

United States Nuclear Regulatory Commission PLANT ISSUE MATRIX

By Primary Functional Area

Region III

DAVIS-BESSE

Date	Source	Functional Area	ID	Type	Template Codes	Item Title Item Description
12/06/1999	1999012	Pri: OPS Sec:	NRC	NEG	Pri: 1A Sec: Ter:	Operator Attention-to-Detail Issues Two operator attention-to-detail issues, which occurred during surveillance tests, detracted from otherwise good performance. On one occasion, an operator failed to identify a slightly out-of-specification reading during an emergency diesel generator (EDG) run, and in another case, operators failed to rotate the air start side during the start of an EDG.
Dockets Discussed: 05000346 Davis-Besse						
10/29/1999	1999011	Pri: OPS Sec:	NRC	NEG	Pri: 1B Sec: 1C Ter:	Preparations for down-power evolution. During the down-power evolution to allow repairing the generator bushing, operators were distracted by several annunciator alarms that occurred for known conditions. These distractions could have been minimized had the known conditions been discussed during pre-evolution briefings
Dockets Discussed: 05000346 Davis-Besse						
10/29/1999	1999011	Pri: OPS Sec:	NRC	NEG	Pri: 3A Sec: 1C Ter:	Communications less than thorough between operations and chemistry. The inspectors concluded that less than thorough communications between chemistry and operations personnel concerning plant conditions resulted in unnecessary distractions to plant operators on several occasions. Specifically, six chemistry personnel were not prepared for shift turnover and did not notify the control room before adding chemicals.
Dockets Discussed: 05000346 Davis-Besse						
10/29/1999	1999011	Pri: OPS Sec:	NRC	POS	Pri: 1A Sec: Ter:	Conservative safety focus in operating the plant Plant management exhibited a conservative safety focus by thoroughly assessing a small oil leak from the main generator bushing for the potential development of a hydrogen leak. The best course of action was determined to be a plant down-power to 10 percent power to allow repair of the leak.
Dockets Discussed: 05000346 Davis-Besse						
10/29/1999	1999011	Pri: OPS Sec:	NRC	POS	Pri: 1B Sec: 3B Ter:	Operator performance during plant power changes Operator performance was good during the down-power and subsequent power increase to address the generator bushing leak. Plant management reinforced their commitment to ensuring the operators were prepared for these infrequently performed evolutions by delaying the power ascension for about 4 hours until the oncoming crew had completed the simulator refresher training.
Dockets Discussed: 05000346 Davis-Besse						
10/29/1999	1999011-01	Pri: OPS Sec:	Licensee	NCV	Pri: 1A Sec: Ter:	Failure to verify availability of offsite AC sources within 1 hour Operators failed to recognize that conditions were met for entry into Technical Specification (TS) Limiting Conditions for Operations (LCO) on two different occasions. First, conditions were met for entry into an TS 3.0.5 LCO when a radiation element was taken out of service concurrent with an emergency diesel generator outage. Second, conditions were met for entry into an LCO for TS 3.8.1.1.a (offsite A.C. sources) when a 13.8 to 4.16 kilovolt step-down transformer was removed from service.
Dockets Discussed: 05000346 Davis-Besse						

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Date	Source	Functional Area	ID	Type	Template Codes	Item Title Item Description
10/29/1999	1999011	Pri: OPS Sec: MAINT	NRC	NEG	Pri: 1C Sec: 2A Ter:	Questioning Attitude The inspectors identified a repetitive issue concerning a wafer check valve which was not fully closing. This valve served as part of the shield building negative pressure boundary; however, the area of the opening did not exceed the allowed opening for the negative pressure boundary. The inspectors concluded that the licensee's maintenance practices and operator rounds have not always been effective in identifying compromises to shield building integrity.
Dockets Discussed: 05000346 Davis-Besse						
09/28/1999	1999301-01	Pri: OPS Sec:	NRC	NCV	Pri: 3B Sec: Ter:	NRC initial license examination security. The licensee had established appropriate procedures to control examination security. However, the examiners identified a non-cited violation involving a lack of understanding and sensitivity on the part of some plant staff regarding examination security measures that resulted in two instances in which examination integrity was adversely affected. (Section O5.5)
Dockets Discussed: 05000346 Davis-Besse						
09/20/1999	1999301	Pri: OPS Sec:	NRC	POS	Pri: 3B Sec: Ter:	NRC initial license examination applicant performance In general, the applicants were well prepared for the licensing examination. The examiners did not identify any programmatic weaknesses, but did note a few individual knowledge and performance deficiencies. (Section O5.4)
Dockets Discussed: 05000346 Davis-Besse						
09/20/1999	1999301	Pri: OPS Sec:	NRC	POS	Pri: 3B Sec: Ter:	The training staff properly administered the written examination. The training staff properly administered the written examination and provided good support during the operating test. (Section O5.3)
Dockets Discussed: 05000346 Davis-Besse						
09/20/1999	1999301	Pri: OPS Sec:	NRC	POS	Pri: 3B Sec: Ter:	Initial license examination material quality. Written, dynamic simulator, and Job Performance Measure examination material submitted by the licensee was of satisfactory quality. Overall, the final product allowed for effective evaluation of the applicants' performance and competencies. (Section O5.2)
Dockets Discussed: 05000346 Davis-Besse						
09/20/1999	1999301	Pri: OPS Sec:	NRC	POS	Pri: 3B Sec: Ter:	Licensee's support to NRC's initial operator license examination The licensed operators involved in the examination verification and validation process and surrogate operators augmenting the applicant crews provided good support to these efforts and performed appropriately in their operational roles. (Section O4.1)
Dockets Discussed: 05000346 Davis-Besse						

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09/20/1999	1999301	Pri: OPS Sec:	NRC	POS	Pri: 3B Sec: Ter:	Control room observations during initial license examination Operators performed appropriately and conducted themselves professionally during the examiners' observations of actual control room activities. (Section O1.1)
Dockets Discussed: 05000346 Davis-Besse						
09/13/1999	1999010	Pri: OPS Sec:	NRC	NEG	Pri: 1A Sec: Ter:	Shift turnovers Detracting from shift turnover performance was a failure of operators to activate the CCW system inoperability status light when the system was inoperable, the failure of the oncoming shift to recognize the light was not activated, and the failure of operators to print and place shift logs in the unit log book on two occasions
Dockets Discussed: 05000346 Davis-Besse						
09/13/1999	1999010	Pri: OPS Sec:	NRC	NEG	Pri: 1A Sec: 3A Ter:	Control of Important-to-Safety Plant Doors The inspectors concluded that plant personnel exhibited a lack of sensitivity to the control of doors important-to-safety throughout the plant as evidenced by the identification that doors had either been left open or had been blocked open on several occasions.
Dockets Discussed: 05000346 Davis-Besse						
09/13/1999	1999010	Pri: OPS Sec:	NRC	NEG	Pri: 1C Sec: 1A Ter: 4B	Temporary Procedure Changes The restricted change process (temporary procedure change) did not require that the body of a procedure be changed (the changes were only attached to the front of the procedure) which could result in procedures not being performed as intended.
Dockets Discussed: 05000346 Davis-Besse						
09/13/1999	1999010	Pri: OPS Sec:	NRC	POS	Pri: 1A Sec: Ter:	Shift Turnovers The inspectors concluded that shift turnovers were more thorough than in past years. The shift briefs were held in the work support center rather than the control room and shift turnover sheets were more detailed.
Dockets Discussed: 05000346 Davis-Besse						
09/13/1999	1999010	Pri: OPS Sec:	Self	POS	Pri: 1A Sec: Ter:	Response to Annunciators Operators responded promptly and thoroughly to a loss of cooling water flow to the hydrogen cooling system. Previous efforts to reduce nuisance alarms contributed to the operators quick response.
Dockets Discussed: 05000346 Davis-Besse						

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08/02/1999	1999009	Pri: OPS Sec:	NRC	NEG	Pri: 3B Sec: Ter:	Operators were not fully cognizant of the reasons for all computer points which were in alarm The inspectors concluded that operators were not fully cognizant of the reasons for all computer points which were in alarm and the relatively large number of computer point alarms tended to mask the significance of individual alarms.
Dockets Discussed: 05000346 Davis-Besse						
08/02/1999	1999009	Pri: OPS Sec:	NRC	POS	Pri: 1A Sec: 5A Ter:	Plant operated safely The facility was operated in a conservative manner and no operator-initiated events occurred during the inspection period. The inspectors concluded that the Company Nuclear Review Board was an effective tool for improving licensee performance.
Dockets Discussed: 05000346 Davis-Besse						
06/22/1999	1999008	Pri: OPS Sec:	NRC	POS	Pri: 1A Sec: 5A Ter: 5B	Conservative operating practices The inspectors concluded that the plant was operated in a conservative, risk-informed manner. The station review board effectively performed its duties for the items discussed during the meeting. The issues discussed in the Quality Trend Summary Report served as an awareness tool to help communicate collectively important adverse trends to the line organization.
Dockets Discussed: 05000346 Davis-Besse						
05/13/1999	1999004	Pri: OPS Sec:	Self	NEG	Pri: 1A Sec: 3A Ter:	About 50 gallons of reactor coolant were inadvertently released to the containment atmosphere About 50 gallons of reactor coolant were inadvertently released to the containment atmosphere because containment vent header valve RC-98 was assumed to be open, when in fact it was closed during reactor coolant pump seal venting activities. Contributing to this event was a weakness in the "Conduct of Operations" procedure which allowed the transfer of valve lineup information from a previously completed procedure to one being performed during high workload conditions.
Dockets Discussed: 05000346 Davis-Besse						
05/13/1999	1999004	Pri: OPS Sec:	NRC	POS	Pri: 1A Sec: 3A Ter: 3B	The reactor startup and grid synchronization was conducted in a conservative, well-controlled manner The inspectors determined that the reactor startup and grid synchronization was conducted in a conservative, well-controlled manner.
Dockets Discussed: 05000346 Davis-Besse						
05/13/1999	1999004	Pri: OPS Sec:	NRC	POS	Pri: 1A Sec: 3B Ter: 2A	Operators shut the plant down in a controlled and deliberate manner for a mid-cycle maintenance outage Operators shut the plant down in a controlled and deliberate manner for a mid-cycle maintenance outage per operating procedures. Control room and station personnel responded very well to equipment problems that were encountered during the shutdown. Equipment deficiencies were documented on condition reports, placed on mode restraint lists, and the deficiencies were resolved before plant startup.
Dockets Discussed: 05000346 Davis-Besse						

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Date	Source	Functional Area	ID	Type	Template Codes	Item Title Item Description
05/13/1999	1999004	Pri: OPS Sec:	NRC	POS	Pri: 1A Sec: 5A Ter:	Plant management exhibited a conservative operating philosophy Plant management exhibited a conservative operating philosophy to plan and execute a mid-cycle maintenance outage to address a number of material condition issues and to start the outage 2 weeks early in anticipation of exceeding the Technical Specification limit for unidentified reactor coolant system leak rate.
Dockets Discussed: 05000346 Davis-Besse						
04/15/1999	1999003-01	Pri: OPS Sec:	Self	NCV	Pri: 3A Sec: 2A Ter:	An Operator Failed to Follow a Breaker Rack in Procedure Essential 4.16 kilovolt Breaker ABDC1 inadvertently closed when it was racked out because of a loosely fastened floor tripper mechanism pivot pin. Subsequently, because an operator failed to perform a required procedural step to verify that the breaker was open, he attempted to install the closed breaker onto an energized 4.16 kilovolt bus. This failure was a Non-Cited Violation of Technical Specifications. A mechanical interlock prevented a possible fatal injury to the operator. The station root cause investigation effort was thorough, methodical, and timely. The resulting corrective actions should prevent recurrence.
Dockets Discussed: 05000346 Davis-Besse						
03/23/1999	1999003	Pri: OPS Sec:	Self	NEG	Pri: 3A Sec: 2B Ter: 2A	The emergency diesel generator 1 room temperature was allowed to decrease to 46 degrees F The emergency diesel generator (EDG) 1 room temperature was allowed to decrease to 46 degrees F when operators failed to recognize the urgency needed to secure the room ventilation fans after a short EDG run. Contributing to this event was that the ventilation damper controller was inoperable and the outside air temperature was below freezing. All engine parameters were found to be within normal acceptance ranges.
Dockets Discussed: 05000346 Davis-Besse						
03/23/1999	1999003	Pri: OPS Sec:	NRC	POS	Pri: 5B Sec: 5C Ter:	The nuclear assurance department improved existing programs The nuclear assurance department's effort to implement new programs and improve existing programs to become more effective in predicting, identifying, and evaluating plant problems were initially effective in enhancing the root cause analysis process.
Dockets Discussed: 05000346 Davis-Besse						
02/12/1999	1999001	Pri: OPS Sec:	NRC	POS	Pri: 1A Sec: Ter:	Conservative actions were taken to isolate letdown cooler 1-1 Conservative actions were taken to isolate letdown cooler 1-1 when it was identified that one of its rupture discs had partially failed.
Dockets Discussed: 05000346 Davis-Besse						
02/12/1999	1999001	Pri: OPS Sec:	NRC	POS	Pri: 5B Sec: Ter:	Management oversight of important station administrative processes The inspectors concluded that the results of the employee attitude and culture survey that was performed last year, which had positive findings regarding the nuclear safety culture, personnel job satisfaction, and supervisor credibility, were generally consistent with observed behaviors and attitudes of licensee personnel, that the Station Review Board provided effective oversight of important station administrative processes, and that the Management Review Committee effectively prioritized and assigned condition reports for action
Dockets Discussed: 05000346 Davis-Besse						

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02/12/1999	1999001-01	Pri: OPS Sec:	Licensee	NCV	Pri: 3A Sec: Ter:	Tagout preparation error resulted in an EDG to be inoperable Emergency diesel generator (EDG) 2 was inadvertently rendered inoperable for four hours because of inattention-to-detail by operators during the generation and review of a tagout and a lack of a questioning attitude by operators while hanging the tagout. One Non-Cited Violation resulted when the licensee failed to do a surveillance within the required time after the EDG was rendered inoperable.
Dockets Discussed: 05000346 Davis-Besse						
12/06/1999	1999012	Pri: MAINT Sec: OPS	NRC	POS	Pri: 3A Sec: 1A Ter:	Risk Informed On-Line Maintenance Work management personnel effectively adjusted the maintenance schedule to minimize short duration relatively high risk profiles that were caused by emergent conditions.
Dockets Discussed: 05000346 Davis-Besse						
10/29/1999	1999011-02	Pri: MAINT Sec: OPS	Self	NCV	Pri: 3A Sec: 1C Ter:	Failure to follow procedure requirements Maintenance personnel failed to place the power range test module switch to the "test operate" position during nuclear instrumentation channel adjustment. Also, a technician opened the wrong breaker which resulted in blowing a fuse and loss of indication for post accident monitoring system neutron flux indicators in the control room.
Dockets Discussed: 05000346 Davis-Besse						
09/13/1999	1999010	Pri: MAINT Sec:	NRC	NEG	Pri: 3A Sec: 2B Ter:	Uninsulated metal items in battery rooms Fiberglass ladders in battery rooms were not fully insulated to maximize protection to personnel and equipment. Specifically, the ladders did not conform to procedural requirements to prevent high-energy battery shorting events in that they had uninsulated metal components longer than 6 inches.
Dockets Discussed: 05000346 Davis-Besse						
09/13/1999	1999010	Pri: MAINT Sec:	NRC	POS	Pri: 3A Sec: 2B Ter:	Conduct of Maintenance Activities were planned and performed in a risk-informed manner. Pre-evolution briefs heightened personnel awareness of the potential impact of work activities. Engineering personnel provided support to maintenance activities and coordinated the more complex activities.
Dockets Discussed: 05000346 Davis-Besse						
09/13/1999	1999010	Pri: MAINT Sec: OPS	NRC	NEG	Pri: 3C Sec: 1A Ter: 5A	Effects of long-term scaffolding in the plant. The impact of long-term scaffolding was not being rigorously reviewed. For example, while scaffolding could impact the ability of equipment operators, fire protection personnel, or plant personnel to respond to an event or a fire, it was not clear that these issues were considered during the review.
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08/02/1999	1999009	Pri: MAINT Sec:	NRC	NEG	Pri: 2B Sec: Ter:	Jumper control was not effective Jumpers used for a high risk activity (anticipatory reactor trip system testing) were not verified to be properly installed prior to the test. Inadequate jumper installation has resulted in several industry events and, in this case, if the jumpers had been improperly installed, a plant trip would most likely have occurred during the test. The licensee indicated that an evaluation of ways to ensure that jumpers were adequately installed would be conducted.
Dockets Discussed: 05000346 Davis-Besse						
08/02/1999	1999009	Pri: MAINT Sec:	Licensee	NEG	Pri: 3A Sec: 3B Ter:	Electrical maintenance personnel worked on wrong component Electrical maintenance personnel worked on the wrong heat trace equipment on two separate occasions because of poor self-checking work practices. The root cause investigation was well documented and the proposed corrective actions should result in better overall maintenance department performance.
Dockets Discussed: 05000346 Davis-Besse						
08/02/1999	1999009	Pri: MAINT Sec:	NRC	POS	Pri: 2A Sec: 2B Ter:	Overall maintenance was effective Overall, the plant was maintained in an effective manner. Management considered risk in scheduling maintenance activities and operators were informed of maintenance in progress. However, the inspectors identified that electrical maintenance personnel did not consistently implement plant management's expectation to use three-part communications during surveillance testing activities.
Dockets Discussed: 05000346 Davis-Besse						
08/02/1999	1999009	Pri: MAINT Sec:	NRC	POS	Pri: 2B Sec: Ter:	Overall, the EVS Train 1 maintenance activity was effectively tracked and coordinated Overall, maintenance and operations personnel effectively removed the EVS Train 1 from service and tracked and coordinated the maintenance activities while making reasonable efforts to manage risk.
Dockets Discussed: 05000346 Davis-Besse						
08/02/1999	1999009	Pri: MAINT Sec:	NRC	POS	Pri: 5B Sec: 2B Ter: 2A	Management tracked equipment out-of-service time The inspectors concluded that plant management tracked equipment out-of-service time and effectively ensured that outage times were minimized by providing the necessary resources to perform equipment maintenance and resolve emergent issues in a timely manner
Dockets Discussed: 05000346 Davis-Besse						
06/22/1999	1999008	Pri: MAINT Sec:	NRC	NEG	Pri: 1C Sec: 5C Ter: 5A	Calibration procedure needed improvement Opportunities existed to improve reactor protection system calibration procedures. The governing procedure did not obtain recorded data for the nuclear instrumentation upper and lower detector gain potentiometers, but rather relied on as-found setpoints. Also, no verification that the potentiometers provide the desired output was made at the conclusion of the procedure.
Dockets Discussed: 05000346 Davis-Besse						

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Date	Source	Functional Area	ID	Type	Template Codes	Item Title Item Description
06/22/1999	1999008	Pri: MAINT Sec:	Self	POS	Pri: 2A Sec: 5C Ter:	Primary leakage reduced The unidentified reactor coolant system leak rate approached the Technical Specification limit of 1 gallon per minute prior to the recently completed maintenance outage. The leak rate was effectively reduced during the outage.
Dockets Discussed: 05000346 Davis-Besse						
05/13/1999	1998021	Pri: MAINT Sec:	Licensee	NEG	Pri: 2A Sec: 5B Ter:	The degraded condition of RC-2 with one nut partially corroded and two missing nuts required a detailed eva The degraded condition of RC-2 with one nut partially corroded and two missing nuts required a detailed evaluation to determine if it would have functioned under all design loads. Although the licensee initially determined that the valve would not have functioned under extreme design conditions, the results of a more detailed calculation indicated that it would have functioned under all design loads.
Dockets Discussed: 05000346 Davis-Besse						
05/13/1999	1998021	Pri: MAINT Sec:	NRC	POS	Pri: 2A Sec: 5B Ter:	A thorough evaluation was conducted and extensive, effective corrective actions were developed Once the licensee determined that boric acid corrosion (BAC) was the most likely cause for the missing nuts on RC-2, a thorough evaluation of the condition was conducted and extensive, effective corrective actions were developed. The inspectors noted a much greater sensitivity to the effects of BAC on plant equipment and a recognition that some plant maintenance practices required improvement, more oversight, and more assessment.
Dockets Discussed: 05000346 Davis-Besse						
05/13/1999	1999004	Pri: MAINT Sec:	Licensee	NEG	Pri: 3A Sec: 2A Ter:	The pressurizer spray valve and low voltage switchgear room 2 ventilation systems were made unavailable The pressurizer spray valve and low voltage switchgear room 2 ventilation systems were made unavailable for up to 7 hours when two breakers were inadvertently opened during an emergency diesel generator (EDG) 2 maintenance outage. The licensee determined that this event caused core damage frequency to substantially increase during this period. The most likely cause was inattention-to-detail by workers who transited a relatively narrow passage between the breakers and EDG 2 during the EDG 2 maintenance outage and inadvertently contacted the two breakers and caused them to open.
Dockets Discussed: 05000346 Davis-Besse						
05/13/1999	1999004	Pri: MAINT Sec:	NRC	POS	Pri: 2A Sec: 5C Ter:	Station management took conservative measures to replace three corroded RCS valve yokes. Station management took conservative measures to replace three corroded reactor coolant system (RCS) drain valve yokes. An RCS deep drain was required for this activity. The work was well planned and executed, operators were particularly attentive to important plant parameters during the drain, and the RCS water inventory was closely tracked.
Dockets Discussed: 05000346 Davis-Besse						
05/13/1999	1999004-01	Pri: MAINT Sec:	Self	NCV	Pri: 2B Sec: 3A Ter:	Inadvertent 10 psig Reduction in RCS pressure The failure to ensure the pressurizer spray valve RC-2 hand switch was in the "close" position as specified in test instructions resulted in the unexpected cycling of the valve and a 10 psig drop in reactor coolant system pressure during the test. The effect on plant operations was minimal due to the rapid identification and resolution of the pressure decrease by control room operators. This was a Non-Cited Violation of test control requirements.
Dockets Discussed: 05000346 Davis-Besse						

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04/15/1999	1999003-02	Pri: MAINT Sec:	NRC	NCV	Pri: 3A Sec: 2A Ter: 5A	Maintenance Personnel Missed Detecting Battery Corrosion During a Quarterly Surveillance Test Electrical maintenance personnel exhibited poor attention-to-detail on February 12, when they did not identify that the battery cell connector was corroded during a Technical Specifications (TS) surveillance test, even though the discrepancy was identified by a maintenance deficiency tag that was hanging next to the cell. Consequently, electrical maintenance personnel did not perform resistance checks on the corroded station battery cell connector as required by the surveillance procedure. This was a Non-Cited Violation of TS requirements.
Dockets Discussed: 05000346 Davis-Besse						
04/09/1999	1999005	Pri: MAINT Sec:	NRC	POS	Pri: 2B Sec: Ter:	Plant risk and configuration during maintenance activities were appropriately controlled Although still in the initial implementation stages, the new on-line maintenance risk program was a significant improvement from what the plant had used in the past and appeared to be working well.
Dockets Discussed: 05000346 Davis-Besse						
04/09/1999	1999005	Pri: MAINT Sec:	NRC	STR	Pri: 2B Sec: 4B Ter:	The risk categorization of surveillance tests was considered to be a strength. The risk categorization of surveillance tests and increasing initiating event frequencies to account for surveillance testing in the computer-based risk program was considered to be a strength.
Dockets Discussed: 05000346 Davis-Besse						
03/23/1999	1999003	Pri: MAINT Sec:	NRC	POS	Pri: 5A Sec: 5B Ter:	The newly instituted maintenance critique meeting was effective The inspectors concluded that the newly instituted maintenance critique meeting was effective towards providing information to management personnel pertaining to the performance of the work management function so that they might improve station performance in this area.
Dockets Discussed: 05000346 Davis-Besse						
03/23/1999	1999003	Pri: MAINT Sec: OPS	NRC	NEG	Pri: 5A Sec: 3A Ter: 2A	Inadvertent spray of an essential motor control center An operator exercised poor judgement to not inform operations management that an essential motor-control center had been inadvertently sprayed with water during fire protection sprinkler system testing. Once a containment hydrogen dilution blower overload light was received in the control room, he notified management. The root cause investigation team generated a draft root cause investigation report that presented sound observations, findings, and conclusions for this event.
Dockets Discussed: 05000346 Davis-Besse						
02/12/1999	1999001	Pri: MAINT Sec:	NRC	NEG	Pri: 2B Sec: Ter:	Annunciator alarm was not properly acknowledged by licensee personnel The inspectors concluded that an annunciator alarm was not properly acknowledged by licensee personnel until test technicians were prompted by the inspectors. Contributing to this situation was that the test technicians were unaware that the test they were performing caused an annunciator to alarm.
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02/12/1999	1999001	Pri: MAINT Sec:	NRC	NEG	Pri: 3A Sec: 3C Ter:	Ineffective work management led to plant events The inspectors determined that the dominant root cause of the events of the past year were work-management related. Plant management scheduled more work than could be accomplished with available personnel. Consequently, plant personnel did not always comply with work process guidelines, did not always seek additional assistance when problems were encountered during their activities, spent less time reviewing work packages, and did not always conduct as thorough reviews as necessary before proceeding with tasks
Dockets Discussed: 05000346 Davis-Besse						
02/12/1999	1999001	Pri: MAINT Sec:	NRC	POS	Pri: 2B Sec: Ter:	Station personnel were adhering to the risk matrix The inspectors concluded that station personnel were adhering to the risk matrix and that efforts to update the matrix should improve the licensee's risk-informed decision-making process.
Dockets Discussed: 05000346 Davis-Besse						
02/12/1999	1999001	Pri: MAINT Sec:	NRC	POS	Pri: 5C Sec: Ter:	The corrective actions to stop work, reinforce expectations, and reschedule work have been effective The corrective actions to stop work, reinforce expectations, and reschedule work have been effective to increase the quality of work in the short term as evidenced by the lack of significant human performance related maintenance issues and examples of good performance since November 1998. Station management efforts to increase emphasis on human performance and to initiate staffing increases in critical skill areas should help to balance work load with available resources in the long term.
Dockets Discussed: 05000346 Davis-Besse						
02/12/1999	1999001	Pri: MAINT Sec:	NRC	POS	Pri: 5C Sec: Ter:	Application of lessons learn The inspectors determined that a human performance stand-down was beneficial towards ensuring that maintenance personnel implement lessons-learned from the events of the past year.
Dockets Discussed: 05000346 Davis-Besse						
12/06/1999	1999012	Pri: ENG Sec:	NRC	POS	Pri: 4B Sec: 1A Ter:	Operating Experience Assessment Engineering personnel demonstrated good use of operating experience information to detect degrading wall thickness on a high pressure feedwater heater, specifically in regards to flow-induced erosion of carbon steel.
Dockets Discussed: 05000346 Davis-Besse						
12/06/1999	1999012	Pri: ENG Sec: MAINT	NRC	POS	Pri: 4B Sec: 2A Ter:	Engineering Support Engineering personnel developed thorough corrective actions to address potential extent of condition issues pertaining to a failure of a breaker mechanical interlock.
Dockets Discussed: 05000346 Davis-Besse						

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10/29/1999	1999011	Pri: ENG Sec:	NRC	POS	Pri: 4B Sec: 1A Ter:	Engineering assistance in troubleshooting activities. The licensee has developed detailed troubleshooting guidelines for encountered conditions that are not well-understood. This process was implemented to evaluate the cause for a transformer lockout. As a result, a systematic, comprehensive plan was implemented to determine the cause of the lockout.
Dockets Discussed: 05000346 Davis-Besse						
10/29/1999	1999011	Pri: ENG Sec: MAINT	NRC	NEG	Pri: 4B Sec: 4A Ter:	Engineering support for online maintenance During an AFW system Train 1 outage, an unexpected valve failure occurred due to an internally bound actuating relay. The elementary logic drawing for the valve did not depict the mechanical interlock which precluded engineering personnel from developing a comprehensive troubleshooting plan that considered all of the possible failure modes.
Dockets Discussed: 05000346 Davis-Besse						
10/29/1999	1999011	Pri: ENG Sec: OPS	Licensee	NEG	Pri: 4B Sec: 2A Ter:	Unnecessary entry into TS LCO A small oil leak in the emergency diesel generator (EDG) governor booster servometer resulted in a low governor oil level. Subsequent to a diesel run, oil was not seen in the governor sight glass and the EDG was declared inoperable, rendering both EDGs inoperable at the same time. The failure to maintain the oil higher in its operating band, especially considering the small leak, resulted in an unnecessary TS LCO entry and distraction to plant operators.
Dockets Discussed: 05000346 Davis-Besse						
10/29/1999	1999011	Pri: ENG Sec: OPS	Self	POS	Pri: 4B Sec: 1A Ter:	Engineering Support Component cooling water system pump #2 tripped due to a ground fault on a motor power cable. Corrective actions that were implemented from a CCW system pump trip that occurred in October 1998 were effective in mitigating the effects of this pump trip. The licensee initiated a thorough evaluation to determine the cause of the cable failure and the extent of this condition in the plant.
Dockets Discussed: 05000346 Davis-Besse						
09/13/1999	1999010-01	Pri: ENG Sec: OPS	Licensee	NCV	Pri: 4B Sec: 1A Ter:	Failure to perform an engineering evaluation after exceeding pressurizer TS cooldown limits. A Non-Cited Violation of Technical Specifications occurred when the licensee failed to perform an engineering evaluation of the pressurizer before exceeding 500 psig reactor coolant system pressure after a cooldown of 160 degrees in 1 hour occurred. The apparent root causes were unclear procedural guidance and untimely corrective actions.
Dockets Discussed: 05000346 Davis-Besse						
08/02/1999	1999009	Pri: ENG Sec:	NRC	POS	Pri: 4B Sec: Ter:	Engineering demonstrated commitment to safety Station management exhibited a commitment to nuclear safety when they took measures to ensure the startup feedwater pump would be available for accident mitigation functions, even though no regulatory requirement existed to do so.
Dockets Discussed: 05000346 Davis-Besse						

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06/22/1999	1999008	Pri: ENG Sec:	Licensee	NEG	Pri: 5C Sec: Ter:	Frequent containment filter change-out Subsequent to the outage, low flow rates have been routinely occurring in the containment atmosphere particulate and gaseous radiation monitoring system. The plant staff has been aggressive in attempting to identify the reasons for this phenomenon, but the frequent filter changes required to address the low flow conditions have been a distraction to plant personnel.
Dockets Discussed: 05000346 Davis-Besse						
06/22/1999	1999008-03	Pri: ENG Sec:	Licensee	NCV	Pri: 3B Sec: 1C Ter:	Violation of 10 CFR Part 50 Appendix B, Design Control Safe shutdown earthquake seismic load calculations failed to consider the nozzle loads on the decay heat coolers. This was a Non-Cited Violation
Dockets Discussed: 05000346 Davis-Besse						
05/13/1999	1998021	Pri: ENG Sec:	NRC	POS	Pri: 5B Sec: 4B Ter:	Extent of condition for RC-2 missing bolts issue was comprehensive and detailed The engineering plan to address the extent of condition for the two missing nuts on pressurizer spray valve RC-2 was comprehensive and detailed. The licensee completed the extent of condition review during the recent mid-cycle outage. Additionally, the licensee demonstrated a heightened sensitivity to boric acid corrosion effects on plant equipment.
Dockets Discussed: 05000346 Davis-Besse						
05/13/1999	1998021	Pri: ENG Sec:	NRC	WK	Pri: 2B Sec: 5A Ter: 5B	Weakness was identified in the boric acid program corrosion The inspector determined that the licensee's boric acid control program was adequately documented. However, a weakness was identified in the program concerning the verification of materials subjected to boric acid corrosion which contributed to the failure to promptly identify that the RC-2 valve components were not as specified in its design document.
Dockets Discussed: 05000346 Davis-Besse						
05/13/1999	1999004	Pri: ENG Sec:	NRC	POS	Pri: 4B Sec: 4C Ter:	The licensee resolved over 41 mode restraint items prior to startup The licensee resolved over 41 mode restraint items prior to startup from the mid-cycle outage in a comprehensive manner. However, the licensee's documentation for some of these items did not provide appropriate justification for issue resolution. The licensee provided acceptable verbal justification for these conditions and indicated that an update to the documented resolution would be performed.
Dockets Discussed: 05000346 Davis-Besse						
05/13/1999	1999004-02	Pri: ENG Sec:	Licensee	NCV	Pri: 4A Sec: Ter:	Inadequate design basis calculations for emergency diesel generator ventilation system An original design calculation error led to a condition where the emergency diesel generator (EDG) room ventilation system was sized such that it was incapable of meeting its design basis of maintaining EDG room temperature below 120 degrees with ambient outside air temperature of 95 degrees. This was a Non-Cited Violation of design control requirements.
Dockets Discussed: 05000346 Davis-Besse						

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04/15/1999	1999003-03	Pri: ENG Sec:	NRC	NCV	Pri: 4A Sec: 3A Ter: 5B	ECCS Sump Design Basis Requirements were not Translated into a Containment Insulation Specification The inspectors concluded that in 1988, the licensee failed to evaluate whether the installation of NUKON insulation in containment could cause the emergency core cooling system (ECCS) pumps and containment spray pumps to not be able to perform their design function during a loss-of-coolant accident (LOCA). The root cause was that specification M-197N gave unrestricted approval for the use of NUKON insulation in containment without requiring that specific evaluations be performed to determine how much material could migrate and clog the ECCS emergency sump pump during a LOCA. This was a Non-Cited Violation of design control.
Dockets Discussed: 05000346 Davis-Besse						
04/09/1999	1999005	Pri: ENG Sec:	NRC	POS	Pri: 2B Sec: 4C Ter:	Probabilistic Safety Assessment risk evaluations Probabilistic Safety Assessment risk evaluations performed to support engineering issues were thorough, of good quality, and resulted in keeping the plant's aggregate risk at a minimum.
Dockets Discussed: 05000346 Davis-Besse						
02/12/1999	1999001	Pri: ENG Sec:	NRC	POS	Pri: 4B Sec: Ter:	Engineering personnel effectively supported plant operations Engineering personnel effectively supported plant operations by using visual and thermal imaging technology to determine that the component cooling water system rupture disk downstream of letdown cooler 1-1 was leaking, thereby minimizing dose and avoiding unnecessary thermal cycling of the letdown coolers.
Dockets Discussed: 05000346 Davis-Besse						
12/09/1999	1999006	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: Ter:	1999 Emergency Plan Exercise was effective. Overall licensee performance during the 1999 Emergency Plan exercise was effective.
Dockets Discussed: 05000346 Davis-Besse						
12/09/1999	1999006	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: Ter:	Technical support center staff's performance effective in EP exercise. The Technical Support Center staff's overall performance was effective. Command and control of the facility was good, and periodic briefings were thorough and concise.
Dockets Discussed: 05000346 Davis-Besse						
12/09/1999	1999006	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: Ter:	Operations support center staff's performance effective in EP exercise. Overall performance of Operations Support Center staff was effective. Status boards were continuously maintained, and the briefing and dispatch process for emergency response teams provided timely release of teams from the facility.
Dockets Discussed: 05000346 Davis-Besse						

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Date	Source	Functional Area	ID	Type	Template Codes	Item Title Item Description
12/09/1999	1999006	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: Ter:	Emergency control center staff's performance very good in EP exercise. Overall performance of personnel in the Emergency Control Center was very good. Current plant status and response activities were well monitored.
Dockets Discussed: 05000346 Davis-Besse						
12/09/1999	1999006	Pri: PLTSUP Sec: OPS	NRC	POS	Pri: 1C Sec: 3B Ter:	Control room simulator staff's performance excellent in EP Exercise. Staff performance in the Control Room Simulator was excellent. Procedures were well utilized by the operators, and communications were effective.
Dockets Discussed: 05000346 Davis-Besse						
10/01/1999	1999017	Pri: PLTSUP Sec:	NRC	STR	Pri: 2A Sec: Ter:	Security maintenance program effectively implemented. Maintenance programs supporting the security system were efficiently implemented. Repair of security related equipment was both timely and effective.
Dockets Discussed: 05000346 Davis-Besse						
08/02/1999	1999009	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: Ter:	The licensee effectively reduced the dose rates associated with decay heat removal system train 1 Through system flushes, the licensee effectively reduced the dose rates associated with decay heat removal system train 1.
Dockets Discussed: 05000346 Davis-Besse						
07/16/1999	1999015	Pri: PLTSUP Sec:	NRC	NEG	Pri: 1C Sec: Ter:	The licensee had yet to develop a procedure for scaling factors The licensee had yet to develop a procedure to ensure consistent and appropriate implementation of the scaling factor program, a deficiency the licensee recognized as a result of an observation made during a 1998 NRC inspection
Dockets Discussed: 05000346 Davis-Besse						
07/16/1999	1999015	Pri: PLTSUP Sec:	NRC	NEG	Pri: 1C Sec: 2A Ter:	Several deficiencies were identified with environmental sampling station maintenance Several deficiencies were identified with environmental sampling station maintenance, security and other aspects of the radiological environmental monitoring program that potentially impacted the representativeness of some samples and that indicated a need for improved program oversight.
Dockets Discussed: 05000346 Davis-Besse						

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Date	Source	Functional Area	ID	Type	Template Codes	Item Title Item Description
07/16/1999	1999015	Pri: PLTSUP Sec:	NRC	NEG	Pri: 1C Sec: 3A Ter:	Waste shipment manifest documentation and data entry errors Waste shipment manifest documentation and data entry errors identified by the inspector were attributed to isolated human error and were being addressed by the licensee.
Dockets Discussed: 05000346 Davis-Besse						
07/16/1999	1999015	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: Ter:	The radiological environmental monitoring program was generally implemented effectively The radiological environmental monitoring program (REMP) was generally implemented effectively in that environmental samples were collected and analyzed to meet offsite dose calculation manual criteria. Sample results from 1997 and 1998 showed that plant operations did not have a discernible radiological impact on the environment. Also, an enhanced REMP continued to be implemented and provided more comprehensive analyses of the plant's environmental impact.
Dockets Discussed: 05000346 Davis-Besse						
07/16/1999	1999015	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: Ter:	Solid radioactive waste program effectively implemented Experienced staff and close supervisory oversight of waste processing activities ensured effective implementation of the solid radioactive waste management program. Wet solid wastes were processed in accordance with the licensee's process control program and implementing procedures, and dewatered waste streams were sampled and verified to ensure regulatory limits for free standing liquid were met. A comprehensive radioactive material inventory control system effectively tracked material storage and movement at the site.
Dockets Discussed: 05000346 Davis-Besse						
07/16/1999	1999015	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: Ter:	The program for classifying solid radioactive waste streams was effectively implemented The program for classifying solid radioactive waste streams and scaling difficult to measure radionuclides was implemented in accordance with industry guidance and recommendations.
Dockets Discussed: 05000346 Davis-Besse						
07/16/1999	1999015	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: Ter:	The radioactive material and radwaste packaging and transportation program was effective The radioactive material and radioactive waste packaging and transportation program was effectively implemented. Shipments were appropriately classified and controlled; vehicle and package surveys were performed as required; and shipment manifests were completed in accordance with requirements.
Dockets Discussed: 05000346 Davis-Besse						
07/16/1999	1999015	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: Ter:	The training provided to staff involved in the transportation of radioactive materials was adequate The training provided to staff involved in the transportation of radioactive materials and solid radioactive waste was adequate and satisfied Department of Transportation requirements. Individuals designated as qualified shippers completed a comprehensive vendor course in radioactive material transportation requirements, and other staff involved in shipment activities completed training commensurate with their duties.
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Date	Source	Functional Area	ID	Type	Template Codes	Item Title Item Description
07/16/1999	1999015	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: Ter:	Audit of radwaste program was adequate The audit and surveillance program for the packaging and transportation of radioactive material and for the processing of solid radioactive waste was effectively implemented. Audit and surveillance activities were properly focused, were of sufficient scope and depth to assess program performance and identified problems were placed into the licensee's corrective action system for resolution.
Dockets Discussed: 05000346 Davis-Besse						
02/05/1999	1999002	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: Ter:	The licensee's external dosimetry quality control program was effectively implemented The licensee's 1998 non-outage dose was higher than expected due to emergent activities which required several "at power" containment entries. Although well planned and controlled, these entries resulted in the neutron dose total being the highest recorded in the last several years at the site. The licensee's external dosimetry quality control program was effectively implemented and identified a bias in the vendor's processing algorithm for mixed beta/gamma radiation fields, which was corrected by the vendor.
Dockets Discussed: 05000346 Davis-Besse						
02/05/1999	1999002	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: Ter:	The licensee had an effective program for monitoring and controlling internal exposure Overall, the licensee had an effective program for monitoring and controlling internal exposure. Specifically, internal dose assessments and assigned doses were properly performed and recorded, and respiratory protection devices and fit test equipment were well maintained. While the inspectors identified that the licensee did not have a formal maintenance program for the portable filter units and identified a deficiency with a related procedure, these units were maintained in good physical condition.
Dockets Discussed: 05000346 Davis-Besse						
02/05/1999	1999002	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: Ter:	Primary and secondary water chemistry parameters were well controlled Primary and secondary water chemistry parameters were well controlled and were consistent with industry guidelines. A potential fuel defect was appropriately identified and was being closely monitored by the chemistry staff. Chemistry procedures were of good quality.
Dockets Discussed: 05000346 Davis-Besse						
02/05/1999	1999002	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: Ter:	The licensee was taking proper actions to minimize steam generator corrosion The licensee was taking proper actions to minimize steam generator corrosion as stated in their Strategic Water Chemistry Plan. A contract study concluded that the June 1998, resin intrusion event did not appear to have an adverse affect on steam generator integrity. Licensee planned actions to remove residual resin still entrained in the generator were technically sound.
Dockets Discussed: 05000346 Davis-Besse						
02/05/1999	1999002	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: Ter:	The licensee used effective ALARA controls during an "at power" containment entry The licensee used effective ALARA controls during an "at power" containment entry to clean boric acid deposited onto the containment fan coolers from a leaking overhead pressurizer isolation valve.
Dockets Discussed: 05000346 Davis-Besse						

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Date	Source	Functional Area	ID	Type	Template Codes	Item Title Item Description
02/05/1999	1999002	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: Ter:	Chemistry sampling and analyses were well conducted and laboratory housekeeping was good. Chemistry sampling and analyses were well conducted and laboratory housekeeping was good. Some problems were identified with the radioactive labeling of laboratory glassware and tools which the licensee was addressing.
Dockets Discussed: 05000346 Davis-Besse						
02/05/1999	1999002	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: 2A Ter:	Chemistry instrumentation was well maintained Chemistry instrumentation was well maintained and the chemistry staff effectively implemented the quality control program. Licensee performance in inter and intralaboratory cross check programs was good, although biases were noted in the analyses results for lithium and hydrazine. These biases remained within the applicable acceptance band and were being appropriately addressed by the chemistry staff.
Dockets Discussed: 05000346 Davis-Besse						
02/05/1999	1999002	Pri: PLTSUP Sec:	NRC	POS	Pri: 1C Sec: 5B Ter:	Chemistry self-assessments were thorough and self-critical. Chemistry self-assessments were thorough and self-critical. Several assessments identified procedural deficiencies similar to those identified during recent NRC inspections of the radiation protection program. These deficiencies were being addressed by the licensee.
Dockets Discussed: 05000346 Davis-Besse						

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Legend

Type Codes:

BU	Bulletin
CDR	Construction
DEV	Deviation
EEI	Escalated Enforcement Item
IFI	Inspector follow-up item
LER	Licensee Event Report
LIC	Licensing Issue
MISC	Miscellaneous
MV	Minor Violation
NCV	NonCited Violation
NEG	Negative
NOED	Notice of Enforcement Discretion
NON	Notice of Non-Conformance
OTHR	Other
P21	Part 21
POS	Positive
SGI	Safeguard Event Report
STR	Strength
URI	Unresolved item
VIO	Violation
WK	Weakness

Template Codes:

1A	Normal Operations
1B	Operations During Transients
1C	Programs and Processes
2A	Equipment Condition
2B	Programs and Processes
3A	Work Performance
3B	KSA
3C	Work Environment
4A	Design
4B	Engineering Support
4C	Programs and Processes
5A	Identification
5B	Analysis
5C	Resolution

ID Codes:

NRC	NRC
Self	Self-Revealed
Licensee	Licensee

Functional Areas:

OPS	Operations
MAINT	Maintenance
ENG	Engineering
PLTSUP	Plant Support
OTHER	Other

EEIs are apparent violations of NRC Requirements that are being considered for escalated enforcement action in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Action" (Enforcement Policy), NUREG-1600. However, the NRC has not reached its final enforcement decision on the issues identified by the EEIs and the PIM entries may be modified when the final decisions are made.

URIs are unresolved items about which more information is required to determine whether the issue in question is an acceptable item, a deviation, a nonconformance, or a violation. A URI may also be a potential violation that is not likely to be considered for escalated enforcement action. However, the NRC has not reached its final conclusions on the issues, and the PIM entries may be modified when the final conclusions are made.