERMITTENTLY FAILED DEHC CARD AND COULD NOT BE DIAGNOSED. THIS IS THE FIRST OF TWO EVENTS.	FEEDWATER ISOLATED AND AFW WAS MANUALLY STARTED.
BYRON 1	11/07/02	454	3	4542002003	39353	OPERATE	AUTO	A RX TRIP OCCURRED ON OVERTEMPERATURE DELTA-TEMPERATURE WHEN THE TURBINE GOVERNOR VALVES FAILED CLOSED. THE CAUSE WAS A FAILED DEHC SYSTEM CARD. THIS IS THE SECOND OF TWO SIMILAR EVENTS.	
BYRON 2	10/19/05	455	3	4552005001	42063	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL AFTER THE CONDENSATE/CONDENSATE BOOSTER PUMP TRIPPED ON OVER CURRENT. THE CAUSE WAS A STATOR WINDING FAILURE.	
BYRON 2	06/26/01	455	3	4552001002	38094	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO DECREASING SG WATER LEVEL AFTER A FEEDWATER REGULATING VALVE FAILED. THE CAUSE WAS AN INCORRECTLY INSTALLED RETAINING CLIP IN THE VALVE POSITIONER.	
BYRON 2	01/13/00	455	3	4552000001	36585	OPERATE	AUTO	A TURBINE TRIP/RX TRIP OCCURRED FOLLOWING AN OFFSITE POWER LINE FAULT. A FAILED CIRCUIT BREAKER LOAD REJECTION CONTACT PREVENTED THE FAULT FROM BEING ISOLATED IN THE SWITCHYARD.	

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BYRON 2	07/26/00	455	3	4552000002	37187	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL. A CIRCUIT CARD FAILURE IN THE MAIN FEEDWATER REGULATING VALVE CIRCUITRY AND INAPPROPRIATE OPERATOR RESPONSE CAUSED THE VALVE TO CLOSE.	
CALLAWAY	11/11/08	483	4	4832008005	44652	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FOLLOWING A MAIN FEED PUMP TRIP. THE FEED PUMP TRIPPED ON LOW LUBE OIL PRESSURE.	
CALLAWAY	12/11/08	483	4	4832008006	44714	OPERATE	AUTO	A FEEDWATER TRANSIENT CAUSED BY A CONDENSATE PUMP TRIP RESULTED IN THE REACTOR TRIPPING ON HIGH STEAM GENERATOR LEVEL. THE CONDENSATE PUMP TRIPPED DUE TO AN ELECTRICAL GROUND FAULT.	
CALLAWAY	12/14/08	483	4	4832008008	44719	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED WHEN A CONDENSATE PUMP DEVELOPED A MOTOR GROUND FAULT. THE THIRD CONDENSATE PUMP WAS NOT AVAILABLE AT THE TIME.	
CALLAWAY	03/09/07	483	4	4832007002	43227	OPERATE	MAN	WHILE REDUCING POWER FROM 100% DUE TO A CONDENSER TUBE LEAK, THE REACTOR WAS TRIPPED AT 30% POWER DUE TO INADEQUATE FEEDWATER CONTROL. LEVEL WAS INCREASING WITH BOTH THE MFRV AND THE BYPASS VALVE CLOSED. AN I/P POSITIONER ON THE MFRV HAD FAILED.	
CALLAWAY	05/12/06	483	4	4832006004	42571	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON HIGH SG WATER LEVEL FOLLOWING A MANUAL TURBINE TRIP FOR HIGH VIBRATION.	
CALLAWAY	01/19/05	483	4	4832005001	41347	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL FOLLOWING A MOMENTARY LOSS OF POWER IN A CONTROL CABINET RELAY PANEL DURING A POWER SUPPLY REPLACEMENT ACTIVITY. THE CAUSE WAS INADEQUATE WORK INSTRUCTIONS FOR THE REPLACEMENT ACTIVITY.	
CALLAWAY	01/27/04	483	4	4832004002	40484	OPERATE	AUTO	A RX TRIP OCCURRED AS A RESULT OF A FAILED ELECTRICAL RELAY IN THE MAIN GENERATOR PROTECTION CIRCUITRY.	
CALLAWAY	02/03/04	483	4	4832004003	40500	OPERATE	AUTO	A RX TRIP OCCURRED WHEN THE MAIN GENERATOR OUTPUT BREAKERS OPENED DURING SWITCHYARD MAINTENANCE. THE CAUSE WAS A FAULTED TIMER RELAY IN THE GENERATOR PROTECTION CIRCUITRY.	
CALLAWAY	02/15/04	483	4	4832004005	40522	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL DURING A FEEDWATER TRANSIENT AFTER A TRANSFER FROM THE BYPASS FEEDWATER REGULATING VALVES TO THE MAIN FEEDWATER REGULATING VALVES. THE CAUSE WAS INSUFFICIENT FEEDWATER PREHEATING.	
CALLAWAY	12/14/02	483	4	4832002014	39445	OPERATE	AUTO	A RX TRIP OCCURRED ON OTDT THAT WAS GENERATED DURING A DOWN POWER AT ONE PERCENT PER MINUTE TO SECURE THE "C" CONDENSATE PUMP DUE TO AN OIL LEAK. THE ACCUMULATION OF OTDT PENALTY POINTS CULMINATED IN A ROD STOP, TURBINE RUNBACK, AND SUBSEQUENT RX TRIP.	
CALLAWAY	03/09/01	483	4	4832001003	37821	OPERATE	AUTO	A RX TRIP FOLLOWED A LOSS OF POWER TO THE ROD CONTROL SYSTEM. A ROD DRIVE MG SET OUTPUT BKR OPENED AFTER THE OTHER TRAIN'S BKR WAS OPENED FOR MAINTENANCE. ALL RODS INSERTED RESULTING IN AN OTDT RX TRIP. THE CAUSE WAS A 40 VOLT RIPPLE IN A DC BUS.	
CALLAWAY	02/13/00	483	4	4832000002	36685	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW RCS FLOW FOLLOWING THE TRIP OF A RCP. SHORTLY AFTER THE TRIP, THE THREE REMAINING RCPS AND ALL MAIN CIRCULATING WATER PUMPS TRIPPED. THE CAUSE WAS FLUCTUATING GRID VOLTAGE.	NO CHANGES.

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CALVERT CLIFFS 1	02/18/10	317	1	3172010001	45709	OPERATE	AUTO	THE REACTOR TRIPPED DUE TO THE LOSS OF AN RCP FOLLOWING A PARTIAL LOSS OF OFFSITE POWER. THE RCP WAS LOST DUE TO AN ELECTRICAL MALFUNCTION. THE FAULT WAS CAUSED BY A SHORT DUE TO WATER INTRUSION INTO THE RELAY PROTECTION CIRCUITRY CUBICLE.	
CALVERT CLIFFS 1	05/12/10	317	1	3172010003	45920	OPERATE	AUTO	THE REACTOR TRIPPED ON HIGH PRESSURIZER PRESSURE FOLLOWING A LOAD REJECTION. THE LOAD REJECTION WAS CAUSED BY A GENERATOR OUTPUT BREAKER OPENING WHILE THE REDUNDANT BREAKER WAS OPEN FOR MAINTENANCE. THE BREAKER OPENED DUE TO A LOOSE 125VDC CONNECTION.	
CALVERT CLIFFS 1	12/12/06	317	1	3172006004	43046	OPERATE	MAN	DURING MAINTENANCE ON THE TURBINE CONTROL SYSTEM, A TRANSIENT WAS CAUSED IN THE REACTOR COOLANT SYSTEM RESULTING IN A MANUAL REACTOR TRIP. THE CAUSE OF THE TRANSIENT WAS A BROKEN WIRE IN THE ELECTRICAL CABINET OF TURBINE CONTROL VALVE 3.	
CALVERT CLIFFS 1	03/01/05	317	1	3172005002	41452	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON HIGH TURBINE GENERATOR VIBRATION. THE CAUSE WAS RUBBING RESULTING FROM TIGHT PACKING TO ROTOR CLEARANCES.	
CALVERT CLIFFS 1	03/20/04	317	1	3172004001	40601	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL AFTER A FRV CLOSURE AND RESULTING LOSS OF BOTH FEED PUMPS. THE CAUSE WAS A SHORTED CHART RECORDER POWER FEED DURING MAINTENANCE WHICH RESULTED IN THE LOSS OF A DIGITAL FEEDWATER TRANSFER BUS.	
CALVERT CLIFFS 1	07/24/02	317	1	3172002003	39088	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON DECREASING OIL LEVEL AND INCREASING THRUST BEARING TEMPERATURE ON ONE OF FOUR RX COOLANT PUMPS. THE CAUSE WAS A FAILED BUTT WELD ON A RX COOLANT PUMP MOTOR OIL COOLER LINE.	
CALVERT CLIFFS 1	01/14/00	317	1	3172000001	36591	OPERATE	AUTO	A TURBINE TRIP/RX TRIP OCCURRED ON A RX TRIP BUS UNDERVOLTAGE CONDITION. THE CAUSE WAS A FAILURE OF A MG SET LOCAL VOLTAGE ADJUST HAND SWITCH.	
CALVERT CLIFFS 1	09/10/00	317	1	3172000005	37303	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL FOLLOWING THE SPURIOUS CLOSURE OF BOTH MSIVS. THE CAUSE WAS A FAILED LOGIC MODULE IN THE ENGINEERED SAFETY FEATURES ACTUATION SYSTEM.	
CALVERT CLIFFS 2	02/18/10	318	1	3182010001	45709	OPERATE	AUTO	THE REACTOR TRIPPED ON LOW FLOW FOLLOWING A PARTIAL LOSS OF POWER TO THE RCP BUS. THE LOSS OF AN RCP WAS CAUSED BY AN ELECTRICAL MALFUNCTION DUE TO FAILURE OF A GROUND FAULT RELAY.	
CALVERT CLIFFS 2	11/16/06	318	1	3182006001	42995	OPERATE	AUTO	WHILE PERFORMING A CLEARANCE ORDER FOR MAINTENANCE ON TRANSFORMER P-13000-2, A REACTOR TRIP OCCURRED DUE TO HIGH PRESSURE. PERSONNEL INVOLVED IN THE EVOLUTION WERE UNAWARE THAT OPENING THE DISCONNECT WOULD RESULT IN A REACTOR TRIP.	
CALVERT CLIFFS 2	01/23/04	318	1	3182004001	40472	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL FOLLOWING THE TRIP OF A SG FEED PUMP ON AN ERRONEOUS OVER SPEED TRIP SIGNAL. THE CAUSE WAS DEGRADED DIGITAL SPEED MONITOR SUPPLY VOLTAGE RESULTING FROM CORROSION OF AN INLINE FUSE AND HOLDER CONTACTS.	

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CALVERT CLIFFS 2	05/28/03	318	1	3182003003	39885	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON HIGH PZR PRESSURE RESULTING WHEN THE MAIN TURBINE GOVERNOR VALVES SHUT UNEXPECTEDLY DURING TROUBLESHOOTING ON THE MAIN TURBINE CONTROLS. A SHORT CIRCUIT WAS CAUSED BY INCORRECT USE OF TEST EQUIPMENT DURING TROUBLESHOOTING.	
CATAWBA 1	05/20/06	413	2	4132006001	42592	OPERATE	AUTO	A RX TRIP OCCURRED ON A LOSS OF OFFSITE POWER. THE EVENT WAS CAUSED BY FAILURE TO IMPLEMENT RELAY TAP SETTING CHANGES IN SWITCHYARD EQUIPMENT.	
CATAWBA 1	02/22/04	413	2	4132004002	40538	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED AFTER A SG FEEDWATER ISOLATION VALVE FAILED CLOSED. THE CAUSE WAS FAILURE OF THE VALVES HYDRAULIC ACTUATOR WHEN A PLUG IN THE BOTTOM OF THE HYDRAULIC RESERVOIR EJECTED.	
CATAWBA 1	12/05/04	413	2	4132004004	41246	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON MOISTURE SEPARATOR REHEATER INVALID HIGH LEVEL. THE MICRO-SWITCH MECHANISMS ON THE TWO LEVEL SWITCHES WERE OUT OF ADJUSTMENT CONCURRENT WITH EXTERNAL VIBRATION TO THE SWITCHES.	
CATAWBA 1	02/04/03	413	2	4132003001	39559	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON HIGH SG WATER LEVEL AFTER THE FEEDWATER CONTROL SYSTEM WENT TO MANUAL DURING A FEEDWATER TRANSMITTER REPLACEMENT ACTIVITY. THE CAUSE WAS INADEQUATE UNDERSTANDING OF THE MAIN FEEDWATER CONTROL SYSTEM.	
CATAWBA 1	08/29/03	413	2	4132003005	40114	OPERATE	AUTO	A RX TRIP OCCURRED ON OTDT PROTECTION WHEN CHANNEL TWO PZR PRESSURE FAILED LOW WHILE CHANNEL ONE OTDT WAS IN TRIP DUE TO A RX COOLANT HOT LEG TEMPERATURE PROBLEM. THE CAUSE WAS A FAILED PZR PRESSURE LOOP POWER SUPPLY CARD.	
CATAWBA 1	01/17/01	413	2	4132001001	37667	OPERATE	AUTO	A TURBINE TRIP/RX TRIP OCCURRED WHILE INVESTIGATING A PROBLEM WITH THE MECHANICAL TRIP SOLENOID VALVE. TROUBLESHOOTING FAILED TO NOTE THAT THE MECHANICAL TRIP PISTON WAS NOT FULLY RESET DURING LIMIT SWITCH REPLACEMENT AND CALIBRATION.	
CATAWBA 1	02/13/00	413	2	4132000001	36686	OPERATE	AUTO	A RX TRIP OCCURRED FOLLOWING A TURBINE TRIP DUE TO AN ELECTRICAL SHORT ON THE TURBINE ELECTRICAL TRIP SOLENOID VALVE. THE CAUSE WAS THE MISAPPLICATION OF A CONNECTOR INSERT INSULATING MATERIAL.	
CATAWBA 2	05/20/06	414	2	4132006001	42592	OPERATE	AUTO	A REACTOR TRIP OCCURRED ON LOSS OF OFFSITE POWER. THE EVENT WAS CAUSED BY FAILURE TO IMPLEMENT RELAY TAP SETTING CHANGES IN SWITCHYARD EQUIPMENT.	
CATAWBA 2	10/28/04	414	2	4142004002	41154	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED AFTER AN ELECTRICAL FAULT CAUSED SHUTDOWN BANK "D" RODS TO DROP INTO THE CORE. THE MOST PROBABLE CAUSE WAS AN INTERMITTENT FAILURE OF A CIRCUIT CARD IN THE ROD CONTROL SYSTEM.	
CATAWBA 2	12/07/01	414	2	4142001003	38550	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW RX COOLANT SYSTEM FLOW FOLLOWING THE LOSS OF A RCP. THE CAUSE WAS AN INTERNAL ELECTRICAL FAULT IN THE RCP MOTOR.	
CATAWBA 2	06/05/00	414	2	4142000003	37059	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON HIGH SG WATER LEVEL DURING A FEEDWATER TRANSIENT. THE CAUSE WAS A LOSS OF CONTROL POWER TO A FEEDWATER PUMP ATTRIBUTED TO WATER INTRUSION INTO THE FEEDWATER PUMP CONTROL PANEL FROM HEAVY RAINS AND ROOF REPAIRS.	

PLANT NAME	EVENT DATE	DOCKET	REGION	Licensee Event Report Number	Event Notification	UNIT MODE	SCRAM	Scram Cause / Description	NOTES
CLINTON 1	10/15/09	461	3	4612009005	45433	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FOLLOWING THE TRIP OF A REACTOR RECIRCULATION PUMP TRIP. THE CAUSE OF THE RECIRC PUMP TRIP WAS FAILURE OF THE PUMP MOTOR DUE TO INSULATION BREAKDOWN.	
CLINTON 1	02/10/08	461	3	4612008001	43976	OPERATE	AUTO	THE B REACTOR RECIRCULATION PUMP TRIPPED CAUSING THE REACTOR VESSEL LEVEL TO SWELL TO GREATER THAN 48 INCHES. THE REACTOR TRIPPED AUTOMATICALLY ON HIGH REACTOR WATER LEVEL.	
CLINTON 1	03/20/06	461	3	4612006001	42430	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED DUE TO AN OPEN CIRCUIT IN THE CURRENT TRANSFORMER OF THE MAIN GENERATOR OUTPUT. THE CAUSE WAS INADEQUATE WORKMANSHIP RESULTING IN A LOOSE TERMINAL SCREW ON THE CURRENT TRANSFORMER LEAD WIRE.	
CLINTON 1	08/27/06	461	3	4612006003	42807	OPERATE	AUTO	THE HPCS SYSTEM ACTUATED RESULTING IN A REACTOR TRIP DUE TO HIGH WATER LEVEL. THE CAUSE OF THE HPCS ACTUATION IS A MOMENTARY LOSS OF THE DIVISION 4 NSPS INVERTER DUE TO A BAD SOLDER JOINT.	
CLINTON 1	03/22/04	461	3	4612004001	40604	OPERATE	AUTO	A RX SCRAM RESULTED FROM A GENERATOR TRIP. THE CAUSE WAS VIBRATION FATIGUE OF COMPONENTS (CABLE AND OR PIECE OF ALUMINUM LAMINATE) WITHIN THE "B" ISOLATED PHASE BUS DUCT COOLING SYSTEM RESULTING FROM AN INCREASE IN THE DESIGN AIR FLOW RATE.	
CLINTON 1	07/13/04	461	3	4612004003	40868	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED DUE TO A FAULT ON THE GRID EXTERNAL TO THE STATION FROM A LIGHTNING STRIKE ON THE "A" PHASE OF THE BROKAW LINE. LEGACY DESIGN VULNERABILITIES ALLOWED THE FAULT TO RESULT IN AN UNEXPECTED RX TRIP.	
CLINTON 1	04/11/03	461	3	4612003002	39749	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED FROM VIBRATIONS ON THE MAIN TURBINE TRENDING UP TO THE TRIP SETPOINT. THE CAUSE WAS DEFICIENT OPERATING PROCEDURES WHICH DID NOT PROVIDE SUFFICIENT OPERATING RESTRICTIONS OF THE NEW MONOBLOCK TURBINE ROTOR.	
CLINTON 1	12/02/03	461	3	4612003003	40368	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON LOW FEEDWATER SUCTION PRESSURE AND DECREASING RX WATER LEVEL. THE CAUSE WAS A LOST 480 V BUS DUE TO A LACK OF OVERLOAD CIRCUIT PROTECTION FOR A BRANCH CIRCUIT.	
CLINTON 1	05/13/02	461	3	4612002002	38916	OPERATE	AUTO	A RX SCRAM OCCURRED ON HIGH RX WATER LEVEL WHEN A RX FEED PUMP FAILED TO RESPOND TO A LOWERED DEMAND SIGNAL DURING POWER UPRATE TESTING ON FEEDWATER LEVEL CONTROL. THE CAUSE WAS LOCK UP OF THE RX FEED PUMP LIMIT SWITCH GUIDE FROM MECHANICAL BINDING.	
CLINTON 1	07/04/02	461	3	4612002003	39041	OPERATE	AUTO	A TURBINE TRIP AND RX SCRAM OCCURRED FOLLOWING A GENERATOR TRIP AND LOCKOUT RESULTING FROM A FALSE ACTUATION OF THE MAIN TRANSFORMER SUDDEN PRESSURE FAULT RELAY. THE CAUSE WAS A FAULTY RELAY RESULTING FROM A MANUFACTURING DEFECT.	
CLINTON 1	02/04/01	461	3	4612001002	37714	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED DUE TO LOW TURBINE EMERGENCY TRIP SYSTEM PRESSURE DURING TURBINE VALVE TESTING. THE CAUSE WAS FAILURE TO INSTALL AN EHC FLUID FLOW RESTRICTING ORIFICE AS RECOMMENDED IN A GENERAL ELECTRIC TECHNICAL INFORMATION LETTER.	

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CLINTON 1	07/24/01	461	3	4612001003	38164	OPERATE	AUTO	A SCRAM OCCURRED ON HIGH RX WATER LEVEL WHILE A SURVEILLANCE WAS BEING PERFORMED ON A LEVEL TRANSMITTER FOR THE FEEDWATER LEVEL CONTROL SYSTEM. THE CAUSE WAS A TECHNICIAN INCORRECTLY PERFORMING A STEP IN THE PROCEDURE.	
CLINTON 1	05/17/00	461	3	4612000001	37008	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED FOLLOWING A LOSS OF FEEDWATER. THE CAUSE WAS A LOSS OF A 4160 VAC BUS DUE TO A MISLABELED TEST SWITCH.	
CLINTON 1	12/18/00	461	3	4612000007	37614	OPERATE	AUTO	A RX SCRAM OCCURRED ON MSIV CLOSURE DURING A STEAM LINE TUNNEL LEAK DETECTION SYSTEM SURVEILLANCE. THE PROCEDURE HAD INADEQUATE PROVISIONS FOR PREVENTING AN EXISTING FAULT IN THE OPPOSITE CHANNEL FROM COMPLETING THE ACTUATION LOGIC.	
COOPER STATION	11/06/09	298	4	2982009002	45489	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FOLLOWING A MANUAL TRIP OF THE MAIN TURBINE. THE TURBINE WAS TRIPPED DUE TO AN UN-ISOLABLE LEAK IN THE TURBINE HIGH-PRESSURE FLUID SYSTEM.	
COOPER STATION	11/11/09	298	4	2982009004	45482	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FOLLOWING A MANUAL TRIP OF THE MAIN TURBINE DUE TO AN UN-ISOLABLE LEAK ON THE TURBINE HIGH-PRESSURE FLUID SYSTEM.	
COOPER STATION	08/09/08	298	4	2982008001	44402	OPERATE	MAN	WHILE PERFORMING MAIN TURBINE REHEAT STOP VALVE TESTING, THE VALVE FAILED TO REOPEN WHEN REQUIRED DUE TO A JAMMED TEST SOLENOID VALVE. THE OPERATORS MANUALLY SCRAMMED THE REACTOR.	
COOPER STATION	05/19/07	298	4	2982007004	43375	OPERATE	MAN	WHILE PERFORMING MAINTENANCE ON THE CRD HYDRAULIC CONTROL UNITS, A WATER LEAK DEVELOPED PAST THE SEATS OF ONE OR BOTH OF THE MANUAL ISOLATION VALVES. HIGH AIRBORNE ACTIVITY LEVELS RESULTED IN EVACUATION OF THE REACTOR BUILDING AND A MANUAL SCRAM.	
COOPER STATION	02/26/06	298	4	2982006001	42375	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON HIGH MOISTURE SEPARATOR LEVEL AFTER A REHEAT VALVE FAILED TO OPEN DURING CONDUCT OF A SURVEILLANCE TEST. THE CAUSE WAS CONTAMINATION OF EHC FLUID IN THE TURBINE CONTROL SYSTEM.	
COOPER STATION	05/22/06	298	4	2982006004	42594	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON LOWERING PLANT SERVICE AIR. THE MOST LIKELY CAUSE IS FAILURE OF THE SAC AUTO CONTROL SYSTEM.	
COOPER STATION	04/15/05	298	4	2982005001	41601	OPERATE	AUTO	A RX SCRAM OCCURRED ON LOW REACTOR WATER LEVEL. THE LOW LEVEL WAS THE RESULT OF A FEEDWATER TRANSIENT CAUSED BY AN INSTRUMENT FAILURE IN THE RFPT SPEED CONTROL.	REACTOR TRIPPED FROM 100% POWER FOLLOWING A FEEDWATER TRANSIENT THAT RESULTED IN LOW REACTOR WATER LEVEL. THE TRANSIENT WAS CAUSED BY AN INSTRUMENT FAILURE.
COOPER STATION	09/23/05	298	4	2982005004	42010	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON DEGRADING MAIN CONDENSER VACUUM. THE CAUSE WAS A TURBINE BEARING SLOP DRAIN LINE THAT FAILED FROM HIGH CYCLE FATIGUE.	
COOPER STATION	05/26/03	298	4	2982003004	39881	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON HIGH MAIN TURBINE VIBRATION. THE MOST PROBABLE CAUSE FOR TURBINE BLADE FAILURE IN THE LOW PRESSURE TURBINE WAS MATERIAL CONDITION CONSISTANT WITH AGE-RELATED/END-OF-LIFE TYPE FAILURES.	

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COOPER STATION	10/28/03	298	4	2982003006	40281	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED DUE TO A FIRE ON THE 345 KV WOODEN CROSS-ARM ON THE PLANT'S OUTPUT LINE FROM THE MAIN POWER TRANSFORMER TO THE 345 KV SWITCH YARD. THE CAUSE WAS FAILURE TO PROPERLY GROUND THE INSULATOR STRINGS ON THE WOODEN STRUCTURE.	
COOPER STATION	11/28/03	298	4	2982003007	40362	OPERATE	AUTO	A SCRAM OCCURRED ON LOW RX WATER LEVEL AFTER FEEDWATER PUMP "B" SPEED LOWERED UNEXPECTEDLY. THE CAUSE WAS A SPURIOUS SIGNAL THAT ENTERED THE RX FEED PUMP TURBINE CONTROLLER.	
COOPER STATION	10/14/00	298	4	2982000011	37429	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED FOLLOWING A "C" PHASE DIFFERENTIAL CURRENT TRIP. THE CAUSE WAS VIBRATION INDUCED INSULATION WEAR IN A CURRENT TRANSFORMER LEAD WIRE WITHIN THE MAIN TRANSFORMER, RESULTING IN A SHORT TO GROUND.	
COMANCHE PEAK 1	01/09/10	445	4	4452010001	45617	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP. THE TURBINE TRIP WAS CAUSED BY A PRESSURE FAULT ON THE MAIN GENERATOR OUTPUT TRANSFORMER. THE EXACT CAUSE OF THE PRESSURE FAULT COULD NOT BE DETERMINED.	
COMANCHE PEAK 1	03/16/03	445	4	4452003002	39673	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED FOLLOWING A LOSS OF MAIN FEEDWATER AFTER A CONDENSATE PUMP TRIPPED. THE CAUSE WAS A MANUFACTURING DEFECT IN THE CONDENSATE PUMP MOTOR.	
COMANCHE PEAK 1	05/15/03	445	4	4452003003	39849	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED FOLLOWING A GRID DISTURBANCE AND LOSS OF THE 345KV SWITCHYARD. A PROTECTIVE RELAYING SYSTEM FAILURE FAILED TO ISOLATE THE SWITCHYARD FROM THE GRID FAULT.	
COMANCHE PEAK 2	03/16/08	446	4	4462008001	44067	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING THE TRIP OF THE MAIN TURBINE. THE TURBINE TRIPPED DUE TO A BROKEN SENSING LINE FEEDING THE VACUUM INPUT TO THE 2/3 LOW VACUUM TRIPS.	
COMANCHE PEAK 2	10/27/06	446	4	4462006002	42937	OPERATE	MAN	DURING LOAD REJECTION TESTING, OSCILLATIONS IN STEAM GENERATOR LEVEL CAUSED BOTH MAIN FEED PUMPS TO TRIP. THE OPERATOR THEN MANUALLY TRIPPED THE REACTOR.	
COMANCHE PEAK 2	10/29/06	446	4	4462006003	42945	OPERATE	MAN	UPON RECEIPT OF A STEAM-FEED FLOW MISMATCH, THE OPERATOR TOOK MANUAL CONTROL OF THE FEED REG VALVE BUT WERE UNABLE TO CONTROL FEED FLOW. SO, THEY MANUALLY TRIPPED THE REACTOR.	
COMANCHE PEAK 2	05/15/03	446	4	4452003003	39849	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED FOLLOWING A GRID DISTURBANCE AND LOSS OF THE 345KV SWITCHYARD. A PROTECTIVE RELAYING SYSTEM FAILURE FAILED TO ISOLATE THE SWITCHYARD FROM THE GRID FAULT.	
COMANCHE PEAK 2	07/09/03	446	4	4462003001	39985	OPERATE	AUTO	A RX TRIP OCCURRED ON RCP BREAKER OPENING. THE CAUSE WAS A "B" PHASE STATOR TO GROUND SHORT IN THE RCP MOTOR.	
COMANCHE PEAK 2	12/22/03	446	4	4462003005	40406	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED FOLLOWING THE INGESTION OF A SMALL METALLIC COVER PLATE INTO THE MAIN GENERATOR EXCITER HOUSING AFTER A TECHNICIAN BUMPED IT.	
COMANCHE PEAK 2	06/06/02	446	4	4462002001	38969	OPERATE	AUTO	A RX/TURBINE TRIP OCCURRED ON A MAIN GENERATOR TRIP CAUSED BY A SPURIOUS INDICATED HIGH VIBRATION ON THE MAIN GENERATOR PRIMARY WATER PUMP SHAFT. THE CAUSE WAS A FAILED OPEN CIRCUIT BREAKER IN THE VIBRATION EXPANSION MEASURING CABINET.	

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COMANCHE PEAK 2	07/18/01	446	4	4462001001	38148	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON A SPURIOUS TURBINE TRIP SIGNAL WHILE REPLACING A BURNED OUT AMSAC TRAIN A POWER LIGHT. THE CAUSE WAS A FAILED LIGHT SOCKET.	
CRYSTAL RIVER 3	01/27/09	302	2	3022009001	44807	OPERATE	MAN	DURING SWITCHGEAR METERING, THE A 4160V BUS TRIPPED. THE RESULTING LOSS OF THE A FEEDWATER BOOSTER PUMP AND CONDENSATE PUMP CAUSED THE OPERATORS TO MANUALLY TRIP THE REACTOR.	
CRYSTAL RIVER 3	08/24/09	302	2	3022009003	45286	OPERATE	MAN	FOLLOWING CONTROL ROD DRIVE SURVEILLANCE TESTING, THE GROUP SEVEN RODS LOST POWER AND INSERTED INTO THE CORE. THE OPERATOR MANUALLY TRIPPED THE REACTOR PRIOR TO EXCEEDING ANY RPS TRIP POINTS. THE CAUSE OF THE FAILURE WAS USING AN IMPROPERLY FUSED JUMPER.	
CRYSTAL RIVER 3	08/24/08	302	2	3022008003	44438	OPERATE	MAN	WHILE REDUCING POWER FROM 100% DUE TO LOW CONDENSATE FLOW CAUSED BY THE A CONDENSATE PUMP BECOMING UNCOUPLED, FEEDWATER FLOW OSCILLATIONS OCCURRED. THE REACTOR WAS MANUALLY TRIPPED.	
CRYSTAL RIVER 3	02/21/07	302	2	3022007002	43179	OPERATE	AUTO	WITH POWER REDUCED TO 71% FOR CONDENSER WATERBOX MAINTENANCE THE INTEGRATED FEEDWATER CONTROL SYSTEM BECAME ERRATIC. THIS CAUSED THE REACTOR TO TRIP ON HIGH PRESSURE.	
CRYSTAL RIVER 3	10/29/05	302	2	3022005003	42094	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON A LOSS OF BOTH MAIN FEEDWATER PUMPS AFTER THE ONLY RUNNING CONDENSATE PUMP TRIPPED. THE CAUSE WAS A FAILURE OF THE MOTOR MAGNETIC COUPLING DUE TO PUMP OPERATION IN THE CRITICAL SPEED RANGE.	
CRYSTAL RIVER 3	03/24/04	302	2	3022004001	40608	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON LOW FEEDWATER FLOW AFTER FEEDWATER FLOW REDUCED TO ZERO. THE CAUSE WAS AGE RELATED FAILURE OF ZENER DIODES IN THE MAIN FEEDWATER INTEGRATED CONTROL SYSTEM.	
CRYSTAL RIVER 3	09/06/04	302	2	3022004003	41023	OPERATE	AUTO	A RX TRIP OCCURRED ON A PARTIAL LOSS OF OFFSITE POWER WHEN ONE SAFETY RELATED AND BOTH NONSAFETY 4160 V BUSES WERE LOST. THE CAUSE WAS A FAILED OFFSITE LINE COMBINED WITH A SWITCHYARD BREAKER FAULT.	
CRYSTAL RIVER 3	11/05/03	302	2	3022003005	40299	OPERATE	AUTO	A RX TRIP OCCURRED ON HIGH RCS PRESSURE FOLLOWING A FEEDWATER TRANSIENT WHILE TROUBLESHOOTING CONTROL PROBLEMS WITH THE "B" MAIN FEEDWATER PUMP. THE CAUSE WAS THE RECENT INSTALLATION OF INCORRECT CARDS IN THE INTEGRATED CONTROL SYSTEM.	
CRYSTAL RIVER 3	11/07/02	302	2	3022002002	39354	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED DURING 500KV SWITCHYARD MAINTENANCE. A MAIN GENERATOR OUTPUT BREAKER OPENED. THE CAUSE WAS MISOPERATION OF A PROTECTIVE RELAY. THE RELAY WAS REPLACED WITH ONE OF A DIFFERENT DESIGN.	
DUANE ARNOLD	04/26/10	331	3	3312010003	45873	OPERATE	MAN	DURING A PLANNED SHUTDOWN, THE REACTOR WAS MANUALLY TRIPPED DUE TO INCREASING VIBRATIONS ON A MAIN TURBINE BEARING.	
DUANE ARNOLD	02/01/09	331	3	3312009001	44821	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED WHILE SHUTTING DOWN DUE TO LOSS OF CIRC WATER. ONE CIRC WATER TOWER WAS SHUTDOWN WHEN A RISER IN THE OTHER TOWER RUPTURED RESULTING IN A LOSS OF SUPPLY TO THE CIRC WATER PUMPS.	

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DUANE ARNOLD	04/03/09	331	3	3312009003	44965	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO RISING WATER LEVEL DURING LEVEL INSTRUMENT CALIBRATION. THE CAUSE OF RISING LEVEL WAS AN INADEQUATE PROCEDURE THAT RESULTED IN THE LOSS OF LEVEL INDICATION AND INCREASED FEED FLOW.	
DUANE ARNOLD	10/08/09	331	3	3312009004	45421	OPERATE	AUTO	THE REACTOR SCRAMMED WHILE RESTORING THE REACTOR WATER LEVEL/PRESSURE INSTRUMENTS FOLLOWING CALIBRATION. THE EVENT WAS CAUSED BY FAILURE TO CLOSE AN INSTRUMENT ISOLATION VALVE, WHICH RESULTED IN A SENSED LOW REACTOR WATER LEVEL ON TWO RPS CHANNELS.	THE SCRAM WAS CAUSED WHILE RESTORING THE REACTOR WATER LEVEL/PRESSURE INSTRUMENTS TO SERVICE FOLLOWING CALIBRATION.
DUANE ARNOLD	03/18/07	331	3	3312007006	43247	OPERATE	MAN	THE REACTOR WAS MANUALLY SCRAMMED DUE TO HIGH LEVELS OF CHLORIDES, SULFATES, AND CONDUCTIVITY, DUE TO RESIN INTRUSION FOLLOWING THE PLACEMENT OF A CONDENSATE DEMINERALIZER IN SERVICE.	
DUANE ARNOLD	04/02/07	331	3	3312007007	43271	OPERATE	MAN	DURING PLANNED PREVENTIVE MAINTENANCE OF A NON-ESSENTIAL BUS, LOSS OF 4160V BUS 1A2 RESULTED IN LOSS OF THE B CONDENSATE AND REACTOR FEED PUMPS. THE REACTOR WAS MANUALLY TRIPPED DUE TO LOWERING REACTOR VESSEL LEVEL.	
DUANE ARNOLD	11/06/06	331	3	3312006005	42966	OPERATE	AUTO	THE REACTOR TRIPPED AUTOMATICALLY FOLLOWING A TURBINE TRIP DURING TURBINE TESTING. THE CAUSE OF THE TRIP IS A NOISE SPIKE IN COMBINATION WITH NORMALLY OPEN CONTACTS BEING STUCK CLOSED.	
DUANE ARNOLD	02/01/03	331	3	3312003001		OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON THE RATE AND MAGNITUDE OF CONTINUED CONDUCTIVITY INCREASES IN THE CONDENSER HOTWELL, RX FEEDWATER, AND RCS. THE CAUSE WAS A PUNCTURED CONDENSER TUBE RESULTING FROM FATIGUE FAILURE OF A CONDENSER STEAM DEFLECTOR PLATE.	
DUANE ARNOLD	11/07/03	331	3	3312003005	40301	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON INCREASING RX COOLANT SYSTEM CONDUCTIVITY. THE CAUSE WAS RESIN INTRUSION FROM A CONDENSATE DEMINERALIZER THAT HAD A MANUFACTURING DEFECT.	
DUANE ARNOLD	11/25/03	331	3	3312003006	40353	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON DEGRADING CONDENSER VACUUM DURING POWER ASCENSION FOLLOWING REPAIR OF CONDENSER EXPANSION JOINT. THE CAUSE WAS AIR INLEAKAGE FROM A FAILED WELDED SEAM BETWEEN THE HIGH PRESSURE CONDENSER AND THE CROSSOVER LOOP SEAL.	
DUANE ARNOLD	08/12/01	331	3	3312001003	38202	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON DECREASING RX WATER LEVEL AFTER A FEEDWATER PUMP MINIMUM FLOW BYPASS VALVE FAILED OPEN. THE AFFECTED FEEDPUMP TRIPPED ON LOW SUCTION PRESSURE. THE CAUSE WAS A FAILED MINIMUM FLOW VALVE CONTROLLER.	
DUANE ARNOLD	10/17/01	331	3	3312001006	38398	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED IN ANTICIPATION OF LOW RX WATER LEVEL FOLLOWING A LOSS OF FEED. ONE OF TWO FEED PUMPS TRIPPED FOLLOWING THE LOSS OF AN INSTRUMENT BUS. THE CAUSE WAS A FAILED INVERTER BUT NO DEFINITIVE ROOT CAUSE COULD BE FOUND.	

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DUANE ARNOLD	01/05/00	331	3	3312000001	36565	OPERATE	AUTO	A RX SCRAM OCCURRED ON A FALSE LOW RX VESSEL WATER LEVEL SIGNAL DURING RESTORATION FROM A TEST OF RX VESSEL WIDE RANGE LEVEL INSTRUMENTATION. THE CAUSE WAS THE USE OF AN INADEQUATE INSTRUMENT RESTORATION PROCESS.	
DUANE ARNOLD	06/23/00	331	3	3312000002	37110	OPERATE	AUTO	A TURBINE TRIP/RX TRIP OCCURRED FOLLOWING A MAIN GENERATOR LOCKOUT. THE CAUSE WAS A LOOSE CONNECTION ON A MAIN GENERATOR CURRENT TRANSFORMER SECONDARY LEAD.	NO CHANGES FOR LER REV 1.
DAVIS-BESSE	09/06/06	346	3	3462006003	42828	OPERATE	MAN	POWER WAS REDUCED AND SCRAMMED DUE TO DEGRADED CONDENSER PRESSURE. THE CAUSE WAS AIR IN-LEAKAGE INTO THE CONDENSER FROM A BROKEN LOW PRESSURE TURBINE BEARING WASTE WATER AND OIL DRAIN PIPE THAT IS ROUTED THROUGH THE CONDENSER.	
DAVIS-BESSE	08/04/04	346	3	3462004002	40921	OPERATE	AUTO	A RX TRIP OCCURRED DURING SURVEILLANCE TESTING OF THE CONTROL ROD DRIVE TRIP BREAKERS. THE CAUSE WAS A PREVIOUSLY FAILED FUSE FOR ONE TRIP BREAKER DUE TO AGE AND FATIGUE.	
COOK 1	02/02/08	315	3	3152008001	43956	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO HIGH VIBRATIONS ON MAIN TURBINE BEARINGS 5 AND 6.	
COOK 1	09/20/08	315	3	3152008006	44507	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED AFTER A MALFUNCTION OF THE MAIN TURBINE GENERATOR RESULTED IN HIGH TURBINE VIBRATIONS AND A FIRE IN THE GENERATOR.	
COOK 1	08/28/07	315	3	3152007001	43605	OPERATE	AUTO	A MALFUNCTION OF THE MAIN FEEDWATER PUMP DIGITAL CONTROL SYSTEM RESULTED IN A REACTOR SCRAM DUE TO LOW STEAM GENERATOR LEVEL. THE CAUSE OF THE CONTROL SYSTEM FAILURE WAS AN OVERVOLTAGE CONDITION ON THE DIGITAL CONTROL SYSTEM POWER SUPPLY.	
COOK 1	04/26/05	315	3	3152005001	41639	OPERATE	AUTO	A RX TRIP OCCURRED ON INTERMEDIATE RANGE HIGH FLUX DURING NORMAL PLANT STARTUP PREPARATIONS TO SYNCHRONIZE THE GENERATOR WITH THE GRID. THE CAUSE WAS AGE RELATED DEGRADATION OF A LEVEL ADJUST POTENTIOMETER.	
COOK 1	01/15/03	315	3	3152003001	39513	OPERATE	AUTO	A MAIN TURBINE/RX TRIP OCCURRED FOLLOWING A FAULT AND AUTOMATIC TRIP OF THE MAIN TRANSFORMER. A SUDDEN INTERNAL FAULT WITHIN THE TRANSFORMER RUPTURED THE TRANSFORMER OIL TANK RESULTING IN A LOSS OF OIL AND A FIRE.	FIRE WAS EXTINGUISHED WITHIN 35 MINUTES OF THE EVENT WITH ONE MINOR REFLASH.
COOK 1	04/24/03	315	3	3152003003	39790	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON FEED PUMP CONDENSER FOULING FOLLOWING AN INFLUX OF FISH ON THE INTAKE SCREENS FOR THE CIRCWATER AND ESSENTIAL SERVICE WATER SYSTEMS. THE CAUSE WAS INADEQUATE OPERATIONAL RESPONSE AND INADEQUATE MAINTENANCE OF THE SCREENS.	AN SSF IS ALSO CODED FOR A LOSS OF ESW.
COOK 1	06/14/02	315	3	3152002005	38993	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON THE LOSS OF A MAIN FEEDWATER PUMP ON LOW FEED PUMP TURBINE CONDENSER VACUUM. DEBRIS ENTERED THE FEEDWATER PUMP CONDENSER FOLLOWING THE START OF A CIRCULATING WATER PUMP AND RESULTED IN THE LOSS OF CONDENSER VACUUM.	

PLANT NAME	EVENT DATE	DOCKET	REGION	Licensee Event Report Number	Event Notification	UNIT MODE	SCRAM	Scram Cause / Description	NOTES
COOK 1	02/15/01	315	3	3152001001	37751	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED WHEN A MAIN FEEDWATER PUMP TRIPPED DUE TO A LOSS OF VACUUM IN THE MAIN FEEDWATER PUMP CONDENSER. THE CAUSE WAS CORROSION DEBRIS OBSTRUCTING FLOW AT THE CONDENSER'S INLET SIDE TUBESHEET.	
COOK 2	07/26/09	316	3	3162009001	45228	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED WHEN INDICATIONS WERE RECEIVED THAT A REACTOR COOLANT PUMP SEAL HAD MALFUNCTIONED. THE RCP SEAL FAILED DUE TO THE BUILDUP OF CORROSION PRODUCTS.	
COOK 2	11/08/05	316	3	3162005001	42125	OPERATE	AUTO	A RX TRIP OCCURRED ON RX COOLANT PUMP BUS UNDERVOLTAGE. THE CAUSE WAS POOR BRUSH CONTACT ON THE MAIN GENERATOR EXCITER ROTOR WHICH CAUSED THE UNDERVOLTAGE CONDITION.	
COOK 2	03/29/04	316	3	3162004001	40622	OPERATE	AUTO	A RX TRIP OCCURRED ON HIGH NEGATIVE RATE RPS ACTUATION DURING A RX TRIP BYPASS BREAKER MANIPULATION TEST. AN OPERATOR INCORRECTLY INSERTED A BREAKER RACKING BAR RESULTING IN A MOMENTARY GROUND, LOSS OF ROD CONTROL MG SET, AND MULTIPLE RODS DROPPED.	
COOK 2	04/08/04	316	3	3162004002	40660	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON HIGH SG WATER LEVEL FOLLOWING A FEEDWATER FLOW TRANSIENT DURING A POWER REDUCTION. THE CAUSE WAS INADEQUATE MANUAL MAIN FEEDWATER CONTROL AND INADEQUATE COMMUNICATIONS.	
COOK 2	02/05/03	316	3	3162003002	39564	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL AFTER A FEEDWATER REGULATING VALVE FAILED CLOSED. THE CAUSE WAS A FAILED 24 VDC CONTROL GROUP POWER SUPPLY.	
COOK 2	04/24/03	316	3	3152003003	39790	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON DEGRADED FORBAY CONDITIONS FOLLOWING AN INFLUX OF FISH ON THE INTAKE SCREENS FOR THE CIRCWATER AND ESSENTIAL SERVICE WATER SYSTEMS. THE CAUSE WAS INADEQUATE OPERATIONAL RESPONSE AND INADEQUATE MAINTENANCE OF INTAKE SCREENS.	AN SSF IS ALSO CODED FOR A LOSS OF ESW.
COOK 2	12/30/03	316	3	3162003005	40419	OPERATE	AUTO	A SCRAM OCCURRED ON LOW SG WATER LEVEL FOLLOWING THE UNPLANNED CLOSURE OF SG TWO AND THREE FEEDWATER ISOLATION VALVES. A TECHNICIAN INADVERTENTLY INTRODUCED A GROUND WHILE CALIBRATING THE CONTROL ROOM INSTRUMENT DISTRIBUTION BUS, CAUSING THE ISOLATION.	
COOK 2	05/12/02	316	3	3162002005	38915	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL COINCIDENT WITH LOW FEEDWATER FLOW AFTER A FEED REGULATING VALVE FAILED CLOSED. THE CAUSE WAS AN INSTRUMENT RACK POWER SUPPLY FAILURE.	
COOK 2	07/22/02	316	3	3162002006	39081	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON DECREASING CONDENSER VACUUM WHILE FLUSHING THE CONDENSER WATERBOXES. THE APPARENT CAUSE WAS A PREVIOUSLY UNRECOGNIZED STEAM SIDE HEAT TRANSFER ANOMALY IN THE "C" MAIN CONDENSER.	DECREASING VACUUM CAUSES SCRAM. MAIN STM LINES MANUALLY ISOLATED TO LIMIT RCS COOLDOWN. FEEDWATER ISOLATION TRIPPED MAIN FEEDWATER PUMPS & ISOLATED NORMAL FEEDWATER SUPPLY. AFW STARTED.
COOK 2	10/07/01	316	3	3162001004	38362	OPERATE	AUTO	A RX TRIP OCCURRED ON HIGH NEGATIVE FLUX RATE FOLLOWING THE LOSS OF BOTH ROD CONTROL MG SETS. THE CAUSE WAS A FAILED RESISTOR ON ONE ROD CONTROL MG SET VOLTAGE REGULATOR.	

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DIABLO CANYON 1	06/03/02	275	4	2752002004	38961	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL WHEN A MAIN FEEDWATER REGULATING VALVE FAILED CLOSED. THE VALVE CLOSED ON LOSS OF AIR WHEN A VALVE MOUNTED AIR TEST CONNECTION BROKE OFF AFTER CONTACTING STRUCTURAL STEEL DURING THERMAL EXPANSION OF THE PIPING.	
DIABLO CANYON 1	05/15/00	275	4	2752000004	37001	OPERATE	AUTO	A TURBINE/RX TRIP RESULTED FROM A 12 KV PHASE TO PHASE FAULT. THE CAUSE WAS POSTULATED TO BE A THERMAL FAILURE OF A BOLTED BUS CONNECTION.	NO CHANGES.
DIABLO CANYON 1	11/05/00	275	4	2752000011	37491	STARTUP	MAN	THE RX WAS MANUALLY TRIPPED DURING STARTUP DUE TO A ROD CONTROL SYSTEM FAILURE. THE CAUSE WAS A FAILURE OF THE PORTION OF THE SUPERVISORY BUFFER MEMORY CARD THAT CONTROLS INWARD ROD MOTION.	
DIABLO CANYON 1	11/20/00	275	4	2752000012	37535	OPERATE	AUTO	A RX TRIP OCCURRED ON A SPURIOUS RATE TRIP SIGNAL WHILE TESTING THE POWER RANGE NUCLEAR INSTRUMENTATION. THE CAUSE WAS AN INTERMITTENT ELECTRICAL SHORT CIRCUIT IN TEST EQUIPMENT CONCURRENT WITH A PREEXISTING TRIPPED CHANNEL.	
DIABLO CANYON 2	03/26/11	323	4		46701	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FOLLOWING THE LOSS OF THE 2-1 MFW PUMP. THE MFW PUMP WAS LOST DUE TO WATER SPRAYING ON ITS CONTROL CONSOLE FROM A LEAKY FLANGE ON A FEEDWATER HEATER RELIEF VALVE.	
DIABLO CANYON 2	08/16/08	323	4	3232008001	44419	OPERATE	AUTO	THE REACTOR AUTOMATICALLY TRIPPED FOLLOWING A GENERATOR TRIP DUE TO A FIRE IN THE MAIN BANK TRANSFORMER. THE EMERGENCY BUSES REMAINED ENERGIZED FROM OFFSITE POWER. AFW AUTO INITIATED FOLLOWING THE SCRAM.	
DIABLO CANYON 2	10/21/08	323	4	3232008002	44588	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO HIGH DIFFERENTIAL PRESSURE ACROSS THE CIRC WATER TRAVELING SCREENS. THE CAUSE OF THE HIGH DIFFERENTIAL PRESURE WAS A RAPID INFLUX OF JELLYFISH.	
DIABLO CANYON 2	12/12/06	323	4	3232006004	43047	OPERATE	AUTO	AN ELECTRICAL DISTURBANCE IN THE UNIT 2 12-KV NON-VITAL BUS D RESULTED IN RCP 2-2 AND 2-4 BREAKERS TRIPPING ON UNDERVOLTAGE, RESULTING IN A REACTOR SCRAM.	
DIABLO CANYON 2	02/09/02	323	4	3232002002	38687	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED WHEN A FEEDWATER REGULATING VALVE FAILED CLOSED. THE CAUSE WAS RANDOM FAILURE OF A COIL IN A SOLENOID VALVE WHICH APPEARED TO BE AGE RELATED.	
DRESDEN 2	05/04/07	237	3	2372007002	43346	OPERATE	MAN	THE REACTOR WAS MANUALLY SCRAMMED FOLLOWING LOSS OF FEEDWATER. THE CONDENSATE PREFILTERS ISOLATED EARLIER AND THE BYPASS VALVES SHUT WHEN THE COMPUTER CONTROLLING THE VALVES WAS BEING REPLACED.	
DRESDEN 2	07/04/06	237	3	2372006004	42685	OPERATE	AUTO	A REACTOR SCRAM OCCURRED WHEN MAIN STEAM ISOLATION VALVE 1A CLOSED DUE TO LOSS OF AIR SUPPLY.	
DRESDEN 2	03/24/05	237	3	2372005002	41517	OPERATE	AUTO	A RX SCRAM OCCURRED ON MSIV CLOSURE FOLLOWING MAIN STEAM LINE HIGH FLOW. THE CAUSE WAS AN INCREASE IN ELECTRICAL RESISTANCE BETWEEN PINS ON A TURBINE EHC SYSTEM CIRCUIT CARD THAT RESULTED IN OPENING THE TURBINE BYPASS VALVES.	

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DRESDEN 2	04/24/04	237	3	2372004002	40702	OPERATE	AUTO	A RX SCRAM OCCURRED ON AN MSIV CLOSURE. THE ISOLATION CONDENSER WAS MANUALLY INITIATED FOR PRESSURE CONTROL. THE CAUSE WAS INADEQUATE DRAINAGE OF THE MAIN STEAM LEAD DRAIN SYSTEM.	THE ISOLATION CONDENSER WAS DECLARED INOPERABLE IN RE 40703.
DRESDEN 2	04/28/04	237	3	2372004004	40713	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED WHEN A SPURIOUS TRIP OF THE "2A" RX RECIRCULATION MG SET AND PUMP PUT THE PLANT IN A RESTRICTED REGION OF THE POWER TO FLOW MAP. THE CAUSE WAS A FAILED RX RECIRCULATION PUMP MOTOR.	
DRESDEN 2	09/30/03	237	3	2372003003	40209	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW RX VESSEL WATER LEVEL AFTER A RX FEEDPUMP TRIPPED. THE CAUSE WAS A FAULT ON ONE PHASE OF THE RX FEEDPUMP CABLE.	
DRESDEN 2	12/11/03	237	3	2372003007	40388	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED AFTER AN UNEXPECTED STATOR WATER COOLING RUNBACK ON HIGH STATOR COOLING WATER SYTEM TEMPERATURE. THE CAUSE WAS A FAILED TEMPERATURE CONTROL VALVE TEMPERATURE CONTROLLER.	
DRESDEN 2	04/03/01	237	3	2372001002	37887	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON A RECIRCULATION PUMP TRIP WHILE THE UNIT WAS IN SINGLE LOOP OPERATION. THE CAUSE WAS INADEQUATE SYSTEM DESIGN THAT DOES NOT PROVIDE FOR STARTING THE STANDBY OIL PUMP WHEN THE OPERATING OIL PUMP TRIPS.	
DRESDEN 2	11/07/01	237	3	2372001005	38478	STARTUP	AUTO	A SCRAM RESULTED FROM HIGH TURBINE FIRST STAGE PRESSURE WITH THE TURBINE STOP VALVES CLOSED DURING TURBINE SHELL WARMING ACTIVITIES. THE CAUSE WAS PERSONNEL ERROR IN THAT PRESSURE WAS INADEQUATELY MONITORED.	
DRESDEN 2	11/30/00	237	3	2372000004	37558	OPERATE	AUTO	A RX SCRAM OCCURRED FOLLOWING A GENERATOR LOAD REJECT. A BUS TO PHASE DIFFERENTIAL TRIP WAS RECEIVED WHILE CLOSING A MAIN GENERATOR OUTPUT BREAKER, CAUSING BOTH OUTPUT BREAKERS TO OPEN. THE CAUSE WAS IMPROPER RESTORATION FOLLOWING BREAKER MAINTENANCE.	
DRESDEN 3	10/11/10	249	3	2492010001	46325	OPERATE	AUTO	THE REACTOR TRIPPED WHILE SWITCHING THE "A" RPS BUS FROM THE NORMAL TO THE RESERVE POWER SUPPLY. BEFORE THE EXPECTED HALF SCRAM SIGNAL COULD BE RESET A POWER SUPPLY FAILURE OCCURRED IN THE OPRM SYSTEM ON THE OPPOSITE RPS DIVISION.	
DRESDEN 3	10/03/09	249	3	2492009001	45409	OPERATE	AUTO	THE REACTOR TRIPPED DUE TO A REACTOR WATER LEVEL LOW-LOW SIGNAL ALONG WITH A GROUP 1 MSIV CLOSURE. THE ISOLATION SIGNAL WAS MOST LIKELY CAUSED BY A PRESSURE TRANSIENT RESULTING FROM THE RESTORATION OF RWCU.	
DRESDEN 3	01/24/04	249	3	2492004001	40474	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED DURING MAIN TURBINE TESTING. THE CAUSE WAS A MALFUNCTION OF THE MAIN TURBINE MASTER TRIP SOLENOID VALVES RESULTING FROM IMPROPER DESIGN.	
DRESDEN 3	01/30/04	249	3	2492004002	40491	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON LOW MAIN TURBINE LUBE OIL PRESSURE WHILE SWAPPING LUBE OIL COOLERS. THE CAUSE WAS INADEQUATE PROCEDURAL GUIDANCE FOR SWAPING MAIN TURBINE LUBE OIL COOLERS.	

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DRESDEN 3	05/05/04	249	3	2492004003	40727	OPERATE	AUTO	A SCRAM OCCURRED ON A MAIN GENERATOR LOAD REJECT AND LOOP THAT OCCURRED WHEN A 345 KV SWITCHYARD BREAKER WAS OPENED TO SUPPORT TESTING AN OFFSITE LINE. THE CAUSE WAS AN EQUIPMENT FAILURE IN THE "C" PHASE OF THE 345 KV CIRCUIT BREAKER.	
DRESDEN 3	07/21/02	249	3	2492002002	39080	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED ON LOW DISCHARGE PRESSURE FROM THE TURBINE SHAFT BEARING OIL PUMP. THE CAUSE WAS DEGRADATION OF THE ROTOR GEAR COUPLING INSULATION RESULTING IN CURRENT FLOW THROUGH THE GEAR SHAFTS AND ACCELERATED WEAR OF THE BEARINGS.	
DRESDEN 3	04/27/01	249	3	2492001002	37948	OPERATE	AUTO	A RX SCRAM OCCURRED ON LOW RX WATER LEVEL RESULTING DURING FLOW AND POWER OSCILLATIONS FROM A RX RECIRCULATION PUMP. THE CAUSE WAS DEBRIS IN THE RX RECIRCULATION MG SET SCOOP TUBE POSITIONER MOTOR.	
DRESDEN 3	07/05/01	249	3	2492001003	38116	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED DUE TO INCREASING DRYWELL PRESSURE. THE CAUSE WAS A LOSS OF CONTAINMENT COOLING AFTER A COMPONENT COOLING WATER TEMPERATURE CONTROL VALVE DISK AND STEM SEPARATED.	
DRESDEN 3	05/03/00	249	3	2492000002	36959	OPERATE	AUTO	A RX SCRAM OCCURRED DURING THE TRANSFER OF RPS BUS POWER SUPPLIES FOLLOWING PREVENTIVE MAINTENANCE. WHILE TRANSFERRING BUS "B", BUS "A" ALSO LOST POWER. THE ASSOCIATED MG SET DRIVE MOTOR BREAKER TRIPPED BECAUSE OF PERSONNEL ERROR DURING THE MAINTENANCE.	
DRESDEN 3	05/04/00	249	3	2492000003	36975	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON DECREASING CONDENSER VACUUM AND INCREASING CONDENSATE TEMPERATURE. THE CAUSE WAS FAILURE TO FOLLOW PROCEDURES DURING POST MODIFICATION TESTING OF THE SYSTEM.	
FERMI 2	03/25/10	341	3	3412010001	45789	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP. THE TURBINE TRIP WAS CAUSED BY A SHORTED CURRENT TRANSFORMER WIRE IN THE MAIN GENERATOR Z PHASE LINE TERMINAL BUSHING ENCLOSURE.	
FERMI 2	06/06/10	341	3	3412010002	45979	OPERATE	AUTO	FOLLOWING A PARTIAL LOSS OF OFFSITE POWER DUE TO SEVERE WEATHER, THE REACTOR TRIPPED FOLLOWING A TRIP OF THE MAIN TURBINE GENERATOR. THE TURBINE TRIPPED DUE TO FAST CLOSURE OF A TURBINE CONTROL VALVE.	
FERMI 2	10/24/10	341	3	3412010003	46359	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP DUE TO LOSS OF CONDENSER VACUUM. THE LOSS OF VACUUM WAS CAUSED BY EROSION OF A STEAM JET AIR EJECTOR STEAM SUPPLY FIRST STAGE NOZZLE, WHICH RESULTED IN LOSS OF EJECTOR CAPACITY.	
FERMI 2	03/28/09	341	3	3412009001	44942	OPERATE	MAN	WHILE REDUCING POWER FOR SHUTDOWN, THE MAIN TURBINE #1 BEARING EXPERIENCED HIGH VIBRATIONS. THE OPERATORS MANUALLY TRIPPED THE REACTOR. THE CAUSE OF THE HIGH VIBRATIONS WAS ATTRIBUTED TO HIGH PRESSURE TURBINE RUB TRANSVERSING BEARING 1.	
FERMI 2	09/30/09	341	3	3412009002	45394	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED IN RESPONSE TO HYDROGEN GAS IN-LEAKAGE INTO THE STATOR COOLING WATER SYSTEM FROM THE MAIN TURBINE GENERATOR. THE IN-LEAKAGE WAS CAUSED BY A HOLE WORN INTO THE COPPER STATOR WATER BAR.	

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FERMI 2	01/31/08	341	3	3412008001	43948	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FOLLOWING THE TRIP OF BOTH REACTOR RECIRC PUMPS. THE RECIRC PUMPS TRIPPED DUE TO AN INTERMITTENT FAILURE OF THE 65G BUS UNDERVOLTAGE TRIP LOGIC.	
FERMI 2	11/15/07	341	3	3412007002	43784	STARTUP	MAN	AN ALTERNATE ROD INSERTION/RECIRC PUMP TRIP INITIATED DUE TO AN INVALID REACTOR WATER LEVEL SIGNAL. A MANUAL SCRAM WAS PERFORMED. THE INVALID LEVEL SIGNAL RESULTED FROM AN OPERATOR PERFORMING A SAFETY TAG-OUT OF THE REACTOR LEVEL REFERENCE LEG.	
FERMI 2	06/15/06	341	3	3412006002	42643	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED ON MAIN TRANSFORMER OIL HIGH TEMP FOLLOWED BY GENERATOR DIFFERENTIAL RELAYING DURING A MAIN TRANSFORMER CLEANING ACTIVITY. THIS EVENT WAS CAUSED BY AN INTERNAL FAULT TO GROUND ON THE TRANSFORMER'S HIGH VOLTAGE WINDING.	
FERMI 2	07/29/06	341	3	3412006003	42738	OPERATE	AUTO	A REACTOR SCRAM OCCURRED BECAUSE OF A PARTIAL LOSS OF FEEDWATER THAT RESULTED FROM LOSS OF DIVISION 1 POWER.	
FERMI 2	01/24/05	341	3	3412005001	41354	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON INDICATIONS OF UNIDENTIFIED RX COOLANT LEAKAGE GREATER THAN TEN GPM. THE LEAKAGE WAS LATER DISCOVERED TO BE FROM THE RX BUILDING CLOSED COOLING WATER SYSTEM VIA A FAILED END BELL GASKET ON DRYWELL COOLER NUMBER FOUR.	
FERMI 2	09/03/04	341	3	3412004002	41017	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED WHEN AN AUTOMATIC VOLTAGE REGULATOR TRIP RELAY CAUSED A MAIN GENERATOR TRIP. THE CAUSE WAS A FAILED ELECTRONIC COMMUNICATION SYSTEM IN THE MAIN GENERATOR EXCITATION SYSTEM.	
FERMI 2	12/04/04	341	3	3412004004	41243	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON A MAIN GENERATOR TRIP FROM AN AUTO VOLTAGE REGULATOR TRIP. THE CAUSE WAS THE INSTALLATION OF THREE NEW ELECTRONIC CARDS IN THE GENERATOR EXCITER THAT WERE INCOMPATIBLE WITH THE ORIGINAL SYSTEM DESIGN.	
FERMI 2	08/14/03	341	3	3412003002	40075	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED DURING ELECTRICAL GRID VOLTAGE FLUCTUATIONS. THE CAUSE WAS A MAJOR GRID DISTURBANCE AND BLACKOUT.	
FERMI 2	10/02/02	341	3	3412002004	39239	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED WHEN CONDENSER PRESSURE INCREASED ABOVE THE TURBINE TRIP SETPOINT. CONDENSER VACUUM WAS LOST WHEN CIRCULATING PUMP NUMBER TWO FAILED. THE CAUSE WAS A SEPARATION OF THE MOTOR AND PUMP FROM FATIGUE FAILURE OF THE BOLTS.	DECAY HEAT WAS REMOVED USING ONE RFP THROUGH THE TURBINE BYPASS VALVES TO THE MAIN CONDENSER.
FERMI 2	12/29/02	341	3	3412002006	39476	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED DUE TO THE INABILITY TO DRIVE IN CONTROL RODS. THE CAUSE WAS A FAULTY VOLTAGE REGULATOR ASSOCIATED WITH THE MASTER POWER UNIT.	
FERMI 2	12/06/01	341	3	3412001004	38542	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED FOLLOWING THE LOSS OF STATOR WATER COOLING. A HEAT EXCHANGER VENT LINE BROKE OFF WHILE TAKING A STATOR WATER SAMPLE. THE CAUSE WAS INADEQUATE PROBLEM RESOLUTION DATING BACK TO 1996 AND INADEQUATE ORIGINAL VENT LINE DESIGN.	

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FERMI 2	04/01/00	341	3	3412000004	36854	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED AFTER A RX RECIRC PUMP WAS TRIPPED BECAUSE OF SPEED FLUCTUATIONS. LACKING SPECIFIC PROCEDURAL GUIDANCE CONCERNING LOW POWER SINGLE RECIRC PUMP OPERATIONS, OPERATORS SCRAMMED THE PLANT.	
HATCH 1	05/10/09	321	2	3212009004	45052	OPERATE	AUTO	THE REACTOR TRIPPED AT 8% POWER, WHEN THE MODE SWITCH WAS PLACED IN RUN. THE TRIP WAS CAUSED BY UPSCALE TRIP SIGNALS FROM THE INTERMEDIATE RANGE NUCLEAR INSTRUMENTS. THE UPSCALE TRIP SIGNALS WERE CAUSED BY AN ELECTRICAL NOISE SPIKE.	
HATCH 1	07/04/08	321	2	3212008003	44337	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP. THE CAUSE OF THE TURBINE TRIP WAS DUE TO MODIFICATIONS TO THE TURBINE ELECTRO-HYDRAULIC CONTROLLER SUCH THAT A LOW PRESSURE WAS SENSED IN THE EHC DURING TESTING, RESULTING IN A TURBINE TRIP.	
HATCH 1	11/22/08	321	2	3212008004	44679	OPERATE	MAN	A CONDENSATE BOOSTER PUMP TRIPPED ON LOW SUCTION PRESSURE CAUSING BOTH FEEDWATER PUMPS TO TRIP. THE REACTOR WAS MANUALLY TRIPPED. THE CAUSE OF THE LOW SUCTION PRESSURE WAS FAILURE OF THE DC POWER SUPPLY FOR THE STEAM JET AIR EJECTOR DP CONTROLLER.	
HATCH 1	10/29/05	321	2	3212005002	42096	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED ON A MAIN TRANSFORMER INTERNAL FAULT WHICH RESULTED IN A MAIN GENERATOR NEUTRAL GROUND OVERCURRENT LOCKOUT.	
HATCH 1	02/08/02	321	2	3212002001	38686	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON DEGRADING CONDENSER VACUUM AFTER THE INSERVICE STEAM JET AIR EJECTOR WAS REMOVED FROM SERVICE DUE TO HIGH HYDROGEN OFFGAS CONCENTRATION. THE CAUSE WAS BLOCKED DRAIN LINES IN THE OFFGAS SYSTEM.	
HATCH 1	03/28/01	321	2	3212001002	37869	OPERATE	AUTO	A TURBINE TRIP/RX TRIP OCCURRED FOLLOWING THE LOSS OF A UNIT AUXILIARY TRANSFORMER. THE CAUSE WAS AN INTERNAL TRANSFORMER FAULT.	
HATCH 1	01/26/00	321	2	3212000002	36625	OPERATE	AUTO	A RX SCRAM OCCURRED ON LOW RX WATER VESSEL WATER LEVEL. THE INADVERTENT CLOSURE OF A HIGH PRESSURE FEEDWATER HEATER INLET VALVE ISOLATED ONE OF TWO FEEDWATER INLET LINES. THE CAUSE WAS ATTRIBUTED TO A FAILED VALVE CONTROL SWITCH.	
HATCH 1	07/10/00	321	2	3212000004	37155	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM RESULTED FROM AN INVALID TURBINE BEARING HIGH VIBRATION TRIP SIGNAL. THE TURBINE BEARING VIBRATION INSTRUMENT FAILED.	
HATCH 1	09/29/00	321	2	3212000011	37390	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON DECREASING RX WATER LEVEL FOLLOWING A LOW SUCTION PRESSURE TRIP OF THE OPERATING RX FEED PUMP. THE CAUSE WAS AIR INTRODUCED INTO THE CONDENSATE PUMP SUCTION HEADER THROUGH A LEAKING PUMP SUCTION ISOLATION VALVE.	
HATCH 2	06/20/09	366	2	3662009003	45145	OPERATE	AUTO	A MAIN GENERATOR RUNBACK OCCURRED DUE TO THE RECEIPT OF A MAIN GENERATOR HIGH TEMPERATURE SIGNAL. A HIGH REACTOR PRESSURE SCRAM OCCURRED DURING THE RUNBACK. THE CAUSE OF THE HIGH GENERATOR TEMPERATURE SIGNAL WAS IMPROPER SET-UP OF THE CONTROL INSTRUMENT.	

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HATCH 2	06/23/09	366	2	3662009004	45148	OPERATE	AUTO	THE REACTOR AUTOMATICALLY TRIPPED FOLLOWING A MAIN TURBINE TRIP. THE TURBINE TRIPPED DUE TO HIGH REACTOR WATER LEVEL. THE CAUSE OF THE TRANSIENT WAS A FAILED CAPACITOR IN THE INTERNAL POWER SUPPLY OF THE REACTOR WATER LEVEL CONTROLLER.	
HATCH 2	03/07/08	366	2	3662008002	44046	OPERATE	AUTO	THE REACTOR TRIPPED ON LOW REACTOR LEVEL FOLLOWING A LOSS OF FEEDWATER. THE FEEDWATER LOSS WAS CAUSED BY LOSS OF THE CONDENSATE DEMINERALIZERS CONTROL DUE TO A PERSONNEL ERROR DURING SOFTWARE TESTING.	
HATCH 2	08/07/07	366	2	3662007008	43552	OPERATE	AUTO	THE REACTOR TRIPPED ON LOW REACTOR WATER LEVEL. THE CAUSE OF THE TRIP WAS A PARTIAL LOSS OF CONDENSATE CAUSED BY LOSS OF NON-VITAL 2D 4160V STATION SERVICE BUS. THE CAUSE OF THE BUS TRIP WAS DETERMINED TO BE INEFFECTIVE EXECUTION OF I&C RELAY CALIB.	
HATCH 2	04/05/06	366	2	3662006002	42471	OPERATE	AUTO	A SCRAM OCCURRED ON A TURBINE CONTROL VALVE FAST CLOSURE RESULTING FROM A POWER LOAD IMBALANCE. THE LICENSEE IS INVESTIGATING THE CAUSE.	
HATCH 2	05/23/05	366	2	3662005003	41725	OPERATE	MAN	CONDENSER TUBE LEAK CAUSED BAD WATER CHEMISTRY. SHUTTING DOWN FROM 100%, MANUALLY SCRAMMED AT 57%. VOID COLLAPSE RESULTED IN GROUP 2 PCIS ISOLATION. LEVEL RECOVERED WITH FEEDWATER PUMPS.	
HATCH 2	10/26/01	366	2	3662001002	38432	OPERATE	AUTO	A SCRAM OCCURRED ON APRM HIGH FLUX FOLLOWING A RAPID INCREASE, AFTER AN UNEXPECTED DECREASE, IN RECIRCULATION PUMP FLOW. THE CAUSE WAS A FAILED AMPLIFIER BOARD IN THE SCOOP TUBE POSITIONER CIRCUIT.	
HATCH 2	12/25/01	366	2	3662001003	38592	OPERATE	AUTO	A RX SCRAM OCCURRED ON HIGH NEUTRON FLUX FOLLOWING A RAPID PRESSURE INCREASE RESULTING FROM A SUDDEN MSIV CLOSURE. THE MSIV STEM FAILED FROM HIGH CYCLE FATIGUE.	
FORT CALHOUN	12/23/10	285	4	2852010006	46506	OPERATE	AUTO	A TURBINE TRIP/REACTOR SCRAM OCCURRED DUE TO A FALSE TURBINE MOISTURE SEPARATOR HIGH WATER LEVEL SIGNAL. THE FALSE SIGNAL WAS MOST LIKELY CAUSED BY A TURBINE TRIP SWITCH BEING BUMPED BY PERSONNEL ERECTING A SCAFFOLD IN THE SAME GENERAL AREA.	THE CAUSE OF THE SCRAM WAS DO TO A FALSE TURBINE MOISTURE SEPARATOR HIGH WATER LEVEL SIGNAL, WHICH CAUSED A TURBINE TRIP.
FORT CALHOUN	03/15/08	285	4	2852008001	44066	OPERATE	AUTO	WITH POWER REDUCED TO 85% BECAUSE OF A TURBINE CONTROL VALVE OSCILLATION PROBLEM, THE TURBINE CONTROL VALVES WENT CLOSED AND CAUSED A SUBSEQUENT REACTOR TRIP.	REACTOR TRIPPED ON TURBINE CONTROL VALVE CLOSURE.
FORT CALHOUN	02/26/05	285	4	2852005001	41446	OPERATE	AUTO	A RX TRIP OCCURRED ON LOSS OF LOAD AFTER POWER ROSE RAPIDLY FROM 12 TO 16 PERCENT WITH ALL TURBINE STOP VALVES CLOSED AND TURBINE TESTING IN PROGRESS. THE CAUSE WAS A FEEDWATER TRANSIENT RESULTING FROM INADEQUATE PROCEDURES FOR LOW POWER OPERATIONS.	
FORT CALHOUN	09/12/03	285	4	2852003003	40156	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO UNANTICIPATED NEGATIVE AXIAL SHAPE INDEX THAT BEGAN TO APPROACH THE RPS TRIP SETTINGS.	THE TRIP HAD BEEN BRIEFED BUT WAS NOT PART OF ANY WRITTEN PREPLANNED SEQUENCE.
GRAND GULF	03/08/10	416	4	4162010001	45753	OPERATE	AUTO	THE REACTOR TRIPPED ON DECREASING REACTOR WATER LEVEL. THE DECREASING LEVEL WAS CAUSED BY A REACTOR FEED PUMP MIN FLOW VALVE FAILING OPEN DUE TO AN ERRONEOUS FLOW SIGNAL AND THE RFP TRIPPING DUE TO A SPEED DEMAND MIS-MATCH CAUSED BY A LINKAGE BINDING.	

PLANT NAME	EVENT DATE	DOCKET	REGION	Licensee Event Report Number	Event Notification	UNIT MODE	SCRAM	Scram Cause / Description	NOTES
GRAND GULF	01/12/08	416	4	4162008001	43899	OPERATE	MAN	THE REACTOR WAS MANUALLY SCRAMMED DUE TO DEGRADED COOLING ON THE MAIN TRANSFORMERS. AN ELECTRICAL FAULT ON THE B PHASE POWER CABLE RESULTED IN LOSS OF TRANSFORMER COOLING SYSTEM.	
GRAND GULF	03/21/08	416	4	4162008002	44086	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE STOP AND CONTROL VALVE FAST CLOSURE. THE PROBABLE CAUSE WAS A C PHASE DIFFERENTIAL TRIP OF THE MAIN TRANSFORMER.	
GRAND GULF	10/26/08	416	4	4162008005	44601	OPERATE	AUTO	A TURBINE TRIP AND SUBSEQUENT REACTOR TRIP OCCURRED FOLLOWING A TURBINE CONTROL VALVE FAST CLOSURE. THE FAST CLOSURE WAS CAUSED BY FAILURE OF THE MAIN GENERATOR VOLTAGE REGULATOR.	
GRAND GULF	10/23/08	416	4	4162008004	44595	OPERATE	AUTO	A REACTOR FEED PUMP SPEED DECREASED TO ZERO RESULTING IN A REACTOR TRIP ON LOW REACTOR LEVEL. THE CAUSE OF THE FEEDWATER FLOW LOSS WAS ACCIDENTAL ISOLATION OF THE STEAM INLET VALVES BY AN OPERATOR.	
GRAND GULF	05/19/07	416	4	4162007002	43376	OPERATE	AUTO	THE REACTOR TRIPPED DUE TO A TURBINE TRIP CAUSED BY LOSS OF CONDENSER VACUUM. THE LOSS OF VACUUM WAS FROM LEAKS IN THE HIGH PRESSURE CONDENSER EXPANSION JOINT.	
GRAND GULF	08/21/07	416	4	4162007003	43584	OPERATE	AUTO	WITH THE IC TECH GROUP WORKING IN A FEEDWATER CONTROL PANEL, THE "A" FEEDWATER PUMP CONTROLLER FAILED DOWNSCALE, RESULTING IN A LOW REACTOR LEVEL SCRAM. NO DEFINITIVE CAUSE HAS BEEN DETERMINED.	
GRAND GULF	02/11/05	416	4	4162005001	41405	OPERATE	AUTO	A RX SCRAM OCCURRED ON LOW RX WATER LEVEL FOLLOWING A LOSS OF FEEDWATER. A PARTIAL LOSS OF OFFSITE POWER OCCURRED WHEN A RACCOON SHORTED TWO PHASES OF A SERVICE TRANSFORMER. THE CAUSE WAS AN ANIMAL INTRUSION FENCE THAT HAD BEEN LEFT DEENERGIZED.	
GRAND GULF	01/30/03	416	4	4162003001	39548	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON DECREASING VESSEL WATER LEVEL FOLLOWING A LOSS OF FEED. THE CAUSE WAS AN ELECTRICAL SHORT DURING MAINTENANCE WHICH RESULTED IN ISOLATION OF ALL OPERATING CONDENSATE DEMINERALIZERS AND THE LOSS OF FEED.	
GRAND GULF	04/24/03	416	4	4162003002	39793	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED ON A LOSS OF LOAD FOLLOWING A PARTIAL LOSS OF OFFSITE POWER. THE CAUSE WAS A SWITCHYARD FAULT FROM HIGH WINDS.	
GRAND GULF	06/22/02	416	4	4162002003	39012	OPERATE	AUTO	A SCRAM OCCURRED ON A TURBINE CONTROL VALVE FAST CLOSURE FOLLOWING A GROUND FAULT ON THE SECONDARY SIDE OF A SERVICE TRANSFORMER. THE CAUSE WAS A RACCOON BRIDGING THE 34.5 KV PHASE "B" TO A GROUNDED STANCHION.	
GRAND GULF	08/07/01	416	4	4162001003	38189	OPERATE	AUTO	A TURBINE TRIP/SCRAM OCCURRED AS THE RESULT OF A GENERATOR LOAD TRANSIENT. THE CAUSE WAS THE FAILURE OF A 500 KV DISCONNECT IN AN OFFSITE SWITCHYARD.	AN SSF WAS ALSO CODED FOR THIS EVENT (EOC-RPT).
GRAND GULF	09/15/00	416	4	4162000005	37325	OPERATE	AUTO	A RX SCRAM OCCURRED ON A TURBINE CONTROL VALVE FAST CLOSURE SIGNAL. THE SIGNAL RESULTED FROM A GENERATOR LOAD TRANSIENT CAUSED BY THE FAILURE OF A 500 KV CIRCUIT BREAKER IN AN OFFSITE SWITCHYARD.	
ROBINSON 2	03/28/10	261	2	2612010002	45799	OPERATE	AUTO	LOSS OF 4KV BUS 5 DUE TO A FIRE RESULTED IN LOSS OF REACTOR COOLANT SYSTEM PUMP B AND A SUBSEQUENT REACTOR AND TURBINE TRIP. THE INITIAL FAULT WAS CAUSED BY THE FAILURE OF A FEEDER CABLE SUPPLYING 4KV BUS 5.	

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ROBINSON 2	09/09/10	261	2	2612010007	46238	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING THE RECEIPT OF AN "OVERTEMPERATURE DELTA-T" SIGNAL. THE CAUSE OF THE OVERTEMPERATURE SIGNAL WAS FAILURE OF THE TURBINE ELECTRO-HYDRAULIC CONTROL SYSTEM, WHICH CAUSED THE FOUR TURBINE GOVERNOR VALVES TO CLOSE.	THE REACTOR TRIPPED ON AN OVERTEMPERATURE DELTA-T SIGNAL.
ROBINSON 2	10/07/10	261	2	2612010009	46313	OPERATE	AUTO	THE REACTOR TRIPPED WHEN A MOTOR FAULT OCCURRED ON A REACTOR COOLANT PUMP CAUSING A SINGLE LOOP LOW FLOW TRIP. THE ROOT CAUSE OF THIS EVENT WAS INADEQUATE END WINDING BRACING ON THE "C" RCP.	
ROBINSON 2	11/06/09	261	2	2612009003	45483	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO CLOSURE OF A MAIN FEEDWATER REGULATING VALVE. THE CLOSURE WAS CAUSED BY THE FAILURE THE FLOW ERROR SIGNAL SUMMATOR POWER SUPPLY.	
ROBINSON 2	11/17/08	261	2	2612008002	44660	OPERATE	MAN	WHILE LOWERING POWER DUE TO INCREASED MAIN-TURBINE VIBRATIONS, THE REACTOR WAS MANUALLY TRIPPED AT 78% POWER, WHEN BEARING VIBRATIONS REACHED THE TRIP CRITERION. MULTIPLE PROBABLE CAUSES FOR THE VIBRATIONS WERE IDENTIFIED.	
ROBINSON 2	05/15/07	261	2	2612007001	43364	OPERATE	AUTO	THE REACTOR TRIPPED DUE TO A TURBINE TRIP. THE CAUSE OF THE TURBINE TRIP WAS THE GENERATOR DIFFERENTIAL PROTECTION CIRCUITRY.	
ROBINSON 2	10/25/06	261	2	2612006001	42933	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED WHEN THE OPERATORS OBSERVED INDICATIONS OF A 100% LOAD REJECTION.	
ROBINSON 2	06/21/00	261	2	2612000001	37098	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO AN UNISOLABLE EHC SYSTEM OIL LEAK. THE TUBING FAILURE WAS CAUSED BY CORROSION FATIGUE INITIATED AT A DEFECT ON THE OUTER DIAMETER SURFACE OF THE TUBE.	
HOPE CREEK	01/17/09	354	1	3542009001	44784	OPERATE	MAN	THE REACTOR WAS MANUALLY SCRAMMED DUE TO FAILURE OF THE TURBINE AUXILIARY COOLING SYSTEM. THE CAUSE OF THE LOSS WAS FAILURE OF A SOLENOID VALVE ON THE TACS SUPPLY ISOLATION VALVES.	
HOPE CREEK	05/17/09	354	1	3542009004	45074	OPERATE	AUTO	THE REACTOR AUTOMATICALLY TRIPPED ON THE REACTOR VESSEL LEVEL TWO SECONDS PRIOR TO THE MODE SWITCH BEING PLACED IN SHUTDOWN DUE TO MULTIPLE CONTROL RODS DRIFTING. THE CONTROL RODS WERE DRIFTING DUE TO AN AIR LEAK IN A HYDRAULIC CONTROL UNIT.	
HOPE CREEK	01/29/07	354	1	3542007001	43132	OPERATE	AUTO	AN AUTOMATIC SCRAM OCCURRED DUE TO LOW REACTOR WATER LEVEL. THE LOW LEVEL WAS CAUSED BY THE REACTOR FEED PUMP MINIMUM FLOW RECIRCULATION VALVE OPENING IN RESPONSE TO A FAILED INSTRUMENT TAP WELD.	
HOPE CREEK	05/29/07	354	1	3542007002	43395	OPERATE	MAN	AN ELECTRICAL TRANSIENT RESULTED IN LOSS OF THE REACTOR FEED PUMPS. THE REACTOR WAS MANUALLY TRIPPED DUE TO LOWERING REACTOR LEVEL.	
HOPE CREEK	06/07/05	354	1	3542005003	41753	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED WHEN DRYWELL FLOOR DRAIN LEAKAGE INCREASED TO GREATER THAN 10 GPM. THE CAUSE WAS A 285 DEGREE CIRCUMFERENTIAL CRACK IN THE POSITION INDICATING TUBE FOR THE RHR CHECK VALVE.	
HOPE CREEK	01/12/04	354	1	3542004001	40437	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED WHEN TWO INBOARD MSIVS WERE OBSERVED DRIFTING CLOSED FROM A LOSS OF PNEUMATIC PRESSURE AS A RESULT OF AN INVALID CONTAINMENT ISOLATION SIGNAL. THE CAUSE WAS A LOOSE RADIATION MONITOR ELECTRICAL CONTACT.	

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HOPE CREEK	10/10/04	354	1	3542004010	41109	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED DUE TO A STEAM LEAK IN THE TURBINE BUILDING. THE CAUSE WAS FAILURE OF A MOISTURE SEPARATOR DUMP LINE TO THE CONDENSER.	
HOPE CREEK	09/19/03	354	1	3542003007	40185	OPERATE	AUTO	A RX SCRAM OCCURRED ON LOW RX WATER LEVEL FOLLOWING A PARTIAL LOSS OF OFFSITE POWER AND THE LOSS OF TWO OF THREE RFP'S. THE CAUSE WAS SALT DEPOSITS IN THE SWITCHYARD RESULTING IN A FLASH-OVER OF A 500 KV INSULATOR.	
HOPE CREEK	10/04/03	354	1	3542003008	40224	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED DUE TO AN EHC SYSTEM OIL LEAK ASSOCIATED WITH A COMBINED INTERMEDIATE CONTROL VALVE. THE VALVE WAS NOT PROPERLY REASSEMBLED FOLLOWING MAINTENANCE.	
HOPE CREEK	06/22/02	354	1	3542002004	39010	OPERATE	AUTO	A RX SCRAM/TURBINE TRIP OCCURRED ON HIGH MOISTURE SEPARATOR LEVEL THAT RESULTED FROM THE TRIP OF A SECONDARY CONDENSATE PUMP AND INTERMEDIATE RUNBACK OF THE RX RECIRCULATION PUMPS. A FAILED LOGIC CARD CAUSED THE CONDENSATE PUMP TRIP.	
INDIAN POINT 2	01/11/10	247	1	2472010001	45624	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A MAIN GENERATOR TRIP. THE MAIN GENERATOR TRIP WAS DUE TO LOSS OF EXCITATION CAUSED BY A SERIES OF PERSONNEL ERRORS WHEN ISOLATING ONE OF THE RECTIFIERS FOR MAINTENANCE.	
INDIAN POINT 2	09/03/10	247	1	2472010007	46229	OPERATE	AUTO	WHILE REDUCING POWER FOR SHUTDOWN, THE REACTOR AUTOMATICALLY SCRAMMED FOLLOWING A TURBINE TRIP DUE TO HIGH STEAM GENERATOR LEVEL. THE ROOT CAUSE OF THE TRIP WAS INADEQUATE DESIGN CONTROL OF THE SETTINGS OF CRITICAL PLANT CONTROLLERS.	
INDIAN POINT 2	11/07/10	247	1	2472010009	46400	OPERATE	AUTO	AN EXPLOSION IN THE 21 MAIN TRANSFORMER RESULTED IN A TURBINE TRIP AND REACTOR TRIP. THE EXPLOSION WAS CAUSED BY A LOW IMPEDANCE GROUND FAULT ON THE TRANSFORMER PHASE B BUSHING.	
INDIAN POINT 2	04/03/09	247	1	2472009002	44967	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FROM 100% POWER FOLLOWING THE LOSS OF A MAIN BOILER FEED PUMP. FOLLOWING THE MBFP TRIP, THE TURBINE RUNBACK CIRCUIT DID NOT ACTUATE AS EXPECTED. THE MBFP FAILED DUE TO A TUBING FAILURE IN THE AUTOSTOP OIL TUBING.	
INDIAN POINT 2	11/02/09	247	1	2472009005	45474	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A MAIN TURBINE TRIP. THE TURBINE TRIPPED DUE TO A GENERATOR LOCKOUT RELAY ACTUATION. THE LOCKOUT RELAY ACTUATION WAS DUE TO A HIGH RESISTANCE GROUND ON THE POWER SUPPLY.	
INDIAN POINT 2	03/23/08	247	1	2472008001	44089	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO LOSS OF SPEED CONTROL ON A MAIN BOILER FEED PUMP RESULTED IN LOWERING STEAM GENERATOR LEVELS.	
INDIAN POINT 2	04/21/08	247	1	2472008003	44153	OPERATE	MAN	WHILE ASCENDING POWER AT 37%, A MAIN TURBINE RUNBACK RESULTED IN DECREASING STEAM GENERATOR LEVELS. THE OPERATOR MANUALLY TRIPPED THE REACTOR. THE CAUSE OF THE MAIN TURBINE RUNBACK WAS A FAILED BISTABLE IN THE RUNBACK CIRCUIT.	
INDIAN POINT 2	02/28/07	247	1	2472007004	43199	OPERATE	MAN	THE REACTOR WAS MANUALLY SCRAMMED ON LOWERING STEAM GENERATOR LEVELS. A FAILED PRESSURE TRANSMITTER IN THE COMMON MAIN FEEDWATER SUPPLY HEADER CAUSED A CUTBACK OF BOTH MAIN FEEDWATER PUMPS, RESULTING IN DECREASING STEAM GENERATOR LEVELS.	

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INDIAN POINT 2	03/01/06	247	1	2472006001	42378	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON INDICATION OF TWELVE DROPPED RODS. A MANUAL DISCONNECT SWITCH FOR THE RODS POWER SUPPLY WAS INADVERTENTLY OPENED DURING AREA SCAFFOLD WORK.	
INDIAN POINT 2	08/23/06	247	1	2472006003	42797	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED AT 68% WHILE REDUCING POWER FROM 100% DUE TO PRIMARY POWER AND SECONDARY LOAD MISMATCH. THE EVENT WAS INITIATED WHEN HEATER DRAIN TANK PUMPS 21 AND 22 TRIPPED DUE TO FAILURE OF THE AUTOMATIC HEATER DRAIN LEVEL CONTROL.	
INDIAN POINT 2	11/15/06	247	1	2472006005	42993	OPERATE	AUTO	WHILE TROUBLESHOOTING THE MAIN GENERATOR EXCITER POWER SUPPLY, AN ELECTRICAL SPIKE RESULTED IN A TURBINE TRIP, WHICH CAUSED A REACTOR SCRAM.	
INDIAN POINT 2	09/01/04	247	1	2472004001	41003	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON DEGRADING FEEDWATER FLOW AND SG LEVEL CONDITIONS AFTER A FEEDWATER REGULATING VALVE BEGAN OPERATING ERRATICALLY. THE CAUSE OF THE VALVE FAILURE WAS THE VALVE CAGE BECAME LOOSE DUE TO INADEQUATE MAINTENANCE PROCEDURE GUIDE.	
INDIAN POINT 2	09/24/04	247	1	2472004002	41066	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON DEGRADING FW FLOW AND SG WATER LEVEL AFTER A MAIN FW REGULATING VALVE FAILED SHUT. THE CAUSE WAS DISCONNECTED WIRING FROM THE VALVES SOLENOID OPERATOR DUE TO IMPROPER SOLENOID ORIENTATION.	
INDIAN POINT 2	11/26/04	247	1	2472004005	41227	OPERATE	AUTO	A RX/TURBINE TRIP OCCURRED FOLLOWING A LOSS OF STATOR WATER COOLING. THE CAUSE WAS AN INCORRECT PRESSURE SWITCH SETTING RESULTING FROM INADEQUATE PROCEDURES AND INADEQUATE TESTING FOLLOWING EXTENSIVE MODIFICATIONS.	
INDIAN POINT 2	04/28/03	247	1	2472003003	39804	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED DURING A PARTIAL LOSS OF OFFSITE POWER AFTER OUTPUT BREAKER "9" OPENED. THE CAUSE WAS A GRID DISTURBANCE FOLLOWED BY A SWITCHYARD RELAY MALFUNCTION.	ALL 3 EDGS STARTED AND THE NONSAFETY BUSES 2A AND 3A WERE MANUALLY ENERGIZED BY EDG 22. THE SAFETY BUSES 5A AND 6A REMAINED ENERGIZED FROM OFFSITE SOURCES.
INDIAN POINT 2	08/03/03	247	1	2472003004	40045	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED DURING A LOSS OF ALL LOAD DUE TO AN OFFSITE ELECTRICAL DISTURBANCE INITIATED BY A LIGHTNING STRIKE.	
INDIAN POINT 2	08/14/03	247	1	2472003005	40067	OPERATE	AUTO	A RX SCRAM OCCURRED ON LOW RX COOLANT LOOP FLOW FOLLOWING A LOSS OF OFFSITE POWER. THE CAUSE WAS A MAJOR GRID DISTURBANCE AND BLACKOUT.	
INDIAN POINT 2	12/26/01	247	1	2472001007	38593	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON A LOSS OF LOAD. THE CAUSE WAS FAILURE OF AN OFFSITE BLOCKING RELAY AND RESULTING GRID DISTURBANCE ON THE NORTH 345 KV RING BUS AT THE BUCHANAN SWITCHYARD.	
INDIAN POINT 2	02/15/00	247	1	2472000001	36695	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED FOLLOWING A SG TUBE RUPTURE. THE FAULTED SG WAS ISOLATED.	
INDIAN POINT 3	09/09/10	286	1	2862010002	46241	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FOLLOWING INDICATION OF A SERVICE WATER LEAK IN THE MAIN GENERATOR EXCITER HOUSING.	
INDIAN POINT 3	05/15/09	286	1	2862009003	45069	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED WHEN A MAIN FEED REGULATING VALVE FAILED OPEN AND COULD NOT BE CORRECTED. THE LOSS OF FEED REG VALVE CONTROL WAS CAUSED BY A DISCONNECTED VALVE POSITION FEEDBACK LINK THAT FAILED DUE TO AN INADEQUATE MAINTENANCE PROCEDURE	

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INDIAN POINT 3	05/28/09	286	1	2862009004	45098	OPERATE	AUTO	WHILE LOWERING POWER DUE TO EXCESSIVE FEEDWATER PUMP VIBRATIONS, A TURBINE TRIP AND SUBSEQUENT REACTOR TRIP OCCURRED DUE TO HIGH LEVEL IN A STEAM GENERATOR. THE CAUSE OF THE STEAM GENERATOR LEVEL EXCURSION WAS DUE TO A FWRV CONTROLLER SATURATION.	
INDIAN POINT 3	08/10/09	286	1	2862009006	45255	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP DURING A THUNDERSTORM. THE CAUSE OF THE TURBINE TRIP WAS ACTUATION OF THE GENERATOR PROTECTION PRIMARY LOCKOUT RELAY.	
INDIAN POINT 3	08/27/09	286	1	2862009007	45306	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP. THE CAUSE OF THE TURBINE TRIP WAS LOSS OF TURBINE AUTOSTOP OIL PRESSURE. THE LOSS OF OIL WAS CAUSED BY A FAILED FITTING IN THE LINE CONNECTING THE AUTOSTOP OIL TO THE TURBINE TRIP SOLENIOD TRIP DEVICE.	
INDIAN POINT 3	04/03/07	286	1	2862007001	43272	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DURING BOILER FEED PUMP MAINTENANCE WHEN LOW STEAM GENERATOR LEVELS OCCURRED. WITH ONE PUMP DEENERGIZED FOR MAINTENANCE, THE LOGIC CONTROL FOR THE RUNNING PUMP FAILED DUE TO A LOGIC POWER SUPPLY FAILURE.	
INDIAN POINT 3	04/06/07	286	1	2862007002	43285	OPERATE	AUTO	AN EXPLOSION AND FIRE IN THE MAIN TRANSFORMER RESULTED IN A LOAD REJECTION OF THE MAIN GENERATOR AND A REACTOR TRIP. THIS EVENT WAS CAUSED BY A FAULT IN THE TRANSFORMER'S 345KV PHASE B BUSHING.	
INDIAN POINT 3	07/06/06	286	1	2862006001	42687	OPERATE	AUTO	A RX TRIP OCCURRED ON GENERATOR PHASE 'B' DIFFERENTIAL CURRENT. THE EVENT WAS CAUSED BY A SHORT CIRCUIT IN A MAIN GENERATOR JUNCTION BOX.	
INDIAN POINT 3	07/21/06	286	1	2862006002	42720	OPERATE	MAN	SCAFFOLDING ERECTED IN THE VICINITY OF THE MAIN TURBINE GENERATOR CAUSED ARCING FROM THE GENERATOR PHASES A&B. THIS RESULTED IN THE OPERATOR MANUALLY TRIPPING THE REACTOR.	
INDIAN POINT 3	05/06/05	286	1	2862005002	41673	OPERATE	AUTO	A RX TRIP OCCURRED ON A STEAM FLOW/FEED FLOW MISMATCH SIGNAL WHEN THE CONDENSATE POLISHER POST FILTER BYPASS VALVE CLOSED DURING TROUBLESHOOTING ACTIVITIES. THE CAUSE WAS A MISPOSITIONED SWITCH.	
INDIAN POINT 3	06/10/05	286	1	2862005004	41762	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO A SERVICE WATER LEAK IN THE MAIN GENERATOR EXCITER. THE CAUSE WAS A SPLIT GASKET ON THE EXCITER COOLER DUE TO OVERTIGHTENED BOLTS.	
INDIAN POINT 3	01/13/03	286	1	2862003001	39506	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON HIGH DIFFERENTIAL PRESSURE BETWEEN CONDENSER SECTIONS FOLLOWING THE LOSS OF BOTH CIRC WATER PUMPS IN ONE CONDENSER SECTION. ONE PUMP WAS OUT OF SERVICE FOR MAINTENANCE WHEN THE OTHER TRIPPED FROM A SHORTED DC EXCITER LEAD.	
INDIAN POINT 3	04/29/03	286	1	2862003002	39808	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO A CLASS B FIRE AT THE SOUTH END OF THE HIGH PRESSURE TURBINE. THE CAUSE WAS HEAT OF THE TURBINE CASING IGNITING LUBE OIL THAT HAD LEAKED AND SOAKED TURBINE INSULATING PADS.	
INDIAN POINT 3	06/22/03	286	1	2862003003	39955	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED AFTER A GENERATOR TRIP. A FAULT OCCURRED WHILE ATTEMPTING TO CLOSE THE 345 KV CIRCUIT BREAKER NUMBER THREE FOLLOWING MAINTENANCE. THE CAUSE WAS MOISTURE OR CONTAMINATION COMPROMISED THE BREAKER DIELECTRIC GAS.	

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INDIAN POINT 3	08/14/03	286	1	2862003005	40069	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW RCS FLOW FOLLOWING A LOSS OF OFFSITE POWER. THE CAUSE WAS A MAJOR GRID DISTURBANCE AND BLACKOUT.	
INDIAN POINT 3	11/15/02	286	1	2862002003	39375	OPERATE	AUTO	A RX TRIP OCCURRED ON A GENERATOR LOCKOUT AFTER A 345 KV MAIN OUTPUT BREAKER FAILED OPEN. THE BREAKER CATASTROPHICALLY FAILED DUE TO HIGH CONTACT RESISTANCE CAUSED BY MISALIGNMENT FROM POOR VENDOR WORKMANSHIP.	
INDIAN POINT 3	06/04/00	286	1	2862000007	37054	OPERATE	AUTO	A RX TRIP OCCURRED ON A LOW SG WATER LEVEL FOLLOWING A FEEDWATER TRANSIENT AND TURBINE TRIP. A LICENSED OPERATOR FAILED TO PROPERLY CONTROL FEEDWATER PUMP SPEED WHILE DIRECTING AN OPERATOR TRAINEE WHO WAS CONTROLLING THE FEEDWATER REGULATING VALVES.	
INDIAN POINT 3	06/09/00	286	1	2862000008	37071	OPERATE	AUTO	A TURBINE TRIP/RX TRIP OCCURRED FOLLOWING A MAIN GENERATOR TRIP AND LOCKOUT. THE CAUSE WAS LOW INSULATION RESISTANCE BETWEEN SEVERAL CONDUCTORS IN A CABLE ROUTED BETWEEN THE SITE AND THE BUCHANAN SUBSTATION.	
FITZPATRICK	09/12/07	333	1	3332007002	43635	OPERATE	MAN	HIGH WINDS RESULTED IN DEBRIS CAUSING LOWERING INTAKE CANAL LEVEL DUE TO PLUGGING OF THE TRAVELING SCREENS AND TRASH BASKETS. THE OPERATOR BEGAN A RAPID POWER REDUCTION. THE REACTOR WAS MANUALLY TRIPPED WHEN THE INTAKE LEVEL DROPPED TO 240 FEET.	
FITZPATRICK	10/28/07	333	1	3332007002	43752	OPERATE	MAN	THE REACTOR WAS MANUALLY SCRAMMED WHEN THE TRAVELING WATER SCREENS BECAME BLOCKED WITH DEBRIS.	
FITZPATRICK	09/14/05	333	1	3332005005	41987	OPERATE	AUTO	A SCRAM OCCURRED ON LOW RX VESSEL LEVEL FOLLOWING A MOMENTARY LOSS OF UPS AND RESULTING LOCKOUT OF THE RX FEED PUMP CONTROLS. THE CAUSE WAS OPERATOR ERROR RESPONDING TO THE TRANSIENT WITH CONTRIBUTION FROM AN INADEQUATE ABNORMAL OPERATING PROCEDURE.	
FITZPATRICK	08/14/03	333	1	3332003001	40072	OPERATE	AUTO	A RX SCRAM OCCURRED ON A TURBINE CONTROL VALVE FAST CLOSURE. THE CAUSE WAS A MAJOR GRID DISTURBANCE AND BLACKOUT.	
FITZPATRICK	04/01/00	333	1	3332000003	36853	OPERATE	AUTO	A RX SCRAM OCCURRED ON A MANUAL TURBINE TRIP DUE TO DECREASING CONDENSER VACUUM. DURING RECOMBINER MAINTENANCE, THE BYPASS VALVE FAILED CLOSED, ISOLATING THE OFF GAS SYSTEM. THE CAUSE WAS AN AGE-RELATED FAILURE OF THE ASSOCIATED SOLENOID OPERATED VALVE.	
FARLEY 1	11/19/08	348	2	3482008004	44666	OPERATE	AUTO	THE REACTOR TRIPPED FROM 100% POWER. A FAULT IN THE SWITCHYARD RESULTED IN A VOLTAGE DROP THAT CAUSED A LOSS OF BREAKER POSITION INDICATION. THIS RESULTED IN THE REACTOR TRIPPING ON AN RCP BREAKER OPEN SIGNAL, EVEN THOUGH THE BREAKER DID NOT OPEN.	
FARLEY 1	03/01/04	348	2	3482004001	40558	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON HIGH SG WATER LEVEL FOLLOWING A FEED SYSTEM TRANSIENT. THE LEAD LAG CARD IN THE SG FEEDWATER PUMP MASTER SPEED CONTROL CIRCUIT FAILED, CAUSING A RAMP INCREASE IN THE SPEED OF BOTH SG FEED PUMPS.	

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FARLEY 1	05/03/02	348	2	3482002001	38895	OPERATE	AUTO	A RX TRIP OCCURRED ON INDICATED LOSS OF RCS FLOW WHEN THE "B" RCP BUS UNDERVOLTAGE RELAYS DROPPED OUT DUE TO A SHORTED POWER LEAD AND THE "A" RCP BUS UNDERVOLTAGE RELAYS WERE TRIPPED FOR TESTING. THE POWER LEAD WAS INADVERTENTLY SHORTED DURING REPAIR.	
FARLEY 1	10/15/02	348	2	3482002002	39291	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED WHEN A ROD DROPPED 24 STEPS. THE CAUSE WAS AN OPEN FAILURE OF THE MOVABLE GRIPPER COIL BLOCKING DIODE.	AFW AUTO STARTED IN RESPONSE TO THE FEED PUMPS TRIP.
FARLEY 1	12/10/02	348	2	3482002004	39433	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON DECREASING SG WATER LEVEL AFTER ALL MAIN FEEDWATER PUMP CONTROL VALVES CLOSED. THE CAUSE WAS A LOSS OF CONTROL POWER TO THE FEEDWATER PUMPS FROM UNINTENTIONAL SWITCH CONTACT BY PLANT FACILITIES PERSONNEL.	
FARLEY 1	05/28/00	348	2	3482000006	37041	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG LVL. DURING A TURBINE BALANCING EVOLUTION, EHC PRESSURE DROPPED BELOW THAT REQUIRED FOR MFP OPERATION. SG LVL WAS STABILIZED WITH AUX FEED PUMPS. HOWEVER, THE STEAM DUMPS CLOSED AND SG LVL SHRANK BELOW THE RX TRIP SETPOINT.	
FARLEY 2	05/22/10	364	2	3642010002	45946	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED ON LOWERING STEAM GENERATOR LEVEL WHEN POWER AND CONTROL TO A FEED REG VALVE WAS LOST. THE CAUSE OF THE FAILURE WAS FAILURE OF A CONTROLLER DRIVER CARD IN THE FEED REG VALVE CONTROLLER CIRCUIT.	
FARLEY 2	10/03/07	364	2	3642007001	43687	OPERATE	AUTO	THE REACTOR TRIPPED DUE TO LOSS OF A REACTOR COOLANT PUMP BREAKER INDICATION. THE NON-VITAL BUS WAS LOST DUE TO THE STARTUP TRANSFORMER TRIPPING. UNIT 1 WAS PERFORMING RELAY TESTING AT THE TIME.	
FARLEY 2	04/11/04	364	2	3642004004	40666	STARTUP	AUTO	A RX TRIP OCCURRED ON A SOURCE RANGE HIGH FLUX SIGNAL RESULTING FROM THE INTERMITTENT FAILURE OF A UNIVERSAL LOGIC CARD IN THE "B" TRAIN SOLID STATE PROTECTION SYSTEM. THE CAUSE WAS NOT DISCOVERED UNTIL A SECOND TRIP OCCURRED ON 4/12/04.	
FARLEY 2	04/12/04	364	2	3642004004	40667	STARTUP	AUTO	A RX TRIP OCCURRED ON AN INVALID SOURCE RANGE HIGH FLUX TRIP SIGNAL DURING LOW POWER PHYSICS TESTING. THE CAUSE WAS THE INTERMITTENT FAILURE OF A UNIVERSAL LOGIC CARD IN THE "B" TRAIN SSPS. THIS IS THE SECOND OF TWO SIMILAR EVENTS.	
FARLEY 2	11/10/03	364	2	3642003001	40309	OPERATE	AUTO	A RX TRIP OCCURRED ON AN INDICATED (NOT ACTUAL) RCP BREAKER OPEN POSITION SIGNAL. ALL THREE RCPS REMAINED RUNNING. THE CAUSE WAS A MOMENTARY LOSS OF VOLTAGE ON THE "2A" 120 VAC VITAL INSTRUMENT BUS INVERTER.	
FARLEY 2	06/23/01	364	2	3642001001	38089	OPERATE	AUTO	A TURBINE/RX TRIP RESULTED FROM A MAIN GENERATOR OVERCURRENT TRIP. THE GENERATOR NEUTRAL TRANSFORMER ELECTRICAL CONNECTION BOLT HAD BEEN OVERTORQUED AND SUBSEQUENTLY FAILED. THE CAUSE WAS A COMBINATION OF PERSONNEL ERROR AND INADEQUATE PROCEDURE.	

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FARLEY 2	06/26/01	364	2	3642001002	38095	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED WHEN THE TURBINE LATCH PUSH BUTTON WAS DEPRESSED AND RELEASED DURING REPLACEMENT. THE LATCH MECHANISM OVER TRAVELED PAST THE NEUTRAL POSITION TO THE TRIP POSITION. THE CAUSE WAS AN EQUIPMENT DEFICIENCY IN THE LATCH MECHANISM.	
FARLEY 2	11/16/00	364	2	3642000004	37527	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON HIGH SG LEVEL DURING A FEEDWATER TRANSIENT. THE TRANSIENT WAS INITIATED BY A FAILED FWP SPEED CONTROL CIRCUIT. AN OPERATOR TOOK MANUAL CONTROL OF MFPS, BUT DUE TO SLUGGISH FRV RESPONSE, ONE SG WAS SUBSEQUENTLY OVERFED.	
KEWAUNEE	01/12/07	305	3	3052007001	43096	OPERATE	AUTO	WHILE PERFORMING MONTHLY TURBINE TRIP MECHANISM TESTING, THE TURBINE TRIPPED RESULTING IN A REACTOR SCRAM. THE CAUSE OF THE TURBINE TRIP WAS LOSS OF AUTO STOP OIL PRESSURE TO THE INTERFACE VALVE.	
KEWAUNEE	02/27/07	305	3	3052007004	43196	OPERATE	AUTO	A REACTOR TRIP OCCURRED DURING SURVEILLANCE TESTING OF THE NUCLEAR POWER RANGE INSTRUMENTS. THE TRIP WAS CAUSED BY FAILED RELAY CONTACTS IN THE RPS MATRIX ASSOCIATED WITH THE NUCLEAR INSTRUMENTATION.	A REACTOR TRIP OCCURRED DURING SURVEILLANCE TESTING OF THE NUCLEAR POWER RANGE INSTRUMENTS. THE TRIP WAS CAUSED BY A FAILED RELAY CONTACT IN THE RPS MATRIX ASSOCIATED WITH NUCLEAR INSTRUMENTATION.
KEWAUNEE	04/26/06	305	3	3052006001	42530	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED AFTER THE ONLY OPERATING FEEDWATER PUMP TRIPPED AND AN AUTOMATIC TURBINE TRIP DID NOT OCCUR AS EXPECTED. AN ERRONEOUS PUMP RUNNING INPUT WAS THE CAUSE.	
KEWAUNEE	10/30/06	305	3	3052006012	42947	OPERATE	AUTO	LOSS OF INSTRUMENT BUS 1 DURING MAINTENANCE RESULTED IN AN AUTOMATIC REACTOR TRIP SIGNAL ON STEAM FLOW/FEED FLOW MISMATCH COINCIDENT WITH LOW SG LEVEL. THIS EVENT WAS CAUSED BY LOSS OF AN INSTRUMENT BUS INVERTER DURING PREVENTIVE MAINTENANCE.	
KEWAUNEE	11/10/06	305	3	3052006013	42983	OPERATE	AUTO	WHILE SHUTTING DOWN AT 10% POWER WITH ONE NI LOW RANGE HIGH POWER TRIP BISTABLE TRIPPED FOR AN UNRELATED FAILURE, A SPURIOUS TRIP OF THE OTHER BISTABLE RESULTED IN AN AUTOMATIC REACTOR TRIP.	
KEWAUNEE	11/28/05	305	3	3052005016	42173	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL AFTER A MAIN FEEDWATER PUMP TRIPPED ON OVER CURRENT. THE CAUSE WAS A SHORT TO GROUND IN ALL THREE PHASES OF THE MOTOR.	
KEWAUNEE	06/20/01	305	3	3052001004	38080	OPERATE	AUTO	A RX TRIP OCCURRED ON STEAM FLOW FEED FLOW MISMATCH COINCIDENT WITH A LOW STEAM GENERATOR WATER LEVEL. A FEEDWATER REGULATING VALVE FAILED CLOSED WHEN THE ASSOCIATED AIR VOLUME BOOSTER DIAPHRAGM TORE.	
KEWAUNEE	06/06/00	305	3	3052000009	37063	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON AN INVALID HIGH RCP BEARING TEMPERATURE INDICATION. THE CAUSE WAS A FAILED RESISTANCE TEMPERATURE DETECTOR.	
LIMERICK 1	06/23/10	352	1	3522010001	46042	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FOLLOWING THE LOSS OF BOTH RECIRC PUMPS. THE RECIRC PUMPS TRIPPED DUE TO LOSS OF THEIR MG SETS, FOLLOWING THE LOSS OF THE 114A LOAD CENTER, CAUSED BY THE TRIP OF ITS SUPPLY BREAKER DUE TO A FAILED 13KV CABLE.	
LIMERICK 1	03/22/08	352	1	3522008002	44088	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP. THE CAUSE OF THE TURBINE TRIP WAS A DEFECTIVE RELAY IN THE MAIN GENERATOR PROTECTION LOGIC.	

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LIMERICK 1	07/18/05	352	1	3522005003	41848	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED ON AN INVALID MAIN GENERATOR LOCKOUT RELAY ACTUATION. THE CAUSE WAS A CORRODED DISCONNECT POSITION SWITCH AND CONCURRENT GROUND ON THE BALANCE OF PLANT DC POWER DISTRIBUTION SYSTEM.	
LIMERICK 1	04/23/03	352	1	3522003003	39784	OPERATE	AUTO	A RX SCRAM OCCURRED ON LOW RX VESSEL WATER LEVEL FOLLOWING A LOSS OF FEEDWATER. THE FEEDPUMPS TRIPPED ON LOW SUCTION PRESSURE FOLLOWING THE CLOSURE OF THE CONDENSATE DEEP BED DEMINERALIZER INLET HEADER BLOCK VALVE FROM INADVERTENT PERSONNEL CONTACT.	
LIMERICK 1	05/19/02	352	1	3522002003	38927	OPERATE	AUTO	A RX SCRAM/TURBINE TRIP OCCURRED ON TURBINE THRUST BEARING WEAR DETECTOR ACTUATION DURING TURBINE COMBINED INTERMEDIATE VALVE TESTING. THE CAUSE WAS MOST LIKELY LOOSENESS IN THE STRUCTURE THAT HOLDS THE THRUST BEARING IN PLACE.	
LIMERICK 1	05/01/00	352	1	3522000002	36947	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED FOLLOWING A GENERATOR LOCKOUT. THE CAUSE WAS AN INADEQUATE ELECTRICAL CONNECTION ON THE MAIN TRANSFORMER, RESULTING FROM AN INADEQUATE WORK PACKAGE.	
LIMERICK 2	02/25/11	353	1		46641	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED AFTER THE RECIRCULATION PUMPS TRIPPED. THE RECIRCULATION PUMPS TRIPPED DUE TO A MAIN GENERATOR STATOR WATER COOLANT RUNBACK. THE CAUSE OF THE RUNBACK IS UNDER INVESTIGATION.	
LIMERICK 2	02/01/08	353	1	3532008002	43949	OPERATE	AUTO	AN AUTOMATIC REACTOR SCRAM OCCURRED DUE TO THE TRIP OF THE MAIN TURBINE. THE TURBINE TRIP WAS CAUSED BY A PHASE TO GROUND FAULT ON THE MAIN TRANSFORMER LOW VOLTAGE BUSHING CONNECTION TO THE ISO-PHASE BUS.	
LIMERICK 2	04/24/07	353	1	3532007003	43315	OPERATE	AUTO	THE REACTOR TRIPPED ON LOW REACTOR WATER LEVEL, THIS EVENT WAS CAUSED BY FAILURE OF A REDUNDANT REACTIVITY CONTROL SYSTEM CARD COINCIDENT WITH SURVEILLANCE TESTING OF THE FEEDWATER CONTROL SYSTEM.	
LIMERICK 2	10/12/05	353	1	3532005004	42054	OPERATE	AUTO	A RX SCRAM OCCURRED ON HIGH APRM FLUX WHEN THE TURBINE CONTROL VALVES CLOSED FOLLOWING A FAILURE IN THE EHC SYSTEM. THE MOST LIKELY CAUSE WAS A TRANSIENT MALFUNCTION OF A CIRCUIT CARD.	
LIMERICK 2	06/22/04	353	1	3532004001	40832	OPERATE	AUTO	A RX SCRAM OCCURRED FOLLOWING A GENERATOR LOCKOUT AND ELECTRICAL YARD MANIPULATION. THE CAUSE WAS A FAILED 500 KV CIRCUIT BREAKER AND CONCURRENT FAILURE OF A CURRENT TRANSFORMER ASSOCIATED WITH A DIFFERENT 500 KV CIRCUIT BREAKER.	
LIMERICK 2	03/03/03	353	1	3532003001	39632	OPERATE	AUTO	A RX SCRAM OCCURRED ON A MANUAL TURBINE TRIP DUE TO ELEVATED MAIN TURBINE VIBRATION LEVELS. THE CAUSE WAS INADEQUATE OIL DEFLECTOR GAPS ON THE MAIN TURBINE AND INADEQUATE LOW PRESSURE TURBINE GLAND SEAL CLEARANCES.	
LIMERICK 2	07/23/02	353	1	3532002001	39085	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON DECREASING CONDENSER VACUUM WHEN THE CONDENSER AIR REMOVAL SYSTEM FAILED DUE TO TEMPERATURE IN THE STEAM JET AIR EJECTOR CONDENSER EXCEEDING THE DESIGN LIMIT. THE CAUSE WAS INADEQUATE OPERATING PROCEDURES.	

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LIMERICK 2	02/23/01	353	1	3532001001	37778	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED WHEN A SAFETY RELIEF VALVE OPENED WHILE PERFORMING A PLANNED PLANT SHUTDOWN. THE CAUSE WAS EROSION AND OXIDATION OF THE STELLITE DISC MATERIAL IN THE FIRST STAGE PILOT VALVE.	
LIMERICK 2	06/26/01	353	1	3532001002	38097	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED ON A GENERATOR LOCKOUT. THE CAUSE WAS A FAILED WIRE LUG IN THE ALTERREX PHASE DIFFERENTIAL CURRENT PROTECTIVE RELAY SYSTEM.	
LIMERICK 2	01/08/00	353	1	3532000001	36573	OPERATE	AUTO	A RX SCRAM OCCURRED FOLLOWING A MAIN GENERATOR LOCKOUT/TURBINE TRIP FROM A GROUND ON A PLANT SERVICES TRANSFORMER ALARM CIRCUIT. THE GROUND WAS CAUSED BY AN EXPOSED SPARE WIRE ON THE TRANSFORMER LOW LIQUID LEVEL SWITCH.	
LASALLE 1	02/01/11	373	3	3732011001	46582	OPERATE	AUTO	THE REACTOR TRIPPED ON THROTTLE CONTROL VALVE FAST CLOSURE FOLLOWING A MAIN POWER TRANSFORMER TRIP AND SUBSEQUENT LOAD REJECTION. THE ROOT CAUSE WAS DETERMINED TO BE EXTERNAL BUSHING FLASHOVER DUE TO MOIST SNOW AND ICE BUILDUP ALONG THE BUSHING SKIRT.	
LASALLE 1	05/21/09	373	3	3732009001	45087	OPERATE	AUTO	THE REACTOR TRIPPED DUE TO A FAULT ON THE MAIN POWER TRANSFORMER. THE FAULT WAS CAUSED BY A FAILED SURGE ARRESTOR. THE SURGE ARRESTOR FAILED DUE TO A MANUFACTURING DEFECT.	THE REACTOR AUTOMATICALLY TRIPPED DUE TO A MAIN POWER TRANSFORMER FAULT.
LASALLE 1	02/20/06	373	3	3732006001	42348	OPERATE	AUTO	A RX SCRAM OCCURRED ON LOW RCS PRESSURE AFTER A TURBINE CONTROL SYSTEM MALFUNCTION RESULTED IN OPENING ALL MAIN TURBINE BYPASS VALVES DURING A NORMAL SHUTDOWN. THE CAUSE WAS A FAILED POWER SUPPLY IN THE MAIN TURBINE EHC SYSTEM.	
LASALLE 1	11/27/03	373	3	3732003005	40357	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON DECREASING RX WATER LEVEL WHILE PERFORMING A POWER REDUCTION AND TRANSFER FROM THE TURBINE TO MOTOR DRIVEN RX FEED PUMP. THE CAUSE WAS A STUCK OPEN TURBINE DRIVEN FEED PUMP DISCHARGE CHECK VALVE.	
LASALLE 1	01/31/01	373	3	3732001001	37707	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM RESULTED FROM A PHASE-TO-GROUND FAULT BETWEEN THE MAIN POWER TRANSFORMER AND THE SWITCHYARD. THE CAUSE WAS A BUILDUP OF BIRD EXCREMENT ON A TRANSMISSION LINE SUPPORT INSULATOR.	
LASALLE 2	08/15/09	374	3	3742009001	45265	OPERATE	AUTO	THE REACTOR SCRAMMED FOLLOWING A TURBINE TRIP. THE TURBINE TRIPPED DURING WEEKLY TURBINE TRIP TESTING. THE CAUSE OF THE TURBINE TRIP WAS FAILURE OF A CARD IN THE ELECTRO-DIGITAL CONTROL SYSTEM.	
LASALLE 2	01/10/03	374	3	3742003001	39500	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON LOWERING VESSEL WATER LEVEL FOLLOWING THE LOSS OF A CONDENSATE PUMP AND THE "2A & 2C" HEATER DRAIN PUMPS WHICH RESULTED IN A LOSS OF BOTH TURBINE DRIVEN FEED PUMPS. THE CONDENSATE PUMP "B" PHASE MOTOR LUG FAILED.	
LASALLE 2	07/07/03	374	3	3742003004	39982	OPERATE	AUTO	A RX SCRAM/TURBINE TRIP OCCURRED ON A MAIN GENERATOR LOCKOUT. THE CAUSE WAS A FAULT ON ONE PHASE OF THE MAIN POWER DISCONNECT IN THE SWITCHYARD.	
LASALLE 2	04/06/01	374	3	3742001001	37895	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON HIGH RX WATER LEVEL. THE CAUSE WAS A BLOWN FUSE IN THE FEEDWATER CONTROL SYSTEM WHICH CAUSED THE RX RECIRCULATION PUMPS TO DOWN SHIFT.	

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LASALLE 2	05/27/01	374	3	3742001002	38034	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM RESULTED FROM HIGH TURBINE VIBRATION DURING TURBINE CONTROL VALVE (TCV) TESTING. THE CAUSE WAS A HIGH RESISTANCE CONNECTION IN THE TCV #3 POSITION INDICATION CIRCUITRY.	
LASALLE 2	09/03/01	374	3	3742001003	38262	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED FOLLOWING THE LOSS OF POWER TO THE FEEDWATER CONTROL SYSTEM. THE CAUSE WAS FAILED FUSES IN THE POTENTIAL TRANSFORMER PORTION OF THE DIVISION "1" UNDER VOLTAGE PROTECTIVE CIRCUIT.	
LASALLE 2	09/07/01	374	3	3742001004	38269	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED FOLLOWING THE LOSS OF TWO LOW PRESSURE FEEDWATER HEATER STRINGS. THE CAUSE WAS INADEQUATE PROCEDURES THAT ALLOWED THE HEATER DRAINS TO BE LINED UP INCORRECTLY FOR EXISTING PLANT CONDITIONS.	
LASALLE 2	06/22/00	374	3	3742000003	37102	OPERATE	AUTO	A RX SCRAM OCCURRED ON LOW RX WATER LEVEL WHEN A TURBINE DRIVEN RX FEED PUMP WAS LOST. THE CAUSE WAS THE INTRUSION OF WEAR PRODUCTS INTO THE HIGH PRESSURE CONTROL OIL PRESSURE REGULATING RELIEF VALVE WHICH CAUSED THE FEED PUMP CONTROL VALVE TO CLOSE.	
LASALLE 2	12/01/00	374	3	3742000006	37562	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED ON HIGH RX VESSEL WATER LEVEL WHILE PLACING THE TURBINE DRIVEN RX FEEDWATER PUMP IN SERVICE. THE CAUSE WAS INADEQUATE EVOLUTION PREPARATION COMBINED WITH SLUGGISH RESPONSE FROM THE FEEDWATER AND RX LEVEL CONTROL SYSTEM.	
MCGUIRE 1	01/20/11	369	2	3692011002	46559	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED WHILE SHUTTING DOWN, WHEN THE SECOND MAIN FEEDWATER PUMP TRIPPED FOLLOWING THE FIRST MFW PUMP BEING SECURED.	
MCGUIRE 1	06/12/10	369	2	3692010003	46003	OPERATE	MAN	WITH POWER REDUCED TO 44% DUE TO A DROPPED CONTROL ROD, THE REACTOR WAS MANUALLY TRIPPED ON INDICATION OF A SECOND DROPPED CONTROL ROD. THE DROPPED RODS WERE CAUSED BY A DEGRADED SOLDER JOINT IN A POWER CABINET REGULATING CARD.	
MCGUIRE 1	06/26/08	369	2	3692008002	44318	OPERATE	AUTO	THE REACTOR TRIPPED FROM 100% POWER DUE TO THE TRIP OF THE 1B REACTOR COOLANT PUMP. THE OVER CURRENT RELAYS WERE PICKED UP ON THE SAFETY BKR AND THE 6900V SUPPLY BREAKER. THE TRIP WAS ULTIMATELY CAUSED BY A FAILED PUMP MOTOR SURGE SUPPRESSING CAPACITOR.	
MCGUIRE 1	12/17/05	369	2	3692005006	42211	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON HIGH SG WATER LEVEL WHICH RESULTED FROM A FAILED FEED FLOW CHANNEL. THE CAUSE WAS INTERMITTENT DEGRADED VOLTAGE TO THE SG FLOW TRANSMITTER.	
MCGUIRE 1	03/04/02	369	2	3692002001	38748	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON DECREASING SG WATER LEVEL AFTER A FEEDWATER REGULATING VALVE AND ITS BYPASS VALVE FAILED CLOSED. THE CAUSE WAS A LOSS OF NORMAL AND BACKUP ELECTRICAL POWER TO THE CONTROL CIRCUITRY FOR THE VALVES WHEN A CAPACITOR FAILED.	
MCGUIRE 1	05/25/00	369	2	3692000004	37032	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG LEVEL DURING A FEEDWATER TRANSIENT. THE TRANSIENT RESULTED FROM A LOSS OF VITAL 120 VOLT AC POWER DUE TO THE MECHANICAL-RELATED FAILURE OF A VITAL INVERTER OUTPUT SWITCH.	

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MCGUIRE 2	08/22/02	370	2	3702002002	39145	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED IN RESPONSE TO A FIRE IN A HYDROGEN DRYER IN THE HYDROGEN SUPPLY TO THE TURBINE GENERATOR WHEN A PIPE PLUG FAILED AND BLEW OUT. THE CAUSE WAS INADEQUATE MAINTENANCE AND WORK PRACTICES THAT RESULTED IN THREAD DAMAGE.	
MCGUIRE 2	07/16/01	370	2	3702001001	38143	OPERATE	AUTO	A RX TRIP OCCURRED ON OTDT FOLLOWING THE CLOSURE OF ALL MSIVS. DURING A CALIBRATION PROCEDURE, A STEAMLINE PRESSURE CHANNEL WAS PLACED IN TEST, BUT THE WRONG PRESSURE TRANSMITTER WAS ISOLATED AND VENTED. THE CAUSE WAS PERSONNEL ERROR.	
MCGUIRE 2	11/15/00	370	2	3702000002	37524	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED FOLLOWING AN INVALID TURBINE RUNBACK WHICH WOULD NOT CLEAR. THE OVER-POWER DELTA-TEMP AND OVER-TEMP DELTA-TEMP LOGIC ACTUATED WHEN A POWER SUPPLY CIRCUIT BREAKER OPENED FOR UNKNOWN REASONS.	
MONTICELLO	09/11/08	263	3	2632008005	44484	OPERATE	AUTO	WITH THE 1R TRANSFORMER OUT FOR MAINTENANCE, THE 2R TRANSFORMER EXPERIENCED A LOCKOUT RESULTING IN LOSS OF OFFSITE POWER, WHICH RESULTED IN A REACTOR TRIP.	
MONTICELLO	01/10/07	263	3	2632007001	43088	OPERATE	AUTO	A REACTOR SCRAM OCCURRED AT 87% POWER WHILE PERFORMING TURBINE VALVE TESTING. THE CAUSE WAS FAILURE OF THE SUPPORTS FOR THE TURBINE CONTROL VALVE ENCLOSURE.	
MONTICELLO	01/21/02	263	3	2632002001	38642	OPERATE	AUTO	A RX SCRAM OCCURRED ON A TURBINE CONTROL VALVE FAST CLOSURE (LOAD REJECT) SIGNAL RESULTING FROM FAILURE OF THE MAIN TURBINE PRESSURE CONTROL SYSTEM. THE CAUSE WAS FAILURE OF THE MECHANICAL PRESSURE REGULATOR CAUSED BY A DAMAGED RATE FEEDBACK BELLOWS.	CODED RPS AND EQUIP SYSTEM AS TURBINE STEAM BYPASS CONTROL SYSTEM. I BELIEVE THIS IS THE TURBINE PRESSURE CONTROL SYSTEM. PLEASE CORRECT ME IF WRONG. NO CHANGES PER REV 1.
MONTICELLO	10/23/01	263	3	2632001011	38420	OPERATE	AUTO	A RX SCRAM OCCURRED ON AN MSIV ISOLATION WHEN MSIV ISOLATION INSTRUMENTATION WAS INADVERTENTLY BUMPED.	
MILLSTONE 2	02/26/10	336	1	3362010001	45729	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FOLLOWING THE TRIP OF A CIRC WATER PUMP. THE CIRC WATER PUMP TRIPPED ON HIGH DELTA PRESSURE ACROSS ITS SCREENS. THIS OCCURRED WHILE ANOTHER CIRC WATER PUMP WAS UNAVAILABLE DUE TO MAINTENANCE.	
MILLSTONE 2	05/22/10	336	1	3362010002	45945	OPERATE	MAN	FOLLOWING OSCILLATIONS IN A FEED REG VALVE, THE REACTOR WAS MANUALLY TRIPPED WHEN STEAM GENERATOR LEVEL BEGAN RISING AND COULD NOT BE CONTROLLED. THE FRV FAILURE WAS CAUSED BY VIBRATION INDUCED WEAR OF THE VALVE POSITIONER BEAM SCREW.	
MILLSTONE 2	11/28/10	336	1	3362010003	46441	OPERATE	AUTO	WITH ONE CIRC WATER PUMP OUT FOR MAINTENANCE, THE OTHER PUMP TRIPPED RESULTING IN LOW CONDENSER VACUUM. THE MAIN TURBINE AND REACTOR TRIPPED. THE CIRC WATER PUMP TRIP WAS CAUSED BY PERSONNEL ERROR AND THE PROCEDURE USED FOR BACKWASHING THE WATERBOX	
MILLSTONE 2	07/03/09	336	1	3362009001	45183	OPERATE	AUTO	THE REACTOR TRIPPED ON HIGH PZR PRESSURE FOLLOWING CLOSURE OF THE MAIN TURBINE STOP VALVES. THE CAUSE OF THE TURBINE STOP VALVES CLOSING IS THOUGHT TO BE A BRIEF LOSS OF THE 115-KV LINE RESULTING IN A FLUCTUATION OF 24V DC POWER TO THE EHC SYSTEM.	

PLANT NAME	EVENT DATE	DOCKET	REGION	Licensee Event Report Number	Event Notification	UNIT MODE	SCRAM	Scram Cause / Description	NOTES
MILLSTONE 2	05/22/08	336	1	3362008003	44234	OPERATE	AUTO	AN AUTOMATIC REACTOR SCRAM OCCURRED WHEN LIGHTNING STRIKES CAUSED A GRID DISTURBANCE WHICH CAUSED THE TURBINE TO TRIP AND ACTUATION OF THE REACTOR PROTECTION SYSTEM.	SCRAM CAUSED BY GRID DISTURBANCE CAUSED BY LIGHTNING STRIKES.
MILLSTONE 2	05/24/08	336	1	3362008004	44238	STARTUP	AUTO	LOSS OF OFFSITE POWER DUE TO FAILURE OF THE RESERVE STATION SERVICE TRANSFORMER RESULTED IN A REACTOR SCRAM FROM <1% POWER.	
MILLSTONE 2	06/28/08	336	1	3362008005	44326	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FOLLOWING THE LOSS OF BOTH FEEDWATER PUMPS. THE CAUSE OF THE LOSS OF THE FEEDWATER PUMPS WAS INEFFECTIVE CONFIGURATION CONTROL OF PARTS ALLOWED PARTS TO BE INSTALLED THAT CAUSED THE LC SYSTEM TO OPERATE INCORRECTLY.	
MILLSTONE 2	02/23/06	336	1	3362006002	42367	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED FOLLOWING A LOSS OF MAIN FEEDWATER. THE CAUSE WAS AN INSTRUMENT AIR LINE FAILURE DURING A MAINTENANCE ACTIVITY.	
MILLSTONE 2	03/06/04	336	1	3362004001	40570	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED AFTER A FEEDPUMP TRIPPED UNEXPECTEDLY AND WOULD NOT RESET. THE CAUSE WAS AGITATION OF A RELAY IN THE FEEDWATER PUMP CONTROL SYSTEM.	
MILLSTONE 2	03/15/04	336	1	3362004002	40591	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL FOLLOWING THE SPURIOUS LOSS OF A MAIN FEED PUMP DURING A OVERSPEED LOCKOUT TEST. THE CAUSE IS BELIEVED TO BE THE USE OF A PROBLEMATIC LOCKOUT CONTROL SWITCH FOR THE TESTING.	
MILLSTONE 2	03/07/03	336	1	3362003002	39644	OPERATE	AUTO	A RX TRIP OCCURRED DURING RPS TESTING DUE TO A FAULT IN THE TEST CIRCUITRY. THE CAUSE WAS POOR WORKMANSHIP OF THE ORIGINAL RPS MATRIX TEST MODULE WHICH CAUSED STRAIN FAILURE OF THE WIRING AT THE SWITCH TERMINAL JOINT.	
MILLSTONE 2	11/27/03	336	1	3362003006	40358	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON HIGH TURBINE VIBRATION WHILE ATTEMPTING TO ROLL THE TURBINE FOLLOWING INSTALLATION OF A NEW TURBINE ROTOR. THE CONSTRUCTION OF THE NEW MONOBLOCK ROTOR MADE IT MORE SENSITIVE TO RUBBING.	
MILLSTONE 2	11/28/03	336	1	3362003006	40361	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON HIGH MAIN TURBINE VIBRATION. THE VIBRATIONS WERE ANTICIPATED DUE TO A NEWLY INSTALLED TURBINE ROTOR. THE CONSTRUCTION OF THE NEW ROTOR MADE IT MORE SENSITIVE TO RUBBING.	
MILLSTONE 2	04/19/02	336	1	3362002002	38864	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED WHEN A TEMPERATURE SWITCH IN THE STATOR WATER COOLING SYSTEM TRIPPED ON A HIGH VALUE. THE SWITCH WAS FOUND WITH A TRIP SETPOINT LOWER THAN THE ACCEPTANCE CRITERIA. THE CAUSE WAS EITHER EQUIPMENT FAILURE OR CALIBRATION ERROR.	
MILLSTONE 2	08/07/02	336	1	3362002005	39115	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL RESULTING FROM FEEDWATER REVERSE FLOW THROUGH THE "B" SG FEEDPUMP DISCHARGE CHECK VALVE. THE VALVE FAILED DUE TO AN INADEQUATE ANTI-ROTATION WELD.	
MILLSTONE 2	04/29/01	336	1	3362001003	37952	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON DEGRADED CONDENSER VACUUM FOLLOWING THE LOSS OF BOTH CIRCULATING WATER PUMPS. THE CAUSE WAS INADEQUATE PROCEDURES WHICH DID NOT INCLUDE THE CORRECT INFORMATION OR REQUIRE THE CORRECT VERIFICATIONS FOR LIFTING LEADS.	

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MILLSTONE 2	05/07/01	336	1	3362001004	37969	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED AFTER THE ONLY OPERATING "A" CONDENSOR CIRC PUMP TRIPPED. THE OTHER CIRC PUMP AND BOTH TRAVELING SCREENS WERE TAGGED OUT FOR DIVING OPERATIONS. TRAVELING SCREEN D/P EVENTUALLY REACHED THE CIRC PUMP TRIP SETPOINT.	
MILLSTONE 2	01/27/00	336	1	3362000001	36633	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON RAPIDLY DECREASING SG WATER LEVEL. A TRANSIENT IN THE FEEDWATER HEATER DRAIN SYSTEM ULTIMATLEY RESULTED IN A TOTAL LOSS OF FEEDWATER FLOW.	
MILLSTONE 2	02/11/00	336	1	3362000003	36682	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED AFTER TWO CONTROL RODS DROPPED INTO THE CORE. THE CAUSE OF THE FIRST DROP WAS A CIRCUIT GROUND BETWEEN INTERPOSING CABLING AND THE COIL STACK. THE SECOND DROP WAS CAUSED BY FAILED RELAYS IN THE UPPER GRIPPER CIRCUIT.	
MILLSTONE 2	06/04/00	336	1	3362000010	37053	OPERATE	AUTO	A TURBINE TRIP/RX TRIP OCCURRED DURING SURVEILLANCE TESTING OF THE MAIN TURBINE. THE CAUSE WAS A COMPONENT FAILURE RELATED TO THE POWER LOAD UNBALANCE TEST PUSH BUTTON.	
MILLSTONE 3	05/17/10	423	1	4232010002	45931	OPERATE	AUTO	A FEEDWATER TRANSIENT RESULTED IN A LOW STEAM GENERATOR WATER LEVEL, WHICH CAUSED THE REACTOR TO TRIP. THE FEEDWATER TRANSIENT WAS CAUSED BY THE FAILURE OF THE FEED REG BYPASS VALVE TO CONTROL LEVEL IN AUTO OR MANUAL DUE TO INADEQUATE DESIGN.	
MILLSTONE 3	12/19/09	423	1	4232009002	45583	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A MAIN TURBINE TRIP CAUSED BY A GENERATOR ELECTRICAL FAULT. THE ELECTRICAL FAULT WAS MOST PROBABLY DUE TO A GROUND FAULT IN THE "C" PHASE MAIN GENERATOR ISOPHASE DUCTING.	
MILLSTONE 3	10/11/08	423	1	4232008003	44564	OPERATE	AUTO	WHILE REDUCING POWER FOR PLANNED SHUTDOWN, A SG LEVEL INCREASED CAUSING A TURBINE TRIP AND FEEDWATER ISOLATION WHICH CAUSED THE REACTOR TO TRIP ON LOW SG LEVEL. THE CAUSE OF THE SG OSCILLATIONS WAS PERSONNEL ERROR IN REMOVING FW COMPONENTS FROM SERVICE.	
MILLSTONE 3	04/17/05	423	1	4232005002	41607	OPERATE	AUTO	A RX TRIP OCCURRED ON AN INADVERTANT SSPS STEAM LINE PRESSURE LOW SIGNAL THAT ALSO CLOSED THE MSIVS AND STARTED ONE TRAIN OF ECCS. THE CAUSE WAS A FAILED SSPS LOGIC CARD.	
MILLSTONE 3	09/29/05	423	1	4232005003	42024	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON THE LOSS OF TWO OF SIX CIRC WATER PUMPS ON HIGH DIFFERENTIAL PRESSURE ACROSS THE TRAVELING SCREENS. THE CAUSE WAS HIGH WIND AND WAVE ACTION THAT RESULTED IN SEA WEED AND RELATED DEBRIS BUILDUP AT THE INTAKE STRUCTURE.	
MILLSTONE 3	12/01/05	423	1	4232005005	42180	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL RESULTING FROM A TURBINE TRIP TRANSIENT DURING A POWER REDUCTION FOR CONTAINMENT ENTRY. THE MANUAL TURBINE TRIP WAS DUE TO HIGH VIBRATION.	
MILLSTONE 3	12/23/02	423	1	4232003001	39467	OPERATE	AUTO	A TURBINE/RX TRIP RESULTED FROM A MAIN GENERATOR BACKUP RELAY PROTECTION TRIP DUE TO A GENERATOR STATOR GROUND FAULT ON PHASE "A". THE CAUSE WAS A GENERATOR STATOR COOLING WATER PIN HOLE LEAK IN THE BRAZE MATERIAL OF A JOINT.	
NORTH ANNA 1	10/22/10	338	2	3382010004	46352	STARTUP	MAN	THE REACTOR WAS MANUALLY TRIPPED DURING PHYSICS TESTING DUE TO A PROBLEM WITH THE CONTROL ROD IN-HOLD-OUT SWITCH.	

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NORTH ANNA 1	01/03/07	338	2	3382007001	43072	OPERATE	AUTO	FAILURE OF A PROCESS RACK CARD CAUSED THE "B" MAIN FEED REGULATION VALVE TO FAIL CLOSED. THIS RESULTED IN A STEAM FLOW - FEED FLOW MISMATCH REACTOR TRIP COINCIDENT WITH STEAM GENERATOR LOW LEVEL.	
NORTH ANNA 1	04/19/03	338	2	3382003003	39773	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED FOLLOWING A MAIN TURBINE LUBE OIL LEAK WHICH CAUSED THE TURBINE CONTROL VALVES TO DRIFT SHUT. THE LEAK WAS THROUGH THE DIAPHRAGM ON THE EHC INTERFACE VALVE RESULTING IN A LOSS OF EHC FLUID TO THE TURBINE CONTROL SYSTEM.	
NORTH ANNA 1	06/11/03	338	2	3382003004	39923	OPERATE	AUTO	A RX/TURBINE TRIP OCCURRED ON A MAIN TRANSFORMER LOCKOUT. AN UNUSED ELECTRICAL LEAD DISENGAGED FROM THE NO-LOAD TAP CHANGER AND CAME IN CONTACT WITH THE TRANSFORMER CASING. THE CAUSE WAS IMPROPER ASSEMBLY DURING MANUFACTURING.	
NORTH ANNA 1	05/07/00	338	2	3382000004	36978	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON A GENERATOR LOCKOUT RESULTING FROM A GENERATOR OUTPUT BREAKER MALFUNCTION. THE CAUSE WAS A GROUND ON ONE PHASE OF THE BREAKER.	
NORTH ANNA 2	04/27/10	339	2	3392010001	45877	OPERATE	AUTO	WHILE TESTING THE MAIN GENERATOR AUTOMATIC VOLTAGE REGULATOR, A GENERATOR LOCKOUT AND TURBINE TRIP OCCURRED. THIS RESULTED IN A REACTOR TRIP.	
NORTH ANNA 2	05/28/10	339	2	3392010002	45960	OPERATE	AUTO	LOSS OF THE B STATION SERVICE BUS RESULTED IN A REACTOR TRIP DUE TO LOSS OF THE B REACTOR COOLANT PUMP. THE CAUSE OF THE LOSS OF THE SERVICE BUS WAS A LIGHTNING STRIKE IN THE SWITCHYARD.	
NORTH ANNA 2	06/16/10	339	2	3392010004	46020	OPERATE	AUTO	DURING A LIGHTNING STORM THE REACTOR TRIPPED ON TWO CHANNELS OF "OVER TEMPERATURE DELTA T". THE CAUSE WAS A LIGHTNING INDUCED VOLTAGE TRANSIENT FROM A STRIKE WITHIN THE PROTECTED AREA.	THE REACTOR TRIPPED ON TWO CHANNELS OF "OVER TEMPERATURE DELTA T"
NORTH ANNA 2	12/09/09	339	2	3382009004	45556	OPERATE	AUTO	FOLLOWING LOSS OF THE C RSST, THE UNIT 2 G BUS FAILED TO TRANSFER TO THE B RSST. THIS RESULTED IN THE LOSS OF UNIT 2 CIRC WATER AND A SUBSEQUENT TURBINE TRIP ON LOW VACUUM. THE REACTOR TRIPPED FOLLOWING THE TURBINE TRIP.	
NORTH ANNA 2	06/29/07	339	2	3392007003	43462	OPERATE	AUTO	A SPURIOUS "B" TRAIN SI SIGNAL RESULTED IN A TURBINE TRIP AND SUBSEQUENT REACTOR TRIP.	
NORTH ANNA 2	12/25/07	339	2	3392007004	43866	OPERATE	AUTO	THE REACTOR TRIPPED DUE TO A TRIP OF THE B RCP. THE REACTOR COOLANT PUMP TRIPPED DUE TO A PHASE B TO GROUND FAULT ON THE RCP MOTOR.	
NORTH ANNA 2	11/16/06	339	2	3392006001	42996	OPERATE	AUTO	FAILURE OF AN ISOLATION CARD CAUSED THE B MAIN FEED REG VALVE TO CLOSE RESULTING IN AN AUTOMATIC REACTOR TRIP ON LOW STEAM GENERATOR LEVEL COINCIDENT WITH STEAM FLOW/FEED FLOW MISMATCH.	
NORTH ANNA 2	08/05/05	339	2	3392005001	41898	OPERATE	AUTO	A RX TRIP OCCURRED ON OVER TEMPERATURE DELTA TEMPERATURE TRIP SIGNAL THAT WAS CAUSED BY A LIGHTNING STRIKE. AN OVER TEMPERATURE DELTA TEMPERATURE CONDITION DID NOT EXIST.	
NORTH ANNA 2	06/10/04	339	2	3392004004	40804	OPERATE	AUTO	A RX TRIP OCCURRED DURING TESTING DUE TO AN INCORRECT CONFIGURATION OF A CELL SWITCH ON A RX BYPASS BREAKER. THE CAUSE WAS INADEQUATE WORK PRACTICES DURING A REPLACEMENT PROCESS AND INADEQUATE TESTING PROCEDURES.	

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NORTH ANNA 2	03/31/03	339	2	3392003001	39715	OPERATE	AUTO	A RX TRIP OCCURRED ON STEAM FLOW GREATER THAN FEED FLOW COINCIDENT WITH A LOW SG LEVEL AFTER A FEEDWATER REGULATING VALVE FAILED CLOSED. THE CAUSE WAS A FAILED DRIVER CARD IN THE SG WATER LEVEL CONTROL SYSTEM RESULTING FROM A BLOWN FUSE.	
NORTH ANNA 2	12/22/01	339	2	3392001005	38590	OPERATE	AUTO	A RX TRIP OCCURRED FOLLOWING A FAILURE IN THE EHC POWER SUPPLY SYSTEM. THE FAILURE CAUSED A LOSS OF LOAD TRANSIENT THAT RESULTED IN THE RX TRIPPING ON LOW SG LEVEL. COMPONENTS HAD FAILED IN BOTH THE NORMAL AND BACKUP EHC POWER SUPPLIES.	
NORTH ANNA 2	04/03/00	339	2	3392000001	36857	OPERATE	AUTO	A TURBINE TRIP/RX TRIP RESULTED FROM THE ACTUATION OF A STATION SERVICE LOCKOUT RELAY. THE CAUSE WAS A FAULT ON A SECONDARY FEEDER CABLE FROM A STATION SERVICE TRANSFORMER TO A STATION SERVICE BUS.	
NORTH ANNA 2	04/04/00	339	2	3392000002	36864	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO THE LOSS OF A RCP WHEN THE RESERVE STATION TRANSFORMER DEENERGIZED. THE CAUSE WAS PERSONNEL ERROR WHEN THE INCORRECT POTENTIAL TRANSFORMER FUSE DRAWER WAS OPENED WHILE RECOVERING A STATION SERVICE BUS.	SEE ALSO LER 3382000002.
OCONEE 1	08/07/10	269	2	2692010002	46159	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED AT 17% DUE TO HIGH VIBRATIONS ON TWO REACTOR COOLANT PUMPS. THE HIGH RCP VIBRATION SIGNAL WAS A FALSE SIGNAL DUE TO A FAILED POWER SUPPLY WITHIN THE CONTROL MODULE.	
OCONEE 1	02/15/07	269	2	2692007001	43169	OPERATE	AUTO	UNITS 1 AND 2 TRIPPED AUTOMATICALLY FOLLOWING A GRID DISTURBANCE. THE CAUSE OF THE TRIPS WAS A WIRING DESIGN ERROR ON THE LOSS-OF-EXCITATION RELAYS THAT CAUSED A GENERATOR LOCK-OUT. BOTH REACTORS TRIPPED BY THE REACTOR COOLANT PUMP MONITORS.	
OCONEE 1	09/12/01	269	2	2692001002	38281	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED WHEN THE GENERATOR DISCONNECT SWITCH ON THE "Z" PHASE FAILED. THE FAILURE WAS CAUSED FROM HIGH OPERATING TEMPERATURE RESULTING FROM EITHER INADEQUATE AIRFLOW OR INADEQUATE CAPACITY OF THE DISCONNECT SWITCHES.	
OCONEE 2	03/31/08	270	2	2702008001	44109	OPERATE	AUTO	THE REACTOR TRIPPED DUE TO A TURBINE TRIP. THE TURBINE TRIPPED ON LOW CONDENSER VACUUM DURING MAINTENANCE ON THE CONDENSER VACUUM INSTRUMENTATION.	
OCONEE 2	02/15/07	270	2	2692007001	43169	OPERATE	AUTO	UNITS 1 AND 2 TRIPPED AUTOMATICALLY DUE TO A GRID DISTURBANCE. THE CAUSE OF THE TRIPS WAS A WIRING DESIGN ERROR ON THE LOSS-OF-EXCITATION RELAYS THAT CAUSED THE GENERATOR TO LOCK-OUT. THE REACTORS WERE TRIPPED BY THE REACTOR COOLANT PUMP MONITORS.	
OCONEE 2	04/12/06	270	2	2702006001	42493	OPERATE	AUTO	A RX TRIP OCCURRED ON A FLUX/FLOW/IMBALANCE AFTER THE TRIP OF A RCP. TECHNICIANS TESTING AN RCP PUMP POWER TRANSDUCER CAUSED A LOSS OF ISOLATION WITH THE OPERATING CIRCUIT.	
OCONEE 3	05/21/09	287	2	2872009002	45088	OPERATE	AUTO	THE REACTOR AUTOMATICALLY TRIPPED AT 42% POWER DUE TO A GENERATOR PHASE DIFFERENTIAL LOCKOUT. THE ROOT CAUSE OF THE TRIP WAS INCORRECT RELAY TAP SETTINGS FOLLOWING PREVENTIVE MAINTENANCE.	SCRAM CAUSED BY RPS ACTUATION OF THE GENERATOR PHASE DIFFERENTIAL LOCKOUT.

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OCONEE 3	11/07/08	287	2	2872008001	44638	OPERATE	AUTO	THE REACTOR TRIPPED DUE TO RPS ACTUATION. THE CAUSE OF THE RPS ACTUATION WAS LOSS OF THE ROD POWER SUPPLY, WHICH RESULTED IN THE CONTROL RODS DROPPING. THE CAUSE OF THE POWER SUPPLY LOSS WAS AN IMPROPER CLOCK SIGNAL INPUT TO THE CRD PROCESSORS.	SCRAM CAUSED BY RPS ACTUATION DUE TO LOSS OF THE SINGLE ROD POWER SUPPLY, WHICH RESULTED IN THE CONTROL RODS DROPPING.
OCONEE 3	08/31/05	287	2	2872005002	41966	OPERATE	AUTO	A RX TRIP OCCURRED WHEN POWER TO THE CONTROL ROD DRIVE SYSTEM WAS INTERRUPTED DURING TESTING. THE CAUSE WAS A CONTROL ROD DRIVE DESIGN DEFICIENCY INTRODUCED DURING A MODIFICATION IN 2004.	
OCONEE 3	02/26/04	287	2	2872004001	40548	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED WHEN A SMALL PIECE OF FOREIGN MATERIAL CLOGGED THE HYDRAULIC FLUID ENTRY PORT OF A TURBINE STOP VALVE, CAUSING ALL FOUR STOP VALVES TO CLOSE. THE CAUSE WAS INATTENTION TO DETAIL BY TWO MAINTENANCE TECHNICIANS.	
OCONEE 3	11/14/02	287	2	2872002001	39369	OPERATE	AUTO	A MAIN TURBINE/RX TRIP OCCURRED ON HIGH MOISTURE SEPARATOR DRAIN TANK LEVEL. THE CAUSE WAS THREE SEPARATE EQUIPMENT FAILURES. TWO DIGITAL VALVE CONTROLLERS FAILED AND A HIGH LEVEL SWITCH BECAME STUCK.	
OCONEE 3	01/03/00	287	2	2872000001	36557	OPERATE	AUTO	A RX TRIP RESULTED FROM A MANUAL TURBINE TRIP. THE TURBINE WAS TRIPPED BECAUSE OF HIGH STATOR TEMPERATURE DURING A STATOR COOLING RUNBACK TRANSIENT. THE CAUSE WAS A FAILED TEMPERATURE CONTROLLER FOR THE STATOR COOLING SYSTEM PROPORTIONING VALVE.	
NINE MILE PT. 1	11/10/10	220	1	2202010001	46409	OPERATE	AUTO	WHILE PERFORMING LO-LO LEVEL TESTING, TWO OF THE MSIVS WENT CLOSED. THIS RESULTED IN A REACTOR TRIP. THE MSIV CLOSURE WAS CAUSED BY MISALIGNED CONNECTOR PINS IN THE MSIV CHANNEL 11 SOLENOID VALVES AND A MISALIGNED CHANNEL 12 LOGIC RELAY DURING TESTING.	
NINE MILE PT. 1	10/05/09	220	1	2202009003	45412	OPERATE	MAN	THE REACTOR WAS MANUALLY SCRAMMED DUE TO FAILURE OF THE FEEDWATER LEVEL CONTROL SYSTEM. THE CAUSE OF THE FAILURE WAS A PROGRAMMING ERROR IN THE FIRMWARE THAT CONTROLS THE FEEDWATER PUMP FLOW CONTROL VALVE.	
NINE MILE PT. 1	10/23/08	220	1	2202008002	44598	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED WHEN IT WAS DETERMINED THAT THE ELECTRONIC PRESSURE REGULATOR WAS NOT FUNCTIONING PROPERLY AND WOULD NOT ALLOW TRANSFER TO THE BACKUP REGULATOR. THE CAUSE OF THE FAILURE WAS DEBRIS PLUGGING THE INTERNAL EPR SERVO FILTER.	
NINE MILE PT. 1	03/07/05	220	1	2202005001	41464	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED FOLLOWING A SPURIOUS ACTUATION OF THE MOISTURE SEPARATOR TANK LEVEL SWITCH. THE CAUSE WAS A SHORT CIRCUIT RESULTING FROM WATER INTRUSION INTO A JUNCTION BOX.	
NINE MILE PT. 1	08/18/05	220	1	2202005003	41927	OPERATE	AUTO	A SCRAM OCCURRED ON LOSS OF A POWER BOARD WHICH RESULTED IN A HALF SCRAM SIGNAL WHILE A HALF SCRAM SIGNAL ALREADY EXISTED DUE TO TESTING. THE CAUSE WAS INADVERTANT MECHANICAL RELAY JARRING WHICH OCCURRED DURING A MAINTENANCE ACTIVITY.	
NINE MILE PT. 1	05/02/04	220	1	2202004001	40719	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED WHEN AN ELECTROMATIC RELIEF VALVE STUCK OPEN AND FAILED TO CLOSE DURING POST MAINTENANCE TESTING.	THE SYSTEM AT NMP1 REFERED TO AS HPCI IS NOT AN ESF SYSTEM PER CODING MANUAL.

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NINE MILE PT. 1	08/30/04	220	1	2202004004	40998	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON OSCILLATING RX VESSEL WATER LEVEL AFTER A FEEDWATER LEVEL CONTROL VALVE BEGAN OPERATING ERRATICALLY. THE CAUSE WAS A RUPTURED DIAPHRAGM IN THE OUTPUT PILOT VALVE FOR THE "13" FEEDWATER FLOW CONTROL VALVE POSITIONER.	
NINE MILE PT. 1	08/14/03	220	1	2202003002	40071	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED ON A LOAD REJECT. THE CAUSE WAS A MAJOR GRID DISTURBANCE AND BLACKOUT.	
NINE MILE PT. 1	08/22/01	220	1	2202001001	38225	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED FOLLOWING A MAIN GENERATOR LOAD REJECT RESULTING FROM A GRID PERTURBATION COUPLED WITH A MALFUNCTION OF THE NEGATIVE PHASE SEQUENCE CURRENT RELAY. THE CAUSE WAS A DESIGN FLAW IN THE RELAY.	
NINE MILE PT. 1	10/02/00	220	1	2202000004	37396	STARTUP	MAN	THE RX WAS MANUALLY SCRAMMED AFTER A MAIN STEAM ELECTROMATIC RELIEF VALVE OPENED AND COULD NOT BE SHUT. THE CAUSE WAS A BENT PILOT VALVE STEM COMBINED WITH PARTIAL DISENGAGEMENT OF THE DISC AND STEM ASSEMBLY.	
NINE MILE PT. 2	01/07/10	410	1	4102010001	45612	OPERATE	AUTO	DURING MAINTENANCE ACTIVITIES ON THE RHR SYSTEM, THE REACTOR AUTOMATICALLY SCRAMMED ON AN INVALID LOW REACTOR WATER LEVEL SIGNAL. TRANSMITTER VENTING OF A COMMON INSTRUMENT LINE WAS THE CAUSE OF THE TRIP SIGNAL.	
NINE MILE PT. 2	03/09/06	410	1	4102006001	42403	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED ON A LOSS OF CONDENSER VACUUM. THE CAUSE WAS A LOSS OF SEALING STEAM WHEN MECHANICAL LINKAGE FOR THE PRESSURE INDICATING CONTROLLER BECAME DISCONNECTED.	
NINE MILE PT. 2	07/24/03	410	1	4102003001	40014	OPERATE	AUTO	A RX SCRAM OCCURRED ON POWER OSCILLATIONS AFTER A POWER SUPPLY TO THREE OF FOUR MAIN STEAM LINE FLOW INSTRUMENTS FOR THE FEEDWATER LEVEL CONTROL SYSTEM FAILED. THE CAUSE WAS AGE RELATED FAILURE OF INTERNAL COMPONENTS.	
NINE MILE PT. 2	08/14/03	410	1	4102003002	40066	OPERATE	AUTO	A RX SCRAM RESULTED FROM A TURBINE CONTROL VALVE FAST CLOSURE SIGNAL THAT WAS GENERATED AS THE EHC SYSTEM ATTEMPTED TO CONTROL TURBINE SPEED AND RX PRESSURE IN RESPONSE TO A SEVERE DISTURBANCE IN THE ELECTRIC GRID.	
NINE MILE PT. 2	11/11/02	410	1	4102002004	39362	OPERATE	AUTO	A RX SCRAM OCCURRED ON HIGH RX PRESSURE AFTER AN MSIV FAILED CLOSED. THE MSIV DISC SEPARATED FROM ITS STEM ALLOWING THE DISC/PISTON ASSEMBLY TO DROP INTO THE VALVE SEAT. THE CAUSE WAS DEFICIENT DESIGN, INADEQUATE STEM TO DISC THREAD LOADING.	
NINE MILE PT. 2	12/16/02	410	1	4102002006	39450	OPERATE	AUTO	A RX SCRAM OCCURRED ON HIGH RX PRESSURE FOLLOWING A LOSS OF MAIN GENERATOR STATOR WATER COOLING AND TURBINE RUNBACK. THE STATOR WATER COOLING TEMPERATURE CONTROLLER MECHANICAL LINKAGE CONNECTION FAILED FROM VIBRATION INDUCED FATIGUE FAILURE.	
NINE MILE PT. 2	05/16/01	410	1	4102001001	37994	OPERATE	AUTO	A TURBINE/RX TRIP RESULTED FROM THE FAILURE OF A RELAY IN THE ELECTRO HYDRAULIC CONTROL SYSTEM.	
NINE MILE PT. 2	10/15/01	410	1	4102001004	38389	OPERATE	AUTO	A SCRAM OCCURRED WHEN THE MSIVS FAST CLOSED WHILE RESTORING A STEAM FLOW TRANSMITTER FOLLOWING TESTING. THE CAUSE WAS AN INADEQUATE SURVEILLANCE PROCEDURE.	

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NINE MILE PT. 2	12/02/01	410	1	4102001006	38531	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON DECREASING RX WATER LEVEL FOLLOWING THE LOSS OF A FEEDWATER PUMP. THE FEEDWATER PUMP MOTOR FAILED AS A RESULT OF A FAULTY DESIGN THAT LED TO CORONA INDUCED DAMAGE.	
NINE MILE PT. 2	12/15/01	410	1	4102001007	38574	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED WHEN THE PRIMARY SYSTEM UNIDENTIFIED LEAK RATE EXCEEDED FIVE GPM. THE CAUSE WAS FAILED PACKING IN A RX COOLANT SYSTEM GATE VALVE DUE TO AN INADEQUATE TORQUE SPECIFICATION FROM THE PACKING PROGRAM.	
NINE MILE PT. 2	03/03/00	410	1	4102000002	36753	OPERATE	MAN	WHILE PERFORMING A NORMAL PLANT SHUTDOWN, THE RX WAS MANUALLY SCRAMMED DUE TO THE POTENTIAL LOSS OF THE ONLY OPERATING FEED PUMP. OPERATORS WERE CONCERNED ABOUT THE PUMP DUE TO LOW SEAL INJECTION FLOW, HIGH PRESSURE INDICATIONS, AND A STEAM LEAK.	AN SSF IS CODED FROM THIS LER.
NINE MILE PT. 2	09/17/00	410	1	4102000014	37335	OPERATE	AUTO	A TURBINE TRIP/RX TRIP RESULTED FROM HIGH TURBINE BEARING VIBRATION. THE CAUSE WAS OIL WHIP/WHIRL (MOVEMENT OF THE OIL WEDGE BETWEEN THE TURBINE SHAFT AND BEARING SLEEVE). LOW LUBE OIL TEMP MADE CONDITIONS FAVORABLE FOR OIL WHIP/WHIRL.	
OYSTER CREEK	12/23/10	219	1	2192010002	46507	STARTUP	AUTO	DURING STARTUP, WITH THE REACTOR CRITICAL AT 0%, THE REACTOR TRIPPED ON A LOW CONDENSER VACUUM SIGNAL. THE TRIP WAS CAUSED BY A PROCEDURAL ERROR THAT DID NOT ENSURE ALL REQUIREMENTS WERE MET PRIOR TO EXCEEDING 500-PSIG REACTOR PRESSURE.	
OYSTER CREEK	02/01/09	219	1	2192009001	44822	OPERATE	AUTO	THE REACTOR TRIPPED FROM FULL POWER DUE TO A FIRE IN THE MAIN TRANSFORMER.	THE REACTOR TRIPPED DUE TO LOSS OF THE MAIN TRANSFORMER.
OYSTER CREEK	04/25/09	219	1	2192009003	45021	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED WHEN COOLING WAS LOST TO ONE OF THE MAIN TRANSFORMERS. POWER TO THE COOLING SYSTEM WAS LOST WHEN THE CONTROL POWER TRANSFER TO THE COOLING SYSTEM FAILED.	
OYSTER CREEK	07/12/09	219	1	2192009005	45196	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE DUE TO LOSS OF OFFSITE POWER CAUSED BY LIGHTNING STRIKES.	
OYSTER CREEK	11/28/08	219	1	2192008001	44688	OPERATE	AUTO	A REACTOR SCRAM OCCURRED DUE TO A MAIN TRANSFORMER FAULT. THE FAULT WAS CAUSED BY AN ELECTRICAL FAULT INTERNAL TO THE MAIN TRANSFORMER.	
OYSTER CREEK	07/17/07	219	1	2192007001	43495	OPERATE	AUTO	THE REACTOR TRIPPED ON LOW REACTOR WATER LEVEL FOLLOWING LOSS OF THE "C" FEEDWATER PUMP. THE FEEDWATER PUMP TRIPPED DUE TO AN ELECTRICAL FAULT.	
OYSTER CREEK	12/19/07	219	1	2192007003	43854	OPERATE	MAN	WITH REDUCED POWER FOR B REACTOR RECIRC PUMP MAINTENANCE, LOSS OF CONDENSER VACUUM CAUSED A MAIN FEEDWATER PUMP TRIP. THE OPERATOR MANUALLY TRIPPED THE REACTOR ON LOW REACTOR WATER LEVEL.	
OYSTER CREEK	06/01/05	219	1	2192005002	41741	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED ON A GENERATOR TRIP FOLLOWING AN OFFSITE ELECTRICAL TRANSIENT ON THE 230 KV TRANSMISSION LINE. THE CAUSE WAS A FAILURE OF LIGHTNING ARRESTORS IN THE TRANSMISSION UTILITY SUBSTATION.	
OYSTER CREEK	05/27/04	219	1	2192004003	40778	OPERATE	AUTO	A RX SCRAM OCCURRED AFTER THE IRMS SPIKED CAUSING SCRAM SIGNALS IN BOTH RPS CHANNELS. THE CAUSE WAS ELECTROMAGNETIC INTERFERENCE AFFECTING THE IRM CHANNELS DUE TO LOOSE CONNECTIONS, DAMAGED CABLING, AND GROUNDING DEFICIENCIES.	

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OYSTER CREEK	05/20/03	219	1	39862	OPERATE	MAN		THE RX WAS MANUALLY SCRAMMED FROM 60% POWER DURING A TECHNICAL SPECIFICATION REQUIRED SHUTDOWN AFTER THE LICENSEE WAS UNABLE TO REMOVE THE SECOND STAGE REHEATERS AND FEEDWATER HEATERS FROM SERVICE. THE CAUSE WAS THE LOSS OF A 4161 V SAFETY BUS.	THE EDG DID NOT START BECAUSE THE FAULT WAS ON THE SAFETY BUS.
OYSTER CREEK	08/14/03	219	1	2192003003	40065	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED ON A MAIN GENERATOR LOCKOUT FOLLOWING OFFSITE ELECTRICAL GRID INSTABILITY. THE CAUSE WAS A MAJOR GRID DISTURBANCE HOWEVER, OFFSITE POWER REMAINED AVAILABLE.	
OYSTER CREEK	08/22/03	219	1	2192003004	40095	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED ON HI MOISTURE SEPARATOR WATER LEVEL. THE CAUSE WAS SPURIOUS ACTUATION OF THE MOISTURE SEPARATOR HI LEVEL SWITCH.	
OYSTER CREEK	01/21/00	219	1	2192000001	36612	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED WHEN MULTIPLE RX RECIRCULATION PUMPS TRIPPED DURING SURVEILLANCE TESTING. AS A RESULT OF PERSONNEL ERROR, THE RECIRCULATION PUMP TRIP SYSTEM WAS NOT PROPERLY RESET.	
OYSTER CREEK	03/01/00	219	1	2192000003	36744	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED AFTER THREE RECIRCULATION PUMPS TRIPPED FROM A LOSS OF POWER. WHILE SHIFTING ELECTRIC LOADS FROM THE STARTUP TRANSFORMERS TO THE AUX TRANSFORMER, A 4160 VAC BUS LOST POWER. THE ROOT CAUSE WAS INADEQUATE PROCEDURAL GUIDANCE.	
OYSTER CREEK	11/15/00	219	1	2192000011	37525	STARTUP	AUTO	A RX SCRAM OCCURRED ON LOW RX WATER LEVEL WHILE WARMING THE MAIN TURBINE. AS A RESULT OF PERSONNEL ERROR, SEVERAL TURBINE BYPASS VALVES OPENED, CAUSING RX LEVEL TO INCREASE. OPERATORS OVERCOMPENSATED WHEN LOWERING FEEDWATER FLOW AND INCREASING LETDOWN.	
PALISADES	01/22/11	255	3	2552011002	46564	OPERATE	AUTO	LOSS OF MAIN GENERATOR LOAD RESULTED IN A MAIN TURBINE TRIP AND SUBSEQUENT REACTOR TRIP. THE LOSS OF LOAD WAS CAUSED BY A GROUND FAULT ON THE STATION POWER TRANSFORMER DUE TO FLAWS IN THE INSULATION OF A MEDIUM VOLTAGE CABLE.	
PALISADES	01/13/08	255	3	2552008001	43900	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FOLLOWING AN AUTOMATIC TRIP OF THE B MAIN FEEDWATER PUMP. THE CAUSE OF THE MFP TRIP WAS LOW LUBE OIL PRESSURE DUE TO LOSS OF THE SHAFT-DRIVEN LUBE OIL PUMP.	
PALISADES	05/23/08	255	3	2552008003	44237	OPERATE	AUTO	THE REACTOR AUTOMATICALLY TRIPPED. THE CAUSE OF THE TRIP WAS RELATED TO A TRIP OF THE 346 NEGATIVE SEQUENCE RELAY WHICH TRIPPED THE 386C GENERATOR INDEPENDENT LOCKOUT RELAY.	
PALISADES	05/08/07	255	3	2552007005	43351	OPERATE	AUTO	THE REACTOR AUTOMATICALLY TRIPPED ON LOW STEAM GENERATOR LEVEL. THE LOW LEVEL RESULTED FROM SPURIOUS CLOSURE OF THE B FEEDWATER REGULATING VALVE DURING THE PERFORMANCE OF MFRV MAINTENANCE ACTIVITIES.	
PALISADES	05/11/06	255	3	2552006005	42569	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED FOLLOWING THE FAILURE OF A CONTROL ROD TO WITHDRAW DURING A STARTUP.	
PALISADES	01/09/05	255	3	2552005001	41319	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON LOWERING MAIN CONDENSER VACUUM. THE CAUSE WAS THE FAILURE OF AN UNCAPPED LOW PRESSURE TURBINE CASING DRAIN LINE THAT WAS ROUTED THROUGH THE MAIN CONDENSER.	

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PALISADES	09/01/05	255	3	2552005005	41967	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO A HYDROGEN LEAK AT THE MAIN GENERATOR. THE LEAK WAS AT A SOCKET WELD AT A PIPING TEE CONNECTION ON A LEAK DETECTION LINE AND WAS CAUSED BY CYCLIC FATIGUE OF THE WELD DUE TO VIBRATION AND A WELD FLAW.	
PALISADES	08/31/04	255	3	2552004001	41002	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO A FIRE IN THE CONDENSATE PUMP "2B" LOWER MOTOR BEARING. THE CAUSE WAS PUMP AND MOTOR MISALIGNMENT RESULTING FROM INADEQUATE MAINTENANCE INSTRUCTIONS.	
PALISADES	12/01/02	255	3	2552002002	39414	OPERATE	AUTO	A RX TRIP OCCURRED ON LOSS OF MAIN GENERATOR LOAD RESULTING FROM A SWITCHYARD FAULT. A STATIC LINE ON A 345 KV TRANSMISSION TOWER FELL AND CONTACTED SEVERAL SWITCHYARD LINES, TRIPPING THE MAIN GENERATOR AND CAUSING A LOSS OF NON-1E 4160 VOLT AC BUSES.	AFW STARTED AND PLANT PRESSURE/TEMP WAS MAINTAINED ON NATURAL CIRCULATION.
PALISADES	04/04/00	255	3	2552000003	36863	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED FOLLOWING A LOSS OF BOTH MAIN FEED PUMPS. AN EDG OUTPUT BREAKER WAS INADVERTENTLY CLOSED ONTO AN ENERGIZED BUS WITH THE EDG SECURED, MOTORIZING THE EDG. THE RESULTING DEGRADED BUS VOLTAGE CAUSED THE LOSS OF THE FEED PUMPS.	
PALO VERDE 1	03/07/10	528	4	5282010001	45748	OPERATE	AUTO	AN ELECTRICAL FAULT IN THE 13.8KV NON-CLASS BUSES RESULTED IN AN EXPLOSION AND LOSS OF POWER TO TWO REACTOR COOLANT PUMPS. THE REACTOR TRIPPED DUE TO LOSS OF THE RCPS.	
PALO VERDE 1	10/21/06	528	4	5282006006	42925	OPERATE	AUTO	THE REACTOR AUTO TRIPPED DUE TO THE CORE PROTECTION CALCULATOR GENERATING A LOW DNBR TRIP. THE CAUSE OF THE TRIP WAS FLUCTUATIONS IN A CONTROL ELEMENT ASSEMBLY POSITION INDICATOR.	
PALO VERDE 1	08/26/05	528	4	5282005005	41951	STARTUP	AUTO	A SCRAM OCCURRED ON HIGH SG WATER LEVEL DURING A STARTUP WHILE OPERATORS WERE TRANSFERING FROM AFW TO MAIN FEEDWATER. THE CAUSE WAS INDIVIDUAL AND TEAM HUMAN PERFORMANCE DEFICIENCIES AND INADEQUATE RESOLUTION OF IDENTIFIED DFWCS ISSUES.	
PALO VERDE 1	05/08/04	528	4	5282004003	40737	STARTUP	MAN	THE RX WAS MANUALLY TRIPPED DUE TO A CEA SLIPPING SIX INCHES WHILE PERFORMING LOW POWER PHYSICS TESTING. THE CAUSE WAS A SLUGGISH GRIPPER PROBLEM WITH CEA 89.	
PALO VERDE 1	06/14/04	528	4	5282004006	40815	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW DNBR IN RESPONSE TO A GRID DISTURBANCE AND LOSS OF OFFSITE POWER. THE CAUSE WAS A GROUND FAULT AND FAILED PROTECTIVE RELAYING IN THE OFFSITE GRID.	
PALO VERDE 1	03/27/03	528	4	5282003002	39705	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON INDICATIONS OF A CONDENSER TUBE RUPTURE AND INCREASING SG SODIUM LEVELS. THE CAUSE WAS A DEGRADED TUBE PLUG THAT HAD BEEN INSTALLED PREVIOUSLY TO ISOLATE A LEAKING CONDENSER TUBE.	
PALO VERDE 1	10/31/02	528	4		39333	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON HIGH SULFATE CONCENTRATIONS IN THE SG'S. THE LICENSEE IS INVESTIGATING THE CAUSE.	
PALO VERDE 1	11/10/02	528	4	5282002001	39361	OPERATE	AUTO	A RX TRIP OCCURRED ON A LOW DNBR TRIP SIGNAL RESULTING FROM A CONTROL ELEMENT ASSEMBLY (CEA) DEVIATION. THE CAUSE WAS A FAILED OPTICAL ISOLATION CARD IN THE CONTROL SYSTEM FOR THE CEA.	

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PALO VERDE 2	05/28/08	529	4	5292008002	44246	STARTUP	MAN	THE REACTOR WAS MANUALLY TRIPPED DURING LOW POWER PHYSICS TESTING WHEN FOUR CONTROL ELEMENT ASSEMBLIES SLIPPED TO FULLY INSERTED.	
PALO VERDE 2	10/06/07	529	4	5292007003	43697	OPERATE	MAN	THE OPERATOR MANUALLY TRIPPED THE REACTOR DUE TO HIGH STEAM GENERATOR SODIUM LEVELS. THE HIGH SODIUM LEVELS WERE CAUSED BY A CONDENSER AIR REMOVAL SYSTEM SEAL WATER COOLER TUBE RUPTURE.	
PALO VERDE 2	07/26/06	529	4	5292006003	42730	OPERATE	AUTO	FOLLOWING MAINTENANCE ON THE TURBINE CONTROL VALVE, WHILE RESTORING THE SYSTEM, A RAPID INCREASE IN POWER RESULTED IN THE REACTOR TRIPPING ON VARIABLE OVERPOWER.	THE REACTOR TRIPPED DUE TO CORE PROTECTION CALCULATOR HIGH VARIABLE OVERPOWER.
PALO VERDE 2	06/14/04	529	4	5282004006	40814	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW DNBR IN RESPONSE TO A GRID DISTURBANCE AND LOSS OF OFFSITE POWER. THE CAUSE WAS A GROUND FAULT AND FAILED PROTECTIVE RELAYING IN THE OFFSITE GRID.	
PALO VERDE 2	07/14/04	529	4	5292004002	40870	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW DNBR FOLLOWING A GENERATOR TRIP AND POWER CUTBACK. THE CAUSE WAS LIGHTNING INDUCED DAMAGE IN THE SWITCHYARD.	
PALO VERDE 2	07/29/03	529	4	5292003001	40033	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED AFTER A PZR SPRAY VALVE OPENED AND FAILED TO CLOSE ON DEMAND. THE SPRAY VALVES AIR OPERATED VALVE POSITIONER BALANCE BEAM WAS FOUND DISENGAGED FROM ITS PIVOT POINT. THE CAUSE WAS INADEQUATE MAINTENANCE PROCEDURES.	
PALO VERDE 2	07/13/01	529	4	5292001002	38138	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW DEPARTURE FROM NUCLEATE BOILING RATIO RESULTING FROM THE CLOSURE OF THREE OF FOUR MSIVS. THE CAUSE WAS FAILURE OF A LOGIC BOARD AND PIN CONNECTOR IN THE MAIN STEAM AND FEEDWATER ISOLATION SYSTEM.	
PALO VERDE 2	08/26/00	529	4	5292000001	37261	OPERATE	AUTO	A RX TRIP OCCURRED ON HIGH PZR PRESSURE FOLLOWING THE CLOSURE OF ALL MSIVS. THE CAUSE WAS A POWER SUPPLY FAILURE TO THE "A" TRAIN MAIN STEAM AND FEEDWATER ISOLATION ACTUATION SYSTEM LOGIC CONTROL CABINET.	
PALO VERDE 2	11/18/00	529	4	5292000007	37533	OPERATE	AUTO	A RX TRIP OCCURRED AFTER REACHING THE CORE PROTECTION CALCULATOR AUXILIARY VARIABLE OVERPOWER TRIP SETPOINT. THE CAUSE WAS COGNITIVE PERSONNEL ERROR WHILE PERFORMING CONTROL ELEMENT ASSEMBLY MANIPULATIONS.	
PALO VERDE 3	01/19/11	530	4	5302011001	46556	OPERATE	AUTO	LOSS OF A MAIN FEEDWATER PUMP DUE LOW SUCTION PRESSURE CAUSED BY A MINI-FLOW VALVE FAILING OPEN, RESULTED IN AN AUTOMATIC RUNBACK FROM 100% TO 60%. THE REACTOR THEN TRIPPED ON LOW STEAM GENERATOR LEVEL AS LEVELS CONTINUED TO DECREASE.	
PALO VERDE 3	12/03/09	530	4	5302009001	45537	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO LOSS OF INSTRUMENT AIR TO THE CONTAINMENT. THE LOSS OF AIR WAS CAUSED BY THE FAILURE A SOLENOID VALVE ON THE OUTBOARD CONTAINMENT ISOLATION VALVE.	
PALO VERDE 3	09/16/08	530	4	5302008001	44496	OPERATE	MAN	ONE OF THE CEDM MG-SETS WAS SHUT DOWN FOR TROUBLE SHOOTING, THE OTHER MG DID NOT MAINTAIN POWER RESULTING IN A TURBINE TRIP AND REACTOR POWER CUTBACK. SUBSEQUENTLY, THE REACTOR WAS MANUALLY TRIPPED.	

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PALO VERDE 3	09/27/08	530	4	5302008002	44525	OPERATE	MAN	WHILE SHUTTING DOWN DUE TO A SECONDARY CHEMICAL EXCURSION, THE REACTOR WAS MANUALLY TRIPPED WHEN THE MAIN TURBINE EXPERIENCED HIGH VIBRATIONS.	
PALO VERDE 3	03/05/06	530	4	5302006002	42387	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW DEPARTURE FROM NUCLEATE BOILING RATIO TRIPS ON ALL FOUR CHANNELS. THE CAUSE WAS AN ELECTRONIC COMPONENT FAILURE ON A CIRCUIT BOARD THAT CAUSED AN INVALID CEA POSITION DEVIATION TO CEAC NUMBER ONE.	
PALO VERDE 3	07/01/06	530	4	5302006005	42681	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO A LARGE LEAK IN THE CONDENSATE SYSTEM. THE SIGHT GLASS FOR A CONDENSATE DEMIN VESSEL BLEW OUT OF THE VESSEL.	
PALO VERDE 3	10/19/06	530	4	5302006007	42920	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED WHEN LOSS OF CONDENSER VACUUM AND A LOWERING HOTWELL LEVEL CAUSED THE TRIP OF TWO CONDENSATE PUMPS. THE LOW CONDENSER VACUUM AND LOWERING HOTWELL WAS CAUSED BY THE HOTWELL DRAW-OFF VALVE FAILING OPEN.	
PALO VERDE 3	06/07/04	530	4	5302004002	40795	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW DNBR AFTER THE MAIN TURBINE INTERCEPT VALVES FAST CLOSED AND THE CONTROL VALVES RAMPED CLOSED. THE CAUSE OF THE MAIN TURBINE VALVE CLOSURE IS BELIEVED TO BE A CONTROL SYSTEM MALFUNCTION IN THE SPEED CONTROL CIRCUIT.	
PALO VERDE 3	06/14/04	530	4	5282004006	40816	OPERATE	AUTO	A RX TRIP OCCURRED ON HIGH RX POWER FOLLOWING A GRID DISTURBANCE AND LOSS OF OFFSITE POWER. THE CAUSE WAS A GROUND FAULT AND FAILED PROTECTIVE RELAYING IN THE OFFSITE GRID.	
PALO VERDE 3	07/28/03	530	4	5302003004	40029	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW DNBR DUE TO REDUCED RCS FLOW WHEN THE MAIN TURBINE TRIPPED DURING A GRID PERTURBATION. THE CAUSE WAS FAILURE OF AUTOMATIC FAST BUS TRANSFER TO TRANSFER LOADS BACK TO OFFSITE SOURCES.	
PALO VERDE 3	05/19/01	530	4	5302001001	38013	OPERATE	AUTO	A RX TRIP OCCURRED ON AN AXIAL SHAPE INDEX (ASI) TRIP FROM THE CORE PROTECTION CALCULATOR. PRIOR TO THE TRIP, THE PLANT HAD REDUCED POWER TO 19% TO PERFORM MAIN TURBINE MAINTENANCE. THE POWER REDUCTION PLAN DID NOT INCLUDE ALL FACTORS CONCERNING ASI.	
POINT BEACH 1	07/26/10	266	3	2662010002	46129	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DURING PLANT SHUTDOWN DUE TO LOSS OF CONDENSER VACUUM. THE LOSS OF VACUUM WAS CAUSED BY INCORRECTLY POSITIONED TURBINE CROSSOVER STEAM DUMP MOTOR-OPERATED VALVES.	
POINT BEACH 1	06/05/07	266	3	2662007004	43407	OPERATE	MAN	FAILURE OF A MAIN FEEDWATER REGULATING VALVE RESULTED IN THE OPERATORS MANUALLY TRIPPING THE REACTOR. FAILURE WAS CAUSED BY THE VALVE POSITIONER ARM BECOMING DISCONNECTED.	
POINT BEACH 1	12/13/05	266	3	2662005008	42199	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON A LOSS OF CONDENSER VACUUM AFTER THE RUNNING CIRCULATING WATER PUMP TRIPPED. THE CAUSE WAS FATIGUE FAILURE OF THE MOTOR TO PUMP COUPLING BOLTS.	
POINT BEACH 1	07/15/03	266	3	2662003002	39996	OPERATE	AUTO	A RX TRIP OCCURRED ON OVER TEMPERATURE DELTA TEMPERATURE FOLLOWING THE LOSS OF A ROD DRIVE MG SET. THE CAUSE WAS A FAILED SURGE SUPPRESSOR COMPONENT IN THE POWER AND FEEDBACK CIRCUIT OF THE VOLTAGE REGULATOR.	

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POINT BEACH 1	01/21/00	266	3	2662000001	36610	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO DECREASING LEVEL IN THE CIRCULATING WATER SYSTEM FORE BAY. THE CAUSE WAS ICING OF THE OFF SHORE INTAKE STRUCTURE.	
POINT BEACH 1	10/27/00	266	3	2662000010	37463	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO CONCERNS FOR THE SAFETY OF DIVERS WORKING IN THE UNIT 2 SIDE OF THE CIRCULATING WATER PUMP HOUSE. THE CIRCULATING WATER SYSTEM WAS SECURED AND ALL DIVERS WERE REMOVED FROM THE WATER. NO PERSONNEL WERE INJURED.	
POINT BEACH 2	06/19/10	301	3	3012010001	46032	STARTUP	MAN	THE REACTOR WAS MANUALLY TRIPPED FOLLOWING AN AUTOMATIC TURBINE TRIP CAUSED BY A GENERATOR LOCKOUT SIGNAL. THE GENERATOR LOCKOUT SIGNAL WAS CAUSED BY INCORRECTLY CALCULATED GENERATOR PROTECTION THIRD HARMONIC STATOR GROUND TRIP RELAY SETPOINTS.	THE REACTOR WAS SHUTTING DOWN AT 44%, WHEN THE GENERATOR TRIPPED. THE REACTOR WAS THEN MANUALLY SCRAMMED AT 0% POWER.
POINT BEACH 2	07/09/10	301	3	3012010002	46080	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO FAILURE OF THE "A" FEEDWATER REGULATING VALVE. THE CAUSE OF THE FAILURE WAS THE FAILURE OF THE VALVE POSITIONER RANGE DIAPHRAGM ASSEMBLY.	
POINT BEACH 2	05/15/04	301	3	3012004002	40754	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED WHEN A DIVER BECAME ENTANGLED IN THE INTAKE CRIB. CIRCULATING WATER WAS SECURED WHICH RENDERED THE MAIN CONDENSERS UNAVAILABLE FOR DECAY HEAT REMOVAL.	
POINT BEACH 2	07/10/03	301	3	3012003004	39988	OPERATE	AUTO	A RX TRIP OCCURRED ON STEAM FLOW/FEED FLOW MISMATCH COINCIDENT WITH LOW SG WATER LEVEL AFTER A MAIN FEEDWATER PUMP TRIPPED. THE CAUSE WAS FAILURE OF THE MOTOR STATOR WINDING INSULATION DUE TO AGE RELATED DEGRADATION.	
POINT BEACH 2	02/06/01	301	3	3012001001	37722	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED FOLLOWING A MAIN GENERATOR LOCKOUT. THE LOCKOUT RESULTED FROM THE ACTUATION OF A GENERATOR STATOR NEUTRAL GROUND FAULT DETECTION RELAYS. THE REASON FOR THE RELAY ACTUATION COULD NOT BE DETERMINED.	
POINT BEACH 2	06/27/01	301	3	3012001002	38100	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON LOW CIRC WATER PUMP BAY LEVEL WHEN A LARGE INFLUX OF SMALL FISH RESULTED IN BLOCKAGE OF THE INTAKE TRAVELING SCREENS.	
POINT BEACH 2	12/14/00	301	3	3012000006	37594	STARTUP	AUTO	A RX TRIP OCCURRED DUE TO A FAILED CONTROL POWER FUSE IN AN INTERMEDIATE RANGE NUCLEAR INSTRUMENTATION CHANNEL. EXTENSIVE TESTING COULD NOT IDENTIFY ANY FAULTED CONDITION THAT WOULD HAVE CAUSED THE FUSE TO FAIL.	
POINT BEACH 2	12/20/00	301	3	3012000007	37621	OPERATE	AUTO	A TURBINE/RX TRIP RESULTED FROM AN ELECTRICAL FAULT ASSOCIATED WITH THE "C" PHASE OF THE MAIN STEP UP TRANSFORMER. THE CAUSE WAS A FAILED CRIMPED CONNECTION IN A CURRENT TRANSFORMER CIRCUIT.	
PEACH BOTTOM 2	07/10/05	277	1	2772005001	41832	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED WHEN A FAILED MAIN TURBINE MECHANICAL TRIP VALVE ROUTINE TEST WAS INCORRECTLY ABORTED. THE CAUSE WAS FAILURE TO FOLLOW A PROCEDURE.	
PEACH BOTTOM 2	02/22/04	277	1	2772004001	40537	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON DEGRADING MAIN CONDENSER VACUUM. THE CAUSE WAS A LEAKING RX FEEDPUMP TURBINE EXHAUST EXPANSION JOINT.	

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PEACH BOTTOM 2	12/22/04	277	1	2772004003	41277	OPERATE	AUTO	A SCRAM OCCURRED ON MSIV CLOSURE RESULTING FROM LOW MAIN STEAM LINE PRESSURE FOLLOWING A MALFUNCTION OF THE ELECTROHYDRAULIC CONTROL SYSTEM. THE CAUSE WAS A FAILED EHC PRESSURE REGULATOR CIRCUIT CARD.	
PEACH BOTTOM 2	04/12/03	277	1	2772003001	39752	OPERATE	AUTO	A RX SCRAM OCCURRED ON HIGH RX PRESSURE AFTER AN OUTBOARD MSIV CLOSURE. THE CAUSE WAS FATIGUE FAILURE OF A COPPER AIR LINE RESULTING FROM INADEQUATE SUPPORT.	
PEACH BOTTOM 2	07/22/03	277	1	2772003003	40010	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED FOLLOWING A MAIN GENERATOR PROTECTIVE RELAY ACTUATION. THE CAUSE WAS REMNANTS OF FAILED BUS COOLING FAN BELTS IN THE ISOPHASE BUS DUCT WHICH CAME IN CONTACT WITH A BUS CONDUCTOR.	
PEACH BOTTOM 2	09/15/03	277	1	2772003004	40158	OPERATE	AUTO	A SCRAM OCCURRED WITH AN MSIV CLOSURE FOLLOWING THE LOSS OF OFFSITE POWER. THE CAUSE WAS A GRID DISTURBANCE RESULTING FROM FAILURE OF OFFSITE PROTECTIVE RELAYING DURING A LIGHTNING STORM.	
PEACH BOTTOM 2	12/21/02	277	1	2772002001	39466	OPERATE	AUTO	A RX SCRAM OCCURRED ON AN MSIV CLOSURE RESULTING FROM LOW RX PRESSURE. THE CAUSE WAS A TURBINE EHC CIRCUIT CARD FAILURE THAT CAUSED MULTIPLE TURBINE BYPASS VALVES TO OPEN.	
PEACH BOTTOM 2	07/01/01	277	1	2772001002	38109	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED DURING TROUBLESHOOTING OF THE TURBINE EHC SYSTEM. THE CAUSE WAS THE FAILURE OF AN EHC SYSTEM POWER SUPPLY.	
PEACH BOTTOM 2	10/23/01	277	1	2772001004	38419	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED ON A MAIN GENERATOR LOCKOUT. AN ISOPHASE BUS GROUND FAULT RESULTED WHEN A DUCTWORK VENTILATION DAMPER DETACHED AND FELL ONTO THE CONDUCTOR. THREE DAMPER MOUNTING SCREWS HAD BEEN STRIPPED DURING PREVIOUS MAINTENANCE.	
PEACH BOTTOM 2	09/15/00	277	1	2772000003	37330	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED FOLLOWING AN UNPLANNED RX RECIRCULATION PUMP TRIP. THE CAUSE WAS IMPROPER TAGOUT COORDINATION.	
PEACH BOTTOM 3	09/13/09	278	1	2782009006	45348	STARTUP	MAN	DURING REACTOR SHUTDOWN, THE REACTOR WAS MANUALLY TRIPPED WHEN THE FEEDWATER LEVEL CONTROLLER ADDED ENOUGH COLD WATER TO CAUSE REACTOR PERIOD TO DROP BELOW 50 SECONDS.	
PEACH BOTTOM 3	09/15/03	278	1	2772003004	40158	OPERATE	AUTO	A SCRAM OCCURRED WITH AN MSIV CLOSURE FOLLOWING THE LOSS OF OFFSITE POWER. THE CAUSE WAS A GRID DISTURBANCE RESULTING FROM FAILURE OF OFFSITE PROTECTIVE RELAYING DURING A LIGHTNING STORM.	
PEACH BOTTOM 3	08/07/00	278	1	2782000001	37212	OPERATE	AUTO	A RX SCRAM RESULTED FROM AN INVALID LOW RX WATER LEVEL SIGNAL. THE CAUSE WAS A FAILURE OF A PACKING GLAND FOLLOWER, WHICH DEPRESSURIZED THE VARIABLE LEG TO VARIOUS INSTRUMENTS.	
PRAIRIE ISLAND 1	04/16/11	282	3		46761	OPERATE	AUTO	FOLLOWING A LOSS OF OFFSITE POWER DUE TO A TORNADO TOUCHING DOWN IN THE SWITCHYARD, UNIT TWO IS BEING SUPPLIED POWER FROM THE 2EDG AND THE 3EDG.	
PRAIRIE ISLAND 1	05/18/09	282	3	2822009005	45077	OPERATE	AUTO	A LOCKOUT TRIP OF A CIRC WATER PUMP RESULTED IN A CONDENSER DIFFERENTIAL PRESSURE TRIP. THIS TRIPPED THE MAIN TURBINE AND REACTOR. THE CAUSE OF THE PUMP TRIP WAS AN AGE-RELATED FAILURE OF A POWER SUPPLY CABLE.	

PLANT NAME	EVENT DATE	DOCKET	REGION	Licensee Event Report Number	Event Notification	UNIT MODE	SCRAM	Scram Cause / Description	NOTES
PRAIRIE ISLAND 1	07/31/08	282	3	2822008002	44377	OPERATE	AUTO	THE REACTOR SCRAMMED DURING REACTOR PROTECTION SYSTEM TESTING. ONE OVER TEMPERATURE DELTA T CHANNEL WAS IN TEST WHEN A CONTROLLER IN THE OTHER CHANNEL FAILED.	REACTOR TRIPPED DURING TESTING WHEN ONE OVER TEMPERATURE DELTA T CHANNEL WAS IN TEST AND A CONTROLLER IN THE OTHER CHANNEL FAILED.
PRAIRIE ISLAND 1	04/14/06	282	3	2822006001	42504	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED FOLLOWING THE TRIP OF A CONDENSATE AND FEEDWATER PUMP. THE CAUSE OF THE CONDENSATE PUMP TRIP WAS DEGRADED MOTOR INSULATION DUE TO MAINTENANCE PROGRAM DEFICIENCIES.	
PRAIRIE ISLAND 1	11/15/02	282	3	2822002002	39376	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON HIGH LEVEL IN A FEEDWATER HEATER. THE CAUSE WAS A KNOWN EXISTING PROBLEM WITH AN EXTRACTION BELLOWS IN THE FEEDWATER HEATER.	
PRAIRIE ISLAND 1	08/01/01	282	3	2822001004	38179	OPERATE	AUTO	A RX TRIP OCCURRED ON NEGATIVE FLUX RATE AFTER A GROUP OF CONTROL RODS DROPPED INTO THE CORE. THE CAUSE WAS WATER INTRUSION INTO A CONTROL ROD DRIVE POWER SUPPLY CABINET WHEN AN OVERHEAD ROOM COOLER DRIP TRAY OVERFLOWED.	
PRAIRIE ISLAND 1	08/03/01	282	3	2822001005	38185	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED FOLLOWING A FIRE IN A 4KV BUS WHILE ALIGNING ELECTRICAL POWER FROM THE RESERVE TRANSFORMER TO THE MAIN TRANSFORMER. THE CAUSE WAS A BREAKER FAILURE RESULTING FROM A POOR BREAKER TO BUS ELECTRICAL CONNECTION.	
PRAIRIE ISLAND 2	04/16/10	306	3	3062010001	45851	OPERATE	AUTO	WHILE SHUTTING DOWN, THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP. THE TURBINE TRIPPED ON HIGH DIFFERENTIAL PRESSURE BETWEEN THE CONDENSERS. THE CAUSE OF THE HI DP WAS CONDENSATE BLOCKING THE SEALING STEAM TO THE MSR SAFETY VALVES CAUSING THEM TO OPEN.	
PRAIRIE ISLAND 2	05/25/10	306	3	3062010002	45952	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A MAIN TURBINE TRIP. THE CAUSE OF THE TURBINE TRIP WAS THE LOSS OF THE 21 MAIN FEEDWATER PUMP DUE TO THE FAILURE OF ITS PRESSURE SWITCH.	
PRAIRIE ISLAND 2	10/30/08	306	3	3062008002	44615	STARTUP	MAN	DURING DYNAMIC ROD WORTH MEASUREMENTS, CONTROL BANK A-1 STOPPED INSERTING WHILE BANK A-2 CONTINUED TO INSERT. THE REACTOR WAS MANUALLY TRIPPED DUE TO ROD MISALIGNMENT.	
PRAIRIE ISLAND 2	04/05/07	306	3	3062007001	43280	OPERATE	AUTO	RPS ACTUATION OCCURRED DURING SURVEILLANCE TESTING OF THE SAFETY INJECTION SYSTEM DUE TO A SPURIOUS TRIP. THIS RESULTED IN A REACTOR TRIP.	
PRAIRIE ISLAND 2	05/09/01	306	3	3062001004	37979	OPERATE	AUTO	A RX TRIP OCCURRED ON A MANUAL TURBINE TRIP FOLLOWING HIGH CONDENSER VACUUM DIFFERENTIAL PRESSURE. THE CAUSE WAS NOT CONCLUSIVELY DETERMINED BUT COULD HAVE BEEN AIR LEAKAGE THROUGH THE MOISTURE SEPARATOR REHEATER RELIEF VALVES.	
PRAIRIE ISLAND 2	10/31/01	306	3	3062001005	38448	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON INCREASING CONDENSER DIFFERENTIAL PRESSURE WHILE ATTEMPTING TO REPAIR A LEAKING AIR EJECTOR STEAM SUPPLY VALVE. A VALVE ALIGNMENT ERROR PROVIDED A PATH TO ATMOSPHERE FROM THE 2A CONDENSER.	
PRAIRIE ISLAND 2	04/28/00	306	3	3062000001	36942	OPERATE	AUTO	A TURBINE TRIP/RX TRIP OCCURRED WHILE SHUTTING DOWN FOR REFUELING. THE TRIP WAS INITIATED BY A SPURIOUS FEEDWATER HEATER HI HI LEVEL SIGNAL. IT WAS CONCLUDED THAT THE SIGNAL RESULTED FROM FLASHING IN THE LOWER SENSING LINE OF THE HI HI LEVEL SWITCH.	

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PERRY	05/11/10	440	3	4402010003	45918	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO LOSS CONTROL ROD DRIVE CHARGING HEADER PUMPS. THE LOSS OF THE PUMPS WAS DUE TO THE LOSS OF POWER ON A DIVISION 2 INSTRUMENT RACK.	
PERRY	06/21/09	440	3	4402009001	45147	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A MAIN TURBINE TRIP. THE CAUSE OF THE TURBINE TRIP WAS AN INVALID MOISTURE SEPARATOR REHEATER HIGH LEVEL SIGNAL. THE INVALID SIGNAL WAS DUE TO INCORRECT ADJUSTMENT OF THE LEVEL SWITCH FOLLOWING MAINTENANCE.	
PERRY	10/16/09	440	3	4402009004	45440	OPERATE	MAN	WHILE SHUTTING DOWN, A REACTOR RECIRCULATION PUMP TRIPPED WHILE BEING SHIFTED TO SLOW SPEED. THE REACTOR WAS MANUALLY TRIPPED. THIS WAS DIFFERENT THAN THE PLANNED SHUTDOWN SEQUENCE.	
PERRY	05/15/07	440	3	4402007001	43363	OPERATE	AUTO	DURING DIGITAL FEEDWATER TUNING, THE REACTOR TRIPPED ON LOW REACTOR LEVEL. WITH THE FEEDWATER PUMP IN MANUAL, LEVEL STARTED GOING DOWN, THE OPERATOR WAS UNABLE TO RESTORE SUFFICIENT FLOW. THIS EVENT WAS CAUSED BY AN UNDETECTED DESIGN LOGIC ERROR.	
PERRY	11/28/07	440	3	4402007004	43808	OPERATE	AUTO	THE REACTOR TRIPPED DUE TO A TURBINE CONTROL VALVE FAST CLOSURE SIGNAL. THE CAUSE OF THE TRIP WAS FAILURE OF THE POWER SUPPLIES IN THE DIGITAL FEEDWATER CONTROL SYSTEM.	THE REACTOR TRIPPED ON A TURBINE CONTROL VALVE FAST CLOSURE SIGNAL.
PERRY	12/13/06	440	3	4402006005	43049	OPERATE	MAN	LOSS OF INSTRUMENT AIR CAUSED A FEEDWATER TRANSIENT WITH THE REACTOR FEED BOOSTER PUMPS CAVITATING. THE REACTOR WAS MANUALLY SCRAMMED.	
PERRY	01/06/05	440	3	4402005001	41310	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON UNDESIRABLE POWER TO FLOW CONDITIONS AFTER BOTH RX RECIRCULATION PUMPS DOWN-SHIFTED TO SLOW SPEED AND THAN PUMP "A" TRIPPED OFF. THE CAUSE WAS A FAILED OPTICAL ISOLATOR IN THE RX RECIRCULATION SYSTEM LOGIC CIRCUITRY.	
PERRY	12/23/04	440	3	4402004002	41290	OPERATE	AUTO	A SCRAM OCCURRED WHEN CORE OSCILLATIONS WERE DETECTED BY THE OPRM MONITOR AFTER BOTH RECIRC PUMPS DOWNSHIFTED TO SLOW SPEED. THE CAUSE WAS DETERMINED TO BE AN INTERMITTENT FAULTY OPTICAL ISOLATOR IN THE PUMP CONTROL CIRCUIT.	
PERRY	08/14/03	440	3	4402003002	40063	OPERATE	AUTO	A RX SCRAM OCCURRED ON A TURBINE CONTROL VALVE FAST CLOSURE. THE CAUSE WAS A MAJOR GRID DISTURBANCE AND BLACKOUT.	
PERRY	09/22/02	440	3	4402002001	39207	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED DURING TESTING WHEN THE TURBINE PROTECTION DEVICE TRIP TEST MALFUNCTIONED AND CAUSED THE MAIN TURBINE TO TRIP. THE CAUSE WAS FAILURE OF THE TURBINE TRIP LATCH ASSEMBLY TO RESET AS A RESULT OF TWO MISSING SETSCREWS.	
PERRY	04/29/01	440	3	4402001001	37951	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON DECREASING MAIN CONDENSER VACUUM AFTER THE GENERATOR WAS TAKEN OFFLINE. THE CAUSE WAS INADEQUATELY TORQUED COVERS ON THE MOISTURE SEPARATOR DRAIN TANKS WHICH ALLOWED AIR TO ENTER THE CONDENSER.	
PERRY	07/11/01	440	3	4402001003	38131	OPERATE	AUTO	A RX SCRAM OCCURRED ON LOW RX WATER LEVEL FOLLOWING A LOSS OF FEEDWATER. THE CAUSE WAS A BLOWN FUSE IN A 24 VDC POWER SUPPLY TO FEEDWATER CONTROL INSTRUMENTATION.	

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PERRY	12/15/01	440	3	4402001005	38575	OPERATE	AUTO	A RX SCRAM OCCURRED ON HIGH RX WATER LEVEL DUE TO AN EXCESSIVE FEEDWATER DEMAND TRANSIENT. THE CAUSE WAS A FAILED LOGIC CARD IN THE FEEDWATER LEVEL CONTROL SYSTEM.	
PILGRIM	12/19/08	293	1	2932008006	44735	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING LOAD REJECTION. THE LOAD REJECTION WAS CAUSED BY A SEVERE WINTER STORM. SNOW AND ICE BUILD-UP ON ACB-105 RESULTED IN A POWER LOSS TO THE SAFEGUARDS PANELS.	
PILGRIM	07/10/07	293	1	2932007005	43479	OPERATE	AUTO	DURING A POWER REDUCTION TO BACKWASH THE MAIN CONDENSER, THE MAIN TURBINE TRIPPED RESULTING IN A SCRAM. THE CAUSE OF THE TURBINE TRIP LOW CONDENSER VACUUM DUE TO A CALIBRATION ERROR OF THE LOW VACUUM TURBINE TRIP MECHANISM.	
PILGRIM	03/13/06	293	1	2932006001	42414	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON HIGH TEMPERATURE IN THE AUGMENTED OFFGAS SYSTEM RECOMBINER. THE CAUSE WAS FAILURE OF THE CONTROLLER OF A PRESSURE CONTROL VALVE.	
PILGRIM	02/21/03	293	1	2932003001	39609	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED AFTER A RECIRC PUMP RUNBACK CAUSED CONFLICTING INDICATIONS THAT CORE FLOW COULD BE IN THE PROHIBITED REGION OF THE POWER TO FLOW MAP. A POST TRIP REVIEW FOUND THAT ACTUAL FLOW WAS CONSERVATIVE.	
PILGRIM	05/19/03	293	1	2932003002	39857	STARTUP	AUTO	A RX SCRAM OCCURRED ON MSIV CLOSURE RESULTING FROM SWELL AFTER THE MAIN TURBINE BYPASS VALVES WERE INADVERTENTLY OPENED AND DEPRESSURIZED THE RX VESSEL. THE CAUSE WAS OPERATOR ERROR WHEN THE SWITCH TO OPEN THE TURBINE BYPASS VALVES WAS OPERATED.	
PILGRIM	06/01/03	293	1	2932003003	39898	OPERATE	AUTO	A RX SCRAM OCCURRED ON LOAD REJECT AFTER THE MAIN GENERATOR LOCKOUT RELAY TRIPPED. THE CAUSE WAS FAILURE OF A CONDUCTOR WITHIN THE LOW VOLTAGE PORTION OF THE UNIT AUXILIARY TRANSFORMER.	
PILGRIM	08/13/01	293	1	2932001006	38206	OPERATE	AUTO	A SCRAM OCCURRED FROM THE TRIP OF BOTH RPS CHANNELS. ONE CHANNEL TRIPPED FROM A LOSS OF POWER DURING AN ELECTRICAL SURVEILLANCE AND THE OTHER FROM HIGH FLUX FOLLOWING A TRIP OF BOTH RECIRC MG SETS. THE CAUSE WAS AN INADEQUATE SURVEILLANCE PROCEDURE.	TOM AND ANDY DISCUSSED POTENTIAL EK SSA. DECIDED NOT SSA BECAUSE EDG OUTPUT BKR WAS SPECIFICALLY REMOVED FROM SERVICE AND SHOULD NOT HAVE CLOSED.
PILGRIM	12/27/01	293	1	2932001007	38598	OPERATE	AUTO	A RX SCRAM OCCURRED ON AN AVERAGE POWER RANGE HI-HI TRIP AFTER BOTH RECIRCULATION MOTOR GENERATOR SETS TRIPPED. THE MOST LIKELY CAUSE WAS A FAILED MICRO SWITCH IN AN ANALOG TRIP SYSTEM CALIBRATING UNIT.	
QUAD CITIES 1	08/12/10	254	3	2542010002	46169	OPERATE	AUTO	WHILE PERFORMING CONDENSER FLOW REVERSAL TESTING, THE REACTOR TRIPPED FOLLOWING A MAIN TURBINE TRIP. THE TURBINE TRIPPED ON LOW CONDENSER VACUUM CAUSED BY THE FAILURE OF ONE OF THE FLOW REVERSAL VALVES TO FULLY REVERSE FLOW.	
QUAD CITIES 1	02/22/06	254	3	2542006002	42356	OPERATE	AUTO	A RX SCRAM OCCURRED ON A TURBINE GENERATOR LOAD REJECT SIGNAL DUE TO A TRIP OF THE MAIN POWER TRANSFORMER PHASE DIFFERENTIAL OVERCURRENT RELAY. THE CAUSE WAS DEGRADED WIRING INSULATION RESULTING IN A GROUND IN THE CURRENT TRANSFORMER.	

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QUAD CITIES 1	06/17/05	254	3	2542005005	41782	OPERATE	AUTO	A RX SCRAM OCCURRED ON HIGH PRESSURE FOLLOWING A FAILURE IN THE EHC SYSTEM WHICH RESULTED IN CLOSURE OF THE MAIN TURBINE CONTROL VALVES. THE CAUSE WAS A FAILURE IN ONE OF THE CONTROL VALVE INPUT CIRCUIT CARDS IN THE EHC SYSTEM.	
QUAD CITIES 1	12/06/00	254	3	2542000010	37573	OPERATE	AUTO	A RX SCRAM OCCURRED ON LOW RX VESSEL WATER LEVEL WHEN A FEED WATER REGULATING VALVE LOCKED UP. THE CAUSE WAS AGE RELATED FAILURE OF A SOLDER JOINT ON THE MASTER CONTROLLER FOR THE FEED WATER REGULATING VALVE.	
QUAD CITIES 2	08/17/10	265	3	2652010002	46184	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO INCREASING REACTOR WATER LEVEL. THE WATER LEVEL WAS INCREASING DUE TO A TRIP OF A REACTOR RECIRCULATION PUMP, WHICH WAS HAVING ITS PROGRAMMABLE LOGIC CONTROLLER ADJUSTED.	
QUAD CITIES 2	02/28/07	265	3	2652007001	43198	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED AT 30% POWER DUE TO DECREASING CONDENSER VACUUM. THE CAUSE WAS FAILURE OF AN AUX STEAM TO OFFGAS CONTROLLER RESULTING IN DECREASED NONCONDENSIBLE GAS REMOVAL EFFICIENCY, WHICH CAUSED INCREASED CONDENSER BACKPRESSURE.	
QUAD CITIES 2	03/30/04	265	3	2652004003	40625	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED DURING TURBINE THRUST BEARING WEAR DETECTOR TESTING. THE CAUSE WAS THE INAPPROPRIATE USE OF THE WRONG SURVEILLANCE PROCEDURE.	
QUAD CITIES 2	04/16/03	265	3	2652003002	39765	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON INCREASING TORUS TEMPERATURE AFTER THE "3B" MAIN STEAM RELIEF VALVE FAILED OPEN. THE CAUSE WAS EXCESSIVE LEAKAGE PAST THE PILOT VALVE SEAT.	
QUAD CITIES 2	04/05/02	265	3	2652002002	38833	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON INCREASING RX WATER LEVEL. THE CAUSE WAS A BLOWN FUSE IN THE DIGITAL FEEDWATER LEVEL CONTROL SYSTEM RESULTING FROM INADVERTENT GROUNDING OF TEST LEADS DURING AN INSTRUMENT SURVEILLANCE. THE ROOT CAUSE WAS EQUIP DESIGN.	
QUAD CITIES 2	08/02/01	265	3	2652001001	38181	OPERATE	AUTO	A RX SCRAM OCCURRED WHEN A LIGHTNING STRIKE CAUSED A MAIN TRANSFORMER FAILURE AND A LOSS OF OFFSITE POWER.	
QUAD CITIES 2	05/05/00	265	3	2652000006	36976	OPERATE	AUTO	A RX SCRAM OCCURRED DURING CALIBRATION OF MAIN STEAM LINE HIGH FLOW SWITCHES. A TECHNICIAN ADJUSTED A SWITCH THAT WAS NOT ISOLATED AND PREPARED FOR CALIBRATION, COMPLETING THE LOGIC FOR A GROUP I ISOLATION, WHICH RESULTED IN THE SCRAM.	NO CHANGES PER REV 1.
QUAD CITIES 2	05/22/00	265	3	2652000007	37018	OPERATE	AUTO	A RX SCRAM OCCURRED ON HIGH FLUX WHILE RETURNING A TURBINE CONTROL VALVE TO SERVICE FOLLOWING CORRECTIVE MAINTENANCE. THE HIGH FLUX RESULTED FROM AN UNANTICIPATED RESPONSE OF THE CONTROL VALVES, MOST LIKELY RESULTING FROM AIR ENTRAPPED IN THE EHC SYSTEM.	
QUAD CITIES 2	07/18/00	265	3	2652000008	37174	OPERATE	AUTO	A RX SCRAM RESULTED FROM A C-PHASE DIFFERENTIAL RELAY TRIP. THE TRIP RESULTED FROM AN INSULATOR FAULT ON A 345 KV LINE CONNECTED TO THE STATION. BECAUSE OF DISTRIBUTION YARD CHANGES, INSUFFICIENT RELAY OPERATING MARGIN EXISTED DURING FAULTED CONDITIONS.	

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RIVER BEND	09/20/09	458	4	4582009002	45369	OPERATE	MAN	WHILE SHUTTING DOWN THE REACTOR, THE RECIRC PUMPS WERE BEING TRANSFERRED FROM FAST TO SLOW. INSTEAD OF TRANSFERRING TO SLOW, THE RECIRC PUMPS TRIPPED AND THE OPERATOR INSERTED A MANUAL REACTOR TRIP.	
RIVER BEND	03/05/08	458	4	4582008002	44034	OPERATE	AUTO	THE REACTOR TRIPPED ON HIGH REACTOR PRESSURE. THE APPARENT CAUSE WAS A MALFUNCTION OF THE MAIN TURBINE CONTROL SYSTEM DUE TO A LOOSE, OIL-CONTAMINATED, ELECTRICAL CONNECTOR.	
RIVER BEND	05/04/07	458	4	4582007002	43345	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FOLLOWING LOSS OF COOLING TO THE NO. 2 MAIN TRANSFORMER.	
RIVER BEND	09/26/07	458	4	4582007005	43668	OPERATE	AUTO	A REACTOR TRIP OCCURRED DURING AVERAGE POWER RANGE MONITOR SURVEILLANCE. THE TRIP WAS CAUSED WHEN THE GROUP 2 CONTROL RODS DROPPED UNEXPECTEDLY. AS THE REACTOR OPERATOR WAS RESPONDING TO THE DROPPED RODS, THE REACTOR TRIPPED ON LOW WATER LEVEL.	
RIVER BEND	11/07/07	458	4	4582007006	43773	OPERATE	MAN	THE REACTOR WAS MANUALLY SCRAMMED WHEN A FAULT ON A 480V SWITCHGEAR TRANSFORMER RESULTED IN LOSS OF THE "A" NON-SAFETY 13.8KV BUS, WHICH CAUSED THE CONDENSATE AND FEED PUMPS TO TRIP.	
RIVER BEND	04/15/06	458	4	4582006004	42505	OPERATE	AUTO	A RX TRIP OCCURRED ON HIGH APRM HEAT FLUX AFTER BOTH RECIRCULATION PUMPS DOWNSHIFTED TO SLOW SPEED. THE CAUSE WAS A FAILED OPTICAL ISOLATOR IN THE CONTROL CIRCUIT FOR THE END OF CYCLE RECIRCULATION PUMP TRIP.	
RIVER BEND	10/19/06	458	4	4582006007	42921	OPERATE	AUTO	AN AUTOMATIC SCRAM OCCURRED FOLLOWING CLOSURE OF THE FEEDWATER ISOLATION VALVES. THE VALVES CLOSED WHEN THE OPERATOR DROPPED A CHART RECORDER ON THEIR PUSHBUTTONS.	
RIVER BEND	01/15/05	458	4	4582005001	41339	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED DUE TO INDICATIONS AND ALARMS OF A GENERATOR FIELD GROUND FAULT. ONE OF THE FIVE RECTIFIER BANKS IN THE GENERATOR EXCITATION CONTROL SYSTEM WAS THE SOURCE OF THE GROUND. THE CAUSE WAS DEPOSITION OF STATOR CORROSION PRODUCTS.	
RIVER BEND	08/15/04	458	4	4582004001	40957	OPERATE	AUTO	A RX SCRAM OCCURRED FOLLOWING A PARTIAL LOSS OF OFFSITE POWER. THE CAUSE WAS SLOW SWITCHYARD BREAKER OPERATION AND FAULT CLEARING TIME IN RESPONSE TO AN OFFSITE TRANSMISSION LINE FAULT.	
RIVER BEND	10/01/04	458	4	4582004002	41082	OPERATE	AUTO	A MAIN GENERATOR/TURBINE TRIP AND RX SCRAM OCCURRED AS THE RESULT OF A SECOND INSULATOR FLASHOVER ON THE 230KV MAIN GENERATOR OUTPUT LINE. THE CAUSE WAS THE BUILDUP OF CONTAMINANTS ON SWITCHYARD INSULATORS OVER TIME DUE TO COOLING TOWER DRIFT.	A LOSS OF ONE STATION SERVICE TRANSFORMER AND EDG START OCCURRED 13 MINUTES PRIOR TO THE RX TRIP.
RIVER BEND	12/10/04	458	4	4582004005	41252	OPERATE	AUTO	A SCRAM OCCURRED ON POWER TO FLOW FOLLOWING THE LOSS OF A VITAL INSTRUMENT BUS AND RESULTING LOSS OF FEEDWATER LEVEL CONTROL. THE CAUSE WAS A FAULT IN A NONSAFETY RELATED VITAL INVERTER.	
RIVER BEND	02/22/03	458	4	4582003001	39611	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON A MAIN TURBINE ELECTRO HYDRAULIC CONTROL SYSTEM OIL LEAK. THE LEAK OCCURRED WHEN A SECTION OF HYDRAULIC TUBING NEAR THE MAIN TURBINE CONTROL VALVES DEVELOPED A THROUGH WALL CRACK.	NO CHANGES FROM REV 00.

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RIVER BEND	09/22/03	458	4	4582003008	40191	OPERATE	AUTO	A RX SCRAM OCCURRED ON HIGH RX PRESSURE DURING MAIN TURBINE CONTROL VALVE TESTING. THE CAUSE WAS ERRATIC SPEED SIGNALS POSSIBLY RESULTING FROM ELECTROSTATIC DISCHARGE IN THE TURBINE THAT CAUSED THE CONTROL VALVES TO CLOSE.	
RIVER BEND	09/18/02	458	4	4582002001	39200	OPERATE	AUTO	A RX SCRAM OCCURRED ON HIGH NEUTRON FLUX AFTER THE MAIN TURBINE CONTROL VALVES CLOSED. THE MOST LIKELY CAUSE WAS A MOMENTARY GROUND CONDITION ON THE +22V TURBINE ELECTROHYDRAULIC CONTROL SYSTEM BUS.	
RIVER BEND	04/21/01	458	4	4582001001	37939	OPERATE	AUTO	A RX SCRAM OCCURRED ON RX PRESSURE VESSEL HIGH PRESSURE RESULTING FROM CLOSURE OF THE MAIN TURBINE CONTROL VALVES DURING TURBINE CONTROL VALVE TESTING. THE LIKELY CAUSE WAS DETERMINED TO BE A TURBINE SPEED SIGNAL ERROR GENERATED DURING TESTING.	
RIVER BEND	08/21/00	458	4	4582000012	37244	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED IN RESPONSE TO DECREASING MAIN CONDENSER VACUUM, WHICH OCCURRED WHILE RESPONDING TO A LOW FLOW CONDITION IN THE OFFGAS SYSTEM. THE CAUSE WAS AN INADEQUATE OFFGAS ALARM RESPONSE PROCEDURE.	
GINNA	12/30/09	244	1	2442009002	45597	OPERATE	AUTO	THE REACTOR TRIPPED DUE TO THE TURBINE STOP VALVES GOING CLOSED. THE STOP VALVE CLOSURE WAS DUE TO A COMMON MODE FAILURE OF BOTH EHC PUMPS.	
GINNA	01/27/07	244	1	2442007001	43128	OPERATE	AUTO	THE REACTOR TRIPPED ON OVER-TEMPERATURE DIFFERENTIAL TEMPERATURE. THE CAUSE WAS A FAILURE OF THE TURBINE ELECTRO-HYDRAULIC CONTROLLER RESULTING IN RAPID CLOSURE OF THE TURBINE CONTROL VALVES.	THE REACTOR TRIPPED ON AN OVER-TEMPERATURE DIFFERENTIAL TEMPERATURE SIGNAL.
GINNA	03/16/07	244	1	2442007002	43243	OPERATE	AUTO	THE PLANT TRIPPED WHEN LOW STEAM LINE PRESSURE RESULTED IN A SAFETY INJECTION SIGNAL, CAUSED BY THE SPURIOUS TRIP OF THE "B" MAIN STEAM LINE MSIV. THE LOW STEAM LINE PRESSURE RESULTED FROM THE "A" MSIV ATTEMPTING TO HANDLE FULL STEAM LOAD REQUIREMENTS.	
GINNA	02/16/05	244	1	2442005001	41414	OPERATE	AUTO	A RX/TURBINE TRIP OCCURRED ON AN ATWS SIGNAL AFTER A POWER SUPPLY IN THE FEEDWATER CONTROL SYSTEM FAILED.	
GINNA	08/14/03	244	1	2442003002	40068	OPERATE	AUTO	A RX TRIP OCCURRED ON OVER TEMPERATURE DELTA TEMPERATURE FOLLOWING A LOSS OF LOAD DURING A MAJOR GRID DISTURBANCE AND BLACKOUT.	
GINNA	10/15/03	244	1	2442003005	40248	STARTUP	MAN	THE RX WAS MANUALLY TRIPPED FOLLOWING A PARTIAL LOSS OF OFFSITE POWER AND LOSS OF THE "B" RCP ON UNDERVOLTAGE. THE CAUSE WAS DAMAGE FROM A WINDSTORM.	
GINNA	02/05/02	244	1	2442002001	38670	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED FOLLOWING THE LOSS OF A MAIN CIRCULATING WATER PUMP. THE PUMP TRIP WAS CAUSED BY THE FAILURE OF A MOTOR FIELD WIRE.	
GINNA	10/21/00	244	1	2442000005	37446	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED FOLLOWING A CONDENSER CIRCULATING WATER PUMP TRIP. THE CAUSE WAS FAILURE OF THE EXCITATION VOLTAGE TRANSFORMER WHICH RESULTED IN LOSS OF EXCITATION FIELD TO THE PUMP MOTOR.	
SEABROOK	01/19/08	443	1	4432008001	43921	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TRIP OF THE MAIN TURBINE. THE CAUSE OF THE TURBINE TRIP WAS FAULT ON A MANUALLY-OPERATED DISCONNECT SWITCH, WHICH RESULTED IN A 345KV BUS LOCKOUT.	
SEABROOK	05/01/05	443	1	4432005006	41655	OPERATE	MAN	REACTOR WAS MANUALLY SCRAMMED AT 17% POWER DURING SRARTUP. FOLLOWING A TURBINE TRIP CAUSED BY HIGH VIBRATIONS.	MANUAL SCRAM AT 17% DURING STARTUP, DUE TO MAIN TURBINE HIGH VIBRATIONS.

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SEABROOK	10/31/03	443	1	4432003002	40286	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL FOLLOWING A PARTIAL LOSS OF FEED AFTER THE "A" MFP CONTROL VALVES CLOSED AND THE PUMP COASTED DOWN. THE CAUSE WAS A FAILED CIRCUIT BOARD IN THE MFP GOVERNOR SPEED CONTROL.	
SEABROOK	03/05/01	443	1	4432001002	37810	OPERATE	AUTO	A RX TRIP OCCURRED ON HIGH POWER RANGE NEGATIVE FLUX RATE FOLLOWING A LOSS OF OFFSITE POWER. THE LOOP RESULTED WHEN SNOW BUILDUP ON A 345 KV TRANSMISSION LINE BUSHING CAUSED A FLASHOVER TO GROUND.	
SEABROOK	10/15/01	443	1	4432001003	38390	OPERATE	AUTO	A RX TRIP OCCURRED ON HIGH NEGATIVE FLUX RATE WHEN A ROD DROPPED DURING ROD OPERABILITY CHECKS. THE CAUSE WAS PARTICULATE DEPOSITS IN THE ROD DRIVE HOUSING AND/OR ON THE DRIVE ROD. THESE DEPOSITS INHIBITED THE STATIONARY GRIPPER ENGAGEMENT.	
SEABROOK	06/26/00	443	1	4432000004	37117	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON LOWERING SG LEVELS FOLLOWING A MAIN FEED PUMP TRIP AND RX SETBACK. THE PUMP TRIP RESULTED FROM A DEGRADED CIRCUIT BOARD IN THE SOLID STATE PROTECTION SYSTEM, WHICH CAUSED A MOMENTARY HIGH-HIGH SG LEVEL SIGNAL.	
SUSQUEHANNA 1	01/25/11	387	1	3872011002	46569	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO AN UNISOLABLE LEAK IN THE STEAM EXTRACTION SYSTEM. THE STEAM LEAK WAS ISOLATED AFTER THE TURBINE WAS TRIPPED.	
SUSQUEHANNA 1	04/22/10	387	1	3872010002	45866	OPERATE	AUTO	THE REACTOR AUTOMATICALLY TRIPPED AT 32% POWER DURING TESTING OF THE INTEGRATED FEEDWATER CONTROL SYSTEM. THE REACTOR TRIPPED ON LOW WATER LEVEL.	
SUSQUEHANNA 1	05/14/10	387	1	3872010002	45930	OPERATE	AUTO	THE REACTOR TRIPPED ON HIGH WATER LEVEL DURING TESTING OF THE INTEGRATED FEEDWATER CONTROL SYSTEM.	
SUSQUEHANNA 1	07/16/10	387	1	3872010003	46103	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO AN UNISOLABLE LEAK IN THE CIRC WATER SYSTEM NEAR THE MAIN CONDENSER AREA. POWER WAS INITIALLY REDUCED TO 39% WHEN THE REACTOR WAS TRIPPED DUE DUE TO RISING WATER LEVEL IN THE CONDENSER AREA.	
SUSQUEHANNA 1	06/15/06	387	1	3872006004	42642	OPERATE	AUTO	A RX SCRAM OCCURRED ON AN APPARENT NEUTRON MONITORING TRIP WHILE TRANSFERRING RPS POWER SUPPLIES. THIS EVENT WAS CAUSED BY A DESIGN DEFICIENCY IN THE NEWLY INSTALLED POWER RANGE NEUTRON MONITORING SYSTEM.	
SUSQUEHANNA 1	11/25/06	387	1	3872006006	43011	OPERATE	AUTO	THE REACTOR TRIPPED AUTOMATICALLY FOLLOWING A TURBINE TRIP. THE APPARENT CAUSE WAS IMPROPER SETTINGS OF THE CURRENT COMPENSATOR IN THE GENERATOR AUTOMATIC VOLTAGE REGULATOR.	
SUSQUEHANNA 1	04/21/04	387	1	3872004003		OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON MAIN TURBINE HIGH VIBRATION DURING STARTUP TURBINE TESTING FOLLOWING TURBINE REPLACEMENT. THE CAUSE WAS INADEQUATE PLANS TO DEAL WITH DEVELOPING CONDITIONS.	
SUSQUEHANNA 1	09/24/03	387	1	3872003006	40196	OPERATE	AUTO	A RX SCRAM OCCURRED ON LOW RX VESSEL LEVEL AFTER A FEED PUMP TRIPPED DURING FEED PUMP TESTING. THE CAUSE WAS PERSONNEL ERROR DURING THE TESTING.	

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SUSQUEHANNA 1	04/22/02	387	1	3872002004	38870	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED FOLLOWING A SINGLE RECIRCULATION PUMP TRIP WHEN CORE FLOW INDICATIONS PLACED THE UNIT IN AN UNANTICIPATED LOCATION ON THE POWER TO FLOW MAP. THE CAUSE WAS A HIGH RESISTANCE CONNECTION ON THE RECIRCULATION MG SET EXCITER.	
SUSQUEHANNA 2	06/06/05	388	1	3882005005	41746	OPERATE	AUTO	A RX SCRAM OCCURRED ON A LOAD REJECTION. THE MAIN GENERATOR EXCITATION SYSTEM HAD FAILED TO POSITIVELY RESPOND TO CHANGES TO THE OFFSITE GRID WHICH RESULTED IN A LOSS OF GENERATOR FIELD CAUSING THE LOCKOUT.	
SUSQUEHANNA 2	04/28/05	388	1	3882005003	41646	OPERATE	MAN	WHILE SHUTTING DOWN FROM 100% POWER DUE TO LOSS OF COOLING TO THE B MAIN TRANSFORMER, REACTOR WAS MANUALLY SCRAMMED AT 75% POWER.	
SUSQUEHANNA 2	10/03/02	388	1	3872002006	39242	STARTUP	MAN	THE RX WAS MANUALLY SCRAMMED WHEN THE RX RECIRCULATION PUMPS TRIPPED. THE CAUSE WAS A LOSS OF POWER DURING A FIRE AT STARTUP TRANSFORMER "T-20" RESULTING FROM AN INTERNAL FAULT.	
SUSQUEHANNA 2	09/30/02	388	1	3882002004	39233	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED ON LOW CONDENSER VACUUM AFTER THE OFFGAS SYSTEM ISOLATED. THE CAUSE WAS A MOMENTARY LOSS OF 120 VAC POWER WHEN INADEQUATE WORK INSTRUCTIONS CAUSED PLANT ELECTRICIANS TO INAPPROPRIATELY CLOSE A BREAKER.	
SALEM 1	07/07/10	272	1	2722010002	46075	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A MAIN TURBINE/GENERATOR TRIP. THE GENERATOR TRIPPED DUE TO LOSS OF THE MAIN POWER TRANSFORMER. FAILURE OF THE TRANSFORMER WAS DUE TO THE INADVERTENT ACTUATION OF THE TRANSFORMER DELUGE SYSTEM.	
SALEM 1	10/15/10	272	1	2722010005	46336	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP. THE TURBINE TRIPPED SHORTLY AFTER LOWERING THE REACTIVE LOADING ON THE VOLTAGE REGULATOR. THE CAUSE OF THE TURBINE TRIP WAS THE LOSS OF A FIELD RELAY, WHICH PROVIDES LOSS OF EXCITATION PROTECTION.	
SALEM 1	04/24/07	272	1	2722007002	43317	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO LOSS OF CIRCULATING WATER. CIRC WATER WAS LOST DUE TO HEAVY GRASSING AT THE CIRCULATION WATER INTAKE.	
SALEM 1	04/30/07	272	1	2722007002	43329	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FOLLOWING A LOSS OF CIRCULATING WATER. THE LOSS OF CIRC WATER WAS CAUSED BY GRASS INTRUSION INTO THE CIRCULATING WATER INTAKE STRUCTURE.	
SALEM 1	12/28/07	272	1	2722007003	43873	OPERATE	AUTO	THE REACTOR TRIPPED ON LOW FLOW FOLLOWING FAILURE OF THE 12 STATION POWER TRANSFORMER, WHICH RESULTED IN THE LOSS OF RCPS 13 AND 14.	
SALEM 1	03/08/06	272	1	2722006001	42395	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON A SPURIOUS TURBINE OVERSPEED SIGNAL. THE MOST PROBABLE CAUSE WAS ELECTRO MAGNETIC INTERFERENCE BY AN UNKNOWN SOURCE.	
SALEM 1	07/29/03	272	1	2722003002	40030	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED FOLLOWING ACTUATION OF 500KV 1-5 BREAKER WHICH ISOLATED THE GENERATOR. THE CAUSE WAS FAILURE OF THE BREAKERS CURRENT TRANSFORMER CONTROL CABLE CONDUCTORS.	

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SALEM 1	11/12/02	272	1	2722002004	39364	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON LOW SG LEVEL FOLLOWING A FEEDPUMP RUNBACK. THE CAUSE WAS A VOLTAGE DECREASE IN THE CONTROL POWER TO ITS GOVERNOR WHEN A TECHNICIAN INADVERTENTLY GROUNDED THE POWER CIRCUIT FOR A VALVE LIMIT SWITCH DURING TROUBLESHOOTING.	
SALEM 1	05/22/01	272	1	2722001006	38021	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON A GENERATOR LOCKOUT RESULTING FROM A GENERATOR DIFFERENTIAL CURRENT RELAY TRIP. THE CAUSE WAS A DEGRADED TERMINATION ASSOCIATED WITH A GENERATOR NEUTRAL CURRENT TRANSFORMER.	
SALEM 1	09/24/01	272	1	2722001008	38313	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON LOSS OF CONDENSER VACUUM. THREE OF SIX CIRC WATER PUMPS LOST POWER DURING AN ELECTRICAL TRANSIENT. THE REACTOR WAS SCRAMMED AFTER A FOURTH PUMP TRIPPED ON HIGH TRAVELING SCREEN D/P.	
SALEM 1	01/06/00	272	1	2722000001	36567	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED FOLLOWING A LOSS OF CONDENSATE FLOW. THE CAUSE WAS ISOLATION OF THE LOW PRESSURE FEEDWATER HEATER STRINGS DUE TO RADIO FREQUENCY INTERFERENCE.	
SALEM 1	04/12/00	272	1	2722000002	36882	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO RAPIDLY DECREASING GENERATOR OUTPUT. THE CAUSE WAS A MOMENTARY VOLTAGE LOSS IN THE EHC CIRCUITRY WHILE REPLACING A CIRCUIT CARD.	
SALEM 1	08/09/00	272	1	2722000003	37218	OPERATE	AUTO	A RX TRIP OCCURRED ON HIGH NEGATIVE FLUX RATE WHEN A GROUP OF CONTROL RODS INSERTED INTO THE CORE. THE CAUSE WAS A FAILED CIRCUIT CARD IN THE ROD CONTROL SYSTEM.	
SALEM 1	12/08/00	272	1	2722000005	37579	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON LOW SG WATER LEVEL FOLLOWING CLOSURE OF THE FEEDWATER REGULATING VALVES. THE VALVE CLOSURES RESULTED FROM A FAILED OUTPUT DRIVER CIRCUIT CARD IN THE SOLID STATE PROTECTION SYSTEM.	
SALEM 2	01/03/10	311	1	3112010001	45604	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO THE LOSS OF FOUR OF THE SIX CIRC WATER PUMPS DUE TO EXCESSIVE UPTAKE OF RIVER ICE.	
SALEM 2	01/21/10	311	1	3112010002	45647	OPERATE	AUTO	FOLLOWING A FEEDWATER PUMP TRIP AND TURBINE RUNBACK, THE REACTOR AUTOMATICALLY TRIPPED ON LOW STEAM GENERATOR LEVEL. THE CAUSE OF THE PUMP TRIP WAS AN INTERNAL WIRING SHORT.	
SALEM 2	10/17/10	311	1	3112010003	46337	OPERATE	AUTO	THE REACTOR TRIPPED DUE TO A 4-KV GROUP BUS UNDERVOLTAGE. WHILE RESTORING THE VOLTAGE REGULATOR TO AUTOMATIC FOLLOWING A SWAP TO MANUAL, THE REACTOR TRIPPED AFTER RETURNING THE REGULATOR TO AUTOMATIC.	THE REACTOR TRIPPED DUE TO 4-KV BUS UNDERVOLTAGE ON THE BUSES SUPPLYING THREE OF THE RCPS.
SALEM 2	05/09/08	311	1	3112008002	44195	OPERATE	MAN	LOSS OF THE TRAVELING SCREENS RESULTED IN LOSS OF CIRCULATING WATER. WHILE POWER WAS BEING REDUCED HIGH SG LEVEL RESULTED IN A MANUAL SCRAM. THE CAUSE OF THE HIGH SG LEVEL WAS THE FEED REG VALVE SWITCHING TO MANUAL DUE TO THE STEAM FLOW SIGNAL SPIKING LO	

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SALEM 2	05/24/07	311	1	3112007002	43382	OPERATE	AUTO	A BREACH IN THE CONDENSATE SYSTEM RESULTED IN LOW FEED PUMP SUCTION PRESSURE, WHICH RESULTED IN A LOW STEAM GENERATOR LEVEL REACTOR TRIP. THIS EVENT WAS THE RESULT OF FAILURE OF A SIGHT GLASS IN THE CONDENSATE DEMINERALIZER,	
SALEM 2	08/06/07	311	1	3112007003	43550	OPERATE	AUTO	THE FEED REG VALVES CLOSED DUE TO A SPURIOUS FEEDWATER INTERLOCK SIGNAL. THE CAUSE OF THE SPURIOUS SIGNAL WAS A FAULTY SOLID STATE PROTECTION SYSTEM OUTPUT CARD. SUBSEQUENTLY, THE REACTOR TRIPPED ON LOW STEAM GENERATOR LEVEL.	
SALEM 2	09/26/06	311	1	3112006003	42864	OPERATE	MAN	THE REACTOR WAS MANUALLY SCRAMMED WHEN THE 21 RCP SEAL LEAK-OFF FLOW EXCEEDED THE PUMP TRIP CRITERIA. THE MOST PROBABLE CAUSE WAS OXYGEN INTRODUCED INTO THE RCS THAT CAUSED CORROSION PRODUCTS TO BECOME DISLODGED AND DEPOSITED ONTO THE RCP SEALS.	
SALEM 2	07/13/04	311	1	3112004006	40865	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL AFTER A FEEDWATER REGULATING VALVE FAILED TO RESPOND. THE CAUSE WAS A FAILED VALVE POSITIONER.	
SALEM 2	07/15/04	311	1	3112004007	40875	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON LOWERING SG WATER LEVEL WHEN A MAIN FEEDWATER REGULATING VALVE MALFUNCTIONED. THE CAUSE WAS VALVE POSITIONER FAILURE DUE TO STICKING OF THE POSITIONER PILOT STEM.	
SALEM 2	09/09/04	311	1	3112004008	41028	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON GENERATOR DIFFERENTIAL CURRENT AND LOSS OF FIELD. THE CAUSE WAS A GENERATOR EXCITER BRUSH FAILURE RESULTING FROM INADEQUATE MAINTENANCE.	
SALEM 2	03/29/03	311	1	3112003001	39713	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED IN RESPONSE TO LOSS OF CIRCULATING WATER PUMPS AND THE TRAVELING SCREENS. THE CAUSE WAS HEAVY GRASS AND DEBRIS INTRUSION FROM THE DELAWARE RIVER.	
SALEM 2	11/23/03	311	1	3112003003	40350	STARTUP	MAN	THE RX WAS MANUALLY TRIPPED WHEN A ROD DROPPED DURING LOW POWER PHYSICS TESTING. THE CAUSE WAS A BLOWN FUSE ON THE STATIONARY COIL RESULTING FROM INFANT MORTALITY.	
SALEM 2	12/31/01	311	1	3112001008	38599	OPERATE	AUTO	A RX TRIP OCCURRED ON OVER TEMPERATURE DELTA TEMPERATURE AFTER A PZR SPRAY VALVE FAILED OPEN. THE CAUSE WAS CYCLIC FATIGUE FAILURE OF THE STANDOFF ARM PORTION OF THE VALVE POSITION FEEDBACK ASSEMBLY TO THE POSITIONER.	
HARRIS	11/15/09	400	2	4002010002	45499	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO A LARGE LEAK ON THE MAIN TURBINE SEAL OIL/LUBE OIL SYSTEM. THE CAUSE OF THIS EVENT WAS IMPROPER MAINTENANCE ON THE AIR SIDE SEAL OIL STRAINER.	
HARRIS	08/11/08	400	2	4002008002	44404	OPERATE	MAN	WHILE SHUTTING DOWN DUE A DEGRADED CONDENSER BOOT SEAL, THE REACTOR WAS MANUALLY TRIPPED AT 21% POWER DUE TO INDICATIONS OF DEGRADED CONDENSER VACUUM.	
HARRIS	09/28/07	400	2	4002007003	43676	OPERATE	AUTO	WHILE REDUCING POWER FOR SHUTDOWN, THE STARTUP TRANSFORMER TRIPPED. THIS RESULTED IN A REACTOR TRIP ON RCP UNDERFREQUENCY.	
HARRIS	09/19/06	400	2	4002006003	42848	OPERATE	AUTO	THE REACTOR TRIPPED AUTOMATICALLY WHEN THE MAIN TURBINE TRIPPED DUE TO A GENERATOR LOCKOUT SIGNAL. THE CAUSE OF THE LOCKOUT SIGNAL WAS SELF HEATING OF THE PROTECTIVE RELAY MODULE.	

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HARRIS	05/01/05	400	2	4002005002	41654	OPERATE	MAN	MANUALLY TRIPPED REACTOR FROM 100% FOLLOWING AN AUTOMATIC TRIP OF AN OPERATING CONDENSATE PUMP. CONDENSATE PUMP B FAILED DUE TO A MOTOR SHAFT SHEAR.	
HARRIS	05/06/04	400	2	4002004003	40730	OPERATE	AUTO	A RX TRIP OCCURRED ON POWER RANGE NEGATIVE FLUX RATE TRIP SIGNAL AFTER FOUR RODS INSERTED INTO THE CORE. THE CAUSE WAS A FAILED CARD IN THE CONTROL ROD DRIVE CABINET.	
HARRIS	05/18/03	400	2	4002003001	39856	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON A SPURIOUS TURBINE OVERSPEED SIGNAL. THE MOST LIKELY CAUSE WAS AN ELECTRICAL FAILURE OF THE TURBINE OVERSPEED SENSING PROBE.	
HARRIS	05/20/03	400	2	4002003002	39864	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED AFTER LOSS OF A CONDENSATE BOOSTER PUMP RESULTED IN A TRIP OF THE OPERATING MAIN FEED PUMP. THE CAUSE WAS LOW OIL PRESSURE AFTER A RECENTLY REFURBISHED GEAR FAILED IN THE BOOSTER PUMPS VARIABLE SPEED FLUID COUPLING.	
HARRIS	06/14/03	400	2	4002003003	39938	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED IN RESPONSE TO A TRIP OF THE "B" MAIN FEEDWATER PUMP. THE CAUSE WAS A FAILED BISTABLE COMPARATOR CARD ASSOCIATED WITH THE FEEDWATER FLOW CONTROL SYSTEM.	
HARRIS	08/17/03	400	2	4002003005	40084	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED IN RESPONSE TO THE TRIP OF A CONDENSATE PUMP AND SUBSEQUENT FEED PUMP TRIP. THE SUPPLY BREAKER TRIPPED ON INSTANTANEOUS OVERCURRENT WHEN A LIGHTNING VOLTAGE SURGE OVERCAME THE MOTOR WINDING INSULATION.	
HARRIS	01/02/02	400	2	4002002001	38604	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON LOW SG WATER LEVEL AFTER A FEEDWATER REGULATOR BYPASS VALVE FAILED SHUT. THE BYPASS VALVE'S I/P CONVERTOR FAILED DUE TO AN INTERNAL AIR BLOCKAGE.	
HARRIS	07/13/02	400	2	4002002002	39057	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON A MAIN TURBINE DIGITAL ELECTRIC HYDRAULIC CONTROL SYSTEM MALFUNCTION DURING INITIATION OF A DOWNPOWER FOR TESTING. THE CAUSE WAS A VOLTAGE/FREQUENCY UNIT FAILURE THAT RESULTED IN THE GOVERNOR VALVES GOING SHUT.	
HARRIS	08/15/02	400	2	4002002003	39132	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW BUS VOLTAGE FOR TWO OF THREE RX COOLANT PUMPS. THE CAUSE WAS A SIGNIFICANT, SHORT-DURATION GRID DISTURBANCE GENERATED WHEN A FAULTED TRANSFORMER WAS ENERGIZED TO A 230 KV BUS APPROXIMATELY TWENTY MILES OFFSITE.	
HARRIS	06/20/00	400	2	4002000005	37097	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON LOW SG LEVEL FOLLOWING THE INADVERTENT CLOSURE OF A MAIN FEEDWATER ISOLATION VALVE. THE CAUSE WAS A RANDOM MANUFACTURING DEFECT OF A DIODE IN A SOLENOID VALVE FOR THE MAIN FEEDWATER ISOLATION VALVE ACTUATOR.	
ST. LUCIE 1	06/16/10	335	2	3352010006	46018	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED WHEN TWO CONTROL RODS DROPPED WITHIN A SHORT PERIOD. THE CAUSE OF THE CONTROL ROD DROPS WAS FAILURE OF UNDER-RATED POWER SWITCH SNUBBING CAPACITORS.	
ST. LUCIE 1	10/24/02	335	2	3352002002	39316	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON DECREASING SG WATER LEVEL DURING A STARTUP. THE CAUSE WAS FAILURE OF THE MAIN TURBINE VALVES TO LATCH WHICH RESULTED IN A FEEDWATER TRANSIENT AND SUBSEQUENT FEEDPUMP TRIP.	

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ST. LUCIE 1	06/05/01	335	2	3352001007	38053	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW RX COOLANT FLOW FOLLOWING A RCP TRIP. THE MOST PROBABLE CAUSE WAS THE SPURIOUS ACTUATION OF A MOTOR PROTECTIVE RELAY DEVICE.	
ST. LUCIE 2	04/15/10	389	2	3892010002	45843	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FOLLOWING A RAPID POWER REDUCTION DUE TO THE LIFTING OF A MOISTURE SEPARATOR REHEATER RELIEF VALVE.	
ST. LUCIE 2	04/01/09	389	2	3892009002	44952	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO LOWERING CONDENSER VACUUM. THE LOWERING VACUUM WAS CAUSED BY THE INGRESS OF ALGAE AND SEAWEED INTO THE CIRCULATING WATER SYSTEM.	
ST. LUCIE 2	06/04/08	389	2	3892008002	44268	OPERATE	MAN	A MAIN FEEDWATER PUMP TRIPPED DUE TO LOSS OF A HEATER DRAIN PUMP. SUBSEQUENTLY, THE REACTOR WAS MANUALLY TRIPPED DUE TO DECREASING STEAM GENERATOR LEVELS.	
ST. LUCIE 2	06/07/08	389	2	3892008003	44276	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FLOWING LOSS OF A CONDENSATE PUMP AND THE SUBSEQUENT LOSS OF A MAIN FEEDWATER PUMP. THE PUMP FAILED DUE TO MOTOR LEADS OVERHEATING AND FAILING CAUSE BY UNDETECTED EPOXY RESIN INTRODUCED TO THE CABLES DURING MANUFACTURING.	
ST. LUCIE 2	06/15/06	389	2	3892006004	42647	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON A DEH LEAK ON THE NUMBER ONE THROTTLE VALVE.	
ST. LUCIE 2	08/11/05	389	2	3892005003	41911	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON DECREASING SG WATER LEVEL FOLLOWING A PARTIAL LOSS OF FEED. THE CAUSE WAS PERSONNEL ERROR WHEN AN INCORRECT BREAKER CUBICAL DOOR WAS OPENED AND A LOCKOUT RELAY SPURIOUSLY ACTUATED WHEN THE DOOR WAS CLOSED.	
ST. LUCIE 2	12/25/04	389	2	3892004004	41293	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED TO REMOVE A FAILING CONDENSATE PUMP FROM SERVICE. THE CAUSE WAS A FAILED MOTOR LEAD TERMINATION TO THE FIELD CABLE RESULTING FROM INCORRECT ORIGINAL CONSTRUCTION.	
ST. LUCIE 2	12/27/04	389	2	3892004005	41297	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON LOW SG WATER LEVEL AFTER THE ONLY OPERATING FEEDPUMP TRIPPED ON HIGH SG WATER LEVEL. THE CAUSE WAS FAILURE OF PERSONNEL TO CLOSE THE FEEDWATER REG VALVE BLOCK VALVES COMBINED WITH A FEEDWATER CONTROL SYSTEM MALFUNCTION.	
ST. LUCIE 2	04/01/03	389	2	3892003001	39720	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON DECREASING CONDENSER VACUUM. THE CAUSE WAS A CORROSION INDUCED THROUGH WALL HOLE IN THE STEAM JET AIR EJECTOR PIPING AND A DEGRADED "2A" HOGGER RESULTING FROM AN OUT OF CALIBRATION STEAM SUPPLY PRESSURE GAGE.	
ST. LUCIE 2	06/11/03	389	2	3892003003	39917	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON HIGH SG WATER LEVEL FOLLOWING A FEEDWATER TRANSIENT. THE STEM OF THE LOW POWER FEEDWATER REGULATING VALVE SEPARATED FROM THE VALVE WHICH CAUSED THE VALVE TO CLOSE WHILE STILL HAVING AN OPEN INDICATION.	
ST. LUCIE 2	12/04/03	389	2	3892003004	40375	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO A FAILING CONDENSATE PUMP BEARING. THE BEARING WAS HOT AND SMOKING. THE CAUSE WAS INADEQUATE LUBRICATION RESULTING FROM FAULTY PLANT PROCEDURES.	

PLANT NAME	EVENT DATE	DOCKET	REGION	Licensee Event Report Number	Event Notification	UNIT MODE	SCRAM	Scram Cause / Description	NOTES
ST. LUCIE 2	12/20/03	389	2	3892003005	40403	OPERATE	AUTO	A RX TRIP OCCURRED ON LOSS OF GENERATOR FIELD CURRENT. THE CAUSE WAS FAILURE OF THE MAIN GENERATOR VOLTAGE REGULATOR CURRENT REGULATOR MODULE.	
ST. LUCIE 2	03/14/01	389	2	3892001001	37841	OPERATE	AUTO	A RX TRIP OCCURRED WHEN BOTH CONTROL ELEMENT ASSEMBLY MG SET OUTPUT BREAKERS OPENED. THE CAUSE WAS FAILURE OF A CEA MG SET VOLTAGE REGULATOR RESULTING FROM LONG TERM HEAT RELATED DEGRADATION.	
SEQUOYAH 1	11/16/10	327	2	3272010002	46424	OPERATE	MAN	A MOISTURE SEPARATOR RELIEF VALVE LIFTED AND WOULD NOT RESEAT. AFTER THE TURBINE WAS TRIPPED, THE AUTOMATIC AND MANUAL S/G LEVEL CONTROL COULD NOT MAINTAIN S/G LEVEL. THE REACTOR WAS THEN MANUALLY TRIPPED DUE TO LOW S/G LEVEL.	
SEQUOYAH 1	12/20/10	327	2	3272010003	46492	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED WHEN A FIRE WAS REPORTED IN THE MAIN GENERATOR BUS DUCT. POWER WAS REMOVED FROM THE BUS DUCT AND THE FIRE EXTINGUISHED USING WATER.	
SEQUOYAH 1	03/26/09	327	2	3272009003	44934	OPERATE	AUTO	LOSS OF POWER TO THE REACTOR COOLANT PUMPS RESULTED IN AN AUTOMATIC REACTOR TRIP. THE CAUSE OF THE POWER LOSS WAS LOSS OF COMMON SERVICE STATION TRANSFORMER C. THE CAUSE OF THE TRANSFORMER LOAA WAS A FAULT ON THE SECONDARY SIDE OF CSST D.	
SEQUOYAH 1	04/28/09	327	2	3272009004	45029	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO LOSS OF CONDENSATE FLOW. THE LOSS OF CONDENSATE WAS CAUSED BY A MANUAL MAIN TURBINE TRIP IN RESPONSE TO A FAILED OPEN MOISTURE SEPARATOR REHEATER RELIEF VALVE.	
SEQUOYAH 1	05/06/09	327	2	3272009005	45045	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FOLLOWING FAILURE OF A FEEDWATER REGULATING VALVE. THE MFRV FAILED DUE TO A RUPTURED DIAPHRAGM CAUSED BY INSUFFICIENT TORQUE APPLIED TO THE FASTENING SCREW.	
SEQUOYAH 1	01/16/08	327	2	3272008001	43909	OPERATE	MAN	DURING TESTING OF A STEAM GENERATOR PRESSURE CHANNEL, THE LOOP 3 MAIN FEED REG VALVE WENT CLOSED. THE REACTOR WAS MANUALLY TRIPPED ON LOWERING STEAM GENERATOR LEVEL.	
SEQUOYAH 1	04/09/05	327	2	3272005001	41583	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON LOW TURBINE AUTO STOP OIL PRESSURE. THE CAUSE WAS A FAILED GASKET RESULTING FROM IMPROPER MACHINING OF THE TURBINE FRONT PEDESTAL OIL PORTS DURING ORIGINAL MANUFACTURE.	
SEQUOYAH 1	03/15/04	327	2	3272004001	40589	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON A MAIN GENERATOR ELECTRICAL FAULT. THE CAUSE WAS IMPROPER CABLE ABANDONMENT DURING A DESIGN CHANGE THAT RESULTED IN A GROUND AND GENERATOR PROTECTION RELAY ACTUATION.	
SEQUOYAH 1	08/28/03	327	2	3272003001	40113	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED 20 SECONDS AFTER A LOSS OF LOAD WHEN THE GENERATOR TRIPPED DURING TESTING. THE CAUSE WAS AN ISOLATED TURBINE AUTO STOP OIL PRESSURE SWITCH RESULTING FROM INADEQUATE VALVE VERIFICATION AND CONFIGURATION CONTROL.	
SEQUOYAH 1	03/21/00	327	2	3272000003	36819	OPERATE	AUTO	A TURBINE TRIP/RX TRIP RESULTED FROM AN INVALID LOSS OF MAIN GENERATOR EXCITATION SIGNAL. BECAUSE OF A WIRING ERROR IN A RECENTLY INSTALLED DESIGN CHANGE, TWO PROTECTIVE RELAYS ACTUATED WHEN A LOSS OF EXCITATION DID NOT EXIST.	

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SEQUOYAH 1	09/25/00	327	2	3272000004	37375	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG LEVEL AFTER A MFP TRIPPED ON LOW CONTROL OIL PRESSURE. THE CAUSE WAS A FAILURE OF THE ASSOCIATED MAIN OIL PUMP. THE REMAINING MFP DID NOT PROVIDE SUFFICIENT FEEDWATER BECAUSE OF AN INCORRECT TURBINE GOVERNOR ADJUSTMENT.	
SEQUOYAH 2	03/26/09	328	2	3272009003	44935	OPERATE	AUTO	LOSS OF POWER TO THE REACTOR COOLANT PUMPS RESULTED IN AN AUTOMATIC REACTOR TRIP. THE CAUSE OF THE POWER LOSS WAS LOSS OF COMMON SERVICE STATION TRANSFORMER C. THE CAUSE OF THE TRANSFORMER LOSS WAS A FAULT ON THE SECONDARY SIDE OF CSST D.	
SEQUOYAH 2	05/27/09	328	2	3282009001	45097	OPERATE	AUTO	DURING SEVERE WEATHER (A LIGHTNING STORM), THE REACTOR AUTOMATICALLY TRIPPED ON POWER RANGE HIGH NEGATIVE FLUX RATE. THE CAUSE OF THE SCRAM WAS LOSS OF A CONTROL ROD BANK DUE TO A HIGH VOLTAGE FLUCTUATION ON THE CONTROL ROD POWER CABLES.	
SEQUOYAH 2	11/26/09	328	2	3282009002	45520	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DURING STARTUP WHEN THE RUNNING TURBINE-DRIVEN FEEDWATER PUMP BEGAN LOSING VACUUM. THE VACUUM LOSS WAS CAUSED BY CLOSED ISOLATION VALVES ON A LEVEL SWITCH ON THE GLAND SEAL STEAM SYSTEM.	
SEQUOYAH 2	11/03/08	328	2	3282008001	44627	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED WHEN THE LOOP-4 FEEDWATER REG VALVE FAILED IN BOTH AUTOMATIC AND MANUAL CONTROL MODES.	
SEQUOYAH 2	01/23/07	328	2	3282007001	42115	OPERATE	AUTO	THE REACTOR TRIPPED FROM STEAM GENERATOR LOW LEVEL WHEN THE MAIN FEEDWATER REGULATING VALVE FAILED CLOSED. THE FEEDWATER REGULATING VALVE FAILED WHEN ITS AIR SUPPLY LINE SEVERED. THE AIR LINE HAD BEEN LEAKING AND REPAIR EFFORTS WERE UNDERWAY.	
SEQUOYAH 2	03/13/07	328	2	3282007002	43233	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO A MAIN FEEDWATER PUMP TURBINE MALFUNCTION. THE PROBLEM WAS DETERMINED TO BE FAILURE OF A LOCAL/REMOTE SWITCH INTERNAL TO THE SPEED INDICATING CONTROLLER.	
SEQUOYAH 2	03/22/06	328	2	3282006001	42444	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON A MAIN GENERATOR NEUTRAL OVERVOLTAGE RELAY. AN ISOLATED PHASE BUS DUCT GASKET CAME LOOSE AND CAUSED A GROUND. THE ROOT CAUSE WAS INEFFECTIVE CORRECTIVE ACTION OF A PREVIOUS SIMILAR EVENT.	
SEQUOYAH 2	02/23/05	328	2	3282005001	41437	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL AFTER ALL FOUR FEEDWATER REGULATING VALVES CLOSED ON LOSS OF CONTROL POWER. A BREAKER WAS INADVERTENTLY OPENED DURING MAINTENANCE.	
SEQUOYAH 2	03/10/03	328	2	3282003004	39653	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED AFTER A FEEDWATER PUMP TRIP AND UNIT RUNBACK. THE CAUSE WAS A SEQUENCE OF EVENTS RESULTING FROM THE "2B" HOTWELL PUMP TRIPPING ON NEUTRAL OVERCURRENT AND ACTION TO REPAIR THE NUMBER SEVEN HEATER DRAIN TANK OUTLET VALVE.	
SEQUOYAH 2	04/12/03	328	2	3282003005	39753	OPERATE	AUTO	A RX/TURBINE TRIP OCCURRED ON A SPURIOUS HIGH MAIN TURBINE VIBRATION SIGNAL DURING MAINTENANCE ON THE TURBINE VIBRATION DRAWER. THE CAUSE WAS A GROUND ON THE MAIN TURBINE VIBRATION DRAWER RESULTING FROM PINCHED WIRING.	

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SEQUOYAH 2	05/19/02	328	2	3282002002	38928	STARTUP	MAN	THE RX WAS MANUALLY TRIPPED FOLLOWING A CONTROL ROD SYSTEM URGENT FAILURE ALARM DURING LOW POWER PHYSICS TESTING. THE MOST LIKELY CAUSE WAS INTERMITTENT FAILURE OF THE MULTIPLEXING RELAY IN THE ROD CONTROL SYSTEM.	
SEQUOYAH 2	05/31/02	328	2	3282002003	38954	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON AN ACTUATION OF THE MAIN GENERATOR STATOR COOLING WATER FAILURE CIRCUIT. THE CAUSE WAS A RAW COOLING WATER ISOLATION VALVE FAILURE CAUSING LOW FLOW TO THE STATOR COOLING WATER SYSTEM HEAT EXCHANGER.	
SEQUOYAH 2	07/12/02	328	2	3272002004	39056	OPERATE	AUTO	A RX TRIP OCCURRED ON RCP BUS UNDERVOLTAGE FOLLOWING THE LOSS OF A START BUS WHEN THE ALTERNATE FEEDER BREAKER ATTEMPTED TO CLOSE WHILE BEING RACKED INTO THE CONNECT POSITION. THE CAUSE WAS FAILURE OF THE BREAKER TO FUNCTION PROPERLY.	A FEEDWATER ISOLATION OCCURRED AND AFW STARTED FOLLOWING THE RX TRIP.
SEQUOYAH 2	12/26/02	328	2	3282002004	39473	OPERATE	AUTO	A RX TRIP OCCURRED FOLLOWING A RCP TRIP. THE CAUSE WAS A GROUND ON THE RCP MOTOR WINDING.	
SEQUOYAH 2	01/18/00	328	2	3282000001	36602	OPERATE	AUTO	A TURBINE TRIP/RX TRIP OCCURRED ON LOW SG WATER LEVEL. A LOSS OF VITAL INSTRUMENT POWER CAUSED A FEEDWATER REGULATING VALVE TO SHUT, RESULTING IN A LOSS OF FEEDWATER TO THE ASSOCIATED SG. THE CAUSE WAS A VITAL INVERTER CONTROL CIRCUIT FAILURE.	NO CHANGES.
SEQUOYAH 2	11/17/00	328	2	3282000004	37530	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED DUE TO A SUDDEN PRESSURE RELAY ACTUATION ON ONE PHASE OF THE MAIN TRANSFORMER. THE CAUSE WAS A MAIN TRANSFORMER ELECTRICAL FAULT RESULTING FROM A FAILED 24 KV BUSHING.	
SAN ONOFRE 2	09/13/09	361	4	3612009001	45347	OPERATE	AUTO	THE REACTOR TRIPPED DUE TO LOSS OF CONDENSER VACUUM. THE LOSS OF CONDENSER VACUUM WAS CAUSED BY A MAIN CIRCULATING WATER GATE VALVE FAILING AT 45% DURING A HEAT TREAT PROCESS.	
SAN ONOFRE 2	06/05/08	361	4	3612008004	44273	OPERATE	AUTO	DURING STATOR WATER LOW FLOW TESTING, A TURBINE TRIP AND SUBSEQUENT REACTOR TRIP OCCURRED DUE TO LOW COOLING FLOW TO THE MAIN GENERATOR RECTIFIER.	
SAN ONOFRE 2	06/20/07	361	4	3612007001	43435	OPERATE	MAN	FAILURE OF AN INSTRUMENT AIR BRAZED JOINT RESULTED IN LOSS OF STEAM GENERATOR LEVEL CONTROL. THE REACTOR AND MAIN FEED PUMPS WERE MANUALLY TRIPPED BECAUSE OF EXCESS FEED FLOW TO THE STEAM GENERATORS.	
SAN ONOFRE 2	02/03/05	361	4	3612005001	41368	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON A MAIN GENERATOR TRIP AFTER THE AUXILIARY TRANSFORMER TRIPPED ON HIGH DIFFERENTIAL CURRENT. THE MOST LIKELY CAUSE WAS AN INVALID SIGNAL INTRODUCED DURING DIFFERENTIAL RELAY TESTING, WHICH WAS IN PROGRESS.	
SAN ONOFRE 2	04/10/04	361	4	3612004002	40664	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED FOLLOWING THE LOSS OF BOTH FEEDWATER PUMPS ON HIGH DISCHARGE PRESSURE WHEN A MAIN FEEDWATER REGULATING VALVE AND ASSOCIATED DISCHARGE VALVE BEGAN CLOSING. THE CAUSE WAS TWO CONCURRENT ELECTRICAL GROUNDS IN THE CONTROL SYSTEM.	
SAN ONOFRE 2	11/19/04	361	4	3612004004	41209	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON A MAIN GENERATOR TRIP. SEVERAL VANES OF THE ISOPHASE BUS DUCT DE-IONIZING FILTERS FAILED (METAL FATIGUE) AND SHORTED THE "A" PHASE TO GROUND.	

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SAN ONOFRE 2	02/01/03	361	4	3612003001	39553	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED AFTER ACTUATION OF THE GENERATOR LOSS OF FIELD RELAY. THE CAUSE WAS AN INCORRECT CONNECTION TO THE FIELD SUPPRESSION RELAY FOR THE MAIN GENERATOR DURING TESTING.	
SAN ONOFRE 2	06/30/02	361	4	3612002003	39032	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG PRESSURE WHEN TWO ADDITIONAL STEAM DUMP VALVES UNEXPECTEDLY OPENED DURING A STARTUP. THE CAUSE WAS IMPROPER ADJUSTMENT OF THE STEAM BYPASS CONTROL SYSTEM DYNAMIC RESPONSE MODULE DUE TO AN INADEQUATE PROCEDURE.	
SAN ONOFRE 2	11/02/02	361	4	3612002006	39340	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL RESULTING FROM THE MOMENTARY CLOSURE OF A MAIN FEEDWATER REGULATING VALVE WHEN A MAIN FEEDWATER CONTROLLER CARD FAILED.	
SAN ONOFRE 2	11/04/02	361	4	3612002007	39343	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON DECREASING PRIMARY SYSTEM PRESSURE WHEN THE PZR SPRAY VALVE FAILED TO 47% OPEN AND MECHANICALLY BOUND. THE CAUSE HAS NOT YET BEEN DETERMINED BUT TESTING AND OBSERVATION SUGGEST INTERNAL BINDING.	
SAN ONOFRE 3	06/04/04	362	4	3622004001	40791	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED FOLLOWING INTAKE STRUCTURE SEAWEED FOULING WHILE CONDITIONS CONTINUED TO DEGRADE.	
SAN ONOFRE 3	02/27/02	362	4	3622002001	38730	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON A LOSS OF OFFSITE POWER WHEN A BUS TRIPPED DURING SWITCHYARD MAINTENANCE AND TESTING. THE CAUSE WAS PERSONNEL ERROR WHEN A NON-UTILITY TECHNICIAN PERFORMED WORK OUTSIDE THE AUTHORIZED CLEARANCE BOUNDARY.	
SAN ONOFRE 3	02/03/01	362	4	3622001001	37713	OPERATE	AUTO	A RX TRIP OCCURRED DUE TO LOW RCP SPEED. THE CAUSE WAS A FAULTED FEEDER BREAKER, WHICH STARTED A FIRE WHILE SWITCHING OFFSITE POWER SOURCES. DURING THE SUBSEQUENT ELECTRIC PLANT SHIFT, THE RCP SUPPLY BUSES SLOW TRANSFERRED TO A UNIT 2 AUX TRANSFORMER.	
SURRY 1	04/16/11	280	2		46761	OPERATE	AUTO	FOLLOWING A LOSS OF OFFSITE POWER DUE TO A TORNADO TOUCHING DOWN IN THE SWITCHYARD, UNIT ONE IS BEING SUPPLIED POWER FROM THE 1EDG AND THE SBO DIESEL.	
SURRY 1	06/08/10	280	2	2802010003	45986	OPERATE	AUTO	THE REACTOR TRIPPED ON STEAM FLOW/FEED FLOW MISMATCH. THE EVENT WAS THE RESULT OF LOSS OF A VITAL 120VAC BUS. THE BUS LOSS WAS CAUSED BY THE FAILURE OF A UPS INVERTER WHICH OCCURRED WHILE THE BUS'S ALTERNATE POWER SOURCE WAS OUT OF SERVICE FOR MAINT.	
SURRY 1	04/20/08	280	2	2802008001	44152	OPERATE	MAN	DURING POWER RAMP UP AT 37% POWER MAIN TURBINE VIBRATIONS BECAME EXCESSIVE. WHILE DECREASING POWER FOR A RAPID LOAD REDUCTION, THE REACTOR WAS MANUALLY TRIPPED DUE TO HIGH SUSTAINED VIBRATIONS.	
SURRY 1	01/14/03	280	2	2802003001	39507	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON HIGH RCP SHAFT VIBRATIONS ON "C" RCP FOLLOWED BY INCREASED LOWER RADIAL BEARING TEMPERATURES. THE CAUSE WAS A SLOW LOSS OF OIL IN THE RCP MOTOR LOWER OIL RESERVOIR AND RESULTING LOWER RADIAL BEARING FAILURE.	
SURRY 1	01/25/03	280	2	2802003002	39535	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL DURING POWER ASCENSION WITH SG WATER LEVEL CONTROL IN MANUAL. THE CAUSE WAS INADEQUATE MODIFICATION OF THE FWRVS.	

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SURRY 1	06/13/03	280	2	2802003003	39932	STARTUP	MAN	THE RX WAS MANUALLY TRIPPED ON INDICATION OF A MISALIGNED ROD DURING PHYSICS TESTING. THE CAUSE WAS AN ELECTRICAL CONNECTOR PIN WHICH WAS PARTIALLY RECESSED AND NOT MAKING A GOOD CONNECTION.	
SURRY 1	09/18/03	280	2	2802003004	40168	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED AFTER A LOSS OF POWER TO TWO BUSES WHICH SUPPLY POWER TO ALL EIGHT CIRCULATING WATER PUMPS FOR BOTH UNITS. THE LOSS OCCURRED DURING HIGH WINDS AND RAIN ASSOCIATED WITH HURRICANE ISABEL.	
SURRY 1	10/24/00	280	2	2802000004	37453	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL FOLLOWING A LOSS OF TURBINE LOAD. THE CAUSE WAS PERSONNEL ERROR WHEN WORK INTENDED FOR THE UNIT 2 EHC SYSTEM WAS PERFORMED ON THE UNIT 1 EHC SYSTEM.	
SURRY 2	02/02/11	281	2	2812011001	46584	OPERATE	AUTO	THE REACTOR TRIPPED ON "LOOP C LOW FLOW." C LOOP RCS FLOW WAS INDICATING 25% ON ALL THREE CHANNELS. THE LOW FLOW CONDITION WAS CAUSED BY THE C LOOP STOP VALVE'S DISC ASSEMBLY SEPARATING FROM ITS STEM AND DROPPING INTO THE FLOW STREAM.	
SURRY 2	11/29/09	281	2	2812009001	45528	STARTUP	MAN	DURING STARTUP PHYSICS TESTING, THE REACTOR WAS MANUALLY TRIPPED WHEN A DISCREPENCY WAS IDENTIFIED BETWEEN THE GROUP 1 AND GROUP 2 STEP DEMAND COUNTERS.	
SURRY 2	10/07/06	281	2	2812006002	42888	OPERATE	MAN	THE MAIN TURBINE SAFETY RELIEF VALVES LIFTED FOR UNKNOWN REASONS. THE OPERATOR THEN MANUALLY SCRAMMED THE REACTOR DUE TO S/G LEVEL FLUCTUATIONS AND UNUSUAL NOISE COMING FROM THE TURBINE BUILDING.	
SURRY 2	05/21/04	281	2	2812004001	40769	OPERATE	AUTO	A RX TRIP OCCURRED ON A MAIN GENERATOR DIFFERENTIAL LOCKOUT RELAY TRIP AFTER A MAIN GENERATOR OUTPUT LEAD COUPLING CAPACITOR VOLTAGE TRANSFORMER IN THE SWITCHYARD FAILED. THE CAUSE WAS AGE RELATED DEGRADATION.	
SURRY 2	01/25/03	281	2	2812003001	39536	OPERATE	AUTO	A RX TRIP OCCURRED ON A MAIN GENERATOR TRIP DUE TO A DIFFERENTIAL LOCKOUT. THE CAUSE WAS A SHORTED MAIN GENERATOR CURRENT TRANSFORMER LEAD RESULTING WHEN A CONDUIT FITTING SEPARATED FROM A JUNCTION BOX.	
SURRY 2	09/18/03	281	2	2802003004	40168	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED AFTER A LOSS OF POWER TO TWO BUSES WHICH SUPPLY POWER TO ALL EIGHT CIRCULATING WATER PUMPS FOR BOTH UNITS. THE LOSS OCCURRED DURING HIGH WINDS AND RAIN ASSOCIATED WITH HURRICANE ISABEL.	
SURRY 2	11/23/02	281	2	2812002003	39401	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL AFTER ALL FOUR TURBINE GOVERNOR VALVES CLOSED DURING TURBINE VALVE TESTING. THE EVENT WAS CAUSED WHEN A TURBINE VALVE LIMITER FAILED TO ZERO DUE TO AN ELECTRICAL FAILURE IN THE ELECTROHYDRAULIC CONTROL CABINET.	
SOUTH TEXAS 1	08/20/10	498	4	4982010003	46191	OPERATE	AUTO	THE REACTOR TRIPPED DUE TO A HUMAN ERROR WHILE PERFORMING SURVEILLANCE TESTING ON THE SOLID STATE PROTECTION SYSTEM.	SPURIOUS REACTOR TRIP DURING SSPS SURVEILLANCE TESTING.
SOUTH TEXAS 1	01/23/04	498	4	4982004001	40473	OPERATE	AUTO	A RX TRIP OCCURRED ON HIGH SG WATER LEVEL FOLLOWING THE FAILURE OF A CLASS 1E 7.5 KV INVERTER.	

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SOUTH TEXAS 1	03/01/03	498	4	4982003002	39629	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON DECREASING DEAEERATOR LEVEL AFTER THE CONDENSATE POLISHING SERVICE VESSEL OUTLET VALVES AND THE SYSTEM BYPASS VALVE CLOSED, ISOLATING FLOW TO THE DEAEERATOR. THE CAUSE WAS A FAILED 24 VDC POWER SUPPLY.	
SOUTH TEXAS 1	11/16/02	498	4		39380	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO A LOSS OF OPEN LOOP COOLING WHICH SUPPLIES AUXILIARY COOLING TO THE MAIN GENERATOR. A FOUR TO SIX INCH CRACK IN CIRCULATING WATER PUMP "11" WAS FOUND.	
SOUTH TEXAS 1	12/16/00	498	4	4982000007	37608	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED AFTER ALL MAIN TURBINE GOVERNOR VALVES SHUT DURING PREPARATIONS FOR MONTHLY TURBINE VALVE TESTING. THE CAUSE WAS A FAILURE OF A LOGIC CARD IN THE ANALOG ELECTRO-HYDRAULIC CONTROLLER.	
SOUTH TEXAS 2	11/03/10	499	4	4992010005	46387	OPERATE	AUTO	THE STARTUP FEEDWATER PUMP BREAKER EXPLODED CAUSING AN UNDERVOLTAGE CONDITION ON THE 1H BUSES. THE REACTOR TRIPPED ON A REACTOR COOLANT PUMP UNDERVOLTAGE CONDITION.	
SOUTH TEXAS 2	06/14/02	499	4	4992002002	38991	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED FOLLOWING THE CLOSURE OF A FEEDWATER ISOLATION VALVE DURING A PARTIAL STROKE SURVEILLANCE TEST OF THE VALVE. THE CAUSE WAS A SHORTED SURGE SUPPRESSION DEVICE IN THE VALVES CONTROL CIRCUIT.	
SOUTH TEXAS 2	07/07/02	499	4	4992002003	39045	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON HIGH SG WATER LEVEL FOLLOWING A LOSS OF POWER TO SG WATER LEVEL CONTROL SYSTEM. THE CAUSE WAS A VOLTAGE TRANSIENT RESULTING FROM A FAILED BREAKER.	CHANGED DESCRIPTION FIELD CAUSE SLIGHTLY PER REV. 1
SOUTH TEXAS 2	12/15/02	499	4	4992002004	39448	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON HIGH MAIN TURBINE VIBRATION. A BLADE HAD CRACKED AND BROKEN OFF AND WAS EJECTED FROM THE LOW PRESSURE TURBINE INTO THE CONDENSER. ADDITIONAL CRACKED BLADES WERE FOUND. THE CAUSE WAS A DESIGN FLAW WITH THE ROTOR TRAIN.	CONDENSER VACUUM WAS SECURED AND MSIV'S ISOLATED TO REDUCE MAIN TURBINE SPEED QUICKER.
SOUTH TEXAS 2	02/07/01	499	4	4992001001	37726	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED FOLLOWING THE LOSS OF A RCP DURING AN ELECTRICAL BUS REALIGNMENT. SEVERAL BUSES WERE INADVERTENTLY DEENERGIZED BY OPERATOR ERROR DURING THE BUS REALIGNMENT.	
SOUTH TEXAS 2	03/01/01	499	4	4992001002	37794	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO A FAILURE OF A SWITCHYARD BREAKER AND SUBSEQUENT LOSS OF ALL OPERATING CIRC WATER PUMPS. THE BREAKER'S LINKAGE MECHANISM FAILED WHEN A CONNECTION PIN FELL OUT. A REQUIRED BUSHING WAS MISSING, PROBABLY SINCE FABRICATION.	
SOUTH TEXAS 2	05/08/01	499	4	4992001004	37975	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL WHEN A FEED WATER REGULATING VALVE WENT FULLY CLOSED DURING MAINTENANCE ON THE VALVES DIGITAL CONTROL SYSTEM. THE CAUSE WAS A TEST EQUIPMENT INDUCED GROUND PATH RESULTING FROM AN INADEQUATE WORK CONTROL PROCESS.	
THREE MILE ISL 1	11/02/06	289	1	2892006002	42957	OPERATE	AUTO	THE REACTOR TRIPPED FROM 100% POWER DURING TESTING ON THE DIGITAL TURBINE CONTROL SYSTEM. THE SCRAM OCCURRED FOLLOWING A TURBINE TRIP DUE TO AN INVALID LOW CONDENSER VACUUM SIGNAL.	

PLANT NAME	EVENT DATE	DOCKET	REGION	Licensee Event Report Number	Event Notification	UNIT MODE	SCRAM	Scram Cause / Description	NOTES
THREE MILE ISL 1	12/13/06	289	1	2892006003	43050	OPERATE	AUTO	A GRID DISTURBANCE RESULTED IN THE REACTOR PROTECTION SYSTEM AUTOMATICALLY TRIPPING THE REACTOR. THE POWER DISTURBANCE AFFECTED THE POWER TO THE REACTOR COOLANT PUMPS RESULTING IN THE REACTOR COOLANT PUMP POWER MONITORS ACTUATING A REACTOR TRIP.	
TURKEY POINT 3	03/06/11	250	2		46660	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED FOLLOWING A RAPID POWER REDUCTION DUE TO SODIUM LEVELS IN THE STEAM GENERATORS EXCEEDING THEIR LIMITS.	
TURKEY POINT 3	09/23/10	250	2	2502010003	46274	OPERATE	AUTO	THE REACTOR TRIPPED DUE TO INADVERTENT ENERGIZATION OF THE GENERATOR TRIP. THE GENERATOR TRIP WAS CAUSED BY AN EXTERNAL ELECTRICAL FLASHOVER ON THE HIGH SIDE OF THE GENERATOR STEP UP TRANSFORMER.	
TURKEY POINT 3	11/15/10	250	2	2502010006	46419	OPERATE	MAN	WITH ONE CIRC WATER PUMP OUT FOR MAINTENANCE, ANOTHER CIRC WATER PUMP DEVELOPED AN OVERHEATED PACKING GLAND. WITH ONLY TWO CIRC WATER PUMPS OPERABLE, THE OPERATORS MANUALLY TRIPPED THE REACTOR.	
TURKEY POINT 3	02/26/08	250	2	2502008001	44009	OPERATE	AUTO	A MOMENTARY POWER FLUCTUATION CAUSED BY GRID INSTABILITY CAUSED THE REACTOR TO TRIP.	
TURKEY POINT 3	10/15/05	250	2	2502005005	42056	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON DECREASING SG WATER LEVEL. LEVEL WAS RESTORED USING AUXILIARY AND MAIN FEED. THE ROOT CAUSE WAS POOR WORK INSTRUCTIONS, WHICH ALLOWED THE FEEDWATER FLOW CONTROL VALVE POSITIONER TO BE INSTALLED WITH SOME LOOSENESS.	
TURKEY POINT 3	12/14/04	250	2	2502004006	41257	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED WHEN A FIRE BROKE OUT NEAR THE NUMBER TWO BEARING HOUSING ON THE HIGH PRESSURE TURBINE AND LASTED ABOUT FOUR MINUTES. THE CAUSE WAS A SEAL OIL LEAK RESULTING FROM POOR WORKMANSHIP DURING A TURBINE SEAL OVERHAUL.	
TURKEY POINT 3	12/28/04	250	2	2502004007		OPERATE	MAN	THE RX WAS MANUALLY TRIPPED WHEN TURBINE PLANT COOLING WATER LEAKAGE EXCEEDED THE MAKEUP CAPABILITY OF THE SURGE TANK. THE CAUSE WAS A FAILED GASKET.	
TURKEY POINT 3	11/29/04	250	2	2502004004	41225	STARTUP	MAN	THE RX WAS MANUALLY TRIPPED WHEN A ROD DROPPED DURING LOW POWER PHYSICS TESTING. THE CAUSE WAS INTERMITTENT CONTACT IN A PIN IN THE CRDM COIL STACK CONNECTOR ASSOCIATED WITH ROD E-11. THIS IS THE FIRST OF TWO SIMILAR EVENTS.	
TURKEY POINT 3	11/30/04	250	2	2502004004	41232	STARTUP	MAN	THE RX WAS MANUALLY TRIPPED WHEN A ROD DROPPED DURING LOW POWER PHYSICS TESTING. THE CAUSE WAS INTERMITTENT CONTACT IN A PIN IN THE CRDM COIL STACK CONNECTOR ASSOCIATED WITH ROD E-11. THIS IS THE SECOND OF TWO SIMILAR EVENTS.	
TURKEY POINT 3	01/27/03	250	2	2502003002	39538	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON LOW SG WATER LEVEL FOLLOWING A LOSS OF INSTRUMENT AIR WHICH CAUSED THE AIR OPERATED MAIN FEEDWATER REGULATING VALVES TO DRIFT CLOSED. ONE COMPRESSOR WAS OUT OF SERVICE WHEN THE MOTOR SEIZED ON THE OPERATING COMPRESSOR.	NO CHANGES PER REV 1.
TURKEY POINT 3	08/15/01	250	2	2502001003	38209	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON A LOSS OF CONDENSER VACUUM DURING A LOAD REDUCTION. THE CAUSE WAS INADEQUATELY DESIGNED LINES FOR THE CONTROL ROOM CONDENSER VACUUM INSTRUMENTATION AND THE TURBINE LOW VACUUM ALARM.	

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TURKEY POINT 4	01/11/10	251	2	2512010002	45619	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED ON HIGH STEAM GENERATOR LEVEL FOLLOWING A TURBINE RUNBACK. THE TURBINE RUNBACK WAS MANUALLY INITIATED BY STOPPING A STEAM GENERATOR FEED PUMP DUE TO MECHANICAL SEAL FAILURE.	
TURKEY POINT 4	09/08/10	251	2	2512010004	46235	OPERATE	AUTO	THE REACTOR TRIPPED DURING THE REPAIR OF A FAILED TURBINE STOP VALVE RELAY. DURING THE REPLACEMENT OF THE RELAY, THE RPS LOGIC WAS MET CAUSING A REACTOR TRIP AND A TURBINE TRIP. THE ROOT CAUSE OF THE TRIP WAS DEFICIENCIES IN THE WORK PACKAGE.	
TURKEY POINT 4	09/21/10	251	2	2512010006	46265	OPERATE	AUTO	THE REACTOR TRIPPED FROM 100% POWER DURING TESTING. THE CAUSE OF THE TRIP WAS A SPURIOUS PRESSURIZER PRESSURE TRIP SIGNAL WHEN THE OTHER CHANNEL WAS ALREADY TRIPPED FOR TESTING.	THE REACTOR TRIPPED SPURIOUSLY DURING TESTING.
TURKEY POINT 4	12/09/10	251	2	2512010008	46471	OPERATE	MAN	WITH THE REACTOR AT 100% POWER, A SHUTDOWN WAS COMMENCED DUE TO INDICATION OF A CONDENSER TUBE LEAK. THE REACTOR WAS MANUALLY TRIPPED AT 18% POWER DUE TO INCREASING S/G SODIUM LEVELS, CAUSED BY THE TUBE LEAK.	
TURKEY POINT 4	02/26/08	251	2	2502008001	44009	OPERATE	AUTO	A MOMENTARY POWER FLUCTUATION CAUSED BY GRID INSTABILITY CAUSED THE REACTOR TO TRIP.	
TURKEY POINT 4	02/29/08	251	2	2512008001	44016	STARTUP	MAN	DURING STARTUP, THE REACTOR WAS MANUALLY TRIPPED WHEN SG LEVEL BEGAN RISING UNCONTROLLABLY. THE CAUSE OF THE HIGH SG LEVEL WAS INSUFFICIENT GUIDANCE ON MAIN GENERATOR LOADING AND STABILIZING POWER WHILE SWITCHING TO AUTO FWRV CONTROL.	
TURKEY POINT 4	03/22/05	251	2	2512005001	41511	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON DECREASING SG WATER LEVEL AFTER A FEED PUMP TRIPPED. THE CAUSE WAS A FEEDWATER PUMP MOTOR ELECTRICAL FAULT.	
TURKEY POINT 4	06/27/05	251	2	2512005002	41800	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED DUE TO A FIRE IN THE MAIN TRANSFORMER. THE CAUSE WAS A SUDDEN INTERNAL FAULT ON THE "B" PHASE HIGH SIDE WINDING OF THE MAIN TRANSFORMER RESULTING FROM AN INADEQUATELY MANUFACTURED PART.	
TURKEY POINT 4	05/14/04	251	2	2512004002	40752	OPERATE	AUTO	A RX SCRAM OCCURRED ON LOW SG WATER LEVEL FOLLOWING A FEED REGULATING VALVE CLOSURE. THE CAUSE WAS A CAPACITOR FAILURE IN THE FEEDWATER FLOW CONTROLLER WHICH CAUSED THE FEED REGULATING VALVE TO CLOSE.	
TURKEY POINT 4	12/25/04	251	2	2512004004	41292	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON DECREASING MAIN CONDENSER VACUUM. THE CAUSE WAS FAILURE OF A TURBINE SLOP DRAIN LINE INSIDE THE CONDENSER. THE CONDENSER CONTINUED TO FUNCTION AS A HEAT SINK.	
TURKEY POINT 4	01/25/01	251	2	2512001001	37691	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO TWO DROPPED RODS IN DIFFERENT BANKS. THE CAUSE OF THE FIRST DROPPED ROD WAS AN OPEN GRIPPER CIRCUIT, THE CAUSE OF THE SECOND DROPPED ROD WAS HUMAN ERROR DURING TROUBLESHOOTING OF THE FIRST DROPPED ROD.	
TURKEY POINT 4	01/24/00	251	2	2512000001	36618	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DUE TO FEEDWATER OSCILLATIONS. THE CAUSE WAS A FEEDWATER REGULATING VALVE FAILURE. BECAUSE OF INADEQUATE MAINTENANCE, THE VALVE CAGE HAD DISENGAGED FROM THE VALVE BODY WEB.	

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SUMMER	10/02/09	395	2	3952009002	45404	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP. THE CAUSE OF THE TURBINE TRIP WAS A MAIN GENERATOR STATOR GROUND. THE CAUSE OF THE STATOR GROUND WAS FAILURE OF THE "B" PHASE OF THE MAIN GENERATOR OUTPUT BREAKER.	
SUMMER	12/16/09	395	2	3952009004	45577	OPERATE	MAN	AT REDUCED POWER FOR MAINTENANCE, THE TURBINE WAS MANUALLY TRIPPED DUE TO HIGH VIBRATIONS. THE STEAM DUMP SYSTEM FAILED TO OPERATE. THIS REQUIRED THE OPERATORS TO MANUALLY TRIP THE REACTOR. THE CAUSE OF THE STEAM DUMP FAILURE WAS A FAILED CIRCUIT CARD.	
SUMMER	01/24/08	395	2	3952008001	43932	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO RAPIDLY DECREASING LEVEL IN THE "C" STEAM GENERATOR CAUSED BY FAILURE OF THE "C" FEEDWATER FLOW CONTROL VALVE POSITIONER PILOT VALVE.	
SUMMER	02/05/07	395	2	3952007001	43141	OPERATE	MAN	WHEN STARTING THE D FEEDWATER BOOSTER PUMP, A STEAM LEAK DEVELOPED REQUIRING A MANUAL REACTOR SCRAM. THE LEAK WAS FROM AN ORIFICE IN THE D FEEDWATER BOOSTER PUMP RECIRCULATION HEADER.	
SUMMER	08/25/05	395	2	3952005003	41946	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON A LOSS OF FEED FOLLOWING A FIRE IN ONE CONDENSATE PUMP AND A DISCHARGE VALVE PROBLEM WITH THE OTHER THAT CAUSED A DEAERATOR STORAGE TANK LOW LEVEL. THE FIRE WAS CAUSED BY A PHASE TO GROUND SHORT IN THE MOTOR WINDINGS.	
SUMMER	03/30/04	395	2	3952004001	40628	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL WHEN A FEEDWATER REGULATING VALVE FAILED CLOSED DURING A CONTROLLED SHUTDOWN. THE CAUSE WAS SERVICE INDUCED FRETTING ON THE POSITIONER PILOT VALVE STEM.	
SUMMER	05/12/03	395	2	3952003002	39838	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON OVER TEMPERATURE DELTA TEMPERATURE AFTER THE MAIN GENERATOR OUTPUT BREAKER OPENED. THE CAUSE WAS THE MAIN GENERATOR FIELD BREAKER POSITION SENSING CIRCUIT HAD DEGRADED CONTACTS RESULTING FROM VIBRATION INDUCED WEAR.	
SUMMER	06/01/02	395	2	3952002003	38958	STARTUP	AUTO	A RX TRIP OCCURRED ON A SOURCE/INTERMEDIATE RANGE EXCORE NEUTRON FLUX DETECTOR CHANNEL SPIKE. THE CAUSE WAS EXCESSIVE NOISE IN THE INSTRUMENT CHANNEL PREAMPLIFIER WHICH WAS CAUSED BY A FAULTY HIGH VOLTAGE POWER SUPPLY.	
SUMMER	06/17/02	395	2	3952002004	39000	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL FOLLOWING A MAIN FEEDWATER PUMP TRIP. THE PUMP TRIP RESULTED FROM A BLOWN FUSE IN THE DIGITAL SPEED CONTROL SYSTEM. THE RX TRIP RESULTED FROM A DESIGN DEFICIENCY IN THE DIGITAL SPEED CONTROL SYSTEM.	
SUMMER	03/01/01	395	2	3952001003	37791	STARTUP	MAN	THE RX WAS MANUALLY TRIPPED WHEN TWO SHUTDOWN CONTROL RODS REMAINED FULLY INSERTED WHILE INITIATING CONTROL ROD WITHDRAWAL. THE CAUSE WAS ROD INSERTION BELOW ZERO STEPS IN CONJUNCTION WITH GEOMETRIC FACTORS WHICH RENDERED THE GRIPPERS UNABLE TO ENGAGE.	
VERMONT YANKEE	05/26/10	271	1	2712010001	45957	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A GENERATOR LOCKOUT. THE CAUSE OF THE LOCKOUT WAS IMPROPER RATIO SETTINGS ON A NEWLY INSTALLED SWITCHYARD CURRENT TRANSFORMER.	THE REACTOR TRIPPED ON A GENERATOR LOCKOUT DUE TO DIFFERENTIAL CURRENT BETWEEN TWO CURRENT TRANSFORMERS. THE NEWLY INSTALLED SWITCHYARD CT HAD IMPROPER RATIO SETTINGS.

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VERMONT YANKEE	08/30/07	271	1	2712007003	43610	OPERATE	AUTO	DURING SURVEILLANCE TESTING OF THE TURBINE STOP VALVE, THE VALVE CLOSED AND WOULD NOT OPEN. THE VALVE WAS OPENED WITH MECHANICAL ASSISTANCE. HOWEVER, A STOP VALVE CLOSURE SIGNAL WAS GENERATED, WHICH TRIPPED THE REACTOR.	
VERMONT YANKEE	07/25/05	271	1	2712005001	41868	OPERATE	AUTO	A SCRAM OCCURRED ON A LOAD REJECT GENERATOR TRIP FOLLOWING A CATASTROPHIC FAILURE IN THE 345 KV SWITCHYARD. THE CAUSE WAS A FAILED INSULATOR RESULTING IN FAILURE OF A MOTOR OPERATED 345 KV DISCONNECT SWITCH.	
VERMONT YANKEE	06/18/04	271	1	2712004003	40827	OPERATE	AUTO	A RX SCRAM/GENERATOR TRIP OCCURRED AS A RESULT OF AN ISO-PHASE BUS DUCT TWO-PHASE ELECTRICAL FAULT AND RESULTING FIRE. THE CAUSE WAS INADEQUATE PREVENTATIVE MAINTENANCE ON PORTIONS OF THE ISO-PHASE BUS AND FAILURE TO MONITOR AGE RELATED DEGRADATI	
VERMONT YANKEE	03/19/01	271	1	2712001001	37850	OPERATE	AUTO	A RX SCRAM OCCURRED DURING TESTING WHEN A BACKUP SCRAM VALVE ACTUATED. THE CAUSE WAS A TRAIN B RPS AUX CONTACT WHICH FAILED IN THE TRIPPED POSITION, RESULTING IN AN INVISIBLE HALF SCRAM. TESTING OF THE A TRAIN COMPLETED THE BACKUP SCRAM VALVE LOGIC.	
VERMONT YANKEE	09/13/00	271	1	2712000004	37317	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON A LOSS OF CONDENSER VACUUM. AN ELECTRICAL SHORT OCCURED WHILE CHANGING AN AIR EJECTOR STEAM SUPPLY VALVE INDICATION LIGHT BULB, WHICH CAUSED THE VALVE TO SHUT. THE USE OF AN INCORRECT BULB EXTRACTION TOOL CAUSED THE SHORT.	
WATTS BAR 1	05/21/10	390	2	3902010001	45944	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP. THE CAUSE OF THE TURBINE TRIP WAS AN INTERMITTENT FAILURE OF A CIRCUIT CARD IN THE TURBINE CONTROL SYSTEM.	
WATTS BAR 1	11/14/10	390	2		46418	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED WHEN COOLING WAS LOST TO THE A-PHASE MAIN BANK TRANSFORMER. THE CAUSE OF THE LOSS OF COOLING WAS THE FAILURE OF THE CONTROL POWER TRANSFORMER THAT SUPPLIES THE MAIN BANK TRANSFORMER COOLING SYSTEM.	
WATTS BAR 1	08/07/08	390	2	3902008002	44388	OPERATE	MAN	WHILE REDUCING POWER FOR SHUTDOWN, THE PLANT WAS MANUALLY SCRAMMED WHEN THE FEEDWATER SYSTEM ISOLATED DUE TO HIGH LEVELS IN THE LOW PRESSURE HEATER STRINGS.	
WATTS BAR 1	09/20/08	390	2	3902008004	44506	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP. THE TURBINE TRIPPED DUE TO A PERSONNEL ERROR, WHICH CAUSED THE MAIN GENERATOR EXCITER FIELD BREAKER TO TRIP.	
WATTS BAR 1	05/30/06	390	2	3902006004	42610	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON HIGH MAIN TURBINE VIBRATION. THIS EVENT WAS CAUSED BY A FRACTURED TURBINE BLADE ON THE LOW-PRESSURE TURBINE.	
WATTS BAR 1	07/31/06	390	2	3902006005	42744	OPERATE	AUTO	THE REACTOR SCRAMMED FOLLOWING A TRIP OF THE MAIN GENERATOR. THE CAUSE OF THE GENERATOR TRIP WAS A FAULT IN THE AUTOMATIC EXCITATION CONTROL CIRCUITRY.	
WATTS BAR 1	01/16/04	390	2	3902004001	40454	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON AN INVALID TRIP SIGNAL WHILE PERSONNEL WERE TESTING THE "B" TRAIN RX TRIP BREAKER. THE CAUSE WAS A MULTIMETER INADVERTENTLY CONNECTED IN THE OHMS POSITION WHICH ENERGIZED THE TURBINE TRIP BUS.	

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WATTS BAR 1	09/19/04	390	2	3902004002	41054	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED IN RESPONSE TO FOUR DROPPED RODS IN CONTROL BANK "B". THE CAUSE WAS A FAILED ROD CONTROL POWER CABINET CIRCUIT.	
WATTS BAR 1	03/10/03	390	2	3902003001	39651	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON A GENERATOR BACKUP RELAY ACTUATION AFTER A GROUND FAULT RESULTING FROM A BROKEN O-RING IN THE "C" PHASE MAIN TRANSFORMER'S HIGH SIDE BUSHING CAPACITANCE TAP CONNECTOR. THE CAUSE WAS AN INADEQUATE MAINTENANCE PROCEDURE.	
WATTS BAR 1	08/25/03	390	2	3902003003	40100	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED FOLLOWING ACTUATION OF THE SUDDEN PRESSURE RELAY FOR THE THE MAIN TRANSFORMER. THE CAUSE WAS A WORKER BUMPING INTO THE BOX THAT HOUSES THE RELAYS IN THE SWITCHYARD.	
WATTS BAR 1	07/13/02	390	2	3902002003	39058	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED FOLLOWING THE ACTUATION OF A MAIN TRANSFORMER DIFFERENTIAL ELECTRICAL RELAY. THE CAUSE WAS INADEQUATE WORK INSTRUCTION RESULTING IN A DEFICIENT CABLE SPLICE WHICH SUBSEQUENTLY SHORTED TO GROUND AND ACTUATED THE DIFFERENTIAL REL	
WATTS BAR 1	06/29/01	390	2	3902001001	38107	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON INCREASING CONDENSER PRESSURE RESULTING FROM REDUCED CONDENSER CIRCULATING WATER FLOW. THE CAUSE WAS COOLING TOWER FILL MATERIAL OBSTRUCTING THE CONDENSER CIRCULATING WATER PUMP SUCTION SCREENS.	
WATTS BAR 1	09/04/01	390	2	3902001002	38263	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON DECREASING SG WATER LEVEL FOLLOWING THE CLOSURE OF A FEEDWATER REGULATING VALVE. THE CAUSE WAS THE LOSS OF A VITAL AC INVERTER WHEN A SENSING/CURRENT LIMITING CARD FAILED.	
WATTS BAR 1	12/19/01	390	2	3902001004	38586	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON AN INVALID AMSAC SIGNAL DURING CLEARANCE ACTIVITIES ASSOCIATED WITH A PLANT DESIGN CHANGE FOR THE TDAFW PUMP CONTROL INSTRUMENTATION. THE CAUSE WAS INADEQUATE INTERFACE REQUIREMENTS IN THE PLANNING AND SCHEDULING OF WORK.	
WOLF CREEK	03/02/10	482	4	4822010005	45739	OPERATE	AUTO	THE REACTOR TRIPPED ON LOW STEAM GENERATOR LEVEL FOLLOWING THE LOSS OF A MAIN FEEDWATER PUMP. THE PUMP FAILED DUE TO LOSS A 120V NON-SAFETY INSTRUMENT INVERTER.	
WOLF CREEK	03/08/10	482	4	4822010006	45749	OPERATE	MAN	DURING STARTUP, A MAIN FEEDWATER PUMP TRIPPED. THE OPERATOR MANUALLY TRIPPED THE REACTOR. THE CAUSE OF THE FEEDWATER PUMP TRIP WAS A FAILED SERVO IN THE MFW CONTROL CIRCUITRY.	
WOLF CREEK	10/17/10	482	4	4822010012	46338	OPERATE	AUTO	THE REACTOR TRIPPED ON LOW STEAM GENERATOR DURING PLANT STARTUP. A HIGH STEAM GENERATOR LEVEL INITIATED A FEEDWATER ISOLATION, WHICH RESULTED IN LOW STEAM GENERATOR LEVEL.	
WOLF CREEK	04/28/09	482	4	4822009001	45027	OPERATE	AUTO	THE REACTOR TRIPPED AS A RESULT OF LOW STEAM GENERATOR LEVEL CAUSED BY A MAIN FEED REGULATING VALVE CLOSURE. THE VALVE CLOSURE WAS CAUSED BY BLOWN FUSES IN THE FRV CONTROLLERS.	
WOLF CREEK	08/19/09	482	4	4822009002	45278	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP AND MOMENTARY LOSS OF OFFSITE POWER. THE CAUSE OF THE TRIP WAS LOSS OF OFFSITE POWER DUE TO A LIGHTNING STRIKE.	

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WOLF CREEK	03/17/08	482	4	4822008003	44072	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED ON LOWERING S/G LEVEL CAUSED BY LOSS OF THE B MFW PUMP. THE MFW PUMP WAS LOST FOLLOWING LOSS OF THE B NON-VITAL 4160V BUSES DUE TO TRANSFORMER FAILURE DURING MAINTENANCE.	
WOLF CREEK	02/13/04	482	4	4822004002		OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL AFTER A MAIN FEEDWATER REGULATING VALVE FAILED CLOSED. THE CAUSE WAS SEPARATION OF THE VALVE PLUG FROM THE STEM.	
WOLF CREEK	08/22/04	482	4	4822004004	40974	OPERATE	AUTO	A RX TRIP OCCURRED DURING TESTING OF THE "B" TRAIN SOLID STATE PROTECTION SYSTEM. THE TECHNICIANS MISSED A PROCEDURE STEP CAUSING THE TRIP.	
WOLF CREEK	10/07/04	482	4	4822004005	41100	OPERATE	AUTO	A TURBINE/RX TRIP OCCURRED ON A SPURIOUS MAIN TURBINE HIGH VIBRATION SIGNAL RESULTING FROM A LIGHTNING STRIKE.	
WOLF CREEK	01/03/03	482	4	4822003001	39487	OPERATE	AUTO	A RX TRIP OCCURRED ON LOSS OF POWER AFTER THE OPERATING CRD MG SETS OUTPUT BREAKER OPENED WHILE THE OTHER CRD MG SET WAS BEING PLACED BACK INTO SERVICE FOLLOWING MAINTENANCE. THE CAUSE WAS PERSONNEL ERROR.	
WOLF CREEK	08/18/03	482	4	4822003003	40086	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL FOLLOWING THE CLOSURE OF A FEEDWATER ISOLATION VALVE. THE CAUSE WAS A SPURIOUS SIGNAL FROM THE ENGINEERED SAFETY FEATURES ACTUATION SYSTEM FOR THE "B" SG.	
WOLF CREEK	05/08/02	482	4	4822002003	38906	OPERATE	AUTO	A RX TRIP OCCURRED ON LOW SG WATER LEVEL WHEN A FEEDWATER REGULATING VALVE FAILED CLOSED AFTER BEING PLACED IN MANUAL FOR TESTING. THE CAUSE WAS THE FAILURE OF A MANUAL CONTROLLER CARD FOR THE FEEDWATER REGULATING VALVE.	
WOLF CREEK	09/04/00	482	4	4822000003	37287	OPERATE	AUTO	A RX TRIP OCCURRED WHEN TWO RCPS TRIPPED DURING AN AUXILIARY TRANSFORMER FIRE. THE FIRE STARTED WHEN A SQUIRREL ENTERED THE TRANSFORMER.	
WATERFORD 3	10/19/09	382	4	3822009005	45445	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED WHEN A RELIEF VALVE ON THE MOISTURE SEPARATOR HEATER INADVERTENTLY OPENED AND WOULD NOT RECLOSE. THE REACTOR WAS TRIPPED PRIOR TO REACHING THE CONDENSATE PUMP TRIP LEVEL IN THE CONDENSER HOTWELL.	
WATERFORD 3	11/11/05	382	4	3822005005	42138	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED ON LOWERING MAIN CONDENSER VACUUM CAUSED BY A LOSS OF ALL CIRC WATER PUMPS. THE CAUSE WAS A DEGRADED TIMER RELAY IN THE CIRC WATER PUMP DISCHARGE VALVE CONTROL CIRCUIT.	
WATERFORD 3	02/13/01	382	4	3822001003	37742	OPERATE	AUTO	A RX TRIP OCCURRED DURING TURBINE GOVERNOR VALVE TESTING. A FAILED TURBINE GOVERNOR VALVE CIRCUIT CARD CAUSED THE VALVE TO RAPIDLY CYCLE CLOSED AND OPEN TWICE. THE SUBSEQUENT POWER INCREASE RESULTED IN A VARIABLE OVER POWER RX TRIP.	
COLUMBIA	02/08/09	397	4	3972009001	44839	OPERATE	AUTO	THE REACTOR TRIPPED DURING DEH TESTING FOLLOWING MAINTENANCE ON THE DEH QUADVOTER VALVE SOLENOID. THE CAUSE OF THE SCRAM WAS A GOVERNOR VALVE FAST CLOSURE DUE TO A DEH TRIP HEADER PRESSURE FLUCTUATION DUE TO AIR INTRODUCED DURING MAINTENANCE.	

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COLUMBIA	05/08/09	397	4	3972009002	45051	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO THE LOSS OF THE MAIN GENERATOR SEAL OIL SYSTEM. THE SEAL OIL FILTER BECAME CLOGGED DURING TESTING AND SEAL OIL PRESSURE COULD NOT BE RESTORED.	
COLUMBIA	06/26/09	397	4	3972009003	45169	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED WHEN A FIRE WAS OBSERVED BETWEEN THE MAIN TURBINE BEARINGS. THE FIRE THAT WAS CAUSED BY LEAKING LUBE OIL WAS EXTINGUISHED IN 17 MINUTES. THE LUBE OIL LEAK WAS DUE TO AN OUT OF CAL PRESS SWITCH ON THE LO EXHAUSTER SYSTEM.	
COLUMBIA	08/05/09	397	4	3972009004	45245	OPERATE	AUTO	THE REACTOR TRIPPED FROM 100% POWER FOLLOWING A FIRE IN A NON-SAFETY-RELATED BUS THAT RESULTED IN A MAIN TURBINE TRIP. THE PROBABLE CAUSE OF THE LOSS OF BUS WAS THE RELAXATION OF A BOLTED CONNECTION DUE TO REPEATED THERMAL CYCLES.	
COLUMBIA	11/07/09	397	4	3972009005	45484	OPERATE	MAN	THE REACTOR WAS MANUALLY TRIPPED DUE TO A LEAK IN THE DIGITAL ELECTRO-HYDRAULIC CONTROL SYSTEM. THE LEAK IN THE AREA OF THE QUAD-VOTER HYDRAULIC TRIP SUBSYSTEM WAS CAUSED BY AN O-RING FAILURE DUE TO INCORRECT ASSEMBLY FOLLOWING MAINTENANCE.	
COLUMBIA	08/21/08	397	4	3972008001	44432	OPERATE	AUTO	DURING TESTING OF A NEW DIGITAL ELECTRO-HYDRAULIC QUADVOTER VALVE, A LEAK DEVELOPED, WHICH DROPPED DEH RESERVOIR LEVEL 8 INCHES. THIS RESULTED IN BOTH A MAIN TURBINE TRIP AND REACTOR TRIP.	THE REACTOR SCRAMMED ON A TURBINE GOVERNOR VALVE FAST CLOSURE TRIP OIL PRESSURE LOW SIGNAL.
COLUMBIA	06/28/07	397	4	3972007004	43457	OPERATE	AUTO	AT 70% POWER WITH ONE CONDENSATE PUMP SECURED, THE RUNNING CONDENSATE PUMP TRIPPED DUE TO INCORRECT CONFIGURATION OF THE PUMP LUBE OIL FILTER VALVES AND THE DECISION TO TRANSFER FILTERS WITH THE PUMP IN SERVICE. THE REACTOR TRIPPED ON LOW WATER LEVEL.	
COLUMBIA	10/31/06	397	4	3972006001	42950	OPERATE	AUTO	THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP CAUSED BY LOW AUTO STOP OIL PRESSURE. THE CAUSE OF THE FAILURE WAS A FAILED DIGITAL ELECTRO-HYDRAULIC DIGITAL INPUT CARD.	
COLUMBIA	06/15/05	397	4	3972005003	41779	OPERATE	AUTO	A RX SCRAM OCCURRED ON TURBINE THROTTLE VALVE CLOSURE. THE MOST LIKELY CAUSE WAS FAILURE OF DEH CIRCUIT CARDS.	
COLUMBIA	06/23/05	397	4	3972005004	41790	OPERATE	AUTO	A SCRAM OCCURRED ON LOW RX WATER LEVEL AFTER A FEEDWATER PUMP WAS LOST. THE CAUSE WAS A FALSE LOW SUCTION PRESSURE SIGNAL RESULTING WHEN A TECHNICIAN TOUCHED THE WRONG TERMINATION POINT WITH A MULTI METER DURING MAINTENANCE.	
COLUMBIA	07/30/04	397	4	3972004004	40910	OPERATE	AUTO	A RX SCRAM OCCURRED ON HIGH RCS PRESSURE FOLLOWING THE CLOSURE OF A TURBINE GOVERNOR VALVE. THE CAUSE WAS FAILURE OF A CIRCUIT BOARD IN THE TURBINE DIGITAL ELECTRONIC CONTROL SYSTEM.	
COLUMBIA	08/15/04	397	4	3972004005	40959	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED WHEN THE RUNNING RX FEEDWATER PUMP TRIPPED ON HIGH RX FEEDWATER TURBINE DRAIN TANK LEVEL. THE CAUSE WAS INADEQUATE INTERFACE REQUIREMENTS BETWEEN NORMAL AND SHUTDOWN OPERATING CONDITIONS.	
COLUMBIA	08/17/04	397	4	3972004006	40964	OPERATE	MAN	THE RX WAS MANUALLY TRIPPED DURING A STARTUP WHEN THE OPERATING RX FEEDWATER PUMP TRIPPED ON LOW SUCTION PRESSURE. OPERATOR ERROR RESULTED IN UNCONTROLLED FEEDWATER HEATER FILLING THAT CAUSED THE FEEDWATER SYSTEM TRANSIENT.	

PLANT NAME	EVENT DATE	DOCKET	REGION	Licensee Event Report Number	Event Notification	UNIT MODE	SCRAM	Scram Cause / Description	NOTES
COLUMBIA	06/30/03	397	4	3972003007	39965	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED ON A MAIN TRANSFORMER DIFFERENTIAL CURRENT RELAY ACTUATION. THE CAUSE WAS FAILURE OF A NONJACKETED CABLE THROUGH FRETTING ACTION.	
COLUMBIA	06/26/00	397	4	3972000003	37114	OPERATE	AUTO	A TURBINE TRIP/RX SCRAM OCCURRED FOLLOWING A MAIN GENERATOR AND TRANSFORMER OVERALL DIFFERENTIAL PROTECTIVE RELAY TRIP. THE CAUSE WAS A SHORT TO GROUND IN AN UNUSED TAP OF ONE OF THE 500KV CURRENT TRANSFORMER'S SECONDARY CONTROL CIRCUIT WIRING.	
COLUMBIA	09/18/00	397	4	3972000007	37345	OPERATE	MAN	THE RX WAS MANUALLY SCRAMMED ON DECREASING CONDENSER VACUUM. THE CAUSE WAS A BROKEN TURBINE DRAIN LINE WHICH ALLOWED AIR TO ENTER THE CONDENSER.	

Scrams with Reactive Inspections 2007 - Present

PLANT NAME	EVENT DATE	Scram Cause / Description	Public Reports	Brief Summary (See public reports for complete details)
PILGRIM	05/10/11	RX SCRAM DURING STARTUP - HI-HI TRIP FROM INTERMEDIATE RANGE	Special Inspection Team (SIT) - In progress	Ongoing inspections
ROBINSON 2	10/07/10	THE REACTOR TRIPPED WHEN A MOTOR FAULT OCCURRED ON A REACTOR COOLANT PUMP (RCP) CAUSING A SINGLE LOOP LOW FLOW TRIP. THE ROOT CAUSE OF THIS EVENT WAS INADEQUATE END WINDING BRACING ON THE "C" RCP.	SIT - ML103440401 - 2 Green Findings & 1 unresolved item (URI) ML110280299 - 1 Green Finding (URI)	Three Green findings of very low safety significance were identified for: 1) Bypassing the feedwater isolation safety function for three hours and twenty minutes, a condition prohibited by Technical Specifications and procedural requirements. 2) The failure to correct a known equipment deficiency, which adversely affected the operators' ability to respond to reactor trip transients. Specifically, the turbine building lubrication oil area fire protection detectors were known to actuate the turbine building lube oil deluge system during a non-fire event when the feedwater heater relief valves lift after a scram. 3) The failure to perform vendor recommended inspections of the reactor coolant pump motors.
BRAIDWOOD 1 BRAIDWOOD 2	08/16/10	BRAIDWOOD 1 - THE REACTOR TRIPPED FOLLOWING A TURBINE GENERATOR TRIP. THE TURBINE TRIPPED DUE TO LOSS OF CONDENSER VACUUM CAUSED BY THE LOSS OF THE ELECTRICAL BUS SUPPLYING THE CIRC WATER PUMPS. THE BUS WAS LOST WHEN WATER OVERFLOWED FROM THE AFW STANDPIPES. BRAIDWOOD 2 - THE REACTOR TRIPPED FOLLOWING A TRIP OF THE TURBINE GENERATOR. THE TURBINE GENERATOR TRIPPED DUE TO A GENERATOR LOCKOUT RELAY ACTUATION. THE LOCKOUT RELAY ACTUATION WAS CAUSED BY A PHASE-TO-GROUND FAULT IN THE ISOLATED PHASE (ISOPHASE) BUS DUCT.	SIT - ML103190505 - 4 Green Findings	Four Green findings of very low safety significance were identified for: 1) The failure to establish adequate inspect-and-clean controls for the forebay. Specifically, the operability margin of one train of the essential service water system decreased below pre-established limiting conditions due to fouling. 2) The failure to establish measures for the selection and review of equipment suitability. Fuses were replaced with a lower ampere rating than specified. 3) The failure to correct a condition that resulted in water being discharged to the turbine building floor during the reject of condensate from the condenser hotwell. Specifically, water had been observed overflowing to the turbine building floor in multiple instances in the past during hotwell condensate reject. However, the licensee did not implement corrective actions to correct this condition or evaluate its impact on plant equipment as required by the licensee's corrective action program. The water discharged from the condensate hotwell reject caused a reactor trip on the other unit. 4) The inadequate evaluation of operating experience. Specifically, the evaluation of an event at another plant that resulted in dislodged building material and a loss of off-site power was not properly addressed. During the dual unit trip, reactor building flashing was dislodged during a steam release and was found on power lines and in the vicinity of the off-site power supplies.
SURRY 1	06/08/10	THE REACTOR TRIPPED ON STEAM FLOW/FEED FLOW MISMATCH. THE EVENT WAS THE RESULT OF LOSS OF A VITAL 120VAC BUS. THE BUS LOSS WAS CAUSED BY THE FAILURE OF AN UNINTERRUPTIBLE POWER SUPPLY (UPS) INVERTER WHICH OCCURRED WHILE THE BUS'S ALTERNATE POWER SOURCE WAS OUT OF SERVICE FOR MAINT.	SIT - ML102560333 - 1 Green Finding	A Green finding of very low safety significance was identified for the failure to identify and correct degraded nuclear Instrument resistance capacitor filters.

PLANT NAME	EVENT DATE	Scram Cause / Description	Public Reports	Brief Summary (See public reports for complete details)
ROBINSON 2	03/28/10	LOSS OF 4KV BUS 5 DUE TO A FIRE RESULTED IN LOSS OF REACTOR COOLANT SYSTEM PUMP B AND A SUBSEQUENT REACTOR AND TURBINE TRIP. THE INITIAL FAULT WAS CAUSED BY THE FAILURE OF A FEEDER CABLE SUPPLYING 4KV BUS 5.	<p>Augmented Inspection Team (AIT) - ML101830101 - 14 URIs ML103160382 - 2 Apparent Violations (AVs) & 3 Green Findings ML102810633 - 1 Green Finding, 2 AV (1 Traditional Enforcement) ML103620095 - 1 AV ML110310469 - 2 White Findings (EA-10-257) ML103410289 - 1 White Finding & Severity Level (SL) III (EA-10-205) ML111090365 - 95001 (Performance Indicator (PI) - Scrams) Supplemental inspections required. Currently in Degraded Cornerstone Column of Action Matrix</p>	<p>On March 28, 2010, an event occurred at H. B. Robinson that involved a reactor trip, an electrical fault, a fire, a partial loss of offsite power, a safety injection actuation, a temporary concurrent loss of seal injection and thermal barrier heat exchanger cooling to reactor coolant pump seals, and operator errors.</p> <p>A 95001 supplemental inspection was performed to follow-up on these risk-significant issues (performance indicator scrams) to provide assurance that the root causes and contributing causes were understood, extent of condition and extent of cause were identified, and that the licensee's corrective actions were sufficient to address the root and contributing causes and prevent recurrence.</p> <p>Three White notice of violations were issued for low to moderate safety significance violations associated with: (1a) The failure to promptly correct a condition adverse to quality involving the failure of an Emergency Diesel Generator output breaker; and (1b) The failure to ensure the Emergency Diesel Generator remained operable as required by Technical Specifications. 2) Multiple and significant failures to adhere to procedures requirements 3) Failures to adequately design and implement operator training based on learning objectives</p> <p>A 95002 supplemental inspection will be performed to follow-up on these risk-significant issues to provide assurance that the root causes and contributing causes were understood, extent of condition and extent of cause were identified, and that the licensee's corrective actions were sufficient to address the root and contributing causes and prevent recurrence. In addition to independently determine if safety culture components caused or significantly contributed to the individual and collective (multiple white inputs) risk-significant performance issues.</p> <p>A Severity Level III traditional enforcement (TE) violation was issued for the submission of materially inaccurate information.</p> <p>Four Green findings of very low safety significance were identified for: 1) The failure to follow the site's corrective action program procedure. Specifically, a degraded control power condition for an electrical breaker was not identified and evaluated appropriately, which led to a fire and a reactor trip. 2) The failure to have adequate work orders to properly configure and post maintenance test the volume control tank level comparator module. This resulted in the failure of the charging pump suction to automatically transfer from the volume control tank to the refueling water storage tank when the auto transfer volume control tank low level setpoint was reached. 3) The failure to appropriately install electrical cables. This eventually led to a fire and a reactor trip. 4) The failure to correctly model the effects associated with a loss of electric power in the simulator (e.g., loss of component cooling water to the reactor coolant pump seals). The simulator is used to train operators and administer operating tests.</p>

PLANT NAME	EVENT DATE	Scram Cause / Description	Public Reports	Brief Summary (See public reports for complete details)
CALVERT CLIFFS 1 CALVERT CLIFFS 2	02/18/10	CALVERT CLIFFS 1 - THE REACTOR TRIPPED DUE TO THE LOSS OF AN RCP FOLLOWING A PARTIAL LOSS OF OFFSITE POWER. THE RCP WAS LOST DUE TO AN ELECTRICAL MALFUNCTION. THE FAULT WAS CAUSED BY A SHORT DUE TO WATER INTRUSION INTO THE RELAY PROTECTION CIRCUITRY CUBICLE. CALVERT CLIFFS 2 - THE REACTOR TRIPPED ON LOW FLOW FOLLOWING A PARTIAL LOSS OF POWER TO THE RCP BUS. THE LOSS OF AN RCP WAS CAUSED BY AN ELECTRICAL MALFUNCTION DUE TO FAILURE OF A GROUND FAULT RELAY.	SIT - ML101650723 - 1 AV & 4 Green Findings ML102150484 - 1 White Finding (EA-10-080) ML111190104 - 95001	<p>A White notice of violation was issued for the failure to develop and implement scheduled preventative maintenance for the Agast time delay relays. Specifically, the relays were not replaced after the 10 year service life as recommended by the vendor nor did the licensee establish a performance monitoring program to monitor the relays for degradation. The failure of the relay resulted in inoperability of the Emergency Diesel Generator and loss of the power to a safeguards bus.</p> <p>A 95001 supplemental inspection was performed to follow-up on this risk-significant issue to provide assurance that the root causes and contributing causes were understood, extent of condition and extent of cause were identified, and that the licensee's corrective actions were sufficient to address the root and contributing causes and prevent recurrence.</p> <p>Four Green findings of very low safety significance were identified for:</p> <ol style="list-style-type: none"> 1) The failure to implement effective corrective actions to address auxiliary building roof leakage problems occurring over a 7 year period that ultimately resulted in switchgear grounds, a reactor trip, and the loss of several safety related systems. 2) The failure to translate the design calculations of phase overcurrent relays into the actual relay settings. The overcurrent relays protect the unit service transformer against electrical faults and the as-found relay setting could potentially cause the breakers to fail prior to tripping open. 3) The failure to evaluate and correct relay disc sticking or binding issues. This degraded condition can adversely impact the function of the Emergency Diesel Generators and the electrical distribution protection scheme. 4) The failure to establish adequate procedures for restoration of Chemical and Volume Control System letdown flow. Deficient operating instructions prevented timely restoration of letdown flow following the initial transient and led to pressurizer level exceeding the Technical Specification limit for pressurizer level.
CALVERT CLIFFS 1	02/18/10	CALVERT CLIFFS 1 - THE REACTOR TRIPPED DUE TO THE LOSS OF AN RCP FOLLOWING A PARTIAL LOSS OF OFFSITE POWER. THE RCP WAS LOST DUE TO AN ELECTRICAL MALFUNCTION. THE FAULT WAS CAUSED BY A SHORT DUE TO WATER INTRUSION INTO THE RELAY PROTECTION CIRCUITRY CUBICLE.	SIT - ML101650723 - 4 Green Findings	

PLANT NAME	EVENT DATE	Scram Cause / Description	Public Reports	Brief Summary (See public reports for complete details)
WOLF CREEK	08/19/09	THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP AND MOMENTARY LOSS OF OFFSITE POWER. THE CAUSE OF THE TRIP WAS LOSS OF OFFSITE POWER DUE TO A LIGHTNING STRIKE.	SIT - ML100330574 - 7 Green Findings & 2 URIs 05000482/2009007-04 & 05000482/2009007-08 - Open	Seven Green findings of very low safety significance were identified for: 1) The failure to recognize the adverse conditions related to their offsite power system. Specifically, the licensee failed to identify and enter pertinent switchyard operating experience and six occurrences of loss of offsite power into their corrective action program. 2) The failure to monitor and control steam generator water levels, which resulted in an unanticipated turbine trip signal and feedwater isolation. Contributing to the loss of level control was the disabling of a previously established operator selectable alarm for the steam generator level. 3) The failure to perform an operability evaluation for the impact of a pressure transient on the essential service water system. Several through wall leaks were observed due to significant internal corrosion. 4) The failure to properly screen condition reports for the essential service water system adverse conditions of internal corrosion and loss of offsite power induced system pressure transient. 5) The failure to provide adequate guidance to identify and address pitting, corrosion, and surface indications in the essential service water system. Chemistry control procedures did not contain quality standards or acceptance criteria. This resulted in delaying repairs until such degradations (pitting) had become through-wall leaks. 6) The failure to provide adequate guidance to address the impact of a loss of offsite power event on the essential service water system. 7) The failure to establish a fire watch in a timely manner following a fire trouble alarm. The complete loss of offsite power resulted in fire protection trouble alarms which required the establishment of a compensatory fire watch. These watches were not initiated until the following day. The two unresolved items are still being inspected.
OYSTER CREEK	07/12/09	THE REACTOR TRIPPED FOLLOWING A TURBINE TRIP DUE TO LOSS OF OFFSITE POWER CAUSED BY LIGHTNING STRIKES.	SIT - ML092710122, 2 Green Findings & 1 URI ML101200165 - No Findings (URI)	Two Green findings of very low safety significance were identified for: 1) Not identifying and correcting problems with the operation of the Generator Breaker Close relay contacts, which resulted in emergency diesel generator inoperability. 2) Allowing foreign material to enter the Isolation Condenser level instrumentation piping. This resulted in erratic water level indication and Isolation Condenser unavailability.
COLUMBIA	05/08/09	THE REACTOR WAS MANUALLY TRIPPED DUE TO THE LOSS OF THE MAIN GENERATOR SEAL OIL SYSTEM. THE SEAL OIL FILTER BECAME CLOGGED DURING TESTING AND SEAL OIL PRESSURE COULD NOT BE RESTORED.	SIT - ML093280158 - 2 Green Findings	Two Green findings of very low safety significance were identified for: 1) The failure to correctly implement plant design changes to the digital electro-hydraulic control system and the reactor feedwater pumps. The new digital electrohydraulic control system was installed with an incorrect pressure setpoint due to an erroneous design calculation. This ultimately resulted in exceeding the cooldown safety limit of 100°F per hour. The new reactor feedwater level control system was installed with improper suction pressure setpoints and trip delays resulting in improper feedwater pump control. 2) A failure to include torque verifications of rigid and flexible bus connections and high potential testing. Specifically, the licensee removed torque verification and potential testing from their preventive maintenance program without considering operating experience. This omission most likely contributed to the bus failure.
COOK 1	09/20/08	THE REACTOR WAS MANUALLY TRIPPED AFTER A MALFUNCTION OF THE MAIN TURBINE GENERATOR RESULTED IN HIGH TURBINE VIBRATIONS AND A FIRE IN THE GENERATOR.	SIT - ML090260032 - 1 Green Finding	A Green finding of very low safety significance was identified for the failure to have appropriate procedures for control room operator actions. Specifically, a control room annunciator response procedure for a fire protection alarm panel failed to provide appropriate guidance for diagnosing a fire protection system failure as evidenced by the simultaneous operation of all three fire pumps.

PLANT NAME	EVENT DATE	Scram Cause / Description	Public Reports	Brief Summary (See public reports for complete details)
MONTICELLO	09/11/08	WITH THE 1R TRANSFORMER OUT FOR MAINTENANCE, THE 2R TRANSFORMER EXPERIENCED A LOCKOUT RESULTING IN LOSS OF OFFSITE POWER, WHICH RESULTED IN A REACTOR TRIP.	SIT - ML083510254 - 5 Green Findings	<p>Five Green findings of very low safety significance were identified for:</p> <ol style="list-style-type: none"> 1) Inadequate procedures to control reactor pressure vessel level. Specifically, the operating instructions for the control rod drive system were inadequate since they did not provide direction to control the addition of water to the reactor pressure vessel following a scram with reactor pressure vessel isolation. 2) A failure to establish an effective monitoring and corrective action plan for the underground cables. Preventive maintenance and testing methodology implemented was not sufficient to establish the condition of the cables (e.g., cable insulation resistance) to ensure functionality. 3) A failure to establish and implement an effective test control program for cables subjected to submersion. 4) A temporary loss of shutdown cooling. Specifically, operators failed to complete the shutdown checklist following the scram and did not close the reference leg fill valve from the control rod drive system. When the control rod drive pump was started, the reference leg experienced a pressure spike and the resulting full reactor protection system actuation resulted in a loss of shutdown cooling. 5) A failure of the high pressure coolant injection (HPCI) system to trip when reactor pressure vessel water level reached the trip setpoint. It was determined that the normally de-energized HPCI trip solenoid valve failed to trip promptly when actuated and was degraded due to improper reassembly of the solenoid valve after refurbishment and degraded elastomers. An engineering evaluation recommended a periodic replacement of the elastomers in this valve. No preventive maintenance activity was created or performed prior to the failure even though the recommended interval had been exceeded since the last overhaul.
PRAIRIE ISLAND 1	07/31/08	THE REACTOR SCRAMMED DURING REACTOR PROTECTION SYSTEM TESTING. ONE OVER TEMPERATURE DELTA T CHANNEL WAS IN TEST WHEN A CONTROLLER IN THE OTHER CHANNEL FAILED.	SIT - ML083120510 - 1 Preliminary Greater than Green ML102500641 - White Finding (EA-08-272) ML092890143 - 95001	<p>A White notice of violation was issued for a low to moderate safety significance violation of Technical Specifications associated with the licensee's failure to adequately control the position of a valve that could isolate the Turbine Driven Auxiliary Fresh Water Pump's (TDAFWP's) discharge pressure switch. Because of the valve being closed, the TDAFWP failed to run as required, subsequent to a reactor trip. The manifold isolation valve was determined to have been shut for 138 days, rendering the TDAFWP inoperable for a time period that significantly exceeded the Technical Specification allowed outage time (72 hours) for the pump.</p> <p>A 95001 supplemental inspection was performed to follow-up on this risk-significant issue to provide assurance that the root causes and contributing causes were understood, extent of condition and extent of cause were identified, and that the licensee's corrective actions were sufficient to address the root and contributing causes and prevent recurrence.</p>
PERRY	11/28/07	THE REACTOR TRIPPED DUE TO A TURBINE CONTROL VALVE FAST CLOSURE SIGNAL. THE CAUSE OF THE TRIP WAS FAILURE OF THE POWER SUPPLIES IN THE DIGITAL FEEDWATER CONTROL SYSTEM.	SIT - ML080280499 - 1 Green Finding, 3 URIs ML081290566 - 4 Green Findings	<p>Five Green findings of very low safety significance were identified for:</p> <ol style="list-style-type: none"> 1) The improper installation of replacement power supplies in the digital feedwater control system. The installed replacement power supplies were oriented incorrectly to assure proper cooling. 2) The failure of the reactor core isolation cooling (RCIC) to perform its design function during the reactor scram and plant response. The RCIC system started automatically on low reactor water level, began to inject into the reactor pressure vessel, and then tripped on low suction pressure. The RCIC pump flow controller was found to have been incorrectly tuned. 3) Improper testing of the RCIC system. Specifically, the program failed to incorporate the requirements and acceptance limits contained in applicable design documents to assure that RCIC flow controller configuration and performance met design requirements during testing. 4) The failure to perform adequate corrective actions to preclude repetition of a significant condition adverse to quality in response to a similar previously declared RCIC inoperably condition. 5) The failure to identify the RCIC failures as a significant condition adverse to quality within their corrective action program.
NORTH ANNA 2	06/29/07	A SPURIOUS "B" TRAIN Safety Injection (SI) SIGNAL RESULTED IN A TURBINE TRIP AND SUBSEQUENT REACTOR TRIP.	SIT - Report ML072410359, 2 URIs ML083020663 - No Findings (URI)	No findings were identified