NRC FORM 366 (5-92) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 5/31/95

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Dresden Nuclear Power Station, Unit 2	05000237	1 OF 6

TITLE (4) Source Range Monitor Surveillance Performed at Incorrect Frequency due to Human Error during Technical Specification Upgrade Project.

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
04	16	97	97	-- 009 --	00	05	15	97	Dresden, Unit 3	05000249
									FACILITY NAME	DOCKET NUMBER

		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)					
OPERATING MODE (9)	4	20.2201(b)		20.2203(a)(3)(i)		50.73(a)(2)(iii)	73.71(b)
POWER LEVEL (10)	000	20.2203(a)(1)		20.2203(a)(3)(ii)		50.73(a)(2)(iv)	73.71(c)
		20.2203(a)(2)(i)		20.2203(a)(4)		50.73(a)(2)(v)	OTHER
		20.2203(a)(2)(ii)		50.36(c)(1)		50.73(a)(2)(vii)	(Specify in Abstract below and in Text, NRC Form 366A)
		20.2203(a)(2)(iii)		50.36(c)(2)		50.73(a)(2)(viii)(A)	
		20.2203(a)(2)(iv)	X	50.73(a)(2)(i)		50.73(a)(2)(viii)(B)	
		20.2203(a)(2)(v)		50.73(a)(2)(ii)		50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

Name:	Phone:
Ralph M. Fenili (Operations Staff) Ext.2917	(815) 942-2920

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On 4/16/97, while performing a Technical Specification review for the 24 month fuel cycle project, a discrepancy was noted between the Source Range Monitoring System surveillance frequency and the Technical Specification requirement. It was determined that as a result of having the incorrect frequency within the computerized tracking network (Predefines), the Unit 2 Technical Specification surveillance frequency, as listed in Table 4.2.F-1, had been exceeded by thirty-nine days. The cause for the non-compliance was due to personnel performance errors within the surveillance frequency change approval process, which had amended the surveillance frequency of DIS 0700-10, SRM Rod Block Calibration, from quarterly to once every 18 months. As a result of the event, the station will revisit TSUP implementation and assure that the proper surveillance frequencies have been created to meet Tech Spec requirements and assure that the involved individuals understand their responsibilities during task performance. The safety significance of this event is considered minimal.

This event is reportable per 10CFR50.73(a)(2)(i)(B), as operation prohibited by Technical Specification.

EVENT IDENTIFICATION:

General Electric - boiling water reactor - 2527 MWt rated core thermal power.

Energy Industry Identification System (EIIS) codes are identified in the text as [XX] and are obtained from IEEE Standard 805-1984, IEEE Recommendation Practice for System Identification in Nuclear Power Plants and Related Facilities.

EVENT IDENTIFICATION:

Source Range Monitor Surveillance Performed at Incorrect Frequency due to Human Error during Technical Specification Upgrade Project.

A. PLANT CONDITIONS PRIOR TO EVENT:

Unit: 2(3) Event Date: April 16, 1997 Event Time: Unknown

Reactor Mode: 4(N) Mode Name: Cold Shutdown (No Mode) Power Level: 0 (0)

Reactor Coolant System Pressure: 0 (0) psig

B.1. EVENT BACKGROUND

On 4/28/94, the proposed Technical Specification Upgrade Project (TSUP) manual was distributed as a draft document for departmental comment. Over the next two years, numerous changes were made to the proposed TSUP manual. An electronic copy of the manual was maintained by Regulatory Assurance combining all corrections into a single database.

Many departments utilized this initial review of the TSUP document to verify that departmental procedures were in place to perform all surveillances required by the TSUP. Many new procedures were created and many others revised in preparation for the TSUP implementation.

On 3/16/96, registered volumes of the proposed TSUP manual were prepared and distributed as controlled documents. This was intended to allow each department manual access around the clock without the single electronic copy limitation.

During 1996, preparation for implementation of TSUP continued, though implementation was deferred until January 13, 1997. During the preparation, multi-departmental resources were assembled to perform validation of the station surveillance frequencies. These would be entered into the Electronic Work Control System (EWCS) Predefine database, assuring that all surveillances would be performed in accordance with TSUP requirements once implemented.

During the week of January 6, 1997, one week prior to TSUP implementation, Regulatory Assurance finalized revisions to the Dresden Administrative Technical Requirements (DATRs). Implementation of TSUP directly affected some of the DATRs, and in other cases, some former Tech Specs were relocated into the DATRs. On January 13, 1997, Dresden Station implemented TSUP concurrent with a revision to the DATRs.

B.2. DESCRIPTION OF EVENT

This event is reportable per 10CFR50.73(a)(2)(i)(B), which requires the reporting of any condition prohibited by Technical Specifications.

On 5/31/96, as part of the TSUP review, the EWCS Task Predefine for the performance of Dresden Instrument Surveillance (DIS) 0700-10 was routed for revision of its performance frequency. The Engineer amended the EWCS Predefined Parameter Detail sheet, incorrectly changing the stated surveillance frequency from quarterly to once every 18 months. In addition, the Predefine title was changed from "D3 Qtr TS SRM Rod Block Cal" to read "D3 18 Mo. TS SRM Channel Calibration".

Under TSUP, SRM Channel Calibration is addressed in two separate Tech Spec Tables. Tech Spec Table 4.2.E-1, Control Rod Block Instrumentation Surveillance Requirements, directs a surveillance frequency of "E" (once each 18 months), and Table 4.2.F-1, Accident Monitoring Instrumentation Surveillance Requirements, at a frequency of "Q" (Quarterly).

On 4/16/97, during a review of the Technical Specifications for the 24 month Fuel Cycle Project, Engineering identified a discrepancy with the Station's calibration frequency for Unit 2 & 3 SRMs, where the quarterly required SRM Channel Calibration Predefine stated the scheduled frequency as every 18 months.

A review of the Instrument Maintenance surveillance history identified that Unit 3 was in compliance with the (TSUP) Technical Specifications, but Unit 2 was in noncompliance to the Technical Specification Table 4.2.F-1, Accident Monitoring Instrumentation, having exceeded the quarterly surveillance interval critical date by thirty-nine days.

B.3 EVENT INVESTIGATION

Interviews were performed to determine why the frequency was changed, what documents were utilized, and why the multi-disciplined review process failed to capture the error.

The Engineer made this change based on the information received on the day of origination (5/31/96) from a controlled copy of the proposed TSUP manual maintained in Regulatory Assurance. He stated that the controlled copy utilized indicated the frequency for all SRM channel calibration was "E", or at a minimum frequency of once every 18 months.

The "E" frequency was listed in the original draft manual from 1994 for all SRM channel calibrations, but the SRM channel calibration under Accident Monitoring was corrected in a revised controlled copy in March 1996 to a frequency of "Q", or Quarterly. Though the Engineer performed his review over two months after distribution of the revised, controlled TSUP manual of March 1996, the investigation failed to determine how the Engineer obtained the incorrect information.

The Engineer also signed as the Department Surveillance Coordinator, as he performed multiple roles in the Work Control process. This removed a barrier in the approval process which had the potential to capture the error, but his action was at that time accepted practice.

On 6/5/96, the change was routed to the Instrument Maintenance (IM) Department Head for approval of the frequency change. The IM Department Head approved the frequency change, but revealed that he was unfamiliar with the controlling administrative procedure (DAP 11-02). He reported his signature was intended to serve as acknowledgement of the change and his verification that the appropriate procedure was in place to perform the task, in accordance with the station schedule, which is contrary to DAP 11-02.

On 6/26/96, the frequency change was approved by a System Engineering Supervisor. This individual is no longer at the Station, and was unavailable for an interview to determine how he failed to recognize the frequency error.

From 6/26/96 through the week of 1/6/97, all routed DAP 11-02A forms were retained on hold for TSUP implementation. Surveillance frequency change forms which affected TSUP or DATRs required approval from Regulatory Assurance, and as a result were routed to the Regulatory Assurance Licensing Engineer (RALE) for signature.

The RALE reviewed each form independently, completing over 100 reviews the week prior to implementation. The RALE failed to question whether the Channel Calibration was to meet the Tech Spec for SRM Rod Block, or for SRMs under the Accident Monitoring portion of the Tech Specs. With the lined out title stating Rod Block, in addition to the hand written Channel calibration, an assumption was made by the RALE, the incorrect portion of the Tech Specs was referenced and the specified frequency of performance validated as once every 18 months. With this change request validated against TSUP, the RALE signed the frequency change authorization form.

B.4. TSUP REVIEW PROCESS PROBLEMS

Operations performed a review of document control during the TSUP Project. Initially, control of the "up to date" TSUP changes were maintained within Regulatory Assurance, but only in the single electronic format copy. Uncontrolled copies of the document were distributed to each department in 1994. Revised manuals were requested in 1996, with distribution performed in March. Each manual owner was assigned a Register Number to assure that distribution of any future revisions to the manual would reach manual owners. The investigation revealed that while manual owners thought they had current controlled copies, revisions made to the electronic database were not distributed to the manual holders. Over time, the "Registered" manuals became outdated. Owners continued to utilize the "Registered" manuals under the assumption that they were current, unaware that the electronic database was the only controlled copy.

A review of all DAP 11-02 Form A, Request for Surveillance File Change forms was performed for Operations and Instrument Maintenance frequency changes. On many of the completed forms for Maintenance, a single individual signed as many as three of the six authorization signatures, diluting the quality of the multi-disciplined review. Though this practice was not in conflict with station procedure, this eliminated the review barrier, decreasing the potential for problem identification. In one case, a single individual had the only approval signatures on a change form. Review of Operations change forms found minimal use of multiple signatures.

Though minimal procedural non-compliance was noted by individuals performing this change authorization, limited to proper performance of verification prior to authorizing the change, review of the Operations and Maintenance DAP 11-02A forms found that a percentage of the forms were on the wrong revision of the procedure. Though no change occurred to the form during each revision, this is in non-compliance to station policy.

B.5. CONCLUSIONS

The Root Cause investigation identified the cause of this event was the incorrect origination of a frequency change for unknown reasons, which was allowed to go unchallenged by individuals within the review chain. Additionally, the combination of inadequate control of documents during the final implementation and the inadequacies of the review and approval process create questions regarding the ability to preclude similar events in the future. Action is currently underway to address this issue.

C. CAUSE OF EVENT:

The primary cause for this event was personnel performance error (NRC Cause Code A, Personnel Error) by the Instrument Maintenance Supervisor and RALE during the approval of DAP 11-02 Form A, which resulted in amending the surveillance frequency of DIS 0700-10, SRM Rod Block Calibration, to a frequency which exceeded the Technical Specifications requirements. As a result of this frequency change going unnoticed, Dresden Unit 2 exceeded the maximum Technical Specification SRM surveillance frequency.

D. SAFETY ANALYSIS:

Upon identification that the Technical Specification SRM calibration frequency had been exceeded by thirty-nine days, Instrument Maintenance personnel promptly performed the required surveillance, bringing Unit 2 into compliance with the Tech Specs. Performance of the calibration identified no "out of tolerances", or indication of problems with SRM setpoint drift. As a result, it is concluded that the SRMs were capable of performing within design tolerance and provided valid indication to the operator. Also, the SRM Rod Block function remained available to perform its intended function, should power ascension occur from a shutdown condition. For these reasons, the safety significance of this event is considered minimal.

E. CORRECTIVE ACTIONS:

1. The Instrument Department Supervisor will be counseled regarding his involvement in this event. (2371809700901)

2. The Regulatory Assurance Licensing Engineer will be counseled regarding his involvement in this event. (2371809700902)

3. Maintenance will correct the surveillance frequency for performance of SRM calibration and assign the appropriate surveillance document (DIS 0700-10, SRM Rod Block Calibration) to the applicable Predefines. Additionally, DIS 0700-03, SRM Rod Block Functional Test, will be deleted and verification performed to assure that SRM Technical Specifications all have assigned Predefines at the appropriate surveillance frequencies. (2371809700903)

4. The Station Surveillance Coordinator revised DAP 11-02, Preventive Maintenance and Predefine Program, changing the methodology for initiation and routing of change requests. Under the revision, change requests are initiated through creation of an Action Request and subsequently routed to the Station Surveillance Coordinator. The Station Surveillance Coordinator determines the individuals needed for proper review and assigns the appropriate route list for authorization. This methodology removes the ability for the Originator to sign multiple portions of the authorization sheet prior to submittal. (Completed)

5. Operations and Regulatory Assurance will determine the needed level of TSUP ~~post~~-review to assure zero future non-compliances. Closure of this commitment requires creation of a new commitment which tracks completion of the post-review. (237180970904)

F. PREVIOUS OCCURRENCES:

LER/Docket Number	Title
95-013/05000237	Reactor Recirculation Pump Speed Mismatch Verification Not Performed Due to Defective Procedure

On September 1, 1995, with Unit 3 in the Refuel mode, Operations personnel discovered a discrepancy between Technical Specification requirements and actual Station procedural requirements. The Station was not performing a Recirculation Pump speed mismatch verification with the Units (Dresden 2 and 3) in the Shutdown or Refuel modes. The Technical Specifications require this verification whenever the Recirculation Pumps are running, regardless of the Unit's operating mode. The root cause of the event was a defective procedure, prepared utilizing old programs and standards. Current procedural change methodology performs greater emphasis on the coordination of requirements and commitments.

97-004/05000237	Channel Checks for ATWS Level and Pressure Instruments Performed at Incorrect Frequency due to Personnel Error during the Procedure Review Cycle

At approximately 1430 on February 8, 1997, while performing a review of the computerized rounds, Appendix D, HVO Inside Round Logsheet, the program administrator identified that channel check frequencies for the Reactor Level and Pressure failed to meet the minimum frequency stated in the Upgraded Technical Specifications. Though this condition had existed since September 8, 1996, Technical Specification non-compliance did not occur until January 13, 1997, at which time Dresden fully implemented the Upgraded Technical Specifications. The cause of the event was determined to be personnel error in the preparation of the procedural change and during the Technical Review of the procedure revision paperwork.

G. COMPONENT FAILURE DATA:

None.