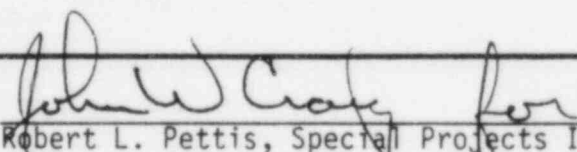
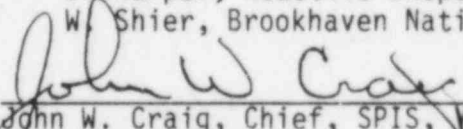


ORGANIZATION: EXXON NUCLEAR COMPANY
NUCLEAR FUELS DEPARTMENT
RICHLAND, WASHINGTON

REPORT NO.: 99900081/85-01	INSPECTION DATE(S): 7/8-12/85	INSPECTION ON-SITE HOURS: 104
CORRESPONDENCE ADDRESS: Exxon Nuclear Company Nuclear Fuels Department ATTN: Mr. C. J. Volmer, QA Manager 2101 Horn Rapids Road Richland, Washington 99352 ORGANIZATIONAL CONTACT: Mr. C. J. Volmer, QA Manager TELEPHONE NUMBER: (509) 375-8257		
PRINCIPAL PRODUCT: Nuclear Fuel Assemblies NUCLEAR INDUSTRY ACTIVITY: Nuclear fuel reload supplier for various designed cores.		
ASSIGNED INSPECTOR:  Robert L. Pettis, Special Projects Inspection Section (SPIS), Vendor Program Branch		10/28/85 Date
OTHER INSPECTOR(S): O. Gormley, Program Coordination Section, VPB J. Harper, Reactive Inspection Section, VPB W. Shier, Brookhaven National Laboratory		
APPROVED BY:  John W. Craig, Chief, SPIS, Vendor Program Branch		10/28/85 Date
INSPECTION BASES AND SCOPE: A. <u>BASES</u> : Exxon Topical Report XN-NF-1A, Revision 6. B. <u>SCOPE</u> : Review of Exxon Nuclear Company's (ENC) QA program in the areas of fuel fabrication, thermohydraulic computer code verification, computer code error handling and reporting, and status of previous inspection findings.		
PLANT SITE APPLICABILITY: H.B. Robinson 2 (50-261); Kewaunee (50-305); Maine Yankee (50-309); Oyster Creek (50-219); Palisades (50-255); Prairie Island 1 & 2 (50-282/306); St. Lucie 1 (50-335).		

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9900081 PDR

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A. VIOLATIONS:

None.

B. NONCONFORMANCES:

1. Contrary to Section 2.2 of ENC QA Procedure QAP No. 2, Licensing and Safety Engineering personnel, engaged in performing safety-related computer code calculations, are not formally indoctrinated and trained into the various fuel reload computer programs used by ENC.
2. Contrary to Section 3.6 of ENC Topical Report XN-XF-608, Revision 5, "Procedure For Control and Administration of Computer Codes For Engineering Design Calculations,"
 - a. ENC failed to comply with the reporting requirement which states that written notice of code errors shall be submitted to the Manager, Fuel Engineering and Technical Services (FE&TS) from the cognizant Section Manager for appropriate action.
 - b. In order to prevent further use, ENC users of ECCS computer code TOODEE-2 were not formally notified of the existence of a coding error, found on St. Lucie Unit 1, soon after its discovery by ENC.
 - c. A review of the Software Development Record (SDR) for TOODEE-2 failed to produce written notices pertaining to previously reported code errors.
3. Contrary to 10 CFR 50 Appendix B, Criterion III, and ENC Quality Assurance Procedure XN-NF-P00-002, Section 3.3.2, ENC's documentation and independent review of analyses performed were deficient in the following areas:
 - a. Adequate documentation such as a calculation notebook or other form of design analysis documentation was not maintained concerning the safety-related analysis described in the ENC Topical Report XN-NF-82-20, Supplement 4. This topical report describes a modification to the ENC ECCS methodology and includes calculations performed to verify changes implemented in the TOODEE-2 computer code.

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- b. The independent review of the TOODEE-2 computer code input data for the St. Lucie, Unit 1, ECCS Analysis (E7380-963-D) was not adequately documented.
4. Contrary to ENC Quality Assurance Topical Report XN-NF-608, Revision 5, Section 1.2.7, the verification and qualification calculations performed for the UJUL84 version of the TOODEE-2 computer code were not included in the SDR and were also not retrievable.
5. Contrary to Criterion V of 10 CFR 50 Appendix B and Section 6.0 of ENC Analytical Procedure "Spectrochemical Determination of Impurities in Uranium," Revision 7, dated November 28, 1983, ENC laboratory technicians, responsible for oxidizing uranium, failed to raise samples to a 900° C state for a minimum period of one hour (one minute vs. one hour), as required by procedure.
6. Contrary to Section 7.0 of ENC Analytical Procedure, "Calibration of the Quantometer," Revision 4, dated November 28, 1983, ENC failed to formally approve detection limits and calibration curves prior to placing equipment in service.

C. UNRESOLVED ITEMS:

None.

D. STATUS OF PREVIOUS INSPECTION FINDINGS:

1. (Closed) Nonconformance (84-01, B.1): ENC failed to prescribe adequate definition of the instruction for satisfactory completion of safety-related computer codes in the following areas:
 - a. Procedures do not exist that require computer code input to be independently verified.

ENC QA Topical Report XN-NF-608, Rev. 5 and the "QA Procedure For Design Control," XN-NF-P00,002, have been revised to include a requirement for independent checking of computer code input. This item is considered closed.
 - b. Procedures do not address Section 9, "Corrective Action," of ANSI N45.2.11-1974 concerning actions to be taken.

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Section 3.6 of XN-NF-608, "Errors in Codes" has been expanded to address corrective actions as related to safety-related computer codes. This item is considered closed.

- c. The definition of "Use" and "Special" codes in XN-NF-608 are not specific with respect to testing requirements.

Testing requirements for "Use" and "Special" codes have been added to XN-NF-608, Revision 5. This item is considered closed.

2. (Open) Nonconformance (84-01, B.3): The Software Development records for the REFLEX and T00DEE-2 computer codes were incomplete with regard to identification of purpose, preparer, and independent review.

The SDR for T00DEE-2 has been updated to conform to the requirements of Section 1.2.7 "Software Development Record." However, during this inspection, ENC made a commitment to update the SDR's for REFLEX and other safety-related codes. This item will be reviewed during a future inspection.

3. (Open) Nonconformance (84-02, B.1): No requirements concerning necessary action to report significant errors in Structural Dynamic/Heat Transfer computer codes such as NASTRAN or ANSYS have been established by ENC.

ENC has requested error reports for NASTRAN and ANSYS from UCCEL, an ENC computer services supplier. An incomplete set of error reports from the past several years has been received for ANSYS. In addition, ENC has established a Special Code Coordinator to review and evaluate the effects of these error reports on previous safety-related analyses. However, none of the error reports received to date were determined to be applicable for evaluation on previous analyses. This item will be reviewed during a future inspection.

4. (Closed) Nonconformance (84-02, B.2): The Software Development Record for the UJUL83A version of the RELAP5/MOD1 code did not contain indications that an independent review was performed.

ENC has withdrawn the request for NRR approval for use of the RELAP5/MOD1 in small break loss of coolant accident analyses (SBLOCA) (Ref. enclosure to ENC letter JCC:039:85, March 1, 1985). As a result, this item is considered closed.

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5. (Closed) Nonconformance (84-02, B.3): The documentation of the verification and qualification calculations for modifications to the RELAP5/MOD 1 were not complete nor independently reviewed. Since ENC has withdrawn the request for approval of this code (see Item 4) this item is considered closed.

6. (Closed) Unresolved Item (84-02): Due to the number of questions and requests for additional information by NRC staff, the RELAP5/MOD1 code should be reviewed during a future inspection.

Since RELAP5/MOD1 has been withdrawn, (refer to items 4 and 5 above), this item is considered closed.

7. a. (Closed) Nonconformance (84-02, B.4.a): A review of calibration records and external audits revealed that two vendors providing calibration services (Pacific Scientific and Westinghouse Hanford) were not on the Approved Vendor List (AVL). In addition, documentation could not be produced to support that an audit of Pacific Scientific had been performed by ENC.

ENC stated that Pacific Scientific and Westinghouse Hanford will be included on the next issue of the AVL. The NRC inspector reviewed the findings of ENC's June 28, 1985, audit of Tech-Science International (formerly Pacific Scientific Industrial Sales Division).

- b. (Closed) Nonconformance (84-02, B.4.b): A review of external audits, performed by ENC, and lead auditor qualification records, identified weaknesses with respect to auditor qualification records and QA Manual filing.

ENC QA Procedure XN-NF-P00, 023, Revision 7, "QA Records" has been revised to require a six-year retention time for lead auditor qualification records, in addition to generating a qualification record for one of ENC's lead auditors. With respect to two European suppliers' QA Manuals, which were not on file for the inspectors review, ENC stated such manuals are located and maintained in their Lingen, West Germany, office under the overall responsibility of their QA representative. This individual is delegated to perform the QA Program assessment and audit responsibility for all European suppliers to ENC-Richland and ENG mbh.

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The NRC inspector reviewed several pages from the Lingen plant QA Manual, XN-EU-4.008, Revision 6, which assigns responsibility to the QA representative for reviewing and auditing vendors. The information was adequate with respect to this issue.

- c. (Closed) Nonconformance (84-02, B.4.c): A review of calibration records revealed that Pacific Scientific calibrated a tensile tester and several extensometers, in March 1984, without a statement of traceability to the National Bureau of Standards (NBS) on the Certificate of Verification.

ENC's response to the (84-02) inspection included a Certificate of Verification sent them by Pacific Scientific. A review of this certificate, by the NRC inspector, satisfied this concern.

E. OTHER FINDINGS AND COMMENTS:

1. Indoctrination and Training

The inspector reviewed ENC's program for indoctrination and training of personnel performing activities affecting quality. Although it was demonstrated that QA training activities are being performed, documentation was not available to assure that suitable proficiency is achieved and maintained as required by 10 CFR Part 50, Appendix B, Criterion II. During an in-house ENC audit, conducted early in 1985, Corrective Action Request (CAR) No. 546 was written which raised similar concerns about this program. As part of the proposed corrective action, ENC committed to establishing a comprehensive QA program for indoctrination and training to be in place by October 1, 1985.

However, in the area of technical training no formal program existed nor was there adequate documentation to support computer code indoctrination, for safety and licensing personnel engaged in performing ECCS analyses to such Codes as EXEM-PWR and TOODEE-2.

ENC procedure QAP No. 2, Section 2.2, states in part, that personnel performing activities affecting quality be appropriately qualified and "receive the necessary training to achieve suitable proficiency." ENC's weakness in this area is evidenced by several recently reported computer code and input errors which affected LOCA-ECCS analyses for several operating plants.

One Nonconformance (B.1), was identified during this part of the inspection.

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2. ECCS COMPUTER CODES

During this inspection, several ENC Topical Reports and calculation notebooks associated with the ENC ECCS analysis methodology were reviewed. In addition, ENC quality assurance procedures XN-NF-P00,002 and XNF-NF-608 were reviewed and utilized throughout the inspection. Details of the results of these reviews are summarized in following paragraphs.

- a) ENC Topical Report XN-NF-82-49(P), Supplement 1, was submitted to the NRC staff in response to questions on the ENC methodology for small break loss of coolant accident (SBLOCA) analysis. This report states that ENC will suspend use of RELAP5/MOD1 code for SBLOCA calculations. Therefore, the findings of the NRC (84-02) Inspection, associated with this version, of RELAP5 are considered closed. However, as stated in the Topical Report, ENC now plans to use RELAP5/MOD2 for this analysis. The development and application of MOD2 was not reviewed during the inspection.
- b) ENC stated that a third version of RELAP5, designated as RELAP5/MOD1 Cycle 25, will be used for steamline break analyses. This third version has been submitted for NRR review and approval. This code version was not reviewed during the inspection.
- c) The inspector reviewed the Software Development Record (SDR) for the TOODEE-2 computer code used in safety-related analyses. The SDR describes a series of over 25 code modifications (starting from September 1976) and was the subject of two findings during a previous NRC inspection. In addition, a FORTRAN coding error related to a heat transfer augmentation factor was recently discovered in TOODEE-2. The current review of the SDR indicated that references to a number of verification calculations had been added, however documentation could not be produced to support the verification calculations described in ENC Topical Report XN-NF-82-20(P) Supplement 4.

One Nonconformance, (B.3.a), was identified during this part of the inspection.

- d) The SDR for the UJULC4 version of TOODEE-2 indicated that a series of qualification and verification calculations were performed to substantiate this code modification. However, these calculations were not included in the SDR and could not be produced by ENC during the inspection.

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One Nonconformance, (B.4), was identified during this part of the inspection.

- e) In the response to NRC Inspection (84-01), ENC committed to update the SDRs for all safety-related codes to comply with their requirements of XN-NF-608. The inspector stated that these SDRs would be reviewed during a future inspection.
- f) The calculation notebook supporting the ECCS analysis for St. Lucie, Unit 1, (E7380-965-AA) was reviewed. The inspector noted that the description of computer code input parameters, particularly for the TOODEE-2 code, was not complete and thus, would be difficult to review. In addition, it was noted that an input error, related to a heat transfer augmentation factor associated with mixing vanes, had subsequently been discovered in the analysis. ENC stated that, during a reanalysis for St. Lucie, a line-by-line review of the computer input was performed based on their requirements of XN-NF-608. However, the inspector noted that this review was performed by comparison with a previous input data file that was, itself, not adequately documented and reviewed.

One Nonconformance, (B.3.b), was identified during this part of the inspection.

- g) In response to a finding from NRC Inspection (84-02), ENC designated a Special Code Coordinator to obtain and evaluate error reports for the ANSYS computer code from UCCEL (ENC's computer services supplier), of all error reports from January 1983 to the present. The evaluation had indicated that the reported errors did not effect any ENC applications. In the case of NASTRAN, only one bi-monthly set of error reports has been obtained from UCCEL. However, ENC does receive NASTRAN error reports directly from the code originator (MacNeal-Schwendler Corp.) through a separate contract. The evaluation of these error reports has produced no impact on previous ENC analyses. The inspector stated that this item would remain open until more applicable error reports are reviewed by ENC to further demonstrate the system of receipt, evaluation, and documentation of these evaluations.

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h) The cause of a computer code input error on St. Lucie, Unit 1, regarding the TOODEE-2 code was reviewed by the inspector. This error involved the misapplication of a mixing vane augmentation factor which, for St. Lucie, was not applicable due to the fuel design. Reporting requirements of code errors are outlined in Section 3.6 of ENC procedure XN-NF-608 Revision 5 "Procedure for Control and Administration of Computer Codes for Engineering and Design Calculations," dated February, 1985, and requires:

- i. A written notice to be sent to the Manager of Fuel Engineering and Technical Services (FE&TS) from the cognizant Section Manager.
- ii. Formal notification to all affected code users of the existence of such an error.
- iii. Incorporation of a written notice by the Code Custodian, in the SDR, pertaining to a code error.

As a result of this review, documentation could not be produced by ENC to support compliance to the ENC procedure.

One Nonconformance, (B.2), was identified during this part of the inspection.

3. Spectrochemical Testing of Uranium

The inspector reviewed the analytical procedures used to determine impurities in uranium, as determined by spectrochemical means, used in the manufacture of nuclear fuel pellets.

In order to obtain a valid chemical analysis using this method, samples of the uranium solution must be properly oxidized. ENC procedure "Spectrochemical Determination of Impurities in Uranium," Section 6.0, Revision 7, dated November 28, 1983, specifies that a 900°C temperature must be maintained for a minimum of one hour. However, during the performance of a routine test, the NRC inspector observed that while the sample was heated to the stated temperature, a wait period of one minute rather than the required one hour period was observed by the technician. This resulted in a concern as to the validity of this analytical method as performed by ENC. Sample oxidation tests were performed to compare the effects, if any, this time parameter had on the amount of oxidation. At the

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conclusion of these tests, ENC determined that the one minute time parameter actually used had little or no effect upon the results of this analysis.

One Nonconformance, (B.5), identified during this part of the inspection.

4. Calibration of Test Equipment

A critical element in the spectrochemical analysis used by ENC in the fuel pellet manufacturing process is the calibration of the quantometer. ENC Analytical Procedure No. P69260, Revision 4, "Calibration of the Quantometer," states in Section 7.0 that "Detection limits and calibration curves are to be formally approved by the spectroscopist prior to being placed into service." These detection limits and curves aid in determining the precision and accuracy of the data obtained. Therefore, correct execution of this procedure is a quality related activity. ENC was unable to produce documentation to support the formal approval of such detection limits and calibration curves as required by Section 7.0 of the ENC procedure.

Further, no definition exists to specify the qualifications necessary for the "Spectroscopist." As stated in ENC's procedure, the approval of the curves and limits may be performed by anyone in the laboratory involved with spectrochemical analysis regardless of their qualifications.

One Nonconformance (B.6), was identified during this part of the inspection.

PERSONS CONTACTED

Company. EXXON NUCLEAR

Dates July 8-12, 1985

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Inspector R PETTIS

"ENTRANCE MEETING"

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ORGANIZATION(Please Print)

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PERSONS CONTACTED

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Dates 7-8/12, 1985

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PERSONS CONTACTED

Company: Exxon

Dates 7-11-85

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Inspector R Petts

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INSPECTOR R. PETTIS

SCOPE COMPUTER CODES

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1	QAM	XN-NF, 1	48	6-11-85	EXXON QA MANUAL
		XN-NF-608	5	2-85	Procedure for Control and Admin. of Computer Codes for Eng. Design Calculations
2		letter		7-8-85	Audit of T&E-SCIENCE INTERNATIONAL
3	—	XN-NF-F01 -702	—	—	QA INDOCTRINATION SHEET SESSION
4				6-25-85	QA AUDIT SCHEDULE
5		F00, 371		4-30-85	CORRECTIVE ACTION REQUEST FF-85-4 # 346
6	Contract	RB-S098		5-1-85	ENGINEERING SERVICE AGREEMENT

TYPE OF DOC:

DWG - DRAWING
SPEC - SPECIFICATION
PROC - PROCEDURE
QAM - QA MANUAL
QCD - QC DOCUMENT
P.O. - PURCHASE ORDER
T.M. - INTERNAL MEMO

LTR - LETTER

INSPECTOR LC HAPPER

JC HARPER

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1	QAM	XN-NF-103	4	11/16/83	TRAINING, TECHNOLOGISTS
2	PRO	XN-NF-103	7	11/28/83	SPECTROCHEMICAL DETERMINATION OF IMPURITIES IN URANIUM
3	PRO	XN-NF-S3041	38	7/2/84	URANIUM DIOXIDE PELLETS
4	PROC	XN-NF-103	4	11/24/83	CALIBRATION OF THE QUANTOMETER
5	PRO	XN-NF-S30806	2	12/22/82	UO ₂ FUEL PELLETS
6	PRO	XN-NF-P68152	44	12/15/85	PELLET PROCESSING AND CERTIFICATION
7	CALIBRATION DOCUMENT	98 (1-7)		6/78	NEW BRUNSWICK LAB - FOR NRC - Ref. Mat. No. 98-1-7

TYPE OF DOC:

DWG - DRAWING

SPEC- SPECIFICATION

PRO-PROCEDURE

QAII - QA MANUAL

QCD - Q C DOCUMENT

P.O. - PURCHASE ORDER
THM - INTERNAL MEMO

TIME-DEPENDENT FIELD

LTR - LETTER

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INSPECTOR: Bill Shier

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1	PRO	XN-NF-P00,002	14	Nov '84	Quality Assurance Manual for Nuclear Fuel
2	PRO	XN-NF-608	5	Feb '85	Procedure for Control and Administration of Computer Codes for Engineering Design Calculations.
3	SDR	—	—	—	TOODEE-2 Software Development Record
4	FILE	—	—	—	ANSYS Error Reports 83-1 to 85-13
5	SDR	E 9380-965-AA	—	March 82	ST LUCIE 1 LOCM ECCS Analysis
6	SDR	E 9380-963-1	—	May 83	ST LUCIE 1 ECCS Analysis
7	LTR	MSF-84-92	—	Sept 1984	ENC letter M.S. Foster to J. Riley, UCCEL
8	LTR	—	—	Sept 1984	UCCEL R.P. Munchrath to M.S. Foster ENC
9	TOP	XN-NF-82-20 (P) Supp 4	1	July 1984	Exxon Nuclear Company Evaluation Model EXEM/PWR ECCS Model Updates: Adjustments to FLECHT Based Heat Transfer Correlations
10	LTR	JCC: 039:85	—	Mar 1985	ENC Letter JC Chandler to CO Thomas NRC
11	TOP	XN-NF-82-49 (P) Supp 1	—	Mar 1985	Exxon Nuclear Company Evaluation Model - EXEM/PWR Small Break Model Supplement 1 - Response to NRC Questions
12	TOP	XN-NF-84-93 (P)	—	Nov 1984	Steamline Break Methodology for PWRs
13	TOP	XN-NF-82-20 (P) Supp 3	1	June 1985	Exxon Nuclear Company Evaluation Model EXEM/PWR ECCS Model Updates - Response to NRC Request for Add. Info
14	LTR	JCC: 159:84	—	Nov 1984	ENC letter: JC Chandler to CO Thomas, NRC

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SDR - Software Development Record
TOP - Topical Report

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1	Letter			8/3/77	To all employees Introducing 10CFR Part 21 Requirements
2	Letter			10/16/84	Nuclear Safety Hazard Reporting Procedure in Policy Manual, Manual # 10.2
3	File				File of Part 21 Administration and Reports
4	Letter			2/12/79	Leckenby Investigation
5	INM	RKR-77-381		10/6/77	Spacer Welding - Part 21 Hazards Review Board Designation
6	INM	RKR-78-376		8/4/78	Flaw testing Zirc tubing - Hazards Review Board Designation
7	INM			8/16/78	Hazards Review Board Investigation of Flaw Testing in Zirc tubing
8	Report	XN-NF-484		7/31/78	Incident Review Board Report - Laminations Found in Zirc Strip
9	Report	XN-NF-485		8/78	Incident Review Board Report - Incomplete Fuel Cladding Inspections
10	Report	XN-NF-535		1/80	IRB Report Maine Yankee Fuel Assemblies November 1979
11	INM			5/14/79	Investigation of Oyster Creek ECCS Modeling (Four Loop Issue)
12	Report	XN-NF-539		4/80	IRB Report - Kewaunee Fuel Assemblies
13	Report	XN-NF-540		4/80	IRB Report - BWR Spacer Assemblies
14	INM			11/24/80	CE-250 Shipping Container

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15	INM			3/11/81	CE-250 Shipping Container
16	Meeting Minutes			2/18/81	H.B. Robinson Unit 2 ECCS Analysis
17	Report			2/19/81	HRB Meeting H.B. Robinson ECCS Analysis
18	Report			8/77	Consumers Power Co Memo Palisades stretch Thermal Margin/Low Pressure Trip Setpoints
19	INM			1/4/84	Policy Statement on Business Ethics (PTS PWR -2 code)
20	INM			1/16/84	Hazards Review Board (Formed to deal with above issues)
21	Report			2/1/84	HRB Conclusions - PTS/PWR Issues
22	INM			1/5/84	Reply to Memo from B.C. Fryer to J.C. Vlastelica concerning Policy Statement on Business Ethics
23	Letter	HGS:006:84		1/6/84	Assessment of Palisades TM/LP for Operation with 50% Tube Plugging
24	Letter	FTA:020:84		5/14/84	Palisades Plant Thermal Margin/Low Pressure Reactor Trig Setpoint
25	Report	GAS:84:167		9/17/84	Hazards Review Board Conclusions Part Power Trip Palisades

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LTR - LETTER

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26	Status Report	WVK:020:84		9/17/84	Status Palisades Part Power Radial Peaking Tech Spec. Limit
27	Letter	WVK:021:84		9/20/84	Palisades TM/LP and High Neutron Flux Trips
28	INM	BCF:022:84		9/16/84	Ethias Statement Endorsed 2/3/84
29	INM			9/14/84	Responsibility of Individual Employees under 10CFR Part 21
30	INM	BCF:016:83		4/26/84	Palisades Tech Spec Allowable LHGR Values For Palisades Possibly not Supportable by ENR Safety Analysis
31	INM	GJB:005:85		1/29/85	Potential Specification Violation in Fuel Already in Service
32	INM	AJM:015:85		1/21/85	Brazing Problem in Boron Cluster Assembly For D.C. Cook - 2 XN-3
33	INM			3/15/85	Hazards Review Board Meeting 3/15/85 / Too Dee 2
34	INM			3/18/85	Hazards Review Board / to look for Additional Errors
35	Letter	JSH:012:85		3/18/85	(Notifies FP&L of Revised Clad Temperatures)
36	Letter	JNM:85:117		3/18/85	(Notifies Consumers Power Co of Revised Clad Temperatures)
37	Letter	ENC/SEP-04286		3/18/85	Error in The 43,000 MWD/MTV LOCA - ECCS Analysis for D.C. Cook

TYPE OF DOC:

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ITEM NO.	TYPE OF DOCUMENT	DOCUMENT NO.	REV.	DATE	TIME / SUBJECT
38	INM			3/20/85	Hazards Review Board Meeting - March 19, 1985
39	Letter	GFO:85:009		3/21/85	K(2) Verification (Written to Northern States Power)
40	Letter	JNM:85:119		3/22/85	Prairie Island LOCA - ECCS Analysis Status Regarding Errors Recently Discovered for Four (4) Other PWR Customers
41	Letter	JNM:85:020		3/22/85	Kewanee LOCA - ECCS Analysis Status Regarding Errors Recently Discovered for Four (4) Other PWR Customers
42	Letter	GFO:85:010		3/22/85	Error in the TOODFE 2 code Used in the Evaluation Model for PWRs (Written to NRC IE)
43	INM	JNM:85:021		4/1/85	Meeting With NRC to Discuss Status of PWR ECCS Analysis - 3/21/85
44	INM	GFO:85:013		4/4/85	ACRS Subcommittee Meeting of 4/3/85 Report of Exxon Nuclear ECCS Model Errors
45	INM	GLR:85:027		4/12/85	Committee Report on LOCA/ECCS Code Errors
46	INM	ABDKP:85:17		4/18/85	Results of Investigation of LOCA/ECCS Analysis Code Errors
47	INM	LB-88		4/18/85	Committee Report on LOCA/ECCS Errors

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Figure 1

[illegible]

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