



THE CLEVELAND ELECTRIC ILLUMINATING COMPANY

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PERRY NUCLEAR POWER PLANT

Al Kaplar,

VICE PRESIDENT
NUCLEAR GROUP

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Perry Nuclear Power Plant
Docket No. 50-440
Annual Report of 10 CFR 50.59
Safety Evaluations for 1987

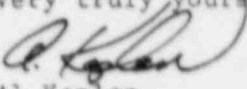
Gentlemen:

Pursuant to 10 CFR 50.59(b)(2), attached is our summary report for the 1987 Perry Nuclear Power Plant safety evaluations. An applicability check using the 10 CFR 50.59(a)(1) threshold criteria was performed on proposed changes to the design of the plant, to procedures/instructions, and to tests. All those meeting the threshold criteria were further evaluated pursuant to the 10 CFR 50.59(a)(2) criteria and are summarized herein.

This report summarizes a total of 471 safety evaluations, none of which resulted in the identification of an unreviewed safety question. Any safety evaluation numbers not included in this summary have either been voided, withdrawn, or have previously been submitted with the Startup Test Changes in accordance with License Condition 2C(4). Attachment 1 lists the various categories of safety evaluations. Attachment 2 summarizes all the safety evaluations related to Hilti Bolt modifications, and Attachment 3 defines the acronyms and format description.

Please feel free to call if you have any questions or comments.

Very truly yours,


Al Kaplar
Vice President
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AK:njc
Attachments
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1987 Perry Safety Evaluations
by Category

The 471 safety evaluations tabulated below are divided into 14 major categories. Also, evaluations of the same change by different disciplines are separately described. Startup test changes are excluded from this report as they have been previously submitted in accordance with License Condition 2C(4). Hilti Bolt modifications are listed in Attachment 2.

<u>Category</u>	<u>Number</u>
1. Design Changes (except Hilti Bolts & setpoint changes)	202
2. Design Document Changes (clarification or as-built drawing changes)	45
3. Hilti Bolts	46
4. Set Point Changes	29
5. FSAR Clarification (nontechnical)	32
6. Procedure/Instruction Changes	22
7. Emergency Plan Changes	2
8. Temporary Changes	4
9. Lifted Lead & Jumper and Mechanical Foreign Item Changes	46
10. Nonconformances Report Evaluations	19
11. Work Order Evaluations	6
12. Test Exception Report/Special Test Instruction	7
13. Miscellaneous	9

Hilti Bolt Modification
Summary

Safety Evaluation for installation of Hilti Bolts in safety-related concrete.

Summary

- I. No. Hilti Bolts installed per installation standard SP-2450 or SP-2500, do not impair the integrity of the structural concrete, and therefore, the probability of an accident/occurrence is not increased.
- II. No. Since the structural integrity is not impaired, the Hilti-Bolts do not create the possibility for an accident/malfunction of a different type.
- III. No. The integrity of the structures is not impaired, and therefore, the margin of safety defined in the bases for any Technical Specifications is not reduced.

NOTE: See generic safety evaluations, nos. 87-0369 and 87-0370.

The following list summarizes all the safety evaluations on Hilti Bolts, which are essentially the same as the one shown above.

<u>SE #</u>	<u>Source Document</u>
87-0015	DCP 86-0735, Rev. 0
87-0017	DCP 86-0629A, Rev. 0
87-0050	DCP 86-0933A, Rev. 0
87-0062	DCP 86-0951, Rev. 0
87-0063	DCP 86-0067, Rev. 0
87-0066	DCP 85-0702, Rev. 0
87-0076	DCP 85-0320B, Rev. 1
87-0087	DPC 86-0011, Rev. 0
87-0097	DCP 86-0832, Rev. 0
87-0106	DCP 86-0568H, Rev. 0
87-0113	DCP 87-0123A, Rev. 0
87-0123	DCP 87-0779, Rev. 0
87-0124	DCP 86-0995, Rev. 0
87-0142	DCP 86-0008B, Rev. 0
87-0164	DCP 87-0091, Rev. 0
87-0165	DCP 87-0295R, Rev. 0
87-0172	DCP 86-0747A, Rev. 0
87-0180	DCP 86-0841, Rev. 0
87-0188	DCP 87-0145, Rev. 0
87-0192	DCP 86-0213, Rev. 0

Hilti Bolt Modification
Summary (continued)

<u>SE #</u>	<u>Source Document</u>
87-0202	DCP 85-0295, Rev. 0
87-0205	DCP 86-0645A, Rev. 0
87-0207	DCP 87-0146, Rev. 0
87-0237	DCP 87-0068A, Rev. 0
87-0238	DCP 87-0068, Rev. 0
87-0241	DCP 87-0010, Rev. 0
87-0243	DCP 87-0441A, Rev. 0
87-0246	DCP 86-0645B, Rev. 0
87-0266	DCP 86-0213B, Rev. 0
87-0270	DCP-87-0207, Rev. 0
87-0273	DCP-87-0108A, Rev. 0
87-0287	DCP-87-0213B, Rev. 0
87-0288	DCP-87-0213C, Rev. 0
87-0289	DCP-87-0213D, Rev. 0
87-0290	DCP-87-0213E, Rev. 0
87-0291	DCP-87-0213F, Rev. 0
87-0310	DCP-87-0344, Rev. 0
87-0316	DCP-87-0183, Rev. 0
87-0317	DCP-86-0720A, Rev. 0
87-0319	DCP-87-0139, Rev. 0
87-0328	DCP-87-0306A, Rev. 0
87-0336	DCP-87-0414, Rev. 0
87-0339	DCP-87-0234A, Rev. 0
87-0344	DCP-87-0208A, Rev. 0
87-0350	DCP-87-0115, Rev. 0
87-0355	DCP-87-0399, Rev. 0
87-0363	DCP 86-0832, Rev. 0
87-0366	DCP 86-0020, Rev. 0

FORMAT DESCRIPTION

Each 50.59 Safety Evaluation summary is presented in the same format as follows:

SE NO: A sequentially assigned number from one (001) to 535, preceded by the year; e.g. 86-025.

Source Document: There are several sources of evaluations which are abbreviated as shown.

DCP - Design Change Package
DUN - Drawing Change Notice
EPI - Emergency Plan Instruction
SCR - Setpoint Change Request
SOI - System Operating Instruction
SCN - Specification Change Notice
SXI - Special Test Instruction
STCN - Startup Test Change Notice
FSAR CR - Final Safety Analysis Change Request
EDDR - Engineering Design Deviation Request
MFI - Mechanical Foreign Item
PEI - Plant Emergency Instruction
TCN - Test Change Notice
LL & J - Lifted Lead and Jumper
LL & JED - Lifted Lead and Jumper Electrical Device
NR-PPDS - Nonconformance Report, Perry Plant Department, Safety Related
NR-NEDS - Nonconformance Report, Nuclear Engineering Dept.
Safety-Related
MPL - Master Parts List
PRCN - Program Revision Change Notice
FCR - Field Change Request
P & ID - Piping and Instrumentation Diagram
W.O. - Work Order
ONI - Offnormal Instruction
SP - Specification
FDDR - Field Deviation Design Request
PTI - Periodic Test Instruction
IOI - Integrated Operation Instruction
TER - Test Exception Report
TC - Test Condition

Description of Change:

A short narrative describing the location and type of plant change. For multiple evaluations the discipline is identified in parenthesis like (Mechanical Evaluation).

Summary

- I Response to 10 CFR 50.59(a)(2)(i) - is the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report increased?
- II Response to 10 CFR 50.59(a)(2)(ii) - is there a possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report created?
- III Response to 10 CFR 50.59(a)(2)(iii) - is the margin of safety as defined in the basis for any Technical Specification reduced?

PERRY NUCLEAR POWER PLANT

SAFETY EVALUATION SUMMARY

PURSUANT TO

10 CFR 50.59(b)(2)

1987

SE No.: 87-0001

Source Document: DCN 01469, Rev. 0

Description of Change

Change to Solid Radwaste System drawing to delete a transfer cart.

Summary

- I. No. The transfer cart (a motorized platform that moves shipping containers) is equipment that has been removed from the plant and the FSAR, Chapter 11, Section 11.4.2.3(n) and replaced by a mobile solidification system.
- II. No. The transfer cart is not currently being used to process solid radwaste. The removal of this equipment does not create a new accident.
- III. No. The transfer cart is not currently being used to process solid radwaste. Processing of solid radwaste is all done under approved vendor procedures. Therefore, no change in solid effluents is involved with this drawing change.

SE No.: 87-0002

Source Document: DCN 01186, Rev. 0

Description of Change

Change designation of the normal and failure modes for the valves on the Condensate Filtration System (N23) Filter/Demineralizers on drawings 302-104, 302-105 and 302-106.

Summary

- I. No. The system serves no safety function. Change to drawing for additional information only.
- II. No. Valve failure modes are being added for additional information. No change to system operation is being made.
- III. No. This system is not in the bases of Technical Specifications.

SE No.: 87-0003

Source Document: NR-PPDS-2055, Rev. 2

Description of Change

Add sealant and sealant band to Reactor Water Cleanup (G33) heat exchanger "B" to stop leakage at mechanical joint. This band is a temporary clamp which will be removed later.

Summary

I. No. See Item II. below.

II. No.

Malfunction of Equipment or Malfunction of a Different Type

A. Sealant Band and Compound

The sealant band is designed and built to the requirements of ASME Section VIII and is only a temporary pressure retaining device for the approved sealant. This temporary band is not required to meet the requirements of Section III and installation as designed will not affect the ability to safely shutdown the reactor. Since as described below the sealant will have no long term detrimental effect on the heat exchanger metallurgy or reactor water chemistry, the sealant band and compound may be used indefinitely. Sealant compound may have to be replenished because of temperature cycling of the exchanger.

The fiber and sealant compound is judged to have no adverse effect on the ability to safely shutdown the reactor or on the ability to operate the reactor within normal operating parameters. This judgment is based on the following considerations:

1. GE has evaluated the fiber and sealant compound and concluded that the chemistry of the material will not cause any degradation to BWR materials, nor cause unacceptable changes in the reactor water chemistry.
2. The effects of sealant migrating into the RWCU System and then the reactor does not pose a credible safety or operational concern. This conclusion is based on evaluation of two possible modes of sealant intrusion into the reactor: A) During injection of the liquid sealant compound and B) Detachment of a piece of solidified compound during normal RWCU operation. Each of these evaluations is further summarized in Attachment 1 of the original safety evaluation.

SE No.: 87-0003 (Continued)

Summary (Continued)

B. Failure of the Flange

The possibility of a failure of the heat exchanger flange is not increased nor is the consequence of a failure of the flange made worse by the addition of this band. Since the installation of the collar does not modify the existing flange there is no new failure mechanism from this installation.

III. No. Margin of Safety

Margin of safety is not reduced by the injection of the sealant into the RPV nor is water chemistry affected by this compound.

SE No.: 87-0004

Source Document: DCP 85-0257, Rev. 1

Description of Change

Add revision E through F of ECN22714-33-3835 to change relay type from ITE Gould to AGASTAT E3PD type.

Summary

- I. No. This change does not alter the system description in the FSAR.
- II. No. No new accidents or malfunctions are created by this change.
- III. No. This change is minor in nature and does not affect the Technical Specifications.

SE No.: 87-0005

Source Document: DCP 86-0705, Rev. 0

Description of Change

Extend vent valve piping from 1N21-F676, -F677, and -F678 down to floor level and add a second vent valve in each line at floor level.

Summary

- I. No. FSAR accident analysis is not affected by this vent modification. The entire Condensate System (N21) is nonsafety-related. The implied reliance of N21 is not changed, since the same design codes and standards are still met.
- II. No. The vents meet the existing design codes and standards, and therefore no new accidents or malfunctions are created.
- III. No. The N21 vent valves are not covered by the Technical Specifications and therefore the margin of safety is not affected.

SE No.: 87-0006

Source Document: DCN 01453, Rev. 0

Description of Change

This change isolates OP21 (Two Bed Storage Water) from system 2P46 (Turbine Building Chilled Water) for Unit I operation.

Summary

- I. No. The original design of system OP21 (Two Bed Storage Water) provides makeup water to system 2P46 (T.B. Chilled Water). The isolation of makeup water to the unenergized Unit II system (2P46) does not change system (OP21) function as described in the FSAR. Based on the fact that the overall system function in the Unit I operating configuration has not changed, the parameters upon which the accident analysis in the FSAR was based, have not been affected.
- II. No. Isolation of the Unit II system (2P46) from the Unit I system (OP21) for Unit I operation does not change system function. Therefore, malfunctions of a different type will not be created.
- III. No. The Makeup Water System has not been affected by the isolation of the Unit II system. System function remains the same. Therefore, the margin of safety as specified in the Technical Specification has not been reduced.

SE No.: B7-0007

Source Document: DCN 1464

Description of Change

Modify GE Functional Control Diagram FCD 866E304CA to agree with as-built plant conditions and elementary diagrams for the Reactor Recirculation System (B33).

Summary

- I. No. This DCN modifies GE's functional control diagram FCD 866E304CA to agree with as-built plant conditions and elementary diagrams for the Reactor Recirculation System (B33), as shown in FDDR KLI-6509.

In the existing FCD logic, circuit breakers 3A(B) and 4A(B) must be closed in order to close breaker 5A(B) and start a recirculation pump. Per the FCD, these permissives are shown as a requirement for any mode of recirculation pump start-up.

GE elementary drawings 828E446CA and the B208-015 series of schematics agree with this logic for a pump start from rest, acceleration to near full speed and automatic downshift to low speed (slow speed start).

Per the as-built condition and schematic diagrams, if a pump is started from rest, accelerates to full speed and remains at full speed (fast speed start) there are no permissives requiring circuit breakers 3A(B) and 4A(B) to be closed in the closing circuit of breaker 5A(B).

Likewise, if a pump is running at low speed and switched to high speed the breaker 3A(B) and 4A(B) permissives are absent.

However, breaker 3A(B) and 4A(B) control logic supplies an input to the trip circuit of breaker 5A(B). If 3A(B) or 4A(B) was open then 5A(B) would trip. This satisfies the intent of the permissives in the closing circuit for breaker 5A(B). The FCD shows that 5A(B) cannot be closed if 3A(B) or 4A(B) is open. The existing installation and schematics allow the operator to attempt to close 5A(B) but this breaker would already be seeing a trip signal if 3A(B) or 4A(B) was open.

The as-built system and schematic logic operate essentially the same as shown on the FCD. Therefore, the probability of occurrence or consequence of an accident or malfunction is unchanged. No new types of accidents or malfunctions are introduced. The margin of safety as described in Technical Specifications is unchanged.

II. No. See Item I above.

III. No. See Item I above.

SE No.: 87-0008

Source Document: DCP 86-0725, Rev. 0

Description of Change

Add bypass valves in the Solid Radwaste System.

Summary

- I. No. The piping and valves meet the original design for installation and testing. This will limit inadvertent releases as specified in Reg. Guide 1.143.
- II. No. The piping and valves are designed to conform to the same standards as the original equipment. The method of processing solid radwaste is unchanged.
- III. No. Since the piping and valves meet the original design standards, the possibility of a release exceeding the guidelines of 10CFR20 and 40CFR190 is not increased.

SE No.: 87-0009

Source Document: DCN 01443, Rev. 0
DCP 85-0671

Description of Change

This design change is to as-build the RHR minimum flow piping configuration.

Summary

- I. No. Design change ensures RHR minimum flow requirements are met, and minimizes minimum flow line vibrations.
- II. No. System meets minimum flow requirements as defined in GE Design Specification. Based on FDDR KL1-5201, this change has no impact on system safety or reliability.
- III. No. RHR minimum flow design arrangements is not discussed in the Technical Specifications.

SE No.: 87-0011

Source Document: NR-MMQS-1372, Rev. 3

Description of Change

Add sealant and sealant band to Reactor Water Cleanup (G33) heat exchanger "C" to stop leakage at mechanical joint. This band is a temporary clamp which will be removed later.

Summary

Refer to SE 87-0003.

SE No.: 87-0012

Source Document: MFI 17-009

Description of Change

Evaluate scaffolding in the RWCU Room of the Unit 1 Reactor Building, Elev. 652'. This was addressed in MFI 17-009.

Summary

- I. No. The scaffolding was evaluated for potential falldown/swing in concurrence with FSAR Chapter 3.0. No potential hazards to items required for safe shutdown are created by allowing the required scaffolding to remain in the RWCU Room.
- II. No. Since no items required for safe shutdown are impaired, the possibility of an accident/malfunction of a different type are not created.
- III. No. Per Items I and II, scaffold does not create a potential hazard, therefore the safety-margins defined in the bases of the Technical Specifications are not reduced.

SE No.: 87-0013

Source Document: LLJED 17-017

Description of Change

This LLJED defeats a nuisance annunciator coming from drywell temperature recorder 1M13-K110 on Panel P800. Due to the current balance of the Drywell Cooling System (M13), some recorder points are low and some are high, and this causes the temperature recorder to repeatedly alarm as the recorder cycles through the points.

Summary

- I. No. The Drywell Cooling System is a nonsafety system and not required to function during an accident. The drywell temperature recorder still functions as designed, except for the alarm circuit. Any changes in the drywell atmosphere are monitored and alarmed to the control room operator by the Containment Atmosphere Monitoring System (D23).
- II. No. Drywell atmosphere changes are monitored and alarmed by the Containment/Drywell Atmosphere Monitoring System (D23) and there is no possibility for an accident or malfunction of a different type than previously evaluated in the FSAR.
- III. No. The M13 System is not discussed in the Technical Specification and therefore the margin of safety defined in the bases of the Technical Specifications is not reduced.

SE No.: 87-0014

Source Document: DCP 86-1004, Rev. 0

Description of Change

Install suppressing diodes in the air compressor control circuit of HPCS (E22B) Starting Air System.

Summary

- I. No. An accident cannot be created by an air compressor failure. Addition of diodes in the control circuitry will not significantly alter the probability of failure of the compressor.
- II. No. The operation of the HPCS starting air compressor is unaffected by the addition of the diodes and no new failure type is created.
- III. No. The addition of the diodes does not reduce the margin of safety for the HPCS System.

SE No.: 87-0016

Source Document: DCP 86-0905, Rev. 0

Description of Change

Permanent ladder storage area and toolbox installation located in wet well, for maintenance of the Control Rod Drive System (C11).

Summary

- I. No. Per design calculations, the existing safety-related platform steel remains adequate, and therefore the probability of occurrence or the consequences of an accident/malfunction of equipment as previously evaluated in the FSAR is not increased.
- II. No. Due to the design of the new installations addressing pool swell and seismic falldown, no new accidents/malfunctions are created. Therefore, the FSAR is not affected.
- III. No. The margin of safety as defined in the Technical Specifications remain intact and unchanged. Therefore, they are not reduced as defined in the bases for the Technical Specifications.

SE No.: 87-0018

Source Document: DCP 86-1080, Rev. 0

Description of Change

Change input voltage gain values for the feedwater and blowdown flow signals for water density compensation and adds reactor pressure signals from 1B21-N678A,B to RWCU flow summers 1E31-K604A,B for temperature compensation when operating below rated temperatures.

Summary

- I. No. The probability of occurrence of an accident previously evaluated in the FSAR is not increased because the design change effects cannot cause the accidents described in Chapter 15 and Table 15.0.3 of the FSAR.

The probability of the malfunction of equipment important to safety previously evaluated in the FSAR is not increased because the additional probability of malfunction caused by adding new instrument cables between 1E31-K604A, B and 1B21-N678A, B is less than the probability of malfunction reduction caused by increased operability and reliability due to fewer RWCU isolation trips.

The consequences of an accident previously evaluated in the FSAR are not increased because the allowable RWCU leakage flow before an RWCU isolation is not increased by this design change, assuming that the G33 system is operated within the guidelines of SOI-G33 Rev. 3.

The consequences of the malfunction of equipment important to safety previously evaluated in the FSAR is not increased because the failure of one of the reactor pressure signals and the resulting loss of compensation that may occur at the 1E31K604A or B flow summer will not prevent the remaining instrument loop from functioning properly and isolating the RWCU system during a high RWCU delta flow.

- II. No. The modified portion of the Leak Detection RWCU Isolation System cannot initiate a disturbance to jeopardize the fuel and reactor coolant pressure boundary.
- III. No. The margin of safety does not change because the safety limit associated with Technical Specification Table 3.3.2-2 Section 4a. is not affected by this design change.

SE No.: 87-0020

Source Document: DCP 85-0099B, Rev. 0

Description of Change

Add control panel lights/switches for the Condensate Demineralizer System (N24) chiller.

Summary

- I. No. The N24 chiller serves no safety function. It does not affect the operation of any other system.
- II. No. The N24 chiller has no affect on any other system. Its malfunction will not affect any plant safety system.
- III. No. The N24 chiller is not defined/described in the Technical Specifications.

SE No.: 87-0021

Source Document: FSAR CR 86-144

Description of Change

Reorganization of the departments under the Power Production Division Vice-President.

Summary

- I. No. This proposed change is entirely administrative, and does not increase the probability or consequences of any accident previously evaluated in the PNPP FSAR.
- II. No. This proposed change is entirely administrative, and does not create the possibility of a new or different kind of accident.
- III. No. The duties and responsibilities of the Production Services Department of the Power Production Division are not controlled by the Perry Technical Specifications.

SE No.: 87-0022

Source Document: DCP 86-0433, Rev. 1

Description of Change

Change the location of socket weld union on Auxiliary Steam (P61) safety relief valve drain line from previously approved location in DCP 86-0433, Rev. 0.

Summary

- I. No. The location of the socket weld union does not affect plant safety, in that reliability of the auxiliary steam is unchanged.
- II. No. PSAR plant description is not affected. Reliability of the auxiliary steam is not affected.
- III. No. The Technical Specifications are not affected.

SE No.: 87-0023

Source Document: DCP 85-0295M, Rev. 3

Description of Change

Cut rebar in 585' el. of Intermediate Bldg. pipe chase slab to allow installation of tool decontamination room fire protection core drill.

Summary

- I. No. Per calculation F.C.# 7:04.3, Rev. 1, the slab is adequate to support the required loads with the rebar cut, and therefore the probability of an accident is not increased.
- II. No. Since the slab is still adequate to support the required loads, the possibility of an accident not previously evaluated is not created.
- III. No. Since the slab capacity remains adequate, the margin of safety in the Technical Specifications is not reduced.

SE No.: 87-0024

Source Document: DCP 86-0933, Rev. 0

Description of Change

Replace one underdrain centrifugal pump with a Vortex slurry pump and piping modification to the Plant Underdrain System (P72).

Summary

- I. No. The failure of all the existing plant underdrain service pumps has been considered in the initial design of the plant foundation and underdrain system, i.e., a Safety Class 3, Seismic Category I, gravity discharge system was installed. Therefore, the failure of the new Vortex slurry pump would not impact any safety-related/safe shutdown equipment. The addition of the new check valve/tee connection still meets the FSAR safety evaluation of potential flow of water entering the underdrain system. Therefore, no decrease in safety will be experienced.
- II. No. See Item I above.
- III. No. The Plant Underdrain System is not addressed in the Technical Specifications.

SE No.: 87-0025

Source Document: Emergency Plan for the Perry Nuclear Power Plant, OM15A, Rev. 6.

Description of Change

Section 6.4.1 of OM15A "Onsite Protective Actions" was changed to delete the tallying of access badges outside the Protected Area. Personnel will now be directed to exit the site, and Security will sweep area and check access logs to ensure accountability is complete.

Summary

- I. No. Change does not affect plant operations or safety-related equipment, therefore, does not affect the probabilities for accidents or equipment malfunctions previously evaluated in the FSAR.
- II. No. Change does not cause any failures of equipment as described in the FSAR.
- III. No. Change does not affect the Technical Specification bases used to determine the margin of safety.

SE No.: 87-0026

Source Document: PTI N32-P0003, Rev. 0

Description of Change

Turbine overspeed test.

Summary

- I. No. The consequence of a malfunction during this test would be a turbine trip, which is evaluated in FSAR Section 15.2.3.1.2.1.
- II. No. This test does not defeat the Turbine Protection System, therefore the possibility of an accident or malfunction of a different type than evaluated in the FSAR is not affected.
- III. No. A turbine overspeed does not reduce the bases for any Technical Specification.

SE No.: 87-0027

Source Document: MFI 17-030

Description of Change

Install Griffolyn plastic to shield the Control Rod Drive System (C11) transponders from possible water damage.

Summary

- I. No. The Griffolyn plastic will be secured and tied down such that it will not become dislodged due to seismic events. It is flame retardant and will produce no detrimental residues on decomposition. The probability of an accident or malfunction of equipment important to safety is not increased by the use of this plastic as a shield.
- II. No. See Item I above.
- III. No. Since the Griffolyn will be sufficiently tied down, the margin of safety defined in Technical Specifications will not be reduced.

SE No.: 87-0030
Source Document: FSAR CR 86-147

Description of Change

Change title of "Reactor and Computer Engineering Unit Head (Lead)" to "Reactor Engineering Unit Lead" in FSAR Table 13.1-1, Table 13.1-2B, Table 13.1-3 (Resume No. 53), and Figure 13.2-1.

Summary

- I. No. This administrative change to the title in the plant organization does not change the qualification or training requirements for the individual. Therefore, no impact on accident analysis or equipment performance is proposed.
- II. No. Change is administrative only and does not involve postulated accidents or equipment malfunctions.
- III. No. The proposed change does not affect any of the Technical Specification bases.

SE No.: 87-0031
Source Document: FSAR CR 86-150

Description of Change

Add Offgas System (N64) flow diagrams and P&ID drawings to Chapter 11 of the FSAR to replace Figures 11.3-1 and -2.

Summary

- I. No. This FSAR change replaces current proprietary diagrams with non-proprietary figures, and doesn't increase the consequences of an accident or malfunction.
- II. No. This FSAR change is a figure replacement only and does not increase the possibility of an accident or malfunction of a different type as described in the FSAR.
- III. No. This is a figure replacement only and does not reduce the margin of safety for the system.

SE No.: 87-0032

Source Document: DCP 87-0065, Rev. 0

Description of Change

Replace damaged 4" piping downstream of feedwater valve 1N27-F0170 with more erosion resistant material (stainless steel).

Summary

- I. No. The material change increases the reliability of this section of pipe.
- II. No. The new pipe material is compatible with the system and will not alter system function.
- III. No. The use of the new pipe material will not reduce the margin of safety of the system. It has greater erosion resistance than the material presently in use.

SE No.: 87-0033

Source Document: FSAR CR 87-002

Description of Change

Change responsibility for distribution of Operations Manual procedures and instructions as discussed in FSAR Chapters 13 and 17, from Perry Plant Technical Department to Perry Services Department.

Summary

- I. No. This is an administrative change only and has no impact on equipment or accidents. This change merely reassigns the responsibility for document distribution.
- II. No. This is an administrative change posing no possibility for an accident or malfunction.
- III. No. This administrative change does not affect the Technical Specifications.

SE No.: 87-0034

Source Document: DCP 86-0622, Rev. 0

Description of Change

Provide Unit I/Unit II separation for Fuel Pool Cooling and Cleanup System (G41).

Summary

- I. No. This design change maintains the integrity of the system supporting Unit I and common facilities, by adding a backup to valves OG41F559B and OG41F557B, should they leak past their seats.
- II. No. Since the portion of pipe which would normally service Unit II is not installation complete, this change will positively separate Unit I/Common from Unit II, thereby maintaining the integrity of the Unit I/Common portion of this system.
- III. No. The water level in the spent fuel pool and upper containment pools have less chance of being drained down inadvertently as a result of this change and therefore the margin of safety in the Technical Specification bases is not affected.

SE No.: 87-0035

Source Document: DCN 743-001-000-860975

Description of Change

Evaluate the extension of the south drainage system, shown on DCN 743-001-000-860975, into parking area located east of the Engineering Bldg.

Summary

- I. No. The drainage system under review is a nonsafety system and the modification has no effect on equipment important to safety that has been previously evaluated in the FSAR.
- II. No. The drainage extension does not increase the drainage area presently covered under the original design, therefore, there is no additional drainage introduced in to the system and there is no possibility of an accident (i.e., flooding) or malfunction different from that previously evaluated.
- III. No. Storm drainage is not addressed in the Technical Specifications.

SE No.: 87-0036

Source Document: 1-87-060

Description of Change

Install test equipment on Reactor Core Isolation Cooling (1E51-F063) to monitor valve performance during normal reactor operation. Test equipment includes one pressure gauge, four thermocouples to monitor surface and ambient temperatures, and a thrust measuring device on the Limitorque valve actuator to monitor stem thrust.

Summary

I. No. Pressure gauge addition is directly coupled to the pipe stub. The gauge weighs less than 5 lbs. This temporary installation will be removed prior to escalation beyond 5% power. This gauge addition will not affect the seismic qualification of the F063 valve or the test connection piping. Also the function of the F063 valve will not be affected. Additional loads induced to the pipe supports between the two 3/4" root valves (F564 & F565) will have negligible affects.

Three (3) thermocouples will be installed on 1E51-F063. Two (2) thermocouples will be mounted on the limitorque actuator's motor and one (1) will be installed on the valve. The additional weight to the MOV is less than 10 lbs. The thermocouples will not interfere with operability of the MOV and will be removed prior to operation beyond 5% power.

A thrust measuring device will be installed on the limitorque's spring cartridge. The weight addition is less than 10 lbs. As part of this installation the spring cartridge cap cover 's removed. This exposes the spring cartridge to the environment. The amount of grease seepage is insignificant to impair operation of the MOV. (A bucket will be provided to catch any grease that may seep from the actuator.) Prior to each valve cycle, the alignment of the thrust measuring device will be verified. A misalignment of this device will not impair the operability of the MOV.

II. No. Failure of this pressure gauge will cause steam to flow from the 3/4" line. However, it is intended that gauge readings be taken only with the valve in the closed condition and gauge isolation valves are to be opened only long enough to obtain a true pressure indication, then closed. As such this leak can be immediately isolated by closing one or both root valves. In the unlikely event that the leak cannot be isolated, FSAR Section 15.6.2 evaluates the postulation of a small steam or liquid line pipe break inside containment and is far less limiting than the postulated events in the FSAR Section 15.6.4, 15.6.5, and 15.6.6.

SE No.: 87-0036 (Continued)

Summary (Continued)

III. No. The item under evaluation is not addressed in the bases of the Tech Spec. for the RCIC System Section 3/4.7.3. The RCIC System will remain operable during this MFI installation.

SE No.: 87-0037

Source Document: SCR 1-87-1074 thru 1077

Description of Change

These setpoint changes adjust the Stop Setpoints (reset) for the standby diesel generator starting air compressors from 235 psig to 240 psig to ensure reset of the low pressure alarm switches.

Summary

- I. No. The probability of occurrence of an accident as evaluated in Chap. 15 of the FSAR is unaffected by the subject change, since the scope of these setpoint changes is limited to the emergency diesel generators, and the diesel generators alone cannot cause a design basis accident.

The consequences of an accident are unaffected by this change as the design bases of the starting air system as described in Chap. 9.5.6 of the FSAR are unaffected by this change (the scope of this change is limited to the starting air system).

The probability of occurrence of a malfunction of equipment is unaffected by this change, since this setpoint change maintains system operation within the original design parameters and makes no configuration change to the system or its equipment as described in the FSAR.

The consequences of a malfunction of equipment are unaffected by these changes as the design bases of the starting air system as described in Chap. 9.5.6 of the FSAR are maintained. No possibility for a common mode failure is introduced by these setpoint changes since the operating temperatures and pressures are maintained with the design parameters as described in the FSAR.

- II. No. No possibility for an accident of a different type than any evaluated in the FSAR is created by these setpoint changes since the scope of these changes is limited to the Standby Diesel Generator starting air system, which alone cannot cause a design basis accident.

No possibility for a malfunction of a different type than any evaluated previously in the FSAR is created by these setpoint changes, since these changes maintain operating pressures (and temperatures) within the design parameters for the standby diesel starting air system as described in the FSAR. No configuration change to the system or equipment is introduced by this change.

- III. No. The Technical Specifications are not affected by this change.

SE No.: 87-0038

Source Document: NR MMQN 0640, Rev. 0; DCP 87-0079

Description of Change

Evaluation of improper welding done on Steam Bypass System (C85) sparger.

Summary

- I. No. The intent of ASME B31.1 was met as justified in the response to the nonconformance report referenced above, and therefore, the probability of occurrence of an accident/malfunction is not increased.
- II. No. Equipment will function as originally intended and the possibility for a different type of accident than previously evaluated in the FSAR is not created.
- III. No. The Technical Specifications are not affected by the work/welding done to the sparger per DCP 87-0079.

SE No.: 87-0039

Source Document: DCP 86-0770A

Description of Change

Modify drain lines for Containment Vessel Cooling System (M11) to ensure that condensate drains from the M11 unit collection pans. This is a balance of plant review for interface with the Floor & Equipment Drains System (P68). (BOP Evaluation)

Summary

- I. No. Drain standpipe height does not play a role in any FSAR accident or malfunction. If floor water does enter drain, no adverse effect will occur.
- II. No. Drain standpipe height does not present a different type of accident or malfunction. The amount of drainage is not altered.
- III. No. The bases for Technical Specification is not affected by drain standpipe height.

SE No.: 87-0041

Source Document: LLJED 16-637

Description of Change

Install jumpers and lift leads to disable the low level alarm and interlock of the precoat hopper for the flat bed filters in the Liquid Radvaste Disposal System (G50). The precoat hopper is not used.

Summary

- I. No. The low level alarm on the precoat hopper is not addressed in the FSAR.
- II. No. The precoat hopper is presently not being used. If the low level alarm did not function when the precoat hopper was being used, the only consequence would be a lack of precoat material on the filter.
- III. No. The precoat hopper low level alarm does not affect liquid or solid effluents and no safety concern exists.

SE No.: 87-0042

Source Document: MFI 15-1071, LLJED 15-1072

Description of Change

Install a blank flange in place of pressure switch OG51-N065A, in Solid Radvaste Disposal System. This equipment is not used. A portable solidification system is used in its place.

Summary

- I. No. The use of the mobile solidification system instead of the equipment associated with the pressure switch has been evaluated and no safety consequences exist.
- II. No. Since mobile solidification is used in place of the equipment associated with the pressure switch, no accidents or malfunctions exist.
- III. No. The use of this pressure switch has been discontinued, so there is no effect on solid plant effluents or Technical Specifications.

SE No.: 87-0043
Source Document: LLJED 15-1110, 16-118

Description of Change

Lift lead on alarm 18A module A6 in Section 17 of Main Radwaste Control Room Panel H51-PO31 to eliminate nuisance alarm associated with the radwaste evaporator low temperature alarm, which was jumpered by LLJED 15-1110. This relay trips the Nuclear Closed Cooling (NCC) valves closed on a low temperature condition in the evaporator concentrates.

Summary

- I. No. The trip of the NCC valves on low temperature is not addressed in the FSAR.
- II. No. The worst result of this LL&J is that the evaporator concentrates could cool too much. This condition is unlikely, since steam is normally run through the evaporator. Even if it did, the radioactive waste would be contained in the evaporator. Therefore, no accident or malfunctions different than those in the FSAR is created.
- III. No. The release of radioactive liquids is not affected by this LL&J, since all radioactive waste is contained in the evaporator, and therefore Technical Specifications is not affected.

SE No.: 87-0044
Source Document: LLJED 15-1130

Description of Change

Jumper concentrated waste tank A heater temperature switch OG50N760A on the Liquid Radwaste Disposal System. The temperature switch fails tripping the tank heater on a false signal.

Summary

- I. No. Failure of the heater trip is not addressed in the FSAR.
- II. No. The tank temperature controller still maintains the temperature properly. The temperature trip protects against a controller failure. A failure of the controller does not create an accident condition.
- III. No. The tank heater trip is not involved with the release of liquid or solid effluents and Technical Specifications are not affected.

SE No.: 87-0045

Source Document: LLJED 16-309

Description of Change

Jumper radwaste evaporator A low level trip associated with level switch OG50-N464A, Liquid Radwaste Disposal System.

Summary

- I. No. The heater element trip on low level is not addressed in the FSAR.
- II. No. The heater element is procedurally tripped when the evaporator is pumped out. If the heater element were not tripped, it would fail. The failure of the heater element is not an accident condition.
- III. No. The heater element trip is not involved in any way with liquid or solid effluents and does not affect the Technical Specifications.

SE No.: 87-0046

Source Document: LL&J 16-566

Description of Change

Lift connector to the Underdrain Radiation Monitor OD17K0821A to deflect interlock to the Plant Underdrain (P72) pumps.

Summary

- I. No. Inoperability of the underdrain radiation monitor and interlock to the P72 underdrain pumps does not increase the consequences of an accident for the following reasons:
 - o The underdrain system is not a designed effluent release point and a postulated release is unlikely (ref. FSAR 15.7.3).
 - o The function of the radiation monitor is to detect radiation and isolate the underdrain pumps. The design-basis event which postulates liquid radwaste entering the groundwater requires a failure in the Seismic Category I tanks and the Seismic Category I safety class Radwaste Building. Manual isolation of the P72 system occurs following a seismic event and on high radiation from the local area and airborne radiation monitors. These manual isolation methods would isolate P72 prior to the radwaste entering the porous concrete mat and mixing with the groundwater. Once mixing occurs the redundant monitor would detect the activity and isolate P72. As an additional precaution, chemistry performs weekly grab sampling and analysis when the monitor is inoperable.
- II. No. Instrument monitors underdrain discharge only. It does not increase/create the possibility of an accident.
- III. No. Underdrain Radiation Monitor on P72 isolation signal is not required by Technical Specification.

SE No.: 87-0047

Source Document: SCR 1-87-1079

Description of Change

Revise the opening and closing torque switch setpoints to 1.0 scale for 1E51-F0063 (RCIC Steam Supply Inboard Containment Isolation Valve).

Summary

- I. No. The torque switch setpoints for 1E51-F0063 are being reset below the vendor's minimum required setpoints. Calculation 1345-87-1 identified the required stem thrust to cycle this valve against a ΔP of 741 psi at 19,959 lbs. Through testing at the minimum torque switch setting, 23,711 lbs of stem thrust is produced. This is a safety margin of >15.8% beyond the design stem thrust value. (NOTE: The open torque switch is not used, but is set the same as the close torque switch as an INFO good practice.)
- II. No. See Item I above.
- III. No. The operability of the valve as identified in the Technical Specifications is unchanged.

SE No.: 87-0048

Source Document: DCP 87-0063, Rev. 1

Description of Change

Change 250V., 50A. fuses to 600V., 20A. fuses in the Motor Control Center 1R42-5038 for valve 1E51-F063, Reactor Core Isolation Cooling System. (Electrical Evaluation.)

Summary

- I. No. When using the motor test value current, the 20A. fuses meet the criteria given in FSAR Section 8.3.1.1.2.11.b.2. The 20A. fuses will not affect the accident response capability of valve 1E51-F063.
- II. No. See Item I above.
- III. No. This change does not change the Technical Specifications, Section 3/4 8.2 "Electrical Power System DC Sources."

SE No.: 87-0049

Source Document: DCP 86-0933A, Rev. 0

Description of Change

Replace Plant Underdrain System sump pumps P72-C001A in Manhole #1 with a vortex slurry pump and a disconnect in the manhole. (Electrical Evaluation.)

Summary

- I. No. The failure of all the existing plant underdrain service pumps have been considered in the initial design of the plant foundation underdrain system, i.e., a safety class 3 Seismic Category I Gravity Discharge System was installed. Therefore, the failure of the new vortex slurry pump would not impact any safety-related/safe shutdown equip.

The FSAR safety evaluation, Section 2.4.13.5.5, c.3. describes the portion of the underdrain system which is affected by DCP #860933 (piping modification). It describes the check valves which are provided at the pumping discharge points to prevent any potential backflow of floodwater to the underdrain system. The piping modification in DCP 860933 adds a tee connection and check valve near the pumping discharge point to allow an expedient connection for manhole sump draining. This connection is required when pumping down the manhole sump for underdrain service pump maintenance. The sump's water (ground water) must be routed back into the underdrain system so an accurate groundwater discharge flow rate can be maintained.

The addition of the new check valve/tee connection still meets the FSAR safety evaluation of potential flow water entering the underdrain system. Therefore, no decrease in safety will be experienced.

- II. No. The piping modification or the addition of the new pump will not change the original function of the plant underdrain system, as mentioned in Item #1 of the evaluation, therefore an accident other than the one described in the FSAR could not exist.
- III. No. The Plant Underdrain System is not described in any section of the Technical Specifications.

SE No.: 87-0051

Source Document: LL&J 16-636

Description of Change

Prevent alarm input to H13-P680 annunciator from Radwaste Process Sample Room Area Radiation Monitor OD21-K28 in H13-P906, while the Radiation Monitor is inoperable.

Summary

- I. No. Radwaste Process Sample Room Area Radiation Monitor provides a monitoring function and is not important to safety. No trip function is associated with this channel.
- II. No. This monitor is not taken credit for in design-basis accident analysis. Possibility for an accident is not created during maintenance of the instrument.
- III. No. Monitor is not in Technical Specifications and is not reducing the margin of safety.

SE No.: 87-0052

Source Document: MFI 16-428

Description of Change

Extend the water level standpipe in the Plant Underdrain System (P72).

Summary

- I. No. Water level standpipe extensions do not have an effect on equipment important to safety previously evaluated in the FSAR.
- II. No. Water level standpipe extensions do not change the possibility for an accident or malfunction of a different type than evaluated previously in the FSAR.
- III. No. Water level standpipe extensions do not affect the Technical Specifications.

SE No.: 87-0053

Source Document: MFI 15-233

Description of Change

Remove flow element 1N21 FE-N430 (Condensate System) for flush and install tygon tubing on valve 1N21-F730 to measure condenser level.

Summary

- I. No. Removal of this flow element does not affect operation of the Condensate System. Tygon tubing installed on valve 1N21-F730 (normally closed) has no affect on the N21 system.
- II. No. Removal of the flow element and installation of the tygon tubing on valve 1N21-F730 does not change the possibility for an accident or malfunction of a different type then evaluated previously in the FSAR.
- III. No. This change has no affect on the Technical Specifications.

SE No.: 87-0054

Source Document: MFI 16-532

Description of Change

Install a temporary hose from valve OP61-F602, Auxiliary Steam System, to the temporary chemical feedpot in the Auxiliary Boiler Room.

Summary

- I. No. Not previously evaluated in the FSAR, because neither the Auxiliary Boiler Chemical Treatment, nor the Auxiliary Boiler impact equipment important to safety.
- II. No. The Auxiliary Boiler plays no vital role in the safe shutdown of the plant.
- III. No. This change does not impact the Technical Specification basis in any form.

SE No.: 87-0055

Source Document: MPI 17-042

Description of Change

Install downstream isolation for the sample valves on Condensate Filtration System (N23) filters, which are leaking. This allows continued ability to sample individual filters.

Summary

- I. No. These sample lines serve no safety function and were not analyzed in the FSAR.
- II. No. Failure of these valves will cause no accidents or malfunctions. It will only prohibit individual sampling of filters.
- III. No. This sampling system is not part of the bases in the Technical Specifications.

SE No.: 87-0056

Source Document: LL&J 17-043

Description of Change

Remove interlock between the temperature switch 1N24-N005, Condensate Demineralizer System (N24) and the N24 Demineralizer inlet valves to prevent inadvertent isolation of the demineralizers.

Summary

- I. No. This interlock was installed to protect the resin on high temperature. It is not discussed in the the FSAR.
- II. No. High condensate temperature could degrade the resin. Outlet conductivity would rise as resin degraded. This condition would alert the operators to remove affected demineralizers from service.
- III. No. This temperature switch is not in the bases of Technical Specifications.

SE No.: 87-0057

Source Document: MFI 16-615

Description of Change

Install flange and tubing for temporary level indication on the Condensate Demineralizer System (N24) caustic tank.

Summary

- I. No. The level indication serves no safety function.
- II. No. Failure of the MFI could cause the tank to drain, but diked area would contain it as designed.
- III. No. This system component is not in the bases for Technical Specification.

SE No.: 87-0058

Source Document: MFI 87-072

Description of Change

Due to operating in long-cycle cleanup per SOI-N27, feedwater must be sampled at a location that is not under vacuum, such as vent valve 1N27-F583, Feedwater System.

Summary

- I. No. Worst case would be 1N27-F583 vent valve breaking off due to additional load which is covered in FSAR 15.6.6 (Loss of feedwater - line break outside containment).
- II. No. FSAR 15.6.6 evaluates only possibility of accident that can occur from MFI.
- III. No. Technical Specifications do not address the section of the Feedwater System that this MFI is installed on.

SE No.: 87-0059

Source Document: MFI 17-019

Description of Change

Install 2 feet of approximately 1" Schedule 80 pipe in a section of the Auxiliary Steam System.

Summary

- I. No. This MFI will not increase the potential for any accidents evaluated in FSAR Section 15, nor create one not previously evaluated.
- II. No. Primary concern for the Auxiliary Steam per the FSAR is leakage of radioactive water from the radwaste evaporators. This MFI does not create any possibility for accidents not evaluated in the FSAR.
- III. No. Auxiliary Steam as described in FSAR Section 9.5.10 and with installation of MFI will not reduce margin of safety as described in the bases for Technical Specifications.

SE No.: 87-0060

Source Document: MFI-16-281

Description of Change

Install pipe plug downstream of relief valve OP61-F7983, Auxiliary Steam System.

Summary

- I. No. This will not increase the potential for any accidents evaluated in the FSAR.
- II. No. Primary concern of Auxiliary Steam per the FSAR is leakage of radioactive water from the radwaste evaporators. This MFI does not create any possibility for accidents not evaluated in the FSAR.
- III. No. Auxiliary Steam as described in the FSAR, Section 9.5.10 and with installation of MFI will not reduce the margin of safety as defined in the bases for Technical Specifications.

SE No.: 87-0061

Source Document: DCP 86-0951, Rev. 0

Description of Change

Relocate hygrometer probes upstream of bypass line around offgas charcoal vessels, and install blind flanges at existing probe location in the Offgas System (N64).

Summary

- I. No. Relocation of probes in this system does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety. Original construction and testing will be utilized as stated in the FSAR, Section 11.3.2.2.1.6 and 11.3.2.2.1.7.
- II. No. System integrity is not altered by relocation of probes utilizing original construction codes and testing (pressure testing and helium testing). An accident or malfunction of a different type is not created.
- III. No. Moisture indication upstream of the charcoal vessels will be more accurate when the system is in bypass. The margins of safety as defined in Technical Specification, Section 3/4 11.2.4 and 3/4 11.2.5 are not reduced.

SE No.: 87-0064

Source Document: W.O. 87-587 (To fill and vent transmitters.)

Description of Change

Lift leads to defeat runback circuit on Reactor Recirculation flow control valve, while venting and filling transmitters. This circuit is to reduce power in the event of a loss of condenser vacuum and recirculation pump trip to reduce steaming to an amount that the remaining recirculation pump(s) can handle and/or restore vacuum.

Summary

- I. No. Not in portion of FSAR on safety or important to safety.
- II. No. The loss of vacuum or circulation water pump trip runback is to try to prevent a scram. If a scram occurs, that already has been evaluated.
- III. No. This change does not affect the bases for any Technical Specification.

SE No.: 87-0065

Source Document: DCP 86-0765, Rev. 0

Description of Change

Replace Turbine Plant Sampling System (P33) conductivity recorders/conductivity cells and reassign inputs to the recorders.

Summary

- I. No. This is only a minor change to FSAR, Fig. 9.3-22, 9.3-23. It does not change the basic function of the Turbine Plant Sampling System as described in FSAR, Section 9.3.2 and does not change previous evaluations.
- II. No. See Item I above.
- III. No. This change is not addressed in the Technical Specification.

SE No.: 87-0067

Source Document: SCR 1-87-1005 thru 1-87-1020

Description of Change

Change APRM flow biased scram and rod block setpoints to be consistent with the Technical Specification.

Summary

- I. No. Supplement 10 to the Safety Evaluation Report for PNPP, Section 16.2.1, as issued by the NRC, approves use of the revised APRM setpoints in association with Maximum Extended Operating Domain (MEOD). The proposed changes are consistent with FSAR Chap 15, Appendix E analysis.
- II. No. Operations with the proposed setpoints is consistent with MEOD and has been analyzed in FSAR Chapter 15, Appendix E.
- III. No. The proposed changes are consistent with Technical Specification Tables 2.2.1-1 and 3.3.6-2, and supporting basis.

SE No.: 87-0068

Source Document: PAP-1115, Rev. 1

Description of Change

Remove nonsafety, Seismic Category I snubber, 1N22-H0116 (Main, Reheat Extraction and Misc. Drains) from the testing and inspection requirements of PAP-1115.

Summary

- I. No. Engineering Analysis EA0040 has shown that structural integrity and consequences of an accident or malfunction of equipment important to safety previously analyzed will not be increased as long as pipe experiences less than 7000 cycles.
- II. No. The FSAR has already provided an evaluation of possible pipe break and thus this change does not create the possibility of an accident/malfunction of a different type than evaluated previously in the FSAR.
- III. No. This change does not reduce the margin of safety as defined in the bases for any Technical Specifications as provided in Engineering Analysis EA0040.

SE No.: 87-0069

Source Document: DCP 85-0315, Rev. 0

Description of Change

Replace existing dissolved oxygen meters with Orbisphere Model 2610 meter in the Turbine Plant Sampling System (P33). (I&C Mechanical Evaluation.)

Summary

- I. No. Per FSAR, Section 9.3.2, the Turbine Plant Sampling System is used during normal plant operation, but is not used for reactor shutdown or accident mitigation. Therefore, replacement of this equipment does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR.
- II. No. See Item I above.
- III. No. The Turbine Plant Sampling System is not mentioned in the Technical Specifications. Therefore, the margin of safety is not reduced.

SE No.: 87-0070

Source Document: DCP 85-0315, Rev. 0

Description of Change

Replace existing dissolved oxygen meters with Orbisphere Model 2610 meter in the Turbine Plant Sampling System (P33). (Chemical Engineering Evaluation.)

Summary

- I. No. The oxygen monitors being installed are of better quality than the original ones. The tubing design is equivalent to the original design.
- II. No. Since these meters are of better quality than the original ones and the tubing design is equal to the original, no new accidents are created.
- III. No. The addition of a different type of oxygen meter does not affect the Technical Specifications.

SE No.: 87-0071

Source Document: W.O. 86-9746 (To install a temporary strainer in sample line).

Description of Change

Install a temporary strainer in the Condensate Demineralizer (N24) line near the 1N24F030A pilot actuated solenoid valve. This will prevent the valve from sticking open due to resin fouling the pilot sensing line, and allow measurement of the amount of resin bleed through.

Summary

- I. No. Valve 1N24F030A is not safety-related. Failure of this valve to operate properly will not increase the consequences of an accident described in the FSAR.
- II. No. Installation of the strainer does not create the possibility of an accident different than any previously described in the FSAR.
- III. No. N24 is not a Technical Specification system. Failure of valve 1N24F030A to operate properly will not reduce the margin of safety in Technical Specification bases.

SE No.: 87-0072

Source Document: SCR 1-87-1087

Description of Change

Revise the opening and closing torque switch setpoints to 1.5 scale for 1E51-F0063 (RCIC steam supply inboard containment isolation valve).

Summary

- I. No. The torque switch setpoints for 1E51-F0063 are being reset below the vendor's minimum required setpoints. Calculation 1345-87-1 identified the required stem thrust to cycle this valve against a ΔP of 741 psi at 19,959 lbs. Through testing at the minimum torque switch setting, 23,711 lbs of stem thrust is produced. This is a safety margin of >15.8% beyond the design stem thrust value. (NOTE: The open torque switch is not used, but is set the same as the close torque switch as an INPO good practice.)
- II. No. See Item I above.
- III. No. The operability of the valve as identified in the Technical Specifications is unchanged. Neither are the bases for any Technical Specification altered.

SE No.: 87-0073

Source Document: S01-E-51, Rev. 3, 1CN-10

Description of Change

Throttle Emergency Closed Cooling flow through RCIC Room Coolers during winter operation to 4.3 gpm instead of the 15 gpm specified in FSAR Table 9.2-14, 9.2-15, 9.2-16 and 9.2-17.

Summary

- I. No. There is no increased probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR, because the decreased temperature of Lake Erie water compensates for the decrease in flow rates.
- II. No. See Item I above.
- III. No. No margin of safety is defined in Technical Specifications for the RCIC Room Cooler flow rates.

SE No.: 87-0074

Source Document: DCN 01521

Description of Change

Change P&ID drawing D-914-001, Rev. R to reflect as-built condition.

Summary:

- I. No. Revision is only editorial and for update to as-built condition. No increased probability of occurrence or the consequences of an accident/malfunction of equipment exists.
- II. No. No possibility for an accident or malfunction of a different type than any evaluated in the FSAR exists.
- III. No. This change does not affect the Technical Specifications.

SE No.: 87-0077

Source Document: DCP 87-0106, Rev. 0

Description of Change

Change 600 V., 20 A. fuses to 600V., 30 A. fuses in the Motor Control Center 1R42-5038 for valve 1E51-F063, Reactor Core Isolation Cooling System. (Electrical Evaluation.)

Summary

- I. No. The 30 A. fuse is being installed to meet FSAR Sect. 8.3.1.1.2.11.6.2 using the motor nameplate full load amps (FLA) of 34 and the maximum motor locked rotor amps (LRA) as a base. By reviewing fuse curves, it can be seen that a 30A. fuse meets the FSAR criteria.

The maximum operating time of the valve is approximately 15 seconds. By reviewing fuse curves, it can be seen that the 30 A. fuse will allow the 34 A. FLA to flow continuously, which greatly exceeds the 15 second operating time.

The maximum tested motor FLA is 45 amps. By reviewing fuse curves, it can be seen that the 30 A. fuse will allow 44 A. to flow for 370-900 seconds which greatly exceeds the 15 second operating time. The 30 A. fuse will allow maximum LRA of 174 amps to flow for approximately 6-8 seconds. Tested starting time of the valve is less than 1 second. Therefore, the 30 A. fuse will allow the valve to start and run, will electrically protect the valve per the FSAR criteria and will allow valve 1E51-F063 to perform its designed function.

- II. No. See Item I above.

- III. No. This change does not affect Technical Specifications 3/4 8.2 "Electrical Power System DC Sources."

SE No.: 87-0078, 87-0357
Source Document: DCP 87-0109, Rev. 0
DCP 87-0170, Rev. 0

Description of Change

Reactor Core Isolation Cooling/Residual Heat Removal leak detection modification.

Summary

- I. No. System operation is unchanged. This modification only affects the mechanical separation between the pressure source and the divisional pressure transmitters. This mechanical separation has been addressed by analyzing all potential single failures; and it has been determined that none lead to a situation where both pressure transmitters will fail to isolate the RCIC/RHR containment isolation valves in a leak scenario. Electrical divisional separation is unaffected by this change.
- II. No. See Item I above.
- III. No. The Technical Specification entry involving this system is an initial setpoint only, with a double star footnote that indicates that the final setpoint is to be determined during startup testing. Reference Table 3.3.2-2 item 6c of the Technical Specifications. The setpoint has changed in a conservative direction, pending NRC approval (Ref. letter PY-CEI/NRR-0801L and -0818L submitted 2/10/88 and 3/2/88). Therefore, the margin of safety as defined in the bases of the Technical Specifications is not compromised.

SE No.: 87-0079
Source Document: NR MMQS 2136, Rev. 0

Description of Change

Pipe support modifications on MSIV Leakage Control System (E32).

Summary

- I. No. Since catastrophic support failure would not have occurred, the probability or consequences of an accident causing E32 system inoperability did not increase. This evaluation is supported by calculations contained in technical assignment file #33034-87.
- II. No. Since catastrophic support failure would not have occurred, no additional accidents or malfunctions were created.
- III. No. The Technical Specifications do not define the margin of safety for pipe support design.

SE No.: 87-0080

Source Document: DCP 85-0434

Description of Change

Revise loop seal piping size in the Offgas System (N^{6A}) from 1" pipe to 2" pipe due to GE design requirements.

Summary

- I. No. Pipe size was increased to prevent clogging of drains per GE22A3089. The loop seal was relocated because it siphons and for ALARA reasons. It will still perform its design function being located in the holdup room. There is no increase in probability of an accident or malfunction.
- II. No. A different type of accident/malfunction is not created. FSAR Chapter 15.7 evaluates offgas releases due to pipe breaks and hydrogen detonation.
- III. No. Relocation of the loop seal does not affect or reduce the margin of safety as defined in the Technical Specification, Section 3/4 11.2.

SE No.: 87-0081

Source Document: SXI 0010, Rev. 0

Description of Change

This test will temporarily change the sequence of Steam Bypass valve opening, so that the number two valve is the first to open. Low pressure condenser temperature data will be taken with the number two valve open.

Summary

- I. No. Failure of the bypass system to open and inadvertent opening have been analyzed in FSAR App. 15A. Resequencing of valve opening will not increase the probability or consequences of these events.
- II. No. Turbine bypass system malfunctions in both the open and closed directions are discussed in FSAR App. 15A.
- III. No. Technical Specifications limit thermal power to less than 25% of rated thermal power with the Main Turbine Bypass System inoperable. The Bypass System will be restricted to less than 25% of rated thermal power; the maximum power level allowed by this instruction is 12% of rated thermal power.

SE No.: 87-0083

Source Document: FSAR CR 86-077

Description of Change

Revise FSAR Section 12.3.3.1 to be consistent with changes made to FSAR Section 9, Figures 9.4-16, 9.4-17 and the operational requirements of intermittent purging of the containment vessel.

Summary

- I. No. This change provided continuous cooling to the sump rooms and RWCU System equipment rooms, which is consistent with the Technical Specifications and Section 9 of the FSAR.
- II. No. This change redistributed air flow in the Containment Vessel Cooling (M11) and Containment Vessel and Drywell Purge (M14) System. It did not change their function.
- III. No. This change is consistent with the Technical Specifications.

SE No.: 87-0084

Source Document: FSAR CR 87-003

Description of Change

Delete the 8-hour criteria for manual backwash of the Emergency Service Water (P45) and Emergency Service Water Screen Wash (P49) strainers.

Summary

- I. No. "The eight hour criteria for backwashing the P45 and P49 strainers is based on providing design P45 flow to its various heat loads during and following a LOCA and LOOP." *1 The LOCA and LOOP are significantly different events when reviewed from the standpoint of equipment response.

In a LOOP, the traveling screens will not automatically start and the annunciators monitoring them will not be active; therefore, the primary concern from an operational standpoint is to recover the use of the traveling screens. Since power is available to all components of the P49 system, this can be achieved by dispatching an operator to manually startup the P49 system in FAST speed per SOI-P49. If this is done shortly after the initiating event, the traveling screen loading will be low enough that shear pin failure will not occur, and the traveling screens will operate normally. If this is delayed until the screens have already plugged to the point of causing an ESW flow degradation, the shear pins in the traveling screens may fail thereby leading to a total loss of ESW flow to the Emergency Diesel Generators.

Therefore, the probability of occurrence or consequence of an accident or malfunction of equipment important to safety is decreased if during a LOOP without a LOCA, the P49 system is manually started.

If the P45 strainers become plugged, during a LOOP, P45 system flow will degrade and may not be adequate to supply sufficient heat removal for P45 cooled loads. "To preclude this, the FSAR identified that the P45 strainers will be manually backwashed within eight hours of the initiating event and thereafter as required. The probability of occurrence or the consequences will not be increased if a method of equal or higher reliability is employed. Using the safety-related flow indications to determine if adequate P45 flow exists is such a method of higher reliability." *1 The P45 strainers' shear pin is removed when manually backwashing; therefore, shear pin failure is not a concern if backwashing is delayed until ESW flow degradation is observed.

Summary (Continued)

In the case of a LOCA with a LOOP, the P49 traveling screens start automatically in FAST speed, and the concerns become the P45 and P49 strainers. "Manual backwashing of the three P45 strainers and two P49 strainers can, in sequence, be done by one operator. The P45 system strainers, if sufficiently clogged, will prevent adequate flow through the various system heat exchangers and will not remove the required amounts of heat. As a result, the P45 strainers must be cleaned soon after low-flow indication to prevent excessive heat loads in the connected systems. The P49 system is not as sensitive to flow rate. P49 is only used as a spray to remove debris from the traveling screens and can, therefore, tolerate a high degree (i.e., reduced flow) of clogging. For this reason, the backwashing of the P45 and P49 strainers can be done in series with P45 being worked first." *2 All P45 cooled heat loads have safety-related flow indications in the control room except the HPCS room cooler. The HPCS room cooler flow is not needed since the HPCS diesel generator flow is eight times larger and thus would indicate any strainer plugging. During a LOCA with a LOOP, P45 flow can be monitored and P45 and P49 strainers backwashed as necessary; thereby, the probability of occurrence or the consequences of an accident or malfunction will not be increased since a method of higher reliability is being employed.

"For only a LOCA, nonsafety electrical power will automatically backwash the P45 strainers based on differential pressure. For P49 strainers an alarm will identify the need for manual backwashing."*1

II. No. "Accident/malfunction i.e., LOCA and LOOP are evaluated in the FSAR."*1

III. No. "Eight hour criteria is not involved in the Technical Specifications"*1

*1 reference NED Safety Evaluation, SE #86-0280

*2 reference PY-GAI/CEI-14600, September 6, 1983

SE No.: 87-0085

Source Document: DCP 86-0580, Rev. 0

Description of Change

Modify the Condensate System (N21) fill and vent by providing a manual cross-connection between the condensate filter backwash supply header and the effluent header to prevent backflow from the Condensate System (N21) to the Condensate Transfer and Storage System (P11).

Summary

- I. No. Definitions:
1. 1P11 - Condensate Transfer & Storage System - Supply source of condensate to fill the Condensate System and Condensate Filtration System.
 2. 1N21 - Condensate System - System which will be filled by P11 system.
 3. 1N23 - Condensate Filtration System - System which will be filled by P11 system.
 4. CST - Condensate Storage Tank

FSAR Section 9.2.6.3 safety evaluation for P11 addressed both the nonsafety and the safety-related portion of the system. The safety-related portion between the containment isolation valves and the supply header to the RCIC & HPCS are not applicable nor are they affected by this DCP. The portion of the P11 system which is applicable is the CST 150,000 gallon reserve (min. amount) required for the RCIC and HPCS. The CST cannot be physically empty below the 150,000 gallon minimum amount when filling 1N21/1N23 systems. The physical piping configuration is such that only water above the minimum amount (150,000 gal) can be used to fill the N21/N23 systems. An additional feature of the condensate storage tank consists of a low level alarm which would annunciate at a low level of 185,000 gal.

FSAR Section 10.4.6.4 safety evaluation for 1N24/1N23 addresses the cleanup of the Condensate System. The Condensate Cleanup System and the proposed cross-connection fill line between 1P11 and the Condensate Cleanup System is located in the nonsafety-related Turbine Power Complex Building, therefore the postulated effects of a piping failure would have no effect on safety-related components.

The 1N21/1N23 systems operate at a pressure of 190 psig which is higher than the 1P11 operating pressure of 115 psig, therefore the cross-connection piping has a check valve and an isolation valve located between the two systems to prevent inadvertently introducing N23 water into P11.

SE No.: 87-0085 (Continued)

Source Document: DCP 86-0580, Rev. 0 (Continued)

Summary (Continued)

FSAR Section 10.4.7.1.3 safety evaluation for 1N21 addresses the Condensate System in operation. The safety evaluation does not address the filling mode of the Condensate System.

Therefore, the probability of occurrence or the consequence of an accident or malfunction of equipment important to safety previously evaluated in the FSAR or addressed in this evaluation will not be increased.

II. No. See Item I above.

III. No. Technical Specification Section 3.5.3 addresses the suppression pool limits for operability during operational modes 4 & 5, which on suppression pool low level requires the CST to have at least 150,000 available gallons of water, which is equivalent to an actual level of 220,000 gallons. The CST cannot be physically empty below the 150,000 gal. min. amount when filling 1N21/1N23 systems, therefore the margin of safety has not been reduced.

SE No.: 87-0086

Source Document: DCP 86-0580, Rev. 0

Description of Change

Modify the Condensate Filtration System (N23) for Condensate (N21) System fill by providing a manual cross-connection between the condensate filter backwash supply header and effluent header to prevent backflow from the Condensate System to the Condensate Transfer & Storage System (P11). (Chemistry Evaluation.)

Summary

- I. No. The FSAR does not consider piping failures in these systems since they are nonsafety systems. Therefore, there is no increase in the probability or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR.
- II. No. The N23 system operates at a higher pressure than P11, but an isolation valve and check valve will prevent any leakage of N23 water back to P11.
- III. No. The N23 system is not addressed in the Technical Specifications.

SE No.: 87-0087

Source Document: IOI-2, Rev. 3, Test Condition 8

Description of Change

Hot Startup Test Condition to incorporate change to bypass valve sequence and permit generator synchronization in Operational Condition 2.

Summary

- I. No. The methodology for operations contained in this change to IOI-2 is based on temporary procedures previously written. Therefore, this Safety Evaluation (SE) references two earlier SEs written for the temporary procedures upon which this change is based; specifically, the procedure which changed the bypass valve sequence, SXI-010, and its SE #87-081 and the procedure that synchronized the generator at less than 5% power, TXI-013, and its SE #85-530. Note that SE #86-530 was written assuming reactor power would not exceed 5%. However, the protective margin that applies to this SE is the same as that referenced in SE #86-530, i.e., protection setpoints associated with Startup Mode.
- II. No. See Item I above.
- III. No. See Item I above.

SE No.: 87-0088

Source Document: DCN 01543, Rev. 0

Description of Change

Drawing changes which add a moisture eliminator that was installed during startup phase and correct the location of temperature switches on the Turbine Power Complex Vent System (M42) to indicate operational configuration.

Summary

- I. No. The addition of the moisture eliminator and as-building the location of temperature switches in the M42 HVAC units does not change or affect system function. The moisture eliminators are removing cooling coil condensate from the air stream to prevent water carryover into the fans and duct system. The temperature switches are performing their required task per the original design. Based on the fact the overall system function has not changed, the parameters upon which the accident analysis in the FSAR was based, have not been affected.
- II. No. Addition of the moisture eliminator, which is a rigid fixed item with no moving parts, and the location of the temperature switches have not changed system function. Therefore, malfunctions of a different type will not be created.
- III. No. System function has not been affected, it has remained the same. Therefore, the margin of safety as specified in the Technical Specification has not been reduced.

SE No.: 87-0089

Source Document: FSAR CR 87-009

Description of Change

Remove the deviation alarm setpoint from FSAR Section 9.4.11.5 for the charcoal vault return air temperature and brine temperature.

Summary

- I. No. The elimination of the setpoint value from the FSAR is not a change to the plant or to the system; it is simply an editorial change which will correct the system description. Therefore, the accident and transient analysis in the FSAR is not affected by this change.
- II. No. Since the FSAR change is an editorial change which will correctly describe the system, no accidents or malfunctions will be created.
- III. No. This nonsafety system is not included and does not affect the Technical Specifications.

SE No.: 87-0090

Source Document: DCP 87-0033, Rev. 0

Description of Change

Modify piping to Plant Underdrain System (P72).

Summary

- I. No. The piping modification adds a tee connection and check valve near the pumping discharge point to allow an expedient connection for manhole sump draining. This connection is required when pumping down the manhole sump for underdrain service pump maintenance. The sump's water (groundwater) must be routed back into the underdrain system so that an accurate groundwater discharge flow rate can be maintained. The addition of the new check valve/tee connection still meets the FSAR safety evaluation of potential flow water entering the underdrain system. Therefore, no decrease in safety will be experienced.
- II. No. This piping modification will not change the original function of the plant underdrain system. Therefore, an accident other than the one described in the FSAR could not exist.
- III. No. The Plant Underdrain System is not addressed in the Technical Specifications, therefore the margin of safety is not reduced.

SE No.: 87-0092

Source Document: SXI-0010, Rev. 0

Description of Change

Resequence the Steam Bypass System (C85) valve opening so that the number two valve is the first to open.

Summary

- I. No. Failure of the bypass system to open and inadvertent opening have been analyzed in FSAR App. 15A. Resequencing of valve opening will not increase the probability or consequences of these events. Number one bypass valve will be adjusted to open concurrently with the number seven bypass valve.
- II. No. Turbine bypass system malfunctions in both the open and closed directions are discussed in App. 15A.
- III. No. Technical Specifications limit thermal power to less than 25% of rated thermal power with the main turbine bypass system inoperable. The bypass system will remain functional and thermal power will be restricted to less than 25% of rated thermal power. Therefore, the margin of safety as defined in the Technical Specification is not reduced.

SE No.: 87-0093

Source Document: DCP 86-0850, Rev. 0

Description of Change

Rewire the feedwater (C34) flow balanced alarm card (R614) setpoint with system flow indication to allow operator to have true indication of flow balancing.

Summary

- I. No. The Feedwater Control System (C34) will operate as designed and does not affect any safety systems. The design changes improve operation of C34 only.
- II. No. No new failure modes have been created since system operation has been improved.
- III. No. The margin of safety has not been reduced by the addition of an annunciator or rewiring the flow balanced alarm, since overall C34 operation has not changed.

SE No.: 87-0094

Source Document: FSAR CR 87-014

Description of Change

Perform an Initial Service Leak Test (ISLT) versus a 30 minute hydrostatic test on all liquid and solid radioactive waste system process piping.

Summary

- I. No. The performance of an Initial Service Leak Test in accordance with ANSI B31.1 (as opposed to a 30 minute hydrostatic test as stated in Regulatory Position C4.4 of Reg. Guide 1.143) on all radwaste process piping will not increase the probability of occurrence or the consequences of an accident previously evaluated in the FSAR. By following the Quality Group D Criteria of Table 1 of Reg. Guide 1.26 and also the requirements of Table 1 of Reg. Guide 1.143, the requirements regarding design, fabrication, and construction are met. As additional protection, the Radwaste Building is a Seismic Category I structure which will prevent radionuclide concentrations from exceeding the limits as specified in 10CFR20 even if a spill occurred inside the building. The Chapter 15 analysis that addresses the release of radioactive liquid to the underdrain system (15.7.3), is a worst case accident that assumes an entire rupture of a radwaste tank along with a breach of the seismically designed Radwaste Building. This accident scenario envelopes the consequences of any release of radioactive liquid from a waste storage tank inside the plant. Even though an ISLT provides less assurance of a leak tight piping system as opposed to a hydrostatic test, no credit for leak tight piping was taken in the accident analysis. Therefore, there is no increase in the probability of occurrence of this accident nor are its consequences increased by a piping break.
- II. No. Performing an Initial Service Leak Test (ISLT) does not create an accident or malfunction different from that previously evaluated, since the accident scenario evaluated in Chapter 15 is the same scenario that could result from a piping break due to performing an ISLT, only worse.
- III. No. For the reasons stated in Item I, there is assurance that the limits of 10CFR20 will not be exceeded by performing an ISLT versus a hydrostatic test on all liquid and solid radioactive waste system process piping.

SE No.: 87-0095

Source Document: FSAR CR 87-004

Description of Change

Delete requirements that the PORC review NQAD audits.

Summary

- I. No. The proposed change is administrative only, is consistent with the applicable regulations, and does not affect any accidents or malfunctions described in the FSAR.
- II. No. The proposed change is consistent with the applicable regulations and does not increase the possibility of any new accidents.
- III. No. The proposed change is consistent with Sections 6.5.1.6, 6.5.2.7 and 6.5.2.8 of the Technical Specifications.

SE No.: 87-0096

Source Document: DCP 86-0832, Rev. 0

Description of Change

Add 9 ERIS points to monitor Division 1, 2, 3 Diesel/Generator frequency, speed and load.

Summary

- I. No. This design change does not impact plant systems, components, or structures that prevent occurrence of those accidents listed in FSAR Table 15.0.3. It does not increase the consequences of an accident beyond the unacceptable consequences as defined in FSAR Section 15.0.3.1.

The addition of the new instrumentation adds another potential failure mode to existing safety-related instrumentation previously evaluated in the FSAR. However, overall plant safety will be increased since the addition of this instrumentation will help increase the availability, reliability, and accuracy of Diesel/Generator surveillance tests. This will ultimately reduce the number of Diesel/Generator retests. The consequences of a potential malfunction, due to the addition of the new instrumentation, is not increased since it meets existing single failure criteria and does not increase the common mode failure probability.

- II. No. This design change does not create a different accident or malfunction than previously evaluated in the FSAR since it does not create a new disturbance that would threaten fuel or reactor coolant boundary.
- III. No. These ERIS points were added to assist in meeting the Diesel/Generator surveillance requirements in Section 4.8.1.1.2, thus, this does not reduce the margin of safety since those requirements remain the same.

SE No.: 87-0098

Source Document: DCP 87-0031, Rev. 0

Description of Change

Install valve in the Condensate Transfer and Storage System (P11) for isolation of Offgas System (N64).

Summary

- I. No. Added valve to system simply provides the capability of needed isolation downstream. This design change will allow for maintenance downstream, while condensate transfer and storage system is in operation.
- II. No. Same as Item I above. Added valve does not create a new accident or malfunction possibility.
- III. No. Added isolation valve has no effect on the safety margin as defined in the bases for any Technical Specification.

SE No.: 87-0099

Source Document: SCR 1-87-0005-T thru 1-87-0012-T

Description of Change

Revise the high neutron flux APRM setpoints to 74% power to support testing (Test Condition #2).

Summary

- I. No. The proposed APRM High neutron flux setpoint (74% Power) to be used in support of TC#2 testing is conservative to the current upper setpoint limit (118% Power). This temporary revision would thus have no impact on FSAR Chapter 15 analysis. The probability of occurrence/consequences of an accident or malfunction of safety-related equipment evaluated in the FSAR is not increased.
- II. No. Revision of the setpoints only affects the RPS function associated with APRM high neutron flux described above. A different type of accident or malfunction not evaluated in the FSAR is not created.
- III. No. Revision of the APRM high neutron flux setpoints to 74% Power is conservative to Technical Specification Table 2.2.1-1 requirements and associated bases. The margin of safety in the Technical Specification is thus not reduced.

SE No.: 87-0101

Source Document: LL&J 87-092

Description of Change

Disconnect the automatic opening of the RCIC injection valve 1E51-F013 by lifting the lead landed on contact M4 of relay 1E51-K3. This will comply with Technical Specification Change Request of PY-CEI/NRR-0595L dated 2/20/87 to disable the automatic operation of the injection valve and leave the capability for manual operation of the valve.

Summary

- I. No. Consistent with the design basis for the RCIC system, CEI has performed a conservative analysis to determine that this system is not required to mitigate the consequences of any accident or transient at reactor powers less than 75% of rated thermal power. This conservative analysis utilized decay heat generated in accordance with 10 CFR 50 Appendix K and only took credit for reduced power. This analysis resulted in Peak Clad Temperatures (PCTs) much lower than allowed under 10 CFR 50 Appendix K. Since the proposed Technical Specification change would require the RCIC System to be operable above this thermal power, CEI has concluded that this proposed change involves no significant increase in the probability or consequences of any accident previously evaluated.
- II. No. CEI has reviewed its design basis accidents and has determined that its present design basis, as presented in the FSAR (through Amendment 25), conservatively bounds operation of Perry to 75% of rated thermal power with the RCIC System inoperable. Therefore, CEI has concluded that this proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.
- III. No. CEI has determined, by conservative analysis, that the RCIC System is not required to mitigate the consequences of any accident or transient within the proposed power limit. Therefore, CEI has concluded that this proposed change does not involve a significant reduction in a margin of safety.

SE No.: 87-0104

Source Document: DCP 86-0314, Rev. 0

Description of Change

Replace CRD probe multiplexer (MUX) cards with upgraded MUX cards, modify ERIS scram timing module wiring based on MUX card changeout.

Summary

- I. No. The proposed changeout with design upgraded probe MUX cards increases the reliability of the rod position information system to correctly identify rod position. The upgraded card design will apply a higher voltage (24V DC) across the CRD position probe reed switches, which should result in reduced failures of rod position probes. As reflected in GE FDDR KL1-6526, installation of the new MUX cards will not alter current qualifications or equipment performance as documented in GE EQ Report 30182. The associated change to the ERIS scram timing module wiring is required with the CRD MUX card changeout to eliminate future problems in obtaining scram information. Specifically, failure to utilize upgraded MUX cards in all 104 circuit applications of RCIC would cause ERIS to falsely identify that specific control rods are not inserted. The current Perry ERIS design is classified nonsafety and is not addressed in FSAR Chapter 15 safety analysis. Therefore, the probability of occurrence or the consequences of an accident/malfunction of safety-related equipment previously evaluated in the FSAR is not increased.
- II. No. The proposed changeout of probe multiplexer cards and associated ERIS design modification is specifically related to improvement of the rod position indication system and no other system design. The possibility for an accident or malfunction of a different type than previously evaluated in the FSAR (See Item I. discussion) is not created.
- III. No. The CRD probe MUX cards are not described in Reactivity Control Systems Section of Technical Specifications 3/4.1. Proposed modifications to the ERIS scram timing module wiring will permit Perry to utilize ERIS in maintaining scram timing records for control rods per Technical Specification Section 3/4.1.3.2. ERIS is not described in Perry Technical Specifications or associated bases. The margin of safety as defined in the bases for any Technical Specification is thus not reduced.

SE No.: 87-0105

Source Document: SCR 1-86-1415 & 1-86-1416

Description of Change

Add time delay relay setpoint to the setpoint list for the Residual Heat Removal System (E12).

Summary

- I. No. The decreased start time delay for the RHR pumps will not adversely affect the operation of the RHR pumps or diesel loading sequence. The diesel loading sequence is used to distribute loads coming onto the diesel so that the starting current surge is minimized. The diesel loads are sequenced in discrete blocks of time, such as the 5-second time delay block that the RHR pumps are part of, for ease of load current analysis. Decreasing the pump start delay time from 5 seconds to 4.75 seconds will benefit the diesel since it further spreads out the starting current requirements of the load; the diesel will not see as large a current surge with the RHR pumps delayed at 4.75 seconds.

Even though the RHR time delay is being set at 4.75 seconds, which is not in agreement with the FSAR, the FSAR should not be changed because the RHR pump time delay will still be a part of the 5-second block load analysis (a more stringent requirement than 4.75 seconds). The probability of malfunction of the diesel due to decreased delay time is decreased since the current loads are spread out more.

- II. No. The time delay change will not cause a new accident or malfunction of equipment. The change is still a part of the diesel sequencing analysis.
- III. No. The setpoint change increases the margin of safety for the RHR pump start time delay. The proposed setpoint is conservative to the value specified in Technical Specification Table 3.3.3-2.A.1F.

SE No.: 87-0107

Source Document: DCP 86-0995, Rev. 0

Description of Change

Change power source for the CRD System auxiliary lube oil pumps.

Summary

- I. No. Only the power sources for the CRD auxiliary lube oil pumps are changed from nonsafety MCCs to diesel-backed MCCs. There is no change to any system function. The lube oil pumps are only 1/4 HP each and have negligible effect on diesel loading or bus loading.
- II. No. Same as I above.
- III. No. The margin of safety is unchanged. Systems will operate the same as before the implementation of the DCP, except that auxiliary lube oil pumps will be diesel-backed and will be able to operate after a LOOP. The added load to the diesel and diesel-backed busses is negligible.

SE No.: 87-0108

Source Document: DCP 87-0076, Rev. 0

Description of Change

Rewire from a non-switched output to a switched output on Feedwater Controller (C34R601X-1) to bypass the manual unit (C34R601X-2) when bumpless transfer occurs.

Summary

- I. No. The Feedwater Control System (C34) will operate as designed and does not affect any safety systems. This change will optimize Master Level Controller functions when performing auto to manual manipulations.
- II. No. No new failure modes have been created. Operation has been improved by the change.
- III. No. This item does not affect the Technical Specifications, thus the margin of safety has not been reduced.

SE No.: 87-0109

Source Document: SAR CR 87-013

Description of Change

Clarify material used in the Offgas System (N64).

Summary

I. No. Clarification of the FSAR is necessary as it pertains to PERM Nuclear Power Plant compliance to Regulatory Guide 1.143 and the Offgas System. The original equipment for the regenerator skid (1N64-Z002A/B) was purchased from General Electric and does not meet all material requirements of the Regulatory Guide. Regulatory Guide 1.143, Paragraph 2.1.2 requires ASME/ASTM material for pressure-retaining components. This guide also states malleable, wrought, or cast iron materials shall not be used. The reason for this material restriction is not explicitly stated. However, the impact properties of malleable, wrought or cast iron would make application of these materials undesirable where detonation of explosive mixtures must be contained.

A. Accident or Malfunction

Consequences of an accident or malfunction of the existing equipment (break in the pressure boundary) within the regenerator skid is not increased. A rupture of the system pressure boundary has been previously evaluated in FSAR Chapter 15.7.

B. Probability of Occurrence

The probability of a detonable mixture entering the regenerator skid during the standby, heatup, or cool-down cycle was analyzed by General Electric.

This report concludes that a combustible mixture of hydrogen within the regenerator skid due to a combined recombiner failure and skid failure through a failed isolation valve has a probability of occurrence of approximately 10^{-4} per year. This is not considered a "reasonable probability" and, thus, the design remains in conformance with paragraph 15.6.1.1.1.1 which states in part:

"The equipment and piping are designed to contain any hydrogen-oxygen detonation which has a reasonable probability of occurring."

SE No.: 87-01C9 (Continued)

Summary (Continued)

GE has also stated that during the heatup cycle of the skid with the 1" vent line open to the process, there is sufficient distance between the detonation and the non-detonation resistant equipment to conclude that damage to any component is small. Therefore, probability of occurrence is not increased as the system design has not changed and the Chapter 15 analyses in the FSAR envelope this change.

Procurement of replacement parts for the skid equipment will meet requirements of the Reg. Guide 1.143 and the Perry QA Plan with the exception that cast iron materials will be used.

- II. No. Hydrogen detonation is one of the gross failures described in Chapter 15.7 of the FSAR. The offgas process piping is designed (350 psig design) to contain any hydrogen-oxygen detonation which has a reasonable probability of occurring.

The regenerator skid (minimum design 50 psig) is normally isolated from the main offgas process flow and is not required to contain a hydrogen detonation.

The two most severe radiological consequences off-site would be due to a charcoal vessel failure (with 15% of the charcoal displaced) and failure of the air ejector discharge line to the offgas system.

Both events indicate that calculated exposures from either accident are a very small fraction of 10CFR100 guidelines. This indicates even if a detonation occurs within the regenerator skid, this is much less of a radiological concern than the two most severe events.

- III. No. Margin of safety as described in 3/4.11.2 of the Technical Specification is not reduced by clarifying the material requirements for replacement parts and modifications on the regenerator skid (1N64-Z002A/B).

SE No.: 87-0110

Source Document: SCR 1-87-1064, 1-87-1065

Description of Change

Revise RCIC/RHR high flow monitoring setpoints and allowable values and add analytical limit parameters.

Summary

- I. No. The proposed setpoint parameter changes to utilize a 35.2" water (DP) flow setting for RCIC/RHR High Flow Instrumentation are considered conservative with respect to current field settings (105" water), and will make the Perry Plant instrumentation more sensitive for tripping associated isolation valves on RCIC/RHR line breaks. The proposed setpoint changes are based on revised General Electric RCIC/RHR flow monitoring calculations which resulted in FDDR RC1-6529. Since the proposed settings are conservative with respect to current field setpoints, the probability of occurrence/consequence of an accident or malfunction of safety related equipment evaluated in the FSAR is not increased. RCIC System reliability is not affected by reducing the subject high steam line flow setpoint.
- II. No. Incorporation of the proposed setpoint parameters for RCIC/RHR high flow instrument trip units has no effect on the plant other than increasing the plant's design sensitivity to detect RCIC/RHR line breaks. Therefore, a different type of accident or malfunction than previously evaluated in the FSAR is not created.
- III. No. The proposed setpoint parameter changes are conservative with respect to the values stated in Technical Specification Table 3.3.2.2, Item 6c. The margins of safety as defined in the Technical Specifications are not reduced.

SE No.: 87-0111

Source Document: DCP 87-0123A, Rev. 0

Description of Change

Convert RCIC MOV E51-F063 from DC to AC. The safe shutdown function of this valve has special protection requirements since it is a Division 2 powered valve, required for Method A shutdown, which is mostly Division 1 systems. It must therefore be kept separate from the effects of fire in any Division 2 area, which could disable other redundant Division 2 systems. (Fire Protection Evaluation).

Summary

- I. No. The circuits for this valve have been protected to assure operability in a fire in Division 2 areas. The change to normally open, requires only protection from potential spurious operation, new circuits have been analyzed and protected to prevent spurious operation.
- II. No. Changes to this valve and associated wiring do not affect fire protection systems or increase the potential for fire or possible fire severity.
- III. No. The fire protection aspects of this equipment (i.e. cable wrap) are not subject to Technical Specifications and are governed by administrative controls in the Fire Protection Program.

SE No.: 87-0112

Source Document: DCP 87-0123 A, Rev. 0

Description of Change

Adds conduit, cable, fuse blocks, terminal blocks and relays to convert RCIC MOV 1E51-F063 from a DC operated valve to AC. (Electrical Evaluation).

Summary

- I. No. The conversion of E51-F063 from DC to AC will not significantly affect either the AC or DC power systems. The removal of the valve from Division 2 DC will reduce the one minute load and have a positive effect. The addition of the 7.8 HP valve operator motor will be insignificant to the Division 2 AC system compared to 90 other valve operator motors and 4000 HP of other safety-related motor loads. The supply will be from MCC EF1D07 which has 96 HP of other operators and again the 7.8 HP will not be significant particularly due to the short operating time and large diversity of the various valve operators. This MCC is loaded considerably below capacity and remains so with the addition of the E51-F063 operator. Additional AC control power will be supplied from 1R25-S018 which also has considerable spare capacity.

The electrical supply will be designed in accordance with FSAR requirements with regard to cable routing and protection. The reliability of the controls and power supply will be similar to other AC power operators. No new types of malfunctions will be introduced.

- II. No. Same as Item I above.
- III. No. Technical Specification Section 4.8.2.1.d.2.b addresses the Division 2 battery load of 569 Amps for 60 seconds. Converting the MOV from DC to AC will reduce the battery load to 395 Amps for the first 60 seconds. The reduction of the load from 569 Amps to 395 Amps will not have a negative effect on any margins of safety in the Technical Specifications.

SE No.: 87-0114

Source Document: DCP-870123, Rev. 0

Description of Change

Evaluate the new potential accident conditions resulting from normal position change of RCIC MOV 1E51F0063 in Environmental Zones AB-3, -4, -J. (Equipment Qualification Evaluation).

Summary

- I. No. Original Equipment Qualification (E.Q.) envelopes new accident profiles (See E.Q. evaluation for DCP 870123, Rev. 0.) All affected equipment remains qualified.
- II. No. Environmental conditions/qualification parameters are more severe than originally specified in FSAR Table 3.11. However, equipment is qualified for new conditions per DCP 870123, Rev. 0, E.Q. evaluation.
- III. No. This change does not impact the technical specifications with regard to E.Q.

SE No.: 87-0115

Source Document: DCP 87-0123, Rev. 0

Description of Change

Evaluate the desired position of RCIC MOV, E51 F063 for system operation during a design basis fire.

Summary

- I. No. Protection is provided to ensure operability of this valve from a fire in any area including isolation from the spurious affects of a Control Room fire. With protection of new circuits, the changes will also allow for the valve to remain open.
- II. No. The changes to this valve do not increase the probability of a fire occurring or change the potential for increased effects of fire on systems analyzed.
- III. No. Only the administrative aspects of fire protection are contained in the Technical Specifications, therefore, the bases for any Technical Specifications are not affected by this change.

SE No.: 87-0116

Source Document: DCP 87-123, Rev. 0

Description of Change

Changeout of RCIC MOV 1E51-F063 from a normally closed DC operated valve with a 741 psid 50 second operating time requirement to a normally open AC valve with an 1177 psid, 20 second operating requirement.

Summary

- I. No. A modification to 1E51-F063 to make it a normally open AC operated valve in no way affects any component or system which could cause the probability of occurrence of an accident to increase. The valve is required only for RCIC operation and/or to provide containment isolation. Neither function is related to accident initiation prevention.

The DCP will change 1E51-F063 to an normally open AC valve capable of operating in 20 seconds against a full differential pressure of 1177 psid. The modification will increase RCIC reliability as it will eliminate the active operating requirement for F063 on RCIC initiation. For its containment isolation function F063 will maintain all of its previous isolation signals. All applicable design criteria related to containment isolation continue to be met. For the RCIC pipe break event downstream of the outboard isolation valve, analysis has shown that line isolation with the 20 second closure time will not jeopardize equipment required for safe shutdown in the environmental zones related to the postulated pipe break. (Ref: PY-GAI/CEI-18988 and SO-E-5754)

No credit is taken for RCIC operation in FSAR Chapter 15 accident analyses. The isolation time requirement for RCIC is to ensure that for a RCIC steam line break downstream of 1E51-F063, the break can be isolated in time to maintain off-site release below 10CFR100 limits. For accidents analyzed in the FSAR, a RCIC line break is not postulated. With no postulated steamline break RCIC isolation is dependent on either operator action, low RCIC line pressure (low RPV pressure) or turbine exhaust rupture diaphragm pressure high isolation. The isolation time requirement for the valve does not affect offsite release for accidents analyzed in the FSAR.

With 1E51-F063 normally open, analysis has shown that for a RCIC pipe break downstream of 1E51-F064 the offsite dose with the revised operating time for F063 is bounded by the mainsteam line break analysis in Chapter 15 of the FSAR. Thus, the consequences of this failure mode are not increased above those described in the FSAR Section 15.6.4. (Ref. GAI Memo M. Wacelus to H. Reppert 2/20/87)

SE No.: 87-0116 (Continued)

Summary (Continued)

- II. No. The proposed modification would not create a new type of accident or malfunction. With F063 open, the RCIC line break event would cause an RPV coolant inventory decrease, but this event has been shown to be bounded by the Main Steam Line Break Outside Containment event (Chapter 15.6.4). No other potential system parameter variations have been identified.
- III. No. The containment isolation function of 1E51-F063 continues to meet all applicable General Design Criteria of Appendix A to 10CFR50. With the 20 second closure time, any release through this line for the pipe break event is within the limits of 10CFR100. RCIC operability is not negatively affected by the change. The modification will increase RCIC reliability as it will eliminate the active operating requirement for F063 on RCIC initiation.

SE No.: 87-0117

Source Document: MFI #1-87-208

Description of Change

Block open exhaust damper 1M15-F080B in the Annulus Exhaust Gas Treatment System (M15) to remove hydromotor actuator for rework.

Summary

- I. No. The probability of occurrence or the consequences of an accident will not be increased. With the exhaust damper 1M15-F080B blocked in its failed condition (open) the recirc damper 1M15-F070B will continue to modulate to maintain the annulus at the required vacuum. In the event of an accident, the AEGT system (1M15) is required to exhaust more air to the plant unit vent which would require 1M15-F080B to be open.
- II. No. With the exhaust damper 1M15-F080B blocked open, it does not result in an accident or malfunction of a different type than previously evaluated in the FSAR.
- III. No. The margin of safety defined by Technical Specifications is not reduced with the 1M15-F080B blocked open.

SE No.: 87-0118

Source Document: NR NEDS 2193, Rev. 0

Description of Change

Rework and use as-is disposition for nonconforming outboard bearing on fuel oil transfer pumps 1R45C001A and 1R45C002A in Standby Diesel Generator Fuel Oil System.

Summary

- I. No. This change does not affect the probability of occurrence or consequences of an accident as previously evaluated in the PSAR. ISI testing will be used to ensure that the fuel oil transfer pumps meet their performance requirements as described in the PSAR. Hence the probability of a malfunction of this equipment is not increased.

The consequences of a malfunction of this equipment as the result of this change are unaffected because the reliability of the redundant pump is maintained (as verified by ISI testing). Since the configuration of the system is unchanged and the reliability is maintained, the consequences of a malfunction of equipment are unchanged.

- II. No. No new type of accident is created by this change as it is limited in scope to the Diesel Generator fuel oil transfer system. Since the pump reliability is maintained by this change (as described above), no possibility for a malfunction of a different type than any evaluated previously in the PSAR is created.

- III. No. The Technical Specifications are not affected by this change. Hence, the margin of safety as defined in the bases for any Technical Specification remains unchanged.

SE No.: 87-0119

Source Document: Elementary Dwg. B-208-015, Sheet A12, Rev. 1
LLJED 1-87-253

Description of Change

List all feedwater input and condenser input to reactor recirculation flow control valve circuitry so as to prevent flow control valve runbacks while operating recirculation pumps at low speed.

Summary

- I. No. The runback circuitry is not necessary during the operation of the recirculation pumps at low speed. FSAR Section 7.7.1.4.b.3 page 7.7-28 discusses a need for the runback circuit as anticipatory.
- II. No. Operation and control of the recirculation flow control valves will be maintained and runback is only required during high speed pump operation.
- III. No. Runback is only necessary for high speed operation of the recirculation pumps.

SE No.: 87-0120

Source Document: DCN 01560

Description of Change

Incorporate MPL number of air filter on drawing D-302-713, along with incorporation of as-built condition of mixed bed exchanger to show resin drain line and valve on Mixed Bed Demineralizer System (P22).

Summary

- I. No. P22 is only briefly described in FSAR Section 9.2 and does not impact any accident scenario or equipment important to safety.
- II. No. P22 water provides no supply to a plant system that would increase the possibility for an accident. Thus, incorporating a resin drain line will not change the possibility of an accident or malfunction.
- III. No. P22 does not impact Technical Specifications.

SE No.: 87-0121
Source Document: DCP 86-0887 E, Rev. 0

Description of Change

Changes to the Plant Security System and Fire System associated with the construction of the Service Building Annex.

Summary

- I. No. The work associated with this DCP does not involve safety equipment evaluated in the FSAR.
- II. No. This DCP does not increase the possibility of any type of accident.
- III. No. This DCP does not affect the Technical Specifications.

SE No.: 87-0122
Source Document: DCN 01573, Rev. 0

Description of Change

Show the as-built location of the pitot traverse point on Drawing D912-608, Rev. X, Controlled Access HVAC System (M21).

Summary

- I. No. Showing the correct location of a pitot traverse point will not affect the safety of the plant.
- II. No. Showing the as-built location on a drawing will not cause an accident or malfunction of a different type.
- III. No. Showing as-built information will not reduce the plant margin of safety as defined in the bases for any Technical Specification.

SE No.: 87-0125

Source Document: DCP 85-0573, Rev. 0

Description of Change

Provide proper ventilation for the dry active waste handling area in the Radwaste Building.

Summary

- I. No. This design change involves the addition of exhaust ductwork and the redistribution of supply and exhaust air, to provide adequate ventilation for the dry active waste handling area. Total system airflow is not affected; nor has the overall system function changed. Since the overall system function has not changed, the parameters upon which the accident and transient analysis in the FSAR was based, have not been affected.
- II. No. The design change will provide the dry active waste handling area with appropriate ventilation, while total system airflow remains unchanged. The design change does not affect the system overall function, therefore malfunctions of a different nature will not be created.
- III. No. The Technical Specification addresses the nonsafety charcoal filtered exhaust systems. The design change does not alter the amount of exhaust flow, and does not affect exhaust system function. Therefore no change to the bases of the Technical Specifications has occurred.

SE No.: 87-0126

Source Document: DCP-0817

Description of Change

Add strainers to nonsafety portions of the Leak Detection System (E-31).

Summary

- I. No. This DCP adds two strainers to nonsafety portions of the Leak Detection System (E-31) as shown in Fig. 9.1-9 in the FSAR.
- II. No. This DCP affects only nonsafety portions of the E-31 system.
- III. No. Technical Specification requirements remain unchanged.

SE No.: 87-0128

Source Document: DCP 86-0759, Rev. 0

Description of Change

RCIC System interface with Emergency Service Water. Use a relay that seals in upon receipt of RCIC start signal to start ESW "A" Loop, so that operator does not have to hold down RCIC manual initiation pushbutton to ride through the time delay for the ESW System startup.

Summary

- I. No. The ESW "A" Loop is automatically started when the RCIC System is started. At present this auto-start function is performed by relay 1E51-K95. If an operator tries to manually start RCIC by momentarily pressing and releasing the manual initiation push-button 1E51-S37, the ESW "A" Loop will not start. The manual push-button only momentarily energizes relay 1E51-K95. This relay only momentarily energizes a time delay relay, P45-K71, in the ESW "A" Loop initiation logic. This time delay relay, P45-K71, must be kept energized through the entire duration of its time delay (about 20 seconds) for ESW start-up to occur. Therefore it is necessary for the operator to hold down the RCIC manual initiation push-button for about 20 seconds for proper systems operation.

The time delay of ESW start-up was added as part of the design changes to reduce loading on the diesel generators during diesel start-up.

This design change modifies ESW "A" Loop initiation logic as follows:

1. Contacts from relay 1E51-K95 are removed from ESW logic.
2. They are replaced with contacts from relay 1E51-K102.

This relay is energized and sealed-in when a RCIC start signal is received. It will no longer be necessary to hold down the manual initiation push-button to ride through a 20 second delay.

Sections 5.4, 8.3 and 9.2 of the FSAR were reviewed. Details of the control logic are not discussed in the FSAR or in Technical Specifications.

There is no change to systems operation, except the elimination of the need to hold down the push-button through the time delay. Diesel loading is unaffected. No change is made to the start-up delay of ESW. There is no effect on any other RCIC or ESW control function.

SE No.: 87-0128 (Continued)

Summary (Continued)

It is concluded that there is no increase in the probability of occurrence of the consequences of an accident or malfunction of equipment important to safety as evaluated in the FSAR. An accident or malfunction of a different type than any evaluated in the FSAR is not created. The margin of safety per Technical Specification is unaffected.

II. No. Same as Item I above.

III. No. Same as Item I above.

SE No.: 87-0129

Source Document: FSAR CR 86-133

Description of Change

Add changes to FSAR on turbine trip signals due to generator electrical faults.

Summary

- I. No. The consequences or probability of a generator trip has not changed. The plant is still protected by a full scope of electrical protection.
- II. No. The consequences of a generator trip will not change as a result of this FSAR change request.
- III. No. Main generator protection is not a basis for any Technical Specification. The main generator and the plant is still being protected by a full scope of electrical protection.

SE No.: 87-0130

Source Document: DCP 86-0950, Rev. 0

Description of Change

Modify piping at the offgas cooler condenser and moisture separator loop seals to provide an enlarged upward flow section. (Mechanical Evaluation)

Summary

- I. No. Piping modification will eliminate loop seal level drops due to siphoning. The new loop seal design will prevent the seal from running low and the existing shutoff valves will prevent the seal from going dry. There is no increase in the probability of any accident or malfunction.
- II. No. Piping modification at the loop seals does not affect the FSAR (Chapter 15.7) analysis of failure of the Offgas System, nor is there a different type of malfunction/accident created as a result of this modification.
- III. No. The margin of safety in the Technical Specification Section 3/4.11.2 is not reduced by this piping modification.

SE No.: 87-0131

Source Document: DCP 86-0401, SCR 1-87-1089 through 1-87-109

Description of Change

This SCR (part of DCP 86-0401) is to initiate low pressure alarm setpoints for the Diesel Generator. (I&C Electrical Evaluation)

Summary

- I. No. This SCR to initiate low pressure alarm setpoints for the 150 psig starting air pressure will help in the evaluation of diesel status.
- II. No. This SCR will not create a different possibility for accident or malfunction, but will enhance the information available in determining diesel status.
- III. No. This SCR and its intended function are not described in the Technical Specifications.

SE No.: 87-0132, 87-0133, 87-0134
Source Document: DCP 86-0401, Rev. 0

Description of Change

Install pressure switches 1R44-N256 A & B and 1R44-N257 A & B to provide diesel out-of-service and alarm (remote) and unit availability emergency status light (locally). (I & C Evaluation).

Summary

- I. No. This change will not increase the probability of occurrence of an accident evaluated in the FSAR, because
 1. Its scope is limited to the standby diesel generators, which by themselves cannot cause a design basis accident,
 2. The design change is consistent with the existing design and maintains the original design parameters as evidenced by the acceptable equipment qualification evaluation and the design input record. The design equivalency between the original design and this design change, which is the basis for this design change, demonstrates that the likelihood of an equipment malfunction is the same as the original design. therefore, the probability of a malfunction of equipment is unchanged. The consequences of an accident or malfunction of equipment are unchanged with respect to the subject design change based on the equivalency of the designs. The consequences of the failure of the subject change would be the same as any similar failure of the original design. Additionally, a malfunction of equipment might be diagnosed earlier or more precisely as the result of the subject change.
- II. No. Since all original design parameters have been maintained, no new design is introduced and therefore, no possibility for an accident or malfunction of a different type is created.
- III. No. This installation does not change any bases for Technical Specifications.

JE No.: 87-0135

Source Document: DCP 86-0463, Rev. 0

Description of Change

Adds an interlock to the offgas vault refrigeration system to prevent the operation of any brine cooling package, unless one brine recirculation pump is operating.

Summary

- I. No. The addition of this interlock does not change the intent of the original design. One brine recirculation pump is supposed to operate before operating any brine cooling package; the interlock provides assurance that the system will be properly operated. Since original system design intent is not changed, the parameters upon which the accident and transient analysis in the FSAR was based, have not been affected.
- II. No. The design change will assure proper operation of the system; the change does not alter the original system design intent, therefore malfunctions of a different nature will not be created.
- III. No. The design change does not alter the intent of the original design, therefore Technical Specifications are not affected.

SE No.: 87-0136

Source Document: NR PPDS 2217, Rev. 0

Description of Change

RHR heat exchanger capacity is degraded due to high differential pressure across the ESW tube side of RHR heat exchanger Loop A. Disposition of the nonconformance limits reactor power to less than 35%. Under this restriction, the RHR system will perform its design function as defined in the FSAR (Sections 6.2.2, 5.4.7).

Summary

- I. No. RHR heat exchangers are not related to accident initiation prevention. For all accidents described in the FSAR, the RHR heat exchangers are fully capable of meeting their design function. While the high differential pressure across the tube side of the heat exchangers exceeds the maximum allowable per design, the additional mechanical stresses do not represent a challenge to the heat exchanger integrity.
- II. No. For defined reactor power limitations, the RHR Loop A system meets its operating requirements as defined in the FSAR. No potential exists for a different type of accident or malfunction.
- III. No. With the defined reactor power limitations, the RHR system meets its design bases as described in the Technical Specifications.

SE No.: 87-0137

Source Document: Installation Standard Specification SP-2400, Rev. 1
"Welding and Brazing Requirements".

Description of Change

Review this welding procedure and welder/operator qualification requirements of ASME IX (latest edition and addenda) for differences as compared to AWS D1.1-85 Section 5 requirements, which may affect design/completed weld quality considerations of welded structures.

Summary

- I. No. This review concluded that ASME IX qualifications do not reduce the design/completed weld quality considerations as compared to AWS D1.1 Section 5 and therefore, the probability of occurrence or the consequences of an accident malfunction of equipment important to safety previously evaluated in the FSAR are not affected.
- II. No. See Item I above.
- III. No. Technical Specifications are not affected by the item being evaluated in this CR.

SE No.: 87-0138

Source Document: DCP 87-0137, Rev. 0

Description of Change

Modify the feedpump recirculation line on Feedwater System (N27).

Summary

- I. No. This modification affects the nonsafety portion of the feedwater system and has no direct or indirect effect on any safety-related systems. The modification on FSAR Table 10.4-2 will decrease the likelihood of cavitation damage, which could cause the loss of a feedpump. The consequences of the loss of a feedpump would remain the same: automatic startup of the motor driven feedpump and reactor runback to 80% load, without a scram.
- II. No. The addition of orifices and use of alternate piping materials does not pose any new accident potential that does not already exist in the system design.
- III. No. The Technical Specifications are not affected, since the Feedwater System is not discussed in the Technical Specifications.

SE No.: 87-0139

Source Document: DCP 87-0173, Rev. 0

Description of Change

Relocate Leak Detection (E31) temperature elements in the steam tunnel.

Summary

- I. No. The safety function of temperature elements is not changed; mounting is within GE criteria for height above steam lines and redesigned support meets the same qualification as previous element support, therefore, the consequences of an accident or malfunction of equipment is not increased.
- II. No. The new support serves the same function as the previous support. Therefore, a different type malfunction is not created.
- III. No. The mounting configuration of the temperature elements is not described in Technical Specifications. The function of the temperature elements and their setpoints remain unchanged.

SE No.: 87-0140

Source Document: DCP 86-1058, Rev. 0

Description of Change

Add circuits for two (2) computer points on the Control Rod Drive System (C11NC068, C11NC069).

Summary

- I. No. This change will bring the field configuration into conformance with the system diagram (FSAR Fig. 4.6-5) and does not change the system diagram in any way. In addition, the computer indication is not safety-related.
- II. No. The addition of wiring to activate the computer points would not cause a failure of any equipment and be outside categories listed in FSAR Fig. 4.6-5.
- III. No. Technical Specification bases, Section 3/4 1.3 Control Rods, and Section 3/4 1.4 Control Rod Program controls do not address the item under evaluation.

SE No.: 87-0141

Source Document: DCP 86-0008B, Rev. 0
CR 87-024

Description of Change

Install a segregation/volume reduction facility in the Radwaste Building. (Fire Protection Evaluation).

Summary

- I. No. The increase in transient combustible loading will be protected by automatic sprinklers.
- II. No. There are no potential initiating causes of threats to the fuel and the reactor coolant boundary.
- III. No. Only administrative aspects of fire protection are addressed in Technical Specifications.

SE No.: 87-0142

Source Document: DCP 86-0008B, Rev. 0

Description of Change

Install a segregation/volume reduction facility, rollup grill door and Hilti Bolts in safety-related concrete in the Radwaste Building, elevation 623"-6.

Summary

- I. No. Nonsafety, non-seismic equipment installed per installation standard specification SP-2000 and Hilti Bolts installed per SP-2450, do not impair the integrity of the structural concrete.
- II. No. As stated in Item I above, nonsafety, non-seismic maintenance equipment and Hilti Bolts do not create the possibility for an accident or malfunction of a different type than previously evaluated.
- III. No. This is a design change and does not involve Technical Specifications.

SE No.: 87-0143

Source Document: DCP 86-0213, Rev. 0

Description of Change

Relocate flow transmitters (1E31-FT-N076 A & B) and reroute their impulse lines. (I & C Mechanical Evaluation).

Summary

- I. No. Rerouting of impulse lines and installation of valves (1G33F638 & 1G33F634) maintains the same criteria, seismic supporting, and meets ASME Section III and XI as the original installation. Therefore, the probability of occurrence or malfunction of equipment previously evaluated in the PSAR is not increased.
- II. No. Relocation of flow transmitters has same design as original installation. Therefore, any possibility of an accident or malfunction shall be the same as those described in the PSAR and no new types are created.
- III. No. The margin of safety is not reduced. Relocation of instruments enhances or promotes the function ability of flow transmitters.

SE No.: 87-0144
Source Document: DCP 86-0047D, Rev. 0

Description of Change

Add an underground fire protection water supply line from the main fire loop to the Service Building Annex.

Summary

- I. No. This change does not alter the operating condition of the underground fire protection water supply, the line size of the supply to suppression systems, nor the system pressure.
- II. No. There is no potential initiating cause of threat to the fuel and the reactor coolant pressure boundary.
- III. No. Only administrative aspects of fire protection are in Technical Specifications.

SE No.: 87-0146
Source Document: MFI No. 15-233

Description of Change

Remove a flow element (1N21-FEN430) from the Condensate System. This flow element gives indication to the Control Room concerning normal makeup flow to/from the condensate storage tank.

Summary

- I. No. Removal of this flow element does not affect operation of the Condensate System.
- II. No. Operation of the Condensate System as described in the FSAR Section 10.4.3.1 is not compromised by this change.
- III. No. Removal of this flow element does not affect Technical Specifications.

SE No.: 87-0147
Source Document: DCP 86-0887, Rev. 0

Description of Change

Add a new structure which is the Service Building Annex.

Summary

- I. No. FSAR must be revised to show the Service Building Annex, which is separate from the main plant structures and will not have any effect on any equipment important to safety. Therefore, the possibility of an accident or malfunction is not increased.
- II. No. The Service Building Annex and foundation have been designed in compliance with applicable codes/standards and will be installed per approved installation standard specifications and procedures, therefore, the possibility of an accident is not created.
- III. No. The addition of this structural item does not reduce the margin of safety for any Technical Specification.

SE No.: 87-0148
Source Document: DCP 87-0001, Rev. 0
EDCR No. 87-0001

Description of Change

Replace the circulating pump discharge line vent valve with a smaller mass valve (1N71-P0648A, B and C).

Summary

- I. No. FSAR Section 10.4.5.3 addresses the failure of the Circulating Water System and its consequences to the plant. It does not address the failure of the pump discharge vent valve, therefore, the probability of an accident previously evaluated in the FSAR has not increased.
- II. No. The replacement of this vent valve with a smaller mass valve will reduce the probability of a vibratory fatigue failure which has been experienced with the existing 600 lb. class valve.
- III. No. The Circulating Water System is not addressed in the Technical Specifications, therefore, the margin of safety has not been reduced.

SE No.: 87-0149

Source Document: DCP 86-0887G, Rev. 0

Description of Change

Install potable water line to the Service Building Annex.

Summary

- I. No. Addition of yard potable water piping does not affect equipment important to safety as described in the FSAR.
- II. No. The water line cannot adversely affect the safety of the plant as described in the FSAR.
- III. No. The water line does not affect the bases for any Technical Specification.

SE No.: 87-0150

Source Document: DCP 87-0176, Rev. 0

Description of Change

Reactor vessel reference leg nozzle insert.

Summary

- I. No. The addition of the deflector will provide a means to assure that water from the RCIC system does not enter the reference water level nozzle opening during a RCIC injection. This condition is the condition originally addressed in the FSA...
- II. No. The modification will be performed in accordance with ASME Section XI. The materials to be used are as originally specified in the Design Specification. Welding will be in accordance with ASME Code.

Rotation could cause an erroneous (non-conservative) reactor water level indication. However, since this temporary insert will only be installed in one reactor nozzle, normally required Operator channel checks will detect the anomaly. The reactor water level signals are used by systems which initiate safety-related water level trips. These systems use two redundant channels, with two redundant transmitters on each channel (four transmitters total). A trip signal from at least one transmitter from each channel is required to initiate the safety-related trip. Thus, an anomaly on one transmitter is not a safety concern.

- III. No. This modification will meet the requirements of the original design.

SE No.: 87-0151

Source Document: DCP 87-0037

Description of Change

Install relays in Breakers 3A, 3B, 4A and 4B trip circuits to reduce noise in the Reactor Recirculation System (B33).

Summary

- I. No. Reactor Recirculation Pump Breaker 4A has tripped for no apparent reason. Testing has determined that the High Power Optical Isolator (HPOI) cards which supply the trip signals from the Redundant Reactivity Control System (RRCS-C22) to the Recirc Breakers will supply trip signals for short intervals due to noise on the DC System. Testing has further identified the longest trip signals generated by noise to be 13 msec. Therefore, the installation of 30 msec. pick-up Agastat relays between the HPOI cards and the breaker trip circuits will eliminate these spurious trips.

The addition of these class 1E qualified relays adds another potential failure mode to existing safety related components previously evaluated in the FSAR. However, overall plant safety will be increased since the addition of these relays will help increase the availability and reliability to the other components in the trip circuits. The consequences of a potential malfunction due to addition of the new relays is not increased since it meets existing single failure criteria and does not increase the common mode failure probability.

RRCS trips the pumps off with an ATWS Low Level Signal present and down shifts the recirculation pumps from fast to slow speed with ATWS high pressure signal present and further trips the pump to off 25 seconds later if APRMs are not downscale. Since the pumps are required to be tripped after 25 seconds, the delay of .03 seconds in tripping will have no effect on safety.

- II. No. See Item I above.
- III. No. See Item I above.

SE No.: 87-0153

Source Document: DCP 85-0441

Description of Change

Rework instrument air supply lines from receiver tanks up to isolation valves downstream of after filters. (Units 1 and 2).

Summary

- I. No. The Instrument Air System (Units 1 and 2, P52) remains essentially unchanged between the receiver tanks and after filters as a result of this change. The P-52 system is not safety-related.
- II. No. Change out to stainless steel piping, addition of tees and replacement ball valves do not create the potential for an accident or malfunction.
- III. No. This design change is intended to resolve the history of leak problems that this portion of the instrument air system has had. P52 will function as intended by design, and therefore, Technical Specifications are not affected.

SE No.: 87-0154

Source Document: MFI 1-87-132 (Sheet 3 of 3)

Description of Change

Install a seal/flush water jumper (hose) from the Two Bed Demineralizer System (P21) to the Liquid Radwaste Disposal System (G50). This will provide required seal water and flush water to the radwaste pumps, which will allow continuous radwaste operations while the Condensate Transfer and Storage System (P11) is out of service.

Summary

- I. No. The normal seal/flush water is supplied to the Liquid Radwaste Disposal System by the Condensate Transfer System (P11). The P11 isolation valve to Radwaste, G50-F554 will be closed before the hose is installed and the hose will be removed before valve G50-F554 is opened. There will be no possibility of contaminating the P21 System with the P11 System. No radwaste flows within the seal/flush water piping.
- II. No. The addition of a seal water jumper between G50 and P21, both nonsafety systems will not create the possibility for an accident.
- III. No. The normal seal/flush water to Radwaste is supplied by the Condensate Transfer System (P11). Two (2) check valves in series will be installed in line with the hose to prevent flow from the P11 System to the P21 System. Additionally, the P11 Radwaste Isolation Valve, G50-F554, will be closed prior to installing the hose and the hose will be removed prior to opening valve G50-F554. There is no possibility of P11 contaminating P21. No radwaste flows with the seal/flush water piping and therefore, the bases for any Technical Specification is not affected.

SE No.: 87-0155

Source Document: DCP 87-0002

Description of Change

Remove drywell floor drain sump weir box.

Summary

- I. No. Removing the weir box allows water to drain directly into the sump. this does not change the probability of any accident.
- II. No. Removing the weir box returns the system to its original design.
- III. No. This change does not affect any liquid or solid plant effluents.

SE No.: 87-0156

Source Document: DCP 87-136, Rev. 0

Description of Change

Resequence the Steam Bypass (C85) Valve opening.

Summary

- I. No. FSAR analysis does not specify the opening of C85 valves by number, but merely depends on the valves to open as designed. Resequencing does not alter the FSAR analysis.
- II. No. Resequencing does not create any new accidents or malfunctions.
- III. No. The Technical Specifications do not address the C85 valves by number. Therefore, the resequencing of these valves has no effect on any bases of Technical Specifications.

SE No.: 87-0157

Source Document: DCP 86-0865

Description of Change

Modify the Reactor Feed Booster Pump (RFBP) trip circuit by addition of hot surge tank low water level signal interlock.

Summary

- I. No. This modification provides a 2 out of 2 logic to enhance system reliability of the RFBP trip. It does not alter the instrumentation system that maintains water level in hot surge tank as evaluated in FSAR Section 10.4.7.1.3. The probability of occurrence or the consequences of an accident/malfunction of equipment important to safety previously evaluated in the FSAR is not increased.
- II. No. The system instrumentation for the hot surge tank and RFBP trip is not diminished by this change. The possibility for an accident/malfunction of a different type than any previously evaluated in the FSAR is not created.
- III. No. This change is not governed by Technical Specifications.

SE No.: 87-0158

Source Document: DCN 06105

Description of Change

Revise system diagram drawings (D302-082, DS02-181) to agree with existing elementary/wiring drawings to show as-built inputs to recorders 1P33R100 and 1P33R215 in the Turbine Plant Sampling System.

Summary

- I. No. The item under evaluation does not change the basic functions of the Turbine Plant Sampling System and does not change any previous evaluations in the FSAR.
- II. No. The item under evaluation does not change any of the evaluations as given in the FSAR.
- III. No. This change does not alter any margin of safety as defined in the Technical Specifications.

SE No.: 87-0159

Source Document: W.O. 87-2591, 87-2604

Description of Change

Install a substitute reference pressure signal to the reactor water level transmitters normally served by 1B21-D004A or 1B21-D004D. This will maintain the transmitters in an operable status.

Summary

I. No.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously in the FSAR is not increased for the following reasons:
 - A) 1B21-D004A and 1B21-D004D will not be taken out of service concurrently, thus at all times there will be at least three operable reference legs without relying on the reference leg with the substitute signal. This is an analyzed condition.
 - B) Venting the reactor to the atmosphere via the main condenser will insure that no pressure build up or surge can take place in the reactor which would not be reflected by the substitute signal. The vent path isolation valves will be tagged in the open position to prevent inadvertent actuation. Additionally the Reactor Head vents will be open to the drain sump.
 - C) A potential scenario of concern is that a loss of substitute pressure signal (i.e., all associated transmitters now see a false high reactor water level) in conjunction with a true low reactor water level would result in a non-trip of the associated ECCS logic at a time when it was being relied upon. This scenario is not of concern for the following reasons. With the case of 1B21-D004A, the associated ECCS systems are LPCI A and LPCS. These ECCS systems will already be secured during this time frame for their own work. For 1B21-D004D, HPCS is the ECCS of concern. Level Column 1B21-D004C will by itself still be providing two independent level signals capable of starting HPCS in the event it is truly needed.
 - D) False high reactor water level signals resulting from a loss of substitute reference signal will only result in 1/2 actuations of trips or isolations. These trips are annunciated in the control room.

SE No.: 87-0159 (Continued)

Source Document: W.O. 87-2591, 87-2604

Summary (Continued)

- E) The temporary Level Reference signal setup will be monitored on an hourly basis to ensure the simulated pressure is not lost. A backup set of M&TE will be connected and remain in a standby readiness condition should the primary M&TE become inoperable.
- F) The operations personnel will continuously monitor Reactor Level alarms, and will be directed to monitor level instrumentation via a channel check on an hourly basis. Should any anomaly in indicated level be detected, the operations personnel will be instructed to secure related activities and initiate corrective actions as applicable.

II. No. The loss of a single reactor water level condensing pot has been analyzed.

III. No. There is no change in plant accident analysis for Condition 4 and therefore, the bases for any Technical Specification is not affected.

SE No.: 878-0162

Source Document: MFI 1-87-135

Description of Change

Temporarily remove Combustible Gas Control flow element orifice plate (1M51-FE-N100) and install a spacer in the Drywell Backup Purge Line per disposition of Field Change Request 6016.

Summary

- I. No. The effect of the M51 backup purge flow rate was calculated in Calculation No. 34242. The result shows that the minimum expected flow rate is less than that evaluated in FSAR Q&R 480.49.
- II. No. There is no possibility for an accident/malfunction of a different type than previously evaluated in the FSAR.
- III. No. The margin of safety as defined in the bases for any Technical Specification has not been increased beyond that previously evaluated in FSAR Q&R 480.49.

SE No.: 87-0163

Source Document: DCP 86-0390, Rev. 0

Description of Change

Add a computer backup recorder/logger to record Service Water (SW) and Emergency Service Water (ESW) discharge flows and SW influent/effluent temperatures. Replace SW and ESW discharge flow instrumentation from capacitive to ultrasonic type and annunciate the inop flow instrumentation.

Summary

- I. No. Adding redundant recording instrumentation and updating the flow instrumentation does not change the basic design functions of the SW and ESW systems.
- II. No. See Item I above.
- III. No. The margin of safety as defined in Technical Specification is not affected by this change.

SE No.: 87-0171

Source Document: DCP 86-0747, Rev. 0

Description of Change

Extend the piezometer in the Plant Underdrain System (P72) and relocate Service Air (P51) Valve 1P51-F584.

Summary

- I. No. Extension of the piezometers will not affect any safety-related/safe shutdown equipment and no seismic violations exist. Relocation of the Service Air valve does not change the design or function of the Service Air System, therefore, there is no change to the FSAR safety evaluation.
- II. No. The change to the P72 System is not addressed in the FSAR. The relocation of the P51 valve does not change the design or function of the P51 System, therefore, there is no possibility of an accident other than the one described in the FSAR.
- III. No. Neither the P72 or P52 Systems are addressed in the Technical Specification, therefore, the margin of safety has not been reduced.

SE No.: 87-0173

Source Document: DCP 87-123, Rev. 1

Description of Change

Modify RCIC valve annunciators. Also reference original Safety Evaluation 87-0116.

Summary

- I. No. Modification to RCIC valve annunciators will not cause the probability of occurrence of an accident to increase. RCIC function is not related to accident initiation prevention.

Design change will decrease the probability of malfunction of equipment important to safety. Annunciator function is to provide indication of valve misalignment which would indicate system inoperability. The DCP modifies annunciators to match new valve configuration to properly indicate when valves are misaligned.

No credit taken in FSAR Ch. 15 accident analyses for RCIC operation.
- II. No. Proposed design change will provide increased assurance of RCIC availability. Annunciator modification will not provide a new type of accident or malfunction.
- III. No. RCIC annunciators are not addressed in the Technical Specifications.

SE No.: 87-0174

Source Document: FSAR CR 87-019

Description of Change

Delete from FSAR Chapter 13, Section 13.4.2.4 the requirement for the Nuclear Safety Review Committee (NSRC) to approve the NQA audit/surveillance schedule.

Summary

- I. No. The probability of an occurrence or consequences of an accident/malfunction important to safety previously evaluated in the FSAR is not increased. This change is not related to plant operation.
- II. No. See Item I above.
- III. No. The NSRC approval of the audit/surveillance schedule is not addressed in the Technical Specification.

SE No.: 87-0175

Source Document: FSAR CR 87-0075, Rev. 0

Description of Change

Evaluate 299 open Nonconformance Reports (NRs) for impact on plant or system operability. All NRs are normally reviewed for operability during the course of their routine processing. However, this additional review was performed because of a concern identified with a dispositioned open Leak Detection System (E-31) NR which resulted in a plant shutdown.

Summary

- I. No. The review team concluded that only 9 of the 299 NRs required additional work or evaluation prior to plant restart. The remaining open nonconformances were determined to not affect plant or system operability. Therefore, the probability of occurrence or the consequences of an accident/malfunction important to safety previously evaluated in the FSAR is not increased.
- II. No. See Item I above.
- III. No. The margin of safety as defined in the bases for any Technical Specification is not reduced.

SE No.: 87-0176

Source Document: DCN 1631

Description of Change

Change a drawing, P&ID D-302-102 to remove normally closed indication from valve 1P11-F623 in the Condensate Transfer and Storage System, installed via DCP 87-0031.

Summary

- I. No. Installation of valve in the P11 System was for isolation purposes only. Valve is to be positioned "normally open" and does not increase any potential safety probabilities or consequences. This portion of the P11 System is nonsafety.
- II. No. See Item I above.
- III. No. Isolation valve positioned "normally open" will not affect any margin of safety as defined in the Technical Specification bases.

SE No.: 87-0177

Source Document: DCP 87-228, Rev. 0

Description of Change

Install a substitute reference pressure signal to the reactor water level transmitters normally served by 1B21-D004C.

Summary

I. No.

1. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased for the following reasons:
 - A. Only 1B21-D004C will be taken out of service, thus at all times there will be at least three operable reference legs without relying on the reference leg with the substitute signal. This is an analyzed condition.
 - B. Venting the reactor to the atmosphere via the main condenser will ensure that no pressure build up or surge can take place in the reactor which would not be reflected by the substitute signal. The vent path isolation valves will be tagged in the open position to prevent inadvertent actuation. Additionally the reactor head vents will be opened to the drain sump.
 - C. A potential scenario of concern is that a loss of substitute pressure signal (i.e., all associated transmitters now see a false high reactor water level) in conjunction with a true low reactor water level would result in a non-trip of the associated ECCS Logic at a time when it was being relied upon. This scenario is not of concern for the following reason: for 1B21-D004C HPCS is the ECCS of concern. Level column 1B21-D004D will by itself still be providing two independent level signals capable of starting HPCS in the event it is truly needed.
 - D. False high reactor water level signals resulting from a loss of substitute reference signal will only result in 1/2 actuations of trips or isolations. These trips are annunciated in the control room.
 - E. The temporary level reference signal setup will be monitored on an hourly basis to ensure the simulated pressure is not lost. A backup set of M&TE will be connected and remain in a standby readiness condition should the primary M&TE become inoperable.

SE No.: 87-0177 (Continued)

Summary (Continued)

- F. The Operations personnel will continuously monitor reactor level alarms, and will be directed to monitor level instrumentation via a channel check on an hourly basis. Should any anomaly in indicated level be detected, the Operations personnel will be instructed to secure related activities and initiate corrective actions as applicable.

- II. No. The loss of a single reactor water level condensing chamber/reference leg has been analyzed.

- III. No. The margins of safety as defined in the Technical Specifications is not reduced.

SE No.: 87-0178

Source Document: DCP 87-0228, Rev. 0

Description of Change

Insert reactor vessel reference leg deflector and revise impulse line configuration between the reactor nozzle and condensate chamber 1B21-D004C.

Summary

- I. No. The addition of the deflector will provide a means to assure that water from the RCIC system does not enter the reference water level nozzle opening during a RCIC injection. This condition is the condition originally addressed in the FSAR.
- II. No. The modification will be performed in accordance with ASME Section XI. The materials to be used are as originally specified in the Design Specification. Welding will be in accordance with ASME Code. Thus, the material is compatible with use in the vessel. The new "sleeve insert" is classified as a "temporary, non-structural" attachment.

The new sleeve is attached to the pressure boundary by an internal fillet weld to the bore of the existing nozzle. Although highly unlikely, because the weld meets all requirements of the ASME Code, failure of this weld has two consequences: 1) the insert could move several inches toward the vessel centerline until it contacts the steam dryer skirt, and 2) rotation of the insert could cause an erroneous (non-conservative) reactor water level indication. Without consideration of the failure mechanism or the probability of this failure, the safety impact of each of these is considered.

Movement of the insert toward the vessel centerline is not a safety concern. The sleeve is approximately 15 inches in length and cannot exit the nozzle by moving only 1-3 inches (the distance to the dryer skirt). Thus, there is no concern for lost parts.

Rotation could cause an erroneous (non-conservative) reactor water level indication. However, since this temporary insert will only be installed in one reactor nozzle per division, normally required Operator channel checks will detect the anomaly. The reactor water level signals are used by systems which initiate safety-related water level trips. These systems use two redundant channels, with two redundant transmitters on each channel (four transmitters total). A trip signal from at least one transmitter from each channel is required to initiate the safety-related trip. Thus, an anomaly on one transmitter is not a safety concern.

- III. No. This modification will meet the requirements of the original design.

SE No.: 87-0179

Source Document: NR PPDS 2217, Rev. 2

Description of Change

RHR heat exchanger capacity is degraded due to high differential pressure across the ESW tube side of RHR heat exchanger Loop A. Evaluate the "use as is disposition" of the nonconformance.

Also refer to SE No. 87-0136, Rev. 0.

Summary

- I. No. For all accidents described in the FSAR, the RHR heat exchangers are fully capable of meeting their design function. While the high differential pressure across the tube side of the RHR heat exchanger exceeds the maximum allowable per design, the additional mechanical stresses on the heat exchanger do not represent a challenge to the heat exchanger integrity.
- II. No. The RHR Loop A heat exchangers meet all operating requirements as defined in the FSAR. No potential exists for a different type of accident or malfunction.
- III. No. For all reactor power levels within the bounds of the operating license, the RHR system meets all its design bases as described in the Technical Specification bases.

SE No.: 87-0181

Source Document: DCP 87-0045, Rev. 0

Description of Change

Remove interlock between the temperature switch 1N24N005 and the demineralizer valves, 1N24-F010A-F, and add a control room alarm for high temperature with local temperature indication on the Condensate Demineralizer System (N24).

Summary

- I. No. The interlock was installed to protect the resin on high temperature. It is not discussed in the FSAR.
- II. No. High condensate temperature could degrade the resin, causing outlet conductivity to rise. This alarm would alert the control room to the high temperature condition, where either the demineralizers could be removed from service, or the temperature could be reduced.
- III. No. This system is not in the bases to the Technical Specifications.

SE No.: 87-0182

Source Document: DCP 87-0045, Rev. 0

Description of Change

Add a temperature indicator on Panel H51-P013 for the Condensate Demineralizer System (N24).

Summary

- I. No. The Condensate (N21) Control System will operate as designed and does not affect any safety systems.
- II. No. No new failure modes have been created, since operation has been improved, not changed.
- III. No. This change does not affect the Technical Specifications, thus the margin of safety has not been reduced.

SE No.: 87-0183

Source Document: SXI 012

Description of Change

Perform a Special Test Instruction SXI-012, RCIC Injection/Reactor Vessel Level Anomaly Test.

Summary

- I. No. Performance of the Special Test Instruction - RCIC Injection/Reactor Vessel Level Anomaly Test is in addition to the planned Startup Testing described in Chapter 14 of the FSAR. The RCIC Vessel Injection Test is similar to the Startup Testing described in the FSAR 14.2.12.2.12. Testing is performed at a low power level with various RCIC flow rates to the vessel and at various reactor pressures. The RCIC Vessel Injection Test differs in that injection flow is increased slowly from minimum without exceeding the rated system flow of 700 gpm and the testing includes intermediate reactor pressures. This testing is enveloped by the system and plant requirements described in the Startup Test. As operation of the RCIC system for the RCIC Vessel Injection Test is in accordance with approved plant operating procedures, the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR has not increased.
- II. No. This Special Test Instruction, RCIC Vessel Injection/Reactor Level Anomaly Test, is intended to provide data necessary to evaluate reactor level indication anomalies encountered during RCIC injections. Operation of level instrumentation during the performance of this test will be in accordance with Plant Technical Specifications. This ensures that information readouts will accommodate all accidents from the standpoint of operator action, information and event tracking requirements. Therefore, the possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created.
- III. No. The margin of safety for any Technical Specification is not reduced by this instruction.

SE No.: 87-0186

Source Document: LL&J Tags for W.O. 87-3166

Description of Change

Lift leads for NR PPDN-0699 Rev. 0. This will still allow the generator to be connected to the grid, but the plant shall not be back-fed through the step-up transformers with the generator off line and the 59N relay inoperable.

Summary

- I. No. The 59N relay provides protection for the isophase bus. This provides no protection for safety-related equipment.
- II. No. When the generator is on line, the 59NG relay will perform the same function as the 59N relay.
- III. No. The 59N relay is not discussed in the Technical Specifications.

SE No.: 87-0189

Source Document: NR MMQS 2267, Rev. 0

Description of Change

Evaluation of rework and use-as-is disposition, regarding low starting air pressure input to the "Diesel Generator Not Available" annunciator.

Summary

I. No.

1. The probability of occurrence of an accident previously evaluated in the FSAR is unchanged as the scope of this NR disposition is limited to the standby diesel generators which by themselves cannot cause a design basis accident.

The probability of occurrence of a malfunction of equipment is unaffected by this NR disposition as it has no effect on the physical configuration of any plant systems or equipment, including the original design parameters. Since no equipment is physically affected by this change, no potential for malfunction is introduced.

The consequences of an accident or malfunction of equipment are unchanged as the result of this NR disposition since the design is alarming conservatively with respect to the FSAR. In the event of a low starting air condition, the alarm would annunciate "diesel generator not available" well before the diesel would actually be unable to respond to a start signal. In this case, the operator could ensure the alarm is false and then manually operate the starting air compressor to recharge the starting air receiver tank to "clear" the alarm. The alarm setpoint has no effect on the ability of the diesel generator to respond to an emergency signal. This alarm setpoint has no effect on the ability of the diesel to perform as described in the FSAR thus the consequences of an accident would be supported as described in the FSAR and a malfunction of equipment is likely to be detected earlier as the result of the subject change.

2. The possibility for an accident of a different type than any evaluated previously is not created by this NR disposition as it is limited in scope to the standby diesel generators which by themselves cannot cause a design basis accident.

The possibility for a malfunction of equipment of a different type than any evaluated is not created by this NR disposition as it adds no new equipment and has no effect on existing plant system or equipment physical configuration. Thus, this disposition introduces no new potential for an equipment malfunction as the original design is maintained.

II. No. See Item 1 above.

SE No.: 87-0189 (Continued)

Summary (Continued)

III. No. Since the Technical Specifications are unaffected by this change, the margin of safety as defined in the bases for any Technical Specification remains unchanged.

SE No.: 87-0190

Source Document: SCR #1-87-1066 through 1069

Description of Change

These setpoint changes add a time delay of 0.1 sec to the diesel generator tachometer transmitters' setpoints (per DCP 86-0793) and change the 425 rpm setpoint to 441 rpm so it can be used as a Technical Specification compliance indicator.

Summary

- I. No. The probability of occurrence of an accident is not affected by the change described above as it is limited in scope to the emergency diesel generators which by themselves cannot cause a design basis accident. The probability of occurrence of a malfunction of equipment as previously evaluated in the FSAR is not affected as the subject setpoint change has no effect on any system or equipment's physical configuration. All original design parameters have been maintained with respect to this change. Hence, no new potential for a malfunction previously evaluated is introduced.

The consequences of an accident or malfunction of equipment important to safety as previously evaluated in the FSAR are unchanged with respect to this setpoint change, as it only affects the emergency diesel support systems prior to generator breaker closure. The M43 fans and R45 pumps receive a permissive to run signal from this setpoint. Hence, the effect occurs before time zero in the accident analysis and before any load sequencing as described in Table 8.3-1 in the FSAR. Thus the diesel generator will perform as required by the FSAR. Since this setpoint change has no effect on system or equipment configuration, there can be no other effect on the consequences of an accident or malfunction of equipment previously evaluated.

- II. No. A possibility for an accident or malfunction of a different type than any evaluated previously is not created by this change as it has no effect on the original plant design parameters, and no effect on the physical configuration of any plant system or equipment. This design change is limited in scope to the emergency diesel generators which by themselves cannot create a design basis accident. Since equipment design and configuration is unchanged, no possibility for a malfunction of a different type is created.
- III. No. The Technical Specifications remain unchanged, hence the margin of safety as defined in the bases for any Technical Specification is unchanged, with respect to the setpoint change.

SE No.: 87-0191

Source Document: IOI-3, Rev. 2, Temporary Change 14

Description of Change

Temporary Change Notice (TCN) to allow operation up to 75% power with extraction drains routed to main condenser versus normal flow path to the direct contact (DC) heater. The 8th stage extraction to DC heater will remain in service.

Summary

- I. No. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased based on the following reasons:
- 1) FSAR, Chapter 10, addresses system operation as two hotwell and two condensate booster pumps running with the third pump in standby. In this mode the standby pumps would be manually started on low pressure as sensed in the discharge header piping. The proposed change to IOI-3 requires all three pumps in operation at 75% power to ensure sufficient flow to the DC heater with extraction drains isolated. This extra margin of flow in the system, achieved with three pump operation and the bypasses around the offgas condenser, SJAE condensers, Heaters 3A and 3B, and the steam packing exhauster opened will not increase the probability or consequences of an accident evaluated in the FSAR.
 - 2) FSAR, Chapter 10, addresses operation of the condensate cleanup system as being 7 filters and 5 demineralizers at rated power. The proposed change to IOI-3 requires this configuration at 75% power due to the increased condensate flow. This change will not increase the probability or consequences of an accident evaluated in the FSAR because we are still operating within the system design limits and Field Change Request #6429 limits thermal power to 75% with extraction drains isolated.
 - 3) The plant will experience higher than normal extraction flows to compensate for the heat normally added to the DC heater from isolated drains. With 8th stage extraction remaining in service the increased flow rates of 150% to the #5 and #6 heaters. The loss of feedwater heating transient as described in Chapter 15 of the FSAR will not be exceeded based on calculations provided by PPTD Performance Monitoring Group. The FSAR uses 100°F as the limit in the loss of feedwater transient. At 75% power with all drains to the DC heater isolated except 8th stage extraction, we have only an 88.4°F delta temperature across the #5 and #6 heaters. Therefore, losing #5 and #6 heaters would not exceed the transient analysis of FSAR Chapter 15.

SE No.: 87-0191 (Continued)

Summary (Continued)

- 4) FSAR, Chapter 10, states the hotwell gives a 2-3 minute holdup time for the decay of radionuclides. Even though we have 3 hotwell pumps running, this time will not change because we will still be within the analyzed flow conditions. The increased steam and water flow to the condenser has been analyzed by NED (reference FCR #6429) and it has been determined the plant cannot exceed 75% thermal power. At 75% thermal power, the increased heat load can be handled by the condenser and therefore will not increase the probability or consequences of an accident evaluated in the FSAR.

II. No. See Item I above.

III. No. See Item I above.

SE No.: 87-0193

Source Document: DCP 86-0213, Rev. 0

Description of Change

Relocate Rosemount Transmitters 1E31N0076A&B to a different zone.

Summary

- I. No. The probability of occurrence of an accident has decreased because the environmental requirements in the design specification have decreased by relocating the transmitters to a different zone.
- II. No. See Item I above.
- III. No. The margin of safety increased due to the fact that the environmental requirements decreased in the design specification.

SE No.: 87-0194

Source Document: DCP 87-0270, Rev. 0

Description of Change

Insert reactor vessel reference leg nozzle 1B21-D0004B. (Insert B Division, reference I&C Drawing 814-605-102.)

Summary

- I. No. The addition of the deflector will provide a means to assure that water from the RCIC system does not enter the reference water level nozzle opening during a RCIC injection into the reactor vessel. This condition is the condition originally addressed in the FSAR.
- II. No. The modification will be performed in accordance with ASME Section XI. The materials to be used are as originally specified in the Design Specification. Welding will be in accordance with ASME Code. Thus, the material is compatible with use in the vessel. The new "sleeve insert" is classified as a "temporary, non-structural" attachment.

The new sleeve is attached to the pressure boundary by an internal fillet weld to the bore of the existing nozzle. Although highly unlikely, because the weld meets all requirements of the ASME Code, failure of this weld has two consequences: 1) the insert could move several inches toward the vessel centerline until it contacts the steam dryer skirt, and 2) rotation of the insert could cause an erroneous (non-conservative) reactor water level indication. Without consideration of the failure mechanism or the probability of this failure, the safety impact of each of these is considered.

Movement of the insert toward the vessel centerline is not a safety concern. The sleeve is approximately 15 inches in length and cannot exit the nozzle by moving only 1-3 inches (the distance to the dryer skirt). Thus, there is no concern for lost parts.

Rotation could cause an erroneous (non-conservative) reactor water level indication. However, rotation of a nozzle insert can be postulated in only one reactor nozzle, which would affect only one channel of reactor vessel level. The required Operator channel checks will detect the anomaly. The reactor water level signals are used by systems which initiate safety-related water level trips via two methods:

For those systems which use two redundant channels, with two redundant transmitters on each channel (four transmitters total), a trip signal from at least one transmitter from each channel is required to initiate a safety-related trip. Thus, an anomaly on one transmitter is not a safety concern.

SE No.: 87-0194 (Continued)

Summary (Continued)

For those systems which use a level signal in combination with a pressure signal to provide a LOCA initiation, in worst case conditions, the diverse pressure signal would be present to initiate the logic. In any case, a failure of one nozzle would at most affect only one division of equipment (either the A or B trains) but not both.

III. No. This modification will meet the requirements of the original design.

SE No.: 87-0195

Source Document: DCP 87-0271A, Rev. 0

Description of Change

Insert reactor vessel reference leg nozzle 1B21-D0004B, (Insert D Division reference I&C Drawing 814-601-102.)

Summary See SE No. 87-0194

SE No.: 87-0198

Source Document: DCN 01658
FSAR CR 88-155

Description of Change

Change Drawing D-302-008 (L59 CRD Decontamination and Rebuild) to incorporate operating data, motor boxes, flex hose MPLs and line sizes. Change system diagram symbol drawing to incorporate slide valve description.

Summary

- I. No. System diagram symbols drawing incorporates new valve description that exists on L59. This change impacts no equipment important to safety and has no impact on the probabilities described or evaluated in the FSAR.
- II. No. New valve description only impacts L59, which is not mentioned in the FSAR.
- III. No. New valve description only impacts L59, which does not impact Technical Specifications.

SE No.: 87-0200

Source Document: W.O. 87-3310

Description of Change

Apply a substitute reference pressure signal to the reactor water level transmitters normally served by 1B21-D004D.

Summary

- I. No. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased for the following reasons:

1B21-D004D will not be taken out of service concurrently with any other condensing pot, thus at all times there will be at least three operable reference legs without relying on the reference leg with the substitute signal. This is an analyzed condition.

Venting the reactor to the atmosphere via the main condenser will ensure that no pressure buildup or surge can take place in the reactor which would not be reflected by the substitute signal. The vent path isolation valves will be tagged in the open position to prevent inadvertent actuation. Additionally the Reactor Head vents will be open to the drain sump.

A potential scenario of concern is that a loss of substitute pressure signal (i.e. all associated transmitters now see a false high reactor water level) in conjunction with a true low reactor water level would result in a non-trip of the associated ECCS logic at a time when it was being relied upon. This scenario is not of concern for the following reason. For 1B21-D004D, HPCS is the ECCS of concern. Level Column 1B21-D004C will by itself still be providing two independent level signals capable of starting HPCS in the event it is truly needed.

False high reactor water level signals resulting from a loss of substitute reference signal will only result in 1/2 actuations of trips or isolations. These trips are annunciated in the control room.

The temporary level reference signal setup will be monitored on an hourly basis to ensure the simulated pressure is not lost. A backup set of maintenance and test equipment (M&TE) will be connected and remain in a standby readiness condition should the primary M&TE become inoperable.

The operations personnel will continuously monitor Reactor Level alarms, and will be directed to monitor level instrumentation via a channel check on an hourly basis. Should any anomaly in indicated level be detected, the operations personnel will be instructed to secure related activities and initiate corrective actions as applicable.

SE No.: 87-0200 (Continued)

Summary (Continued)

- II. No. The loss of a single reactor water level condensing pot has been analyzed.
- III. No. The margin of safety as defined in the Technical Specifications is not reduced.

SE No.: 87-0203

Source Document: W.O. 87-3310

Description of Change

Apply a substitute reference pressure signal simultaneously to each of the reactor water level transmitters normally served by 1B21-D004B and 1B21-D004D.

Summary

- I. No. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased for the following reasons:
- While the work is being done on 1B21-D004B and 1B21-D004D, ECCS protection will be supplied by LPCI A and LPCS, neither of which relies on the condensate pots being worked for level signal input.
- Venting the reactor to the atmosphere via the main condenser will ensure that no pressure buildup or surge can take place in the reactor, which would not be reflected by the substitute signal. The vent path isolation valves will be tagged in the open position to prevent inadvertent actuation. Additionally the Reactor Head vents will be open to the drain sump.
- False high reactor water level signals resulting from a loss of substitute reference signal will only result in 1/2 actuations of trips or isolations. These trips are annunciated in the control room.
- The temporary level reference signal setup will be monitored on an hourly basis to ensure the simulated pressure is not lost. A backup set of maintenance and test equipment (M&TE) will be connected and remain in a standby readiness condition should the primary M&TE become inoperable.
- The operations personnel will continuously monitor Reactor Level alarms, and will be directed to monitor level instrumentation via a channel check on an hourly basis. Should any anomaly level be detected, the operations personnel will be instructed to secure related activities and initiate corrective actions as applicable.
- II. No. Signal element failure analysis has already been applied to the condensate pots.
- III. No. The margin of safety as defined in the Technical Specifications is not reduced.

SE No.: 87-0204

Source Document: DCP 86-0645A, Rev. 0

Description of Change

Revise system operation of the Division 1 Diesel Generator Building Ventilation System (1M43) so that the outside air intake dampers are open when both fans are stopped. (Mechanical-HVAC Evaluation)

Summary

- I. No. The effect of the change is to moderate the diesel room temperatures during standby conditions. Because the change improves the environmental parameters without impacting the system function, there is a reduction of the probability of occurrence.
- II. No. When the fans are required to operate, there is no change to the system function or design intent. Accordingly, no new type of possible accident or malfunction is introduced.
- III. No. There are no safety limits of the Technical Specifications which applies to the Diesel Generator Building Ventilation System (DGBVS). The DGBVS is not directly covered by Technical Specifications. Diesel generator operability will be enhanced by lowering the ambient temperature in this room.

SE No.: 87-0206

Source Document: DCP 86-0645A, Rev. 0

Description of Change

Revise system operation of the Division 1 Diesel Generator Building Ventilation System (1M43) so that the outside air intake dampers are open when both fans are stopped. (Electrical Evaluation)

Summary

- I. No. The Diesel Generator room temperature range required by FSAR Chapter 9 (40°F - 121°F) will be maintained.
- II. No. Open intake dampers lower the generator room temperature but the temperature range limit (40°F - 121°F) per FSAR Chapter 9 will be unchanged.
- III. No. This design change will mitigate the Division 1 Diesel Generator room temperature and will not reduce the margin of safety as defined in the bases for any Technical Specifications.

SE No.: 87-0208

Source Document: DCP 86-0851, Rev. 0

Description of Change

The existing Reactor Recirculation System (B33) runback signals and Level 4 annunciation are derived from discrete alarm channels. The system can initiate a Flow Control Valve (FCV) runback in a single recirculation loop. This DCP ties the individual Level 4 trip signals together so the tripping of any Level 4 channel provides the proper runback signal for both "A" and "B" recirculation loops and the Control Room annunciator. (I&C Evaluation)

Summary

- I. No. The original design intent is for both reactor recirculation loops ("A" and "B") to runback simultaneously. This is presently accomplished by independent Level 4 trip units, one for Loop A and the other for Loop B. These trip units have the same setpoints but due to calibration mismatches (due to tolerance errors) a runback could occur in only one loop. This design change ties the individual Level 4 trip signals together so that the tripping of any Level 4 channel provides the proper runback signal for both "A" and "B" recirculation loops. Therefore, this change assures the design intent and improves system operating reliability.

It should be noted that Chapter 15 discusses the operation of the plant when one recirculation pump trip has occurred. Tripping a single recirculation pump requires no protection system or safeguard system operation. The analysis assumes normal functioning of plant instruments and controls.

The recirculation runback in a single loop is considered less severe transient than a recirculation pump trip, therefore, it is of no consequence for this design change.

- II. No. No new failure modes have been created since operation has been improved not changed.
- III. No. This item does not affect the Technical Specifications thus the margin of safety has not been reduced.

SE No.: 87-0209

Source Document: DCN 1669

Description of Change

Change the level switch setpoint of the outlet valve on the mixed bed demineralizer to reflect the as-built condition.

Summary

- I. No. This item has no impact on any safety system and cannot have an indirect impact on the malfunction of equipment important to safety.
- II. No. This change cannot directly or indirectly impact a safety system and thus can not cause an accident or malfunction of a different type than those previously evaluated within the FSAR.
- III. No. This change has no pertinent Technical Specification and thus cannot impact bases for any Technical Specification.

SE No.: 87-0210

Source Document: DCN 1667

Description of Change

Revise Drawing D-302-621 to reflect the field configuration of Drain Valve OP42-F550.

Summary

- I. No. This change only involves updating the Drawing D-302-621 to reflect the actual configuration of OP42-F550. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR will not be increased. Location of drain valve will not affect FSAR evaluation including Chapter 15.
- II. No. Drain Valve OP42-F560 now correctly shown in the field configuration on Drawing D-302-621. The possibility for an accident or malfunction of a different type than any evaluated in the FSAR were not created. Location will not create any new accident or malfunction.
- III. No. This item is not addressed in the Technical Specifications. The bases do not consider location of drain valve.

SE No.: 87-0211

Source Document: DCP 87-0289, Rev. 0

Description of Change

This design change reduces the temperature compensation applied to the Reactor Water Cleanup (RWCU) System leak detection flow summers (1E31-K604A,B) from 0-30 gallons per minute to 0-10 gallons per minute. (I&C/Electrical Evaluation)

Summary

- I. No. The probability of occurrence of an accident previously evaluated in the FSAR is not increased because the design change effects cannot cause the accidents described in Chapter 15 and Table 15.0.3 of the FSAR.

The probability of the malfunction of equipment important to safety previously evaluated in the FSAR is not increased because no additional equipment is added by this design change.

The consequences of an accident previously evaluated in the FSAR are not increased because the allowable RWCU leakage flow before a RWCU isolation is not increased by this design change, assuming that the RWCU system is operated within the guidelines of the System Operating Instruction SOI-G33, Rev. 3.

The consequences of the malfunction of equipment important to safety previously evaluated in the FSAR are decreased because the failure of the reactor pressure input signal would result in a smaller compensation loss (0-10 gpm instead of 0-30 gpm).

- II. No. The modified portion of the Leak Detection RWCU Isolation System cannot initiate a disturbance to jeopardize the fuel and reactor coolant pressure boundary.
- III. No. The margin of safety does not change because the safety limit associated with Technical Specification Table 3.3.2-2, Section 4a, is not affected by the design change.

SE No.: 87-0214

Source Document: SCRs 1-87-1259
1-87-1260
1-87-1261

Description of Change

Revise the torque switch setpoints for the High Pressure Core Spray System valves 1E22-F0015, 1E22-F0023 and 1E22-F0012.

Summary

I. No. The maximum stem thrust values supplied for the HPCS motor-operated valves are artificially low. The vendor supplied only the maximum stem thrust for the Limitorque operator. The maximum stem thrust for the valve's themselves were not provided. The stem thrust requirements were also made at 75%-80% voltage. The stem thrust data provided by the vendor was extremely conservative. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR or of a type than any evaluated previously in the FSAR does not change.

For 1E22F0023 the setpoint change is within the allowable adjustment range as identified on Calculation 1345-87-06.

For 1E22F0015 the setpoint is being adjusted to its lowest possible setting. This setting is in excess of the vendors published maximum thrust value by approximately 4,000 lbs. Based on previous experience with motor operated valve testing this overthrust is not expected to adversely impact the operability of the motor operated valve. The motor operator on the valve is rated for 45,000 lbs of delivered stem thrust. Typically the valve will be able to withstand in excess of 150% of the motor operator's maximum thrust capacity. An NR, MHQS-2367, was generated to document this overthrust condition.

The overthrust condition on the 1E22F0015 over the life of the plant potentially could cause accelerated degradation of the valve. The degradation would be in the closed direction causing the seating area to wear faster than expected. The net effect is that the potential increased leakage through this valve may occur. This is not considered to be significant because the valve has a Local Leak Rate Test requirement and the system is periodically tested to insure operability.

For 1E22F0012 the torque switch is being adjusted to its minimum setting. At this setting the stem thrust is in excess of the vendor's maximum thrust by 156 lbs. This over-thrust is considered insignificant. The data was recorded at approximately 100% voltage. The stem thrust the vendor provided was for 75%-80% voltage. General Electric Co. has approved this and will be issuing FDDR 5305 to document it.

SE No.: 87-0214 (Continued)

II. No. See Item I. above.

III. No. For 1E22F0023, the setpoint change is within the allowable adjustment range as identified in Calculation 1345-87-6. The margin of safety as defined in the bases for the Technical Specifications is unchanged.

For 1E22F0012 and 1E22F0015, the setpoint change may effect the operability of the valve. That is, over the life of the plant there could be accelerated degradation of this valve. By overthrusting the valve going closed the seat area may degrade faster causing increased leakage through this valve. If there is increased leakage through this valve it would be identified through Local Leak Rate Testing and possibly the periodic testing of the system.

SE No.: 87-0217

Source Document: DCP 87-0286, Rev. 5

Description of Change

Addition of pipe whip and bump restraints to Residual Heat Removal - RHR (E12) and Condensate Transfer and Storage (P11) Systems within the Residual Heat Removal A and B Rooms on Elevation 620'. These restraints are required due to jet loads resulting from postulated breaks in the 10 inch Reactor Core Isolation Cooling/Residual Heat Removal Steam Line. (Mechanical Evaluation)

Summary

- I. No. This design change adds pipe whip and bumper restraints to the E12 and P11 systems to ensure the integrity of shutdown cooling and LPCI for RHR Loops A and B, following postulated ruptures in the RCIC/RHR steamline. This change will return the system to compliance with applicable design criteria and the FSAR. It will decrease the potential consequences of accidents and/or malfunctions important to safety. It will not increase the occurrence of accidents and/or malfunctions.
- II. No. Any RCIC/RHR steamline break is bounded by FSAR 15.6.4 - Steam System Piping Break Outside Containment. No new type of accident or malfunction has been created.
- III. No. Design change ensures the operability of systems required for safe shutdown (E12 - Low Pressure Coolant Injection and Shutdown Cooling) following a postulated pipe break event. No Technical Specification margin of safety is reduced.

SE No.: 87-0219

Source Document: DCP 87-0237, Rev. 0

Description of Change

Install temperature elements to thermostatically control the operation of electric heaters used in defrosting one of the Offgas Vault Refrigeration System Air Handling Units 1N64-B112D. (Electrical Evaluation)

Summary

- I. No. This modification adds thermostatic control to the operation of the electric heaters used for defrosting of the air handling units. The heaters were designed to cycle on for 2 hours out of every eight. This design change will allow the heaters to be thermostatically cut-out prior to the completion of the 2 hour "on" cycle, if temperatures are sufficient for proper defrost and will thus reduce malfunctions experienced with the heaters to date. This change will not affect the overall system function to provide cooled air to the offgas vaults; therefore, the design change will not affect the parameters upon which the accident and transient analysis in the FSAR were based.
- II. No. The design change affects only the operation of the electric defrost heaters and has no affect on overall system function, therefore malfunctions of a different nature will not be created.
- III. No. Technical Specifications do not address the offgas vault refrigeration system. This design change will not affect the overall function of the offgas process system which is discussed in Technical Specifications.

SE No.: 87-0220

Source Document: SCR 1-86-1530
1-86-1531
1-86-1532

Description of Change

The Bailey Control Loops of the Feedwater Control System (C34) for the Reactor Feed Pump Turbines and the Motor Feed Pump Throttle Valve (C34-R601A, B & C), output signals can reach the presently selected setpoints for the "signal failure" bistables, C34K607A, B & C because the bistables are set too close to the normal operating range. This change moves these setpoints away from the operating range.

Summary

- I. No. The Feedwater Control System will operate as designed and the change does not affect any safety systems. The new setpoints will help eliminate unnecessary alarms/control action since a tight tolerance is not required.
- II. No. No new failure modes have been created since control action has not been changed.
- III. No. This item does not affect the Technical Specifications, thus the margin of safety has not been reduced.

SE No.: 87-0221

Source Document: DCN 1612

Description of Change

Clarify the Master Parts List numbers (MPLs) for equipment on the Offgas System (N64) P&IDs.

Summary

- I. No. This drawing change is for P&ID clarification to the equipment MPL's and does not affect equipment function or accident consequences evaluated in Chapter 9, 11, 12, 15 pertaining to the N64 System.
- II. No. Offgas system form or function is not changed by this drawing revision therefore no new accident or malfunction exists.
- III. No. Technical Specification and associated release rates for the Offgas System are not changed therefore plant operation/margin of safety is not reduced by this drawing revision.

SE No.: 87-0222

Source Document: DCP 86-0993, Rev. 0

Description of Change

Replace Diesel Generators Starting Air Pressure Transmitters/Trip Units (1R44-N250A, B and -N255A, B) with Barksdale Pressure Switches (1R44-N255A, B). (I&C Mechanical Evaluation)

Summary

- I. No. The replacement pressure switches are both seismically and environmentally qualified for this application including the mounting and hook-ups of the sensing tubing. Also, the same basic function of the instrumentation has not changed; therefore, the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased.
- II. No. The replacement pressure switches will provide a direct trip signal to the starting air compressor which is similar to the present pressure transmitter scheme. The pressure switch change eliminates the need for a separate trip unit required with the use of the pressure transmitter. Since the new design scheme provides the same function, the possibility for an accident or malfunction of a different type than those evaluated in the FSAR has not been created.
- III. No. Since changing the primary instruments to pressure switches, in lieu of the pressure transmitters, enhances the performance of this system, the system reliability has been increased. Therefore, the Technical Specification bases have not been reduced.

SE No.: 87-0223

Source Document: DCP 86-0993, Rev. 0

Description of Change

Replace Diesel Generators Starting Air Pressure Transmitters/Trip Units (1R44-N250A, B and -N255A, B) with Barksdale Pressure Switches (1R44-N255A, B). (I&C Electrical Evaluation)

Summary

- I. No. This change will reduce the probability of equipment failure and the random starting of the starting air compressors.
- II. No. This change enhances the reliability of the starting air compressors.
- III. No. This change enhances the system reliability thus increasing the margin of safety. This item does not affect the Technical Specifications.

SE No.: 87-0224

Source Document: 1-87-175

Description of Change

Install temporary sample connections to the Offgas (N64) System per Work Order 87-2855 to connect a mass spectrometer to sample for helium gas used to identify air inleakage to the system.

Summary

- I. No. The sample panel is not safety-related and addition of sample connections does not effect the FSAR accident analysis.
- II. No. The sample connections do not create the possibility for an accident different than evaluated in FSAR Section 15.7.1.
- III. No. The sample connections have no effect on the Technical Specifications or their bases.

SE No.: 87-0225

Source Document: DCN 01344

Description of Change

The Reactor Water Cleanup (1G33) and Leak Detection (1E31) System Diagrams (D-302-672 and -962) incorrectly show the origin of the electrical signal to Flow Switch 1G33-N600 to be 1E31-N076A instead of 1E31-K602A as shown on Elementary Diagram 208-070-A07. This drawing change revises the origin of the electrical signal so it corresponds to the elementary diagram.

Summary

- I. No. The instrument loop of Flow Switch 1G33-N600 is not included in any accident or malfunction evaluations in the FSAR.
- II. No. The function of Flow Switch 1G33-N600 (Reactor Water Cleanup (RWC) pump low flow interlock and alarm) does not change as a result of this drawing change, therefore, no change to the plant is required.
- III. No. The RWC Flow Switch (1G33-N600) instrument loop is not described in the Technical Specifications.

SE No.: 87-0228

Source Document: DCP 87-0216, Rev. 0

Description of Change

Replace the silicone gasket material used on the Main Steam Isolation Valve (MSIV), NAMCO limit switches with the EPDM gaskets. (Mechanical Evaluation)

Summary

- I. No. The limit switch provides MSIV opening position. The material replacement improves potential material degradation from radiation.
- II. No. The existing material (Silicone Rubber) is qualified for 20 months, and would have to be replaced at each fuel outage, EPDM is qualified for 5 years.
- III. No. Replacing the gasket represents a design improvement and will not affect ~~the~~ any margins of safety defined in the Technical Specifications.

SE No.: 87-0229

Source Document: DCP 87-0046, Rev. 0

Description of Change

Replace the common condensate filtrating sample header with individual sample lines. (I&C Mechanical Evaluation)

Summary

- I. No. The method of design for modification described adheres to those of original installation, therefore the probability of occurrence or consequences of accident or malfunction is not increased.
- II. No. The design of the sample lines is only different in respect to the number of lines, however, the intent and purpose are the same as original common header design.
- III. No. The purpose of sample lines is to take samples and has no effect on the operating parameters or margin of safety for Technical Specifications.

SE No.: 87-0231

Source Document: LLJED 1-87-181

Description of Change

Install jumper on high flow alarm contacts from the Emergency Service Water Loop A Radiation Monitor. This disables the Control Room Annunciator from actuating on high flow, however, this does not affect the operability of the radiation monitor since the low flow alarm will still function (Radiation Monitor Operation is only affected by a total loss of sample flow). This jumper is required until completion of Design Change Package 86-0179 which will increase flow to the radiation monitor and allow proper calibration of the high flow alarm.

Summary

- I. No. Emergency Service Water Loop A Radiation Monitor is a monitoring instrument and is not important to safety. The jumper does not affect operability of the radiation monitor since low flow is the only important function.
- II. No. The high flow alarm is not required since a high flow rate does not affect the monitor calibration or operation.
- III. No. Operability of the radiation monitor is not affected by the loss of high flow alarm.

SE No.: 87-0232

Source Document: DCP 87-0304, Rev. 0

Description of Change

Drill holes in the 1E31-F001J valve body for sealant injection. Add screw in plugs to seal the holes after the sealant has set. (Mechanical Evaluation)

Summary

- I. No. This evaluation covers the effects on function of the system rather than valve integrity. Sealant injection effects are not part of existing FSAR evaluations for the system.
- II. No. The injection of sealant into the void spaces of the pressure seal area of 1E32F001J will have no impact on the operability of the valve since the components are stationary and the sealant is a backup to the existing pressure seal wedge gasket.

The sealant is not anticipated to migrate beyond the pressure seal parts during injection. This is to be verified by the TEAM Inc. procedure step of applying injection pressure and determining that sealant flow has stopped after other injection valves (vent paths) are closed.

Any continuous leak of sealant into the lower bonnet area and potentially into the system would be characterized by a failure to pressurize the sealant and by excess quantity of sealant injected. Engineering will be advised as to the actual quantity used. Should engineering determine that a potential for excess sealant entry into the system has occurred the system will be placed/kept in inoperable status until corrective measures have been taken, or consequences of sealant entry are otherwise evaluated.

Sealants are qualified for service temperature in excess of design requirements. Radiation tolerance of about 8×10^7 rads exceeds the required accident integrated dose for the steam tunnel (i.e., 1.72×10^7 rads). These properties ensure the sealant will not degrade in service.

- III. No. There is no effect on valve/system operating parameters due to sealant injection.

SE No.: 87-0233

Source Document: Emergency Plan for the Perry Nuclear Power Plant,
Revision 7

Description of Change

Complete revision of this procedure. Various changes, most of which involve changes to reflect current plant operating and emergency procedures, Technical Specification requirements and NRC guidance.

Summary

- I. No. The PNPP Emergency Plan (OM15A) outlines the administrative response to an accident or equipment malfunction and, therefore, does not affect the probability of their occurrence.
- II. No. OM15A does not direct the operation of plant systems or equipment and, therefore, does not create the possibility for an accident or malfunction.
- III. No. OM15A utilizes existing Technical Specifications and does not control or affect the revision of the PNPP Technical Specifications; therefore, the margin of safety as defined in Technical Specifications is not reduced.

SE No.: 87-0234

Source Document: DCN 01682

Description of Change

Revise tagging of vent valve in the Condensate System (N21) from 1N21-P803 to 1N21-P806.

Summary

- I. No. The probability and consequences of accidents and malfunctions are not affected by valve tagging (so long as all tagging documents are consistent).
- II. No. No new accidents or malfunctions are created by revising tag number. The design configuration has not been altered by this change.
- III. No. Technical Specification bases do not address vent valve tagging in the 1N21 system.

SE No.: 87-0235

Source Document: DCP 87-0068A, Rev. 0

Description of Change

Relocation of the stop/start pressure switch (1P57-N0702) from the Safety-Related Instrument Air Compressor (1P57-C001) to instrument rack 1H51-P1313. (Electrical Evaluation)

Summary

- I. No. The electrical installation of this design change is in accordance with the construction criteria discussed in the FSAR. Therefore the possibility of an accident or malfunction is not created. The new location of the nonsafety-related Pressure Switch 1P57-N0702 on the Instrument Rack 1H51-P1313 will permit switch operation as designed and will not degrade the safety-related portion of the System P57 as described in the FSAR Section 6.8. This portion of the system is nonsafety-related.
- II. No. See Item I. above.
- III. No. This design change will not reduce the margin of safety as defined in the basis for any Technical Specification. This change addresses the nonsafety-related portion of the P57 System. Failure would not affect the 150 psig alarm setpoint as described under Section 4.5.1.e of the Technical Specifications.

SE No.: 87-0236

Source Document: DCP 87-0068A, Rev. 0

Description of Change

Relocation of the stop/start pressure switch (1P57-N0702) from the Safety-Related Instrument Air (P57) Compressor (1P57-C001) to instrument rack 1H51-P1313. (I&C Mechanical Evaluation)

Summary

- I. No. This design change will not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR. This change addresses the nonsafety-related portion of the P57 System. Failure would not degrade the safety-related portion.
- II. No. This design change will not generate the possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR. This change addresses the nonsafety-related portion of the P57 System. Failure would not degrade the safety-related portion from functioning as described in Section 6.8 of the FSAR.
- III. No. This design change will not reduce the margin of safety as defined in the basis for any Technical Specification. This change addresses the nonsafety-related portion of the P57 System. Failure would not affect the 155 psig alarm setpoint as described under Section 4.4.1.e of the Technical Specifications.

SE No.: 87-0239

Source Document: DCP 87-0068, Rev. 0

Description of Change

Remote monitor air compressor (1P57-C001) start/stop pressure switch (1P57-N702) in the Safety-Related Instrument Air System (P57).

Summary

- I. No. This design change will not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR. This change addresses the nonsafety-related portion of the P57 System. Failure would not degrade the safety-related portion.
- II. No. This design change will not generate the possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR. This change addresses the nonsafety-related portion of the P57 System. Failure would not degrade the safety-related portion from functioning as described in Section 6.8 of the FSAR.
- III. No. This design change will not reduce the margin of safety as defined in the basis for any Technical Specification. This change addressed the nonsafety-related portion of the P57 System. Failure would not affect the 155 psig alarm setpoint as described under Section 4.5.1.e of the Technical Specification.

SE No.: 87-0240

Source Document: DCP 85-0573, Rev. 0

Description of Change

Add a new platform at Elevation 633'-2-1/2" in Room 623-03 of the Radwaste Building for handling Dry Active Waste. (Civil/Structural Evaluation)

Summary

- I. No. The new platform being added to handle Dry Active Waste is adequately designed to support the loads in accordance with the applicable design criteria and codes (Reference Calculation File Code 8:04.5). Also, Hilti Bolts installed per Installation Standard Specification S/P-2450 and the Work Instructions in the DCP will not impair the integrity of the structural concrete. Therefore, the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not affected.
- II. No. The new platform is adequately designed to support the expected loads. Thus the possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR is not created.
- III. No. This change does not involve Technical Specifications.

SE No.: 87-0242

Source Document: DCP 86-0781, Rev. 0

Description of Change

Addition of alarms on the following Service Building doors SB-103, 105, 106, and 107. (Electrical/Security Evaluation)

Summary

- I. No. Changes to the security system do not affect safety items evaluated in the FSAR.
- II. No. This design change is an improvement to the security system. It does not affect any items evaluated in the FSAR.
- III. No. This change to the security system does not affect the Technical Specifications.

SE No.: 87-0244

Source Document: DCP 87-0262, Rev. 0

Description of Change

Install new containment isolation valves for the Instrument Air (P52) System and add additional maintenance isolation valves. (Mechanical Evaluation)

Summary

- I. No. The only accident or malfunction discussed in the FSAR for the P52 Instrument Air System is the "Loss of Instrument Air" in Section 15.2.10 and 15A.6.3.3. The probability of occurrence of this accident is not increased, since the new isolation valves are of welded and threaded construction and are not expected to be a source of failures. If the failure does occur, the consequences of this accident remain the same, i.e., all safety-related equipment fails to a safe position, the Main Steam Isolation Valves (MSIVs) close and the plant trips (reactor scram on MSIV position).
- II. No. No new accidents or malfunctions are created by the installation of additional maintenance isolation valves. The new air distribution system inside containment is basically the same as the old system design, except for the addition of more maintenance isolation valves.
- III. No. Technical Specification bases do not address the Instrument Air System.

SE No.: 67-0245

Source Document: DCP 87-0108, Rev. 0

Description of Change

Addition of a drain/cross-connect valve to the Division 1 and 2 Diesel Generator Starting Air (R44) System receiver tanks. (Mechanical Evaluation)

Summary

- I. No. In PSAR Section 9.5.6.3, the starting air facilities (Trains A&B) for each of the Standby Diesel Engines are completely redundant with each redundant section capable of supplying enough air for a minimum of five engine starts. The valve being added to the system will be located in a safety-related common drain header that is normally open to atmosphere downstream of the normally closed safety-related air receiver tank drain valves. This additional valve will normally be in the open position in order to retain necessary facility/train redundancy. However, in the event of air compressor failure or maintenance, temporary cross-charging of the starting air receiver tanks may be accomplished by closing the valve and opening the normally closed air receiver tank drain valves. On completion of charging the air receiver tanks the system would be restored to its normal drain valve lineup.

Since the additional valve will be normally open, the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the PSAR is not increased. Having the capability for cross-charging the air receiver tanks will actually improve the availability/operability of the safety-related portion of the starting air supply facilities.

- II. No. For reasons similar to those stated above in Item I., the possibility for an accident or a malfunction of a different type than previously evaluated in the PSAR is not created. Maintaining the valve in a normally open position will retain system redundancy.

No interdivisional cross-ties are added with this change, therefore, divisional Diesel Generator redundancy as described in the PSAR is maintained.

- III. No. Since this is a design change that improves starting air system charging flexibility in the event of compressor failure or maintenance, the margins of safety as described in Section 3/4.8 of the Technical Specifications bases are in no way reduced.

SE No.: 87-0247

Source Document: DCP 86-0645B, Rev. 0

Description of Change

Revise system operation of the Division 2 Diesel Generator Building Ventilation System (1M43) so that the outside air intake dampers are open when both fans are stopped. (Mechanical-HVAC Evaluation)

Summary

See Safety Evaluation 87-0204.

SE No.: 87-0248

Source Document: DCP 86-0645B, Rev. 0

Description of Change

Revise system operation of the Division 2 Diesel Generator Building Ventilation System (1M43) so that the outside air intake dampers are open when both fans are stopped. (Electrical Evaluation)

Summary

See Safety Evaluation 87-0206.

SE No.: 87-0249

Source Document: NR PRCN-0698, Rev. 1

Description of Change

Replacement parts to repair the augmented quality Offgas System (1N64) regenerator skid isolation valve 1N64-F1686C were received from the vendor without a certificate of inspection (COI) or a COI with waiver. This safety evaluation together with the nonconformance report evaluates these items for affect on operability.

Summary

- I. No. Exact replacement parts to repair Regenerator Skid Isolation Valve 1N64-F1686C in no way affects the system which could cause the probability of occurrence of an accident to increase. The QA evaluation or survey of the suppliers products and facilities has not been performed on Cal-Val Co. per QA Plan Appendix M and Reg. Guide 1.143. Original skid (1N64-Z002) components were purchased from Cal-Val via SP-301. (General Electric)

Malfunction of the valve (1N64-F1686C) with the replacement parts is no different than the other fifteen Cal-Val Co. valves located on the regenerator skid, previously supplied by General Electric. Probability of the malfunction (i.e., valve failing to close or open) does not increase radiological releases. A rupture of the system pressure boundary has been previously evaluated in Chapter 15.

Installation of the replacement material in the valve does not change the design of the system. FSAR Chapter 15 analyses envelopes all malfunctions postulated in the offgas system.

Consequences of the replacement parts failure are bounded by FSAR Chapter 15.7, Radioactive Gas Waste System Leak or Failure.

- II. No. FSAR Chapter 15.7 indicates that either a hydrogen detonation, or a charcoal vessel failure, or a failure of the air ejector discharge line to the offgas system does not release more than the 10CFR100 guideline. Failure of the replacement parts (1N64-F1686C) is not a different type of accident or malfunction.
- III. No. The margin of safety as described in 3/4.11.2 of the Technical Specification is not reduced by allowing exact replacement parts to be installed without an evaluation of a survey of the suppliers product or facilities.

SE No.: 87-0250

Source Document: NR PRCN-0724, Rev. 1

Description of Change

Replacement part (plug and stem assembly) to repair the augmented quality Offgas System (1N64) regenerator skid isolation valve 1N64-F1686C was received from the vendor without a certificate of inspection (COI) or a COI with waiver. This safety evaluation together with the nonconformance report evaluates items for affect on operability.

Summary

See Safety Evaluation 87-0249.

SE No.: 87-0251

Source Document: DCP 87-0241, Rev. 0

Description of Change

Rewire Panels 1H13-P691, P692, P693 and P694 in the Neutron Monitoring System (C51) and the Reactor Protection System (C71) to improve testing performance and personnel safety during performance of SVI C51-T0234A,B,C,D. (Addition of sliding links terminal blocks was accomplished by DCP 86-0877 and DCP 86-1006.)

Summary

- I. No. The design change being evaluated addresses the installation of a sliding link terminal block and revised internal panel wiring to accommodate and enhance required testing parameters as defined per the Surveillance Testing Program (SVIs).

The addition of these components does not increase the probability of occurrence (due to actual component failure), the overall function and integrity of the system configuration/operability is not compromised. In fact, this design change will reduce the potential for human error during the performance of a particular SVI (in lieu of lifting leads), thus improving the overall efficiency and methodology respectively.

The sliding link terminal blocks are classified 1E and have successfully completed a generic test program which meets the criteria per IEEE 323-1974. The service conditions and parameters enveloped by this accepted testing program include: 41 years life at 55°C, 600 operations, 95% humidity, 2.2×10^6 rads radiation and 10g maximum acceleration seismic level. Likewise the internal panel wiring meets and is qualified as Class 1E.

In that each component is qualified, the design change under evaluation will not reduce the overall reliability of the safety-related system relative to performing its safety function. It does not affect or result in a reduction in redundancy of the system, nor does it reduce the margin for safety of operating personnel in the repetitive testing as required in Reg. Guide 1.118.

- II. No. The addition of wiring changes and sliding link terminal blocks as defined will not create a condition/accident, which was not previously evaluated in the FSAR. The use of sliding link terminal blocks as a design change is a positive option in lieu of lifting leads and jumpers. The requirements for testability and the lifted leads and jumpers are addressed in Regulatory Guide (RG) 1.118 and have been amended within the FSAR under Section I, Table 1.8-1 to define the degree of conformance accordingly. Additional correspondence is available which delineates this subject and is documented via letter PY-CEI/NRR-0307L, and also Supplemental Safety

SE No.: 87-0251 (Continued)

Evaluation Report (SSER) Number 7, Page 7.1. These two reports highlight CEI's position and concurrence by the NRC in regards to the use of lifted leads and jumpers. On the basis of the results and acceptance of this position, no new or different accident/malfunction design base other than what has previously been considered in the FSAR is created.

- III. No. The design change as defined provides for a safer, more reliable and convenient means to comply with Regulatory Guide (RG) 1.118 Periodic Testing of Electrical Power and Protection Systems. Implementation of the design change will not compromise or lessen the degree of conformance to RG 1.118 as defined in the FSAR. This design change does not affect the scope of the Technical Specification relative to a potential reduction in safety. Conversely, this design change enhances the practical aspects and parameters required for testability of systems/components resulting in increased margins of safety.

SE No.: 87-0253

Source Document: DCP 87-0440, Rev. 0

Description of Change

Revise air distribution system in steam tunnel by modifying Auxiliary Bldg. Ventilation System (M38) and Steam Tunnel Cooling System (M47).

Summary

- I. No. This DCP changes the design flow rates at individual supply and exhaust registers and adds new registers, in the same area to provide a better air distribution. However, the total system flow value is not affected, therefore, the overall system is not affected. Based on the fact that the overall system function has not changed the parameters upon which the accident analysis in the FSAR was based have not been affected.
- II. No. The DCP will provide better supply air and exhaust air distribution with the same amount of air; the change does not affect overall system function. Therefore, malfunctions of a different type will not be created.
- III. No. The Technical Specification addresses maximum temperatures in steam tunnel for main steam line isolation in the event of a steam leak. At this time, 1E31-N0604C is recording a temperature within a few degrees of the allowable limit due to poor air distribution. This DCP will provide better supply and exhaust air distribution such that an average area temperature will be realized without local hot spots, and thus be in compliance with the Technical Specifications.

SE No.: 87-0254

Source Document: DCP 87-0213, Rev. 0

Description of Change

Installation of the Emergency Alert Notification System in high noise level areas where PA announcements are not audible, as determined by testing. This one safety evaluation will cover the installation of the Emergency Alert Notification System by multiple DCP's based on EDCR 870213. This is because all field notification units will be the same and installation will be similar in all cases. Multiple DCP's will facilitate installation due to the many areas of the plant where the system is required.

Summary

- I. No. The emergency alert system is an evacuation alarm which will aid the present PA evacuation alarm. The PA and emergency alert system cannot cause a malfunction of equipment important to safety.
- II. No. The operation or malfunction of the emergency alert system will not affect equipment important to safety.
- III. No. The addition of the emergency alert system does not change the communication system as described in Technical Specification Section 3/4.9.5.

SE No.: 87-0255

Source Document: SCR 1-87-0014-T thru 1-87-0021-T (Temporary)

Description of Change

Revise high neutron flux APRM setpoints to 89% power to support testing (TC #3, TC #4 and TC #5).

Summary

- I. No. The proposed APRM high neutron flux setpoint (89% Power) to be used in support of TC #3 testing is conservative to the current upper setpoint limit (118% Power). This temporary revision would thus have no impact on FSAR Chapter 15 analysis. The probability of occurrence/consequences of an accident or malfunction of safety-related equipment evaluated in the FSAR is not increased.
- II. No. Revision of the setpoints only affects the RPS function associated with APRM high neutron flux described in Item I above. A different type of accident or malfunction not evaluated in the FSAR is not created.
- III. No. Revision of the APRM high neutron flux setpoints to 89% Power is conservative to Technical Specification Table 2.2.1-1 requirements and associated bases. The margin of safety in the Technical Specification is thus not reduced.

SE No.: 87-0256

Source Document: TCN-10 to SOI-M43, Rev. 3

Description of Change

TCN-10 provides a precaution to allow the operation of the Diesel Generator Building Ventilation System (M43) at all times. (Reference FCR 667⁵)

Summary

- I. No. The probability of occurrence or consequence of an accident or malfunction of equipment important to safety is not increased. Although FSAR Section 7.3.1.1.8 describes the system as normally idle, Westinghouse Electric Corp. EQ Report WCAP-9112 Revision Feb. 13, 1979 states that the Westinghouse meter is rated for 40 years of continuous duty at a motor temperature of 130°C (266°F). Therefore, the malfunction of equipment is not increased. The 1M43 system will be able to perform as required under an accident condition.
- II. No. In light of the findings associated with the EQ Report for these Westinghouse Meters and redundant 1M43 components in each division accident or malfunction of a different type as previously evaluated in the FSAR is not created.
- III. No. This change does not reduce the margin of safety covered in the bases for any Technical Specification.

SE No.: 87-0263

Source Document: FSAR CR 87-242

Description of Change

Permit the operability of instruments 1E31-N083B/N0683B, Leak Detection System, when the indication is 50 to 55 inches water higher than instruments 1E31-N083A/N0683A.

Summary

- I. No. There will be no adverse change to the operability of equipment important to safety previously evaluated in FSAR Section 5.4.6.1 and 5.4.6.1.1 (USAR Section 5.4.6, 5.4.6.1.1).
- II. No. There will be no change to the instrumentation function as stated in FSAR Section 7.4.1.1a, 7.4.1.1c, 7.6.1.3.3b (USAR Section 7.4.1.1, 7.6.1.3.2b, 7.4.1.3). Therefore an accident or malfunction of a different type than evaluated will not be created.
- III. No. The basis for the setpoints for N083B and N683B are twofold:
 1. Detect a full steamline break in the 4" RCIC steam line. For this purpose, the upper setpoint has been calculated as the differential pressure expected through the elbow taps for a flow rate equal to 300% of rated.
 2. Detect an instrument line break in the instrument lines leading to the transmitter. For this purpose, the setpoint is the minimum of the transmitter span. The transmitter has been arbitrarily spanned from -50 " inches of water to 300 " inches of water to allow sufficient operating margin. The absolute value of the low end setpoint has no engineering basis. Rather, it is the "pegged low" condition of the transmitter which is important. If an instrument line were to break, the measured differential pressure would immediately peg low. Thus, any non-zero reading on the transmitter has no significance in terms of meeting the safety-related requirement of isolating RCIC in case of a instrument line break. Specifically, the current condition which results in a +50" reading on N683B will not affect the ability of the E31 system to perform its safety-related function. If the instrument line were to break, the transmitter would still peg low and the safety trip would occur.

SE No.: 87-0264

Source Document: MFI #1-87-196

Description of Change

Provide the alternate moisture separator reheater (MSR) drain valves with an input signal to open prior to opening the heater inlet valves.

Summary

- I. No. By controlling MSR drain tank level with the alternate valve level will be maintained at the same or lower than normal level which decreases the accident or malfunction probability previously evaluated in the FSAR.
- II. No. The accident or malfunction was previously evaluated in FSAR Section 15.2.3.
- III. No. This MFI does not affect the margin of safety for any Technical Specification.

SE No.: 87-0265

Source Document: MFI #1-87-195

Description of Change

Provide the alternate drain valve on Feedwater Heaters (1N27-B001A,B) with an input signal to open prior to the heater inlet valves.

Summary

- I. No. Controlling Feedwater Heaters 1N27-B001A,B level with the alternate drain valve will not change the probability of occurrence or the consequences of an accident/malfunction of equipment as evaluated in FSAR because level will be maintained at the desired setpoint.
- II. No. The accident or malfunction was previously evaluated in FSAR Section 15.11.
- III. No. This MFI does not effect the margin of safety for any Technical Specification. ONI-N36 ensures the margin of safety as defined in the basis of Technical Specification is not reduced.

SN No.: 87-0267

Source Document: DCP 87-0285, Rev. 0

Description of Change

Modify the Redundant Reactivity Control System (RRCS) Analog Trip Module (ATM) printed circuit cards to eliminate high gross failure alarms occurring at normal reactor vessel water level during plant shutdown.

Summary

- I. No. The proposed design modifications to the RRCS Analog Trip Module (ATM) circuit boards are considered necessary to correct a problem with deactivating the RRCS self-test function during plant shutdown conditions. Currently, the ATMs have a maximum adjustable high gross failure alarm setpoint of 25-28 mA. Every time the plant is shut down for refueling, normal reactor vessel water level is increased to an elevation which causes RRCS to indicate a high gross failure alarm. This condition is considered undesirable, since the RRCS self-test function is disabled during the entire shutdown period. Modification of the ATMs thus returns the redundant reactivity control system to an operable design configuration for all plant operating conditions. The proposed design modifications are analyzed to have no impact on RRCS-ATM trip functions related to reactor vessel water level, reactor vessel pressure, or SLCS tank level described in FSAR Section 7.6.1.12 and Chapter 15 Appendix C. General Electric has also concluded that the safety-related function/qualification of the ATM circuit boards is not impacted by the design changes.

Based on the above, it is concluded that the probability of occurrence or the consequences of an accident/malfunction of safety-related equipment evaluated in the FSAR, is not increased.
- II. No. The proposed modifications are limited to correcting the operability of RRCS Analog Trip Modules under plant shutdown conditions during refueling. This corrective action has been evaluated to have no impact on Safety Analysis presently described in FSAR Section 7.6.1.12 or Chapter 15 Appendix C. A different type of accident or malfunction not previously addressed in the FSAR is thus not created.
- III. No. Proposed modifications to correct/improve the RRCS Analog Trip Module operability do not reduce the margin of safety associated with Technical Specifications Section 3/4.3.4 or its bases.

SE No.: 87-0268

Source Document: DCP 87-078, Rev. 0
SCR 1-87-1148, 1149 for signal limiters 1N27-K714A,B

Description of Change

Provide two control switches in the main control room to allow the operator to fully close feedwater recirculation valves.

Summary

- I. No. This design change provides for the remote operation of Feedwater Recirculation Valves N27-F160A, B. It does not impact plant systems, components, or structures that prevent occurrence of those accidents listed in FSAR Table 15.03. It does not increase the consequences of an accident beyond the unacceptable consequences as defined in FSAR Section 15.03.1.

The addition of the control switches adds another potential failure mode to the existing feedwater recirculation control circuitry. However, this design change will decrease the probability for feedwater pump turbine failures, due to "windmilling" effects after the pump is secured, since the operator will be able to promptly close the recirculation valves from the Control Room instead of having to send an operator out to the plant to manually close the valves. The consequences of a potential malfunction, due to the addition of the new equipment, is not increased since the potential already exists for the same failure in the existing control circuitry.

- II. No. This design change does not create a different accident or malfunction than previously evaluated in the FSAR since it does not create a new disturbance that could threaten fuel or reactor coolant boundary.
- III. No. Feedwater recirculation valve instrumentation is not described in Technical Specifications.

SE No.: 87-0269

Source Document: DCN 1687, Attachment 2

Description of Change

Correct MPLs on Drawing 912-624 from TB-0043A/B to TB-0143A/B due to elementary design drawing and P&ID discrepancy.

Summary

- I. No. The items under evaluation concern a P&ID drawing change of MPLs only. Thus, the probability of an occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased. (FSAR Section 9.4.11)
- II. No. Since the items under evaluation are associated with MPL changes only, the possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR is not created.
- III. No. MPLs are not described or defined in the Technical Specification Section 3/4-11-14.

SE No.: 87-0271

Source Document: DCP 87-0326, Rev. 0
SCR 1-87-1319, 1320, Rev. 0

Description of Change

Add signal limiters to the output of flow summers 1C34-K619A/B, Feedwater Control System.

Summary

- I. No. This change will improve system reliability by eliminating false flow indications when the turbine driven feedpumps are idling. The Feedwater Control System will operate as designed and does not affect any safety systems.
- II. No. No new failures are created since reliability is improved, and operation is not changed.
- III. No. This item does not affect the Technical Specifications, therefore the margin of safety is not reduced.

SE No.: 87-0274

Source Document: SCR 1-87-0023T thru -0038T

Description of Change

Revise RPS-APRM flow biased thermal power high and rod block-APRM flow biased neutron flux setpoints and allowable values.

Summary

- I. No. The proposed setpoints are conservative with respect to those maximum setpoints utilized in Chapter 15. The probability of occurrence or the consequences of an accident or malfunction of safety-related equipment evaluated in the FSAR is therefore not increased.
- II. No. The scope of the proposed setpoint changes is limited to impact on the RPS and rod block trip functions as discussed in Item I above. A different type of accident or malfunction not previously evaluated in the FSAR is not created.
- III. No. The margin of safety is not reduced since the proposed temporary setpoint parameter changes are conservative with respect to the values specified in the Technical Specification Tables 2.2.1-1 and 3.3.6-2.

SE No.: 87-0275

Source Document: SCR 1-87-0039 thru 1-87-0046 (temporary)

Description of Change

Revise Rod Block and Reactor Recirculation high flow upscale setpoints.

Summary

- I. No. The proposed setpoint parameters are conservative to those maximum setpoint limits utilized in Chapter 15 analysis. The probability of occurrence or the consequences of an accident or malfunction of equipment evaluated in the FSAR is therefore not increased.
- II. No. The scope of the proposed setpoint changes is limited to impact on the RPS and Rod Block Trip functions as discussed Item I in above. A different type of accident or malfunction not previously evaluated in the FSAR is not created.
- III. No. The margin of safety is not reduced since the proposed temporary setpoint parameter changes are conservative to valves specified in Technical Specification Tables 2.2.1-1 and 3.3.6-2.

SE No.: 87-0276

Source Document: MFI 87-209

Description of Change

Remove 1N21-F701A & F701B and replace valves with nipple/plug tack welded. This will reduce mass subject to vibrational forces on 1N21-F230 (Condensate System) and reduce probability of small pipe break outside containment.

Summary

- I. No. The probability of a small break accident outside of containment is decreased by use of this MFI since repairing/replacing the drain valves with pipe cap will reduce the cantilevered mass and resultant amplification of piping vibrations.
- II. No. No new accidents created, since no new components are being added. Pipe cap will function the same as a closed drain valve.
- III. No. The Technical Specifications are not affected since the N21 system (Condensate) is not discussed in Technical Specifications.

SE No.: 87-0277

Source Document: NR PPDS 2450, Rev. 1

Description of Change

Evaluate the Annulus Exhaust Gas Treatment (AEGT) System (M15) Train "B" operability with Damper 1M15-F080B in full open position with the actuator disconnected and damaged damper blade linkage.

Summary

- I. No. The probability of occurrence or the consequence of an accident will not be increased. With the Exhaust Damper 1M15F080B blocked in its failed condition (open) the Recirc Damper 1M15F070B will continue to modulate to maintain the annulus at the required vacuum. In the event of an accident, the AEGT System (1M15) will be required to exhaust more air to the plant vent which would require 1M15F080B to be open. The 1M15 "A" train is currently operating with 1M15F080A in the full open position and the recirc damper is maintaining the required annulus pressure. Furthermore "B" train has been operated with the F080B broken damper in the full open position and has demonstrated satisfactory system operability.
- II. No. FSAR has already evaluated Damper F080B for the fail open position. Damper will be maintained in the full open position, therefore, it does not create the possibility for an accident or malfunction of a different type than previously described in the FSAR.
- III. No. System operability has been demonstrated with the 1M15F080B in the blocked open position and its failure mode is also the full open position therefore the margin of safety has not been reduced.

SE No.: 87-0278

Source Document: DCP 87-275, Rev. 0

Description of Change

Modify the "RFPT A (B) trip" annunciators to clear after a specified time delay instead of when the discharge valve closes.

Summary

- I. No. Modification to this alarm allows this alarm to function when the discharge valve is closed during turbine startup as well as meeting human factors requirements to reduce nuisance alarms. Therefore, plant safety has been increased due to this modification.
- II. No. Revision of this alarm logic does not create a different accident or malfunction than previously evaluated in the FSAR, since it does not create a new disturbance that would threaten fuel or reactor coolant boundary.
- III. No. "RFPT A(B) TRIP" alarm logic is not described in the Technical Specifications.

SE No.: 87-0279

Source Document: DCP 87-0328, Rev. 0

Description of Change

Add a redundant condensate control valve (1N21-F220).

Summary

- I. No. FSAR Table 10.4-2 discusses the failure of the condensate control valve (1N21-F230). The probability of failure of the condensate control valve is decreased by this modification, since DCP 870328A adds additional pipe supports to decrease vibration of 1N21-F230. Additionally, this DCP adds an automatic backup (1N21-F220) to the existing condensate control valve (1N21-F230).
- II. No. No new accidents or malfunctions are potentially created by this modification, since this design parallels the design arrangement of 1N21-F230.
- III. No. The Technical Specification bases are not affected, since the 1N21, Condensate System is not discussed in the Technical Specifications.

SE No.: 87-0280

Source Document: SCR 1-87-1116 and 1-87-1117

Description of Change

Increase the setpoints of R63-K0658 and R63-K0660 vibration and loose part channels 5 and 6, reactor recirculation pumps A and B loose part channels.

Summary

- I. No. The alarms are nonsafety and do not provide indication that the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety is affected.
- II. No. Increasing the alarm setpoints for the pumps does not have an affect on the safety of the plant, and does not increase the probability of an accident or malfunction of a different type than previously evaluated. The remaining ten channels provide adequate monitoring for loose parts.
- III. No. The setpoint for loose parts monitoring is referenced in Regulatory Guide 1.133, which is referenced in Section 3/4.3.7.8 of the Technical Specifications. The setpoint change does not reduce the margin of safety as defined in the bases, since the alarm does not affect the safe operation of the plant.

SE No.: 87-0282

Source Document: DCN 01689, Rev. 0

Description of Change

Add sample taps to the backwash effluent lines of the anion and cation regeneration tanks. These sample taps were installed per DCP 85-268, but never incorporated into Dwg. 302-109. This DCN will provide for the as-built configuration.

Summary

- I. No. The lines to which these sample taps are added are not evaluated in the FSAR. The regeneration portion of the Condensate Demineralizer System (N24) serves no safety function.
- II. No. Should the sample taps leak, drains in the floor go to radwaste. The lines to which the sample taps are added are only used intermittently and are empty otherwise.
- III. No. The regeneration portion of N24 System serves no safety function and is not addressed in Technical Specification. It has no affect on any Technical Specification systems.

SE No.: 87-0283

Source Document: DCN 01691

Description of Change

Remove information detailing the elevation differences between the condensing chamber and nozzle centerline from the Nuclear Boiler System Process Instrumentation (B21) diagrams.

Summary

- I. No. This item deletes information detailing the elevation differences between the condensing chamber and nozzle centerline from the 1B21 system diagrams. Drawings SS-814-601-102.2 and SS-814-605-102.2 provide the piping bases for the calibration information relative to the reactor vessel instrumentation, which makes the level information on the system diagrams a duplication. Removal of this information from the P&ID does not increase the occurrence or consequences of an accident or malfunction.
- II. No. See Item I above.
- III. No. Removing this information from the B21 diagrams does not affect the Technical Specification bases.

SE No.: 87-0284

Source Document: DCP 85-0821, Rev. 0

Description of Change

Install two steel shield walls in the transfer cart area of the Radwaste Building El. 616'-0", including installation of anchor bolts.

Summary

- I. No. The new shield walls are designed to provide the required shielding to personnel involved in radwaste solidification operations. The structural adequacy of the walls and their attachment as documented in calculations, ensures no reduction in the original design integrity of the overall structure. Therefore, any possibility of an accident or malfunction to safety items, as evaluated in the PSAR, is precluded.
- II. No. The new shield walls are being added to provide shielding due to ALARA requirements, necessitated by the change in equipment being used for radwaste solidification process. This is consistent with the PSAR. The structural adequacy of the walls is documented in calculations. Therefore, no unevaluated accident or malfunction is created.
- III. No. Since the structure's integrity is not impaired, the margin of safety defined in the bases of any Technical Specification is not reduced.

SE No.: 87-0285

Source Document: DCP 85-0573, Rev. 0

Description of Change

Install a concrete shield wall in the dry active waste handling facility in the Radwaste Bldg. el. 623'6". (Engineering Evaluation)

Summary

- I. No. This DCP basically calls for the construction of additional dry active waste storage facilities in an area where safety-related systems do not exist.
- II. No. The addition of personnel shielding in the Radwaste Building does not increase the possibility of any accident already evaluated in the PSAR, since its intent is the reduction of personnel exposure.
- III. No. The installation of this wall (and the storage of wastes behind it) does not alter the margin of safety as defined in the bases of any Technical Specification.

SE No.: 87-0286

Source Document: DCP 85-0573, Rev. 0

Description of Change

Install concrete shield walls in the dry active waste area of the Radvaste Bldg. el. 623'6". (Civil and Structural Evaluation)

Summary

- I. No. The following justifications preclude any possibility of an accident or malfunction to safety items as evaluated in the FSAR:
 - a. All dowl installations shall be performed in accordance with safety related procedures, thereby maintaining the designed structural integrity of the Radvaste Building.
 - b. Per calculation File Code 8:05.5, the structural integrity of the Radvaste Building has not been compromised by the addition of the shield walls.
- II. No. Since the structural integrity of the structure is not adversely affected as indicated per Item 1, the possibility of an accident/malfunction of a different type than previously evaluated in the FSAR is not created.
- III. No. Installation of the concrete shield walls does not involve the Technical Specifications.

SE No.: 87-0292

Source Document: DCP 87-0023, Rev. 0

Description of Change

Add a manual isolation valve in the Condensate Demineralizer System (N24) rinse header.

Summary

- I. No. The N24 System serves no safety function. This valve is to provide additional isolation between the demineralizers and rinse header to prevent leakage back to radwaste.
- II. No. Failure of this valve will not affect system operability. It does not affect any other system's operation.
- III. No. This system is not in the bases for any Technical Specification.

SE No.: 87-0293

Source Document: DCP 87-0024, Rev. 0
FSAR CR 87-091

Description of Change

Add a manual isolation valve in the Condensate Demineralizer System (N24) sluice header.

Summary

- I. No. The system serves no safety function. This valve is to provide additional isolation between the demineralizers and sluice header to prevent leakage back to radwaste.
- II. No. Failure of this valve will not affect system operability. It does not affect any other system's operation.
- III. No. This system is not in the bases for any Technical Specification.

SE No.: 87-0295

Source Document: GEI-0107, Rev. 0, TCN-3

Description of Change

The calibration of voltage relays (e.g., 59N, 59E, and stub bus 27s) is to be performed by removing one relay of an installed pair and temporarily jumpering its used contacts to leave permissives or trip functions in service with the remaining installed relay. The referenced TCN creates this new test methodology and a temporary conditions log in the GEI. This new method will allow voltage relays to be calibrated one at a time without outages on monitored lines/buses.

Summary

- I. No. Removal of a voltage relay and jumpering of its contents preserves the logic shown in FSAR Figures 8.3-8 and 8.3-9 for EH bus supply breaker closure, since the logic does not deviate from these figures.
- II. No. Since the logic shown in FSAR Figures 8.3-8 and 8.3-9 is preserved by the new test methodology, its tendency for creating accidents/malfunctions has already been fully evaluated.
- III. No. No Technical Specification safety margin is based upon voltage relays in 59N, 59E, or stub bus 27 applications.

SE No.: 87-0296

Source Document: DCP 87-0370, Rev. 0

Description of Change

Relocate Turbine Bldg. Leak Detection (E31) Temperature Elements 1E31-N360A, B, C, D

Summary

I. No. There will be no adverse change to the operability of equipment important to safety due to the relocation of temperature elements 1E31-N0360A-D. The relocation of these instruments will place them in an area with a better representative value of the Turbine Building temperature. The lower temperatures will increase the plant operability.

A Technical Specification change is in process to increase the isolation setpoints associated with these elements. The safety limit calculated for these setpoints is based on a starting temperature of 113 degrees F, which is the temperature at these elements. The response time for these elements to see 145 degrees F (safety limit) is 1,500 seconds. The safety isolation signal will then be initiated. The temperature elements after being relocated should see temperature around 109 degrees F which would increase the response time by 200 seconds. Even if the temperature were 100 degrees F in the new location, the total response time would be 2,250 seconds (37.5 minutes). The FSAR Chapter 15 analysis for radiological consequences of a 25 gpm leak requires the leak to be isolated in 24.8 days for a Feedwater leak and 11.3 hours for a steam line leak. The response time for all starting temperatures described above are well below this required response time. Therefore, the probability of occurrence or the consequences of an accident or the malfunction of equipment important to safety will not be increased.

II. No. The location change of these instruments will not change the leak detection instrument function, nor create any new or larger leaks than previously evaluated, therefore an accident or malfunction of a different type than previously evaluated will not be created.

III. No. The location of these instruments are not included in the Technical Specifications, therefore the margin of safety defined in the Technical Specification is not reduced.

SE No.: 87-0297

Source Document: DCP 86-0095, Rev. 0

Description of Change

Disable the liquid radwaste to condenser isolation valves.

Summary

- I. No. Electrically disabling the valves provides assurance that they will not be inadvertently opened, which could send organics into the reactor. Therefore, performing this change will decrease the possibilities of an accident.
- II. No. Electrically disabling the valves ensures that the valves could not be inadvertently operated. To open the valves, a lifted lead and jumper would be needed, which would require a different evaluation. The valves are spring to close types so they will not open after being electrically disabled.
- III. No. The liquid or solid waste discharges are not affected by disabling the valves. Therefore, the Technical Specification bases are not affected.

SE No.: 87-0299

Source Document: DCP 87-0331, Rev. 0

Description of Change

Actuation of the Liquid Radwaste to Emergency Service Water process radiation monitor isolation annunciator (H51-P031-09-A1) and modification of Control Room annunciator.

Summary

- I. No. This change clarifies the actual "as-built" function of the annunciator. The annunciator will now alarm for all conditions which cause the radwaste isolation.
- II. No. This modification will actually improve the discharge methodology, therefore, reduce the potential for error and the possibility of an accident.
- III. No. Annunciator changes in the Liquid Radwaste to Emergency Service Water process radiation monitor do not affect the operability of the radiation monitor and does not affect Technical Specifications.

SE No.: 87-0300

Source Document: DCP 87-0127, Rev. 1

Description of Change

Install a condenser hood spray. (Mechanical Evaluation)

Summary

- I. No. Condenser hood spray installation serves to lower condenser temperatures during steam bypass operation. This will help to eliminate high vibration turbine trips caused by uneven heating (refer to DCP 870138) and also to extend service life of rubber expansion joints. This design change is nonsafety-related.
- II. No. Same as Item I above. Safety evaluations for the main condenser (FSAR Section 10.4.1.4) and turbine bypass system (FSAR Section 10.4.4.3) are not adversely affected. The added design change does not create new accident or malfunction possibilities.
- III. No. The Technical Specification margin of safety is unaffected since operation of the installed condenser hood spray arrangement will simply help to reduce high temperatures experienced in the condenser shells during steam bypass operation.

SE No.: 87-0301

Source Document: DCP 87-0334, Rev. 0

Description of Change

Add a low net positive suction head (NPSH) interlock to motor driven feedwater pump (MDFP) trip logic.

Summary

- I. No. This design change provides for the automatic tripping of the motor driven feedwater pump when the calculated NPSH falls below a pre-set level. It does not impact plant systems, components, or structures that prevent occurrence of those accidents listed in FSAR Table 15.0-3. It does not increase the consequences of an accident beyond the unacceptable consequences as defined in FSAR Section 15.0.3.1.

The addition of the low NPSH interlock to the motor driven feedwater pump decreases the probability of failure of the pump and piping system due to cavitation and water hammer. The new circuit is derived from an existing control logic, therefore, the consequences of a potential malfunction as a result of this new addition are not increased since the potential already exists for the same failure previously analyzed.

- II. No. The tripping of MDFFP as a result of low NPSH does not create a possibility for an accident of a different type than any previously evaluated in the FSAR. This is an added feature for MDFFP only and not associated with any function of other equipment. Any consequences of MDFFP trip have been previously analyzed in the FSAR.
- III. No. This item is not governed by the Technical Specifications.

No.: 87-0303

Source Document: FSAR CR 87-030

Description of Change

Revise FSAR Section 3.2.1 to clarify that the seismic clearance and anti-falldown inspection program will continue during the operations phase of the plant.

Summary

- I. No. The change request is for clarification purposes only. Existing commitments described in the FSAR are not being changed. Therefore the probability of an accident/malfunction is not increased.
- II. No. There is no change to existing commitments in the FSAR. Therefore, the possibility of a malfunction or accident of a different type is not created.
- III. No. The change request is for clarification purposes only. Therefore, the margin of safety as defined in the bases of any Technical Specifications is not reduced.

SE No.: 87-0304

Source Document: MFI 1-87-224

Description of Change

Provide alternate Moisture Separator Reheater (MSR) drain tank drain valves with an input signal to open prior to opening the feedwater heater inlet valves.

Summary

- I. No. By controlling MSR drain tank level with the alternate drain valve, level will be maintained at the designed water level, which does not increase the probability of occurrence or the consequence of an accident or malfunction of equipment important to safety as evaluated in the FSAR.
- II. No. No new or different type of accident is created than what has previously been evaluated in FSAR Section 15.2.3.
- III. No. This MFI does not affect the margin of safety for any Technical Specification.

SE No.: 87-0305

Source Document: DCP 86-0565, Rev. 0

Description of Change

Install a chain link fence and gate between the Service Building and the Unit 2 Auxiliary Building.

Summary

- I. No. This DCP installs a fence in the yard area. There is no affect on safety evaluated in the FSAR.
- II. No. This DCP does not affect plant safety. No equipment or safety systems are involved in this change.
- III. No. This DCP does not reduce the margin of safety defined in the Technical Specifications.

SE No.: 87-0306

Source Document: FSAR CR 86-146, Rev. 0

Description of Change

Delete the word "redundant" from the FSAR Section 11.4.2.3-F. This is a change to nonsafety-related system.

Summary

- I. No. The waste mixing/dewatering tanks' heat tracing are energized during process of concentrated waste only when the bypass piping is out-of-service (Rev. DCP 860725). The waste mixing/dewatering tanks are redundant, and in the event of a heat tracing failure of either tank (A or B), the operator will be able to transfer the waste from one tank to another tank.
- II. No. Deletion of the word "redundant" does not create the possibility for an accident of malfunction of a different type than any evaluated previously in the FSAR. Previous statement of redundant heat tracing was misleading and did not describe the original design intent.
- III. No. Since the two waste mixing/dewatering tanks are redundant, the failure of heat tracing on either tank does not impact the margin of safety. Also, another option has been included via DCP 860725 to bypass the waste mixing/dewatering tanks allowing the process of solid radwaste without violating the Process Control Program.

SE No.: 87-0307

Source Document: FSAR CR 87-017

Description of Change

Change the description in the FSAR regarding the Independent Safety Engineering Group's (ISEG) composition and the reporting relationships among the ISEG Chairman, Reliability, Design and Assurance Section General Supervision of Engineer and the Nuclear Engineering Department Manager.

Summary

- I. No. The ISEG description change will not affect accidents or equipment malfunctions previously evaluated.
- II. No. Same as Item I above.
- III. No. The ISEG description change is not related to any Technical Specification margin of safety.

SE No.: 87-0312

Source Document: SCR 1-87-1396 thru 1399

Description of Change

Add an upper allowable value for the Containment Vacuum Relief System (M17) differential pressure instruments.

Summary

- I. No. Addition of an upper allowable limit for the containment vacuum differential pressure instrumentation has been proposed to prevent applying initial settings at ΔP values which would allow M17 system outboard containment isolation valves to be open while high positive containment pressures are present. This addition would also establish a Technical Specification limit for future surveillances performed on these instruments.

Incorporation of the proposed upper allowable value is considered necessary to ensure that the subject instrumentation will perform in a manner consistent with the accident analysis described in FSAR Chapter 6. The lower allowable value and safety limit which are utilized in accident analysis to calculate offsite doses are unaffected by this change.

Based on the above, it is concluded that the probability of occurrence or the consequences of an accident/malfunction of safety-related equipment previously evaluated in the FSAR is not increased. The NRC has provided its approval for the subject change by its letter to CEI dated 6/9/87.

- II. No. The scope of the proposed change is limited to the addition of an upper allowable value for the subject M17 System Differential Pressure Instrumentation as discussed in Item I above. No other systems are affected. This proposed modification will also not affect the potential for increased offsite releases from all other accidents, because associated vacuum breaker closures due to positive pressure will remain unchanged. Therefore, an accident or malfunction of a different type not previously evaluated in the FSAR is not created.
- III. No. The NRC, by its approval letter to CEI dated 6/9/87, has concluded that the Technical Specification margin of safety is not reduced by addition of the upper allowable value. Instrument calibration information is not described in the Technical Specifications.

SE No.: 87-0313

Source Document: DCP 86-0637, Rev. 0

Description of Change

Enlarge the overflow line from the Turbine Building Plant Sampling System (P33) recovery tank to the Radwaste System.

Summary

- I. No. Increasing the size of the sample recovery tank overflow line has no effect on any safety equipment and will not cause a malfunction of safety equipment.
- II. No. This DCP only increases line size for nonsafety items and line is not in the vicinity of safety-related equipment, therefore, no new possibility for an accident/malfunction exists.
- III. No. Turbine Plant Sampling System recovery tank overflow line does not impact Technical Specifications, therefore, the margin of safety is not affected.

SE No.: 87-0315

Source Document: FSAR CR 86-127

Description of Change

An administrative change to evaluate a PNPP definition of the term "operating error" as identified in Regulatory Guide 1.108, Revision 1. The definition is to be added to FSAR Table 1.2-1 as clarification.

Summary

- I. No. This FSAR change established a PNPP definition for the term "operating error" as identified in Regulatory Guide 1.108 Section C.(2).3.(2). The definition may be used by plant personnel to assess Diesel Generator (Division 1, 2, 3) performance during start and load sequences. This assessment determines whether the sequence was considered a valid or invalid test and whether an identified valid test was a success or failure. Assessment results are statistically compared with previous results to determine future Diesel Generator testing frequency as required by Technical Specifications Table 4.8.1.1.2-1. Testing frequency may be increased to accelerate gathering of reliability data, however this definition of operating error does not affect the units availability or reliability. Therefore, the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased by this change.
- II. No. As stated above this change is administrative in nature. It establishes a definition for a term that may be used in assessing diesel generator start and load sequences. Results are used to determine the need for accelerating test frequency. Therefore, this administrative change does not create the possibility for an accident or malfunction of a type different than any evaluated previously in the FSAR.
- III. No. The administrative change does not affect any design parameters that impact defined margins of safety described in Technical Specifications. Therefore, Technical Specification margins of safety cannot be reduced.

SE No.: 87-0318

Source Document: DCP 87-0139, Rev. 0

Description of Change

Add and relocate radiation monitors, remote warning lights/indicator on Panel 1H13 P607 to prevent personnel from entering the TIP drive area during TIP movement.

Summary

- I. No. Addition and relocation of remote radiation monitor indicators and remote warning lights is being accomplished to address ALARA concerns. Specifically, this design change will provide added protection to personnel from radiation overexposure when Traversing Incore Probes are retracted to their storage position. Addition of this nonsafety instrumentation has no impact on FSAR Chapter 12 or 15 safety analysis. Therefore, the probability of occurrence or the consequences of an accident/malfunctions of safety-related equipment previously evaluated in the FSAR is not increased.
- II. No. This design change is limited to the addition of nonsafety remote radiation monitor indicators and remote warning lights as described in Item I above. Therefore, the possibility for an accident or malfunction of a different type than previously evaluated in the FSAR is thus not created.
- III. No. The radiation area monitor associated with the TIP drive area in the containment is not described in Technical Specification Section 3/4.7 or 3/4.12. Addition of remote indicators and warning lights will thus not impact these Technical Specifications Sections. The margin of safety as defined in the bases for any Technical Specifications is not reduced.

SE No.: 87-0320

Source Document: DCN 01728

Description of Change

Change level switch setpoints of outlet valve on Mixed Bed Demineralizer System (P22) to an "as-built" condition.

Summary

- I. No. This setpoint change impacts no safety system, therefore, the probability of occurrence or malfunction of equipment important to safety is not increased.
- II. No. This change does not directly impact a safety system, thus no new accidents or malfunctions are created.
- III. No. Evaluated item has no pertinence to Technical Specifications and thus, cannot impact the bases for any Technical Specifications.

SE No.: 87-0326

Source Document: DCP 87-0306, Rev. 0

Description of Change

Modify the Standby Diesel Generator Fuel Oil System (R45) drip return system.

Summary

- I. No. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in FSAR, Section 9.5.4 is actually decreased by this design change. This design change permanently isolates the safety-related fuel oil transfer piping to the day tank from the nonsafety-related portions of the fuel oil drip collection/return system by capping off the drip connection on the fuel oil fill line. This assures fuel oil transfer piping integrity in the event of an accident or equipment failure. In addition, this design change adds a safety-related gravity flow line for directing fuel oil drips from the engine to the fuel oil storage tank through the day tank overflow line. This assures both proper engine function as well as reducing the potential fire hazard caused by a loss of fuel oil in the Diesel-Generator Room resulting from nonsafety-related equipment failure.
- II. No. The possibility for an accident or malfunction of a different type than any previously evaluated in Section 9.5.4 is not created by this design change. This design change reduces the possibility for an accident or malfunction for the same reasons as stated in Item I above.
- III. No. This design change assures that the margins of safety as defined in the bases for Sections 3/4.8.1, 3/4.8.2 and 3/4.8.3 of the Technical Specification are maintained for the same reasons as stated in Item I above.

SE No.: 87-0327

Source Document: DCP 87-0306, Rev. 0

Description of Change

The I&C portion of this DCP is the disconnecting of leads of level switches 1R45N3004A and B for drip pumps 1R45C005A and B on the Standby Diesel Generator Fuel Oil System. (I&C Evaluation).

Summary

- I. No. The mechanical portion of the DCP eliminates the drip pump. Thus, the need for the level switch is eliminated. The mechanical portion will increase the reliability of the system.
- II. No. This DCP will increase the reliability of the system and will not develop a malfunction not described in the FSAR.
- III. No. This item is not described or implied in the Technical Specifications.

SE No.: 87-0329

Source Document: DCP 87-0397, Rev. 0

Description of Change

Modify duct work configuration to redistribute supply air in lower portion of drywell.

Summary

- I. No. This design change involves the relocation of supply registers to provide better supply of air distribution in lower portion of drywell. Total system airflow is not affected, and therefore the overall system is not affected. Based on the fact that the overall system function has not changed, the parameters upon which the accident analysis in the FSAR was based, have not been affected.
- II. No. This design change will provide better supply of air distribution with the same amount of air; the change does not affect the system overall function, therefore, malfunctions of a different nature will not be created.
- III. No. The Technical Specification addresses the drywell maximum average temperature limit. During the recent increase in reactor power, temperatures in lower drywell area have increased substantially, raising overall temperature. This design change will provide better supply air distribution in this area, such that a lower average temperature can be realized and thus be in compliance with Technical Specifications.

SE No.: 87-0330

Source Document: DCN 01711, Rev. 0

Description of Change

Add MPL numbers to system diagram for Fuel Handling Building Vent (M40).

Summary

- I. No. The addition of MPL numbers does not affect system function.
- II. No. See Item I above.
- III. No. See Item I above.

SE No.: 87-0331

Source Document: DCN 1715

Description of Change

Change one-line diagram 206-019 (FSAR 8.3-11) relay designation from "27" to "59" to properly identify the overvoltage relays.

Summary

- I. No. This is an editorial change to the one-line diagram only and does not increase the probability of an accident or equipment failure.
- II. No. This change is for a relay designation only and does not affect system operability or the system as described in the FSAR.
- III. No. This drawing change corrects a relay designation in the FSAR Fig 8.3-11. It does not increase or decrease the margin of safety defined in the Technical Specifications.

SE No.: 87-0333

Source Document: DCP 86-0980, Rev. 0

Description of Change

Install maintenance valves for instrument air supply to regenerator skid in the Offgas System (N64).

Summary

- I. No. Addition of air isolation valves does not increase the probability of occurrence of an accident, or increase the probability of the malfunction of equipment important to safety. The consequences of an accident or an equipment failure are not increased.
- II. No. System integrity is not altered by the addition of two maintenance valves. Original construction codes will be utilized for installation and testing. An accident or malfunction of a different type is not created.
- III. No. Margin of safety is not reduced by the addition of two air isolation valves in Technical Specification 3/4.11.2.

SE No.: 87-0334

Source Document: NR MMQN-0781

Description of Change

Non-independent power supplies to the MSIV solenoids.

Summary

- I. No. This safety evaluation documents the bases for continued reactor plant operations with the MSIV solenoid power supply configured as described in NR MMQN-0781 and various GAI drawings without any modification.

Section 6.2.4.2.1 of the FSAR states that "... each main steam isolation valve is served by two independent pilot valves, each of which is powered from an independent source." This configuration would allow continued plant operation (i.e. Main Steam Isolation Valves MSIV open) in the event of a loss of a single RPS Bus.

NR MMQN-0781 documents an existing plant configuration which deviates from the FSAR. Specifically, both solenoid valves for each inboard and outboard MSIV are powered from a single RPS distribution panel (PO01 for outboards and PO02 for inboards). The resulting configuration permits a complete inboard (or outboard) MSIV isolation whenever one RPS Bus is deenergized. This ultimately results in a full RPS actuation.

Section 8.3.1.1.5.4 states that loss of a single Reactor Protection System (RPS) Motor Generator (MG) set will cause a half RPS trip and a loss of both MG sets will cause a RPS trip. With the plant configured as described above, the loss of 1 RPS MG will result (via an MSIV isolation) in a full RPS trip.

Although this configuration could lead to unnecessary plant scrams by increasing the susceptibility to an MSIV isolation, the safe operation of the plant and the operability of all of its safety equipment is not diminished or compromised for the following reasons:

- a. An MSIV isolation is analyzed in Chapter 15, (Section 15.2.4) and is described as "an incident of moderate frequency." Section 15.0.3.1 describes moderate frequency incidents as "anticipated (expected) operational transients." Section 15.0.3.1(a) defines anticipated operational transients as events which have a moderate probability of occurrence once per calendar year to once in 20 years during any mode of plant operation. Based on the failure rates of the EPAs or any RPS Bus, this frequency will not be exceeded. This configuration does not affect the conclusion that this event is moderate frequency event.

Summary (Continued)

- b. With the plant shutdown and MSIVs closed, a variety of safety and nonsafety systems are available to provide reactor vessel water inventory makeup and pressure control. These include Reactor Core Isolation Cooling (RCIC), High Pressure Core Spray (HPCS), and the motor driven feed pump.
- c. If, after a loss of the normal RPS power supply and reactor scram, the use of the main condenser is desired, operators can easily transfer RPS Bus power to the alternate supply and reopen the MSIVs.
- d. In the event of a voltage transient on the RPS Bus, the on-line EPA will trip open and deenergize the bus if voltage or frequency are outside the allowable tolerances. The breaker must be manually reset before the RPS Bus can be reenergized from this power source. This precludes an automatic closing and reopening of the MSIVs due to a momentary voltage decrease.
- e. This configuration will exist only until the next planned outage at which time, the power supplies for the MSIV solenoids will be modified to coincide with the FSAR descriptions.
- f. Administrative controls to prevent shifting RPS power supplies prior to placing the MSIV control switches in the closed position will be implemented prior to plant startup, while in the present configuration. This evolution will only take place when the plant is shutdown.
- g. The MSIV closure logic is unaffected by this configuration and remains operable per design.
- h. The existing configuration has been reviewed and satisfies the applicable requirements for separation between Class 1E and non-essential circuits as identified in Regulatory Guide 1.75 and FSAR Section 7.2.

Consequently,

The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased since:

- a. The safety functions of the MSIVs and RPS systems are not affected by this configuration and consequently do not increase the probability of occurrence or consequences of a malfunction.

SE No.: 87-0334 (Continued)

Summary (Continued)

- b. The closure of the MSIVs is an "expected transient" of moderate frequency.
 - c. Since safety-related equipment and systems are designed in multiple, redundant configurations, and single active failure are assumed to occur, the consequences of a malfunction of safety-related equipment can be increased by scenarios such as violations of single active failure design criteria, increasing the common mode failure probability or causing excessive cumulative out-of-service time within a surveillance interval. None of these conditions exist since the MSIVs and RPS system can still perform their intended safety function.
- II. No. The possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR is not created since.
- a. Closure of the MSIVs due to a single active failure is already analyzed.
 - b. Administrative controls will prevent operators from reenergizing the RPS Bus (following an RPS Bus Trip) prior to placing the MSIV switch in the closed position. This will preclude a rapid reopening of closed MSIVs.
 - c. Loss of an RPS Bus or MSIV closure does not increase the probability of malfunction not previously analyzed in the FSAR.
- III. No. The margin of safety as defined in the bases for any Technical Specification is not reduced, because all safety functions required by Technical Specifications and its bases are still satisfied.

SE No.: 87-0342

Source Document: SCR 1-87-0047-7

Description of Change

Add the torque switch setpoints for 1E12F0024A to the setpoint list per the disposition of the Nonconformance Report PPDS2554.

Summary

- I. No. Valve 1E12F0024A is determined to be operable until it is reworked due to the small amount of operations it will experience at a relatively small overthrust condition as compared to the normal large number of operations expected over its qualified life. Since the valve is determined operable, the probability of a malfunction of the subject valve is not increased. Based on the results of a same size operator previously installed on this valve, for which settings were set at 3.75, the valve was successfully run numerous times without motor stall-out and without visual operator damage.
- II. No. The overthrust condition for valve 1E12F0024A will not create the possibility of an accident or malfunction of a different type from an accident previously evaluated.
- III. No. Operability will not be changed by this SCR, and therefore, Technical Specification bases are not affected.

SE No.: 87-0343

Source Document: NR PPDS 2554

Description of Change

Use-as-is disposition for valve 1E12F0024A to be operable in an overthrust condition.

Summary

- I. No. Valve 1E12F0024A is determined to be operable until it is reworked due to the small amount of operations it will experience at a relatively small overthrust condition as compared to the normal large number of operations expected over its qualified life. Since the valve is determined operable, the probability of a malfunction of the subject valve is not increased. Based on the results of a same size operator previously installed on this valve, for which settings were set at 3.75, the valve was successfully run numerous times without motor stall-out and without visual operator damage.
- II. No. The overthrust condition for valve 1E12F0024A will not create the possibility of an accident or malfunction different from any previously evaluated.
- III. No. The function of this valve as described in the Technical Specifications will not be changed.

SE No.: 87-0345

Source Document: DCP 87-0335, Rev. 0

Description of Change

Replace Copes-Vulcan Position Transmitter on valves 1N27F0010 and 1N27F0110 on the Feedwater System with Bailey Type RO-20 Position Transmitter.

Summary

- I. No. This design change replaces the existing Copes Vulcan Position Transmitter on valves 1N27F0010 and 1N27F0110, with a Bailey Type RO-20. The Copes Vulcan Position Transmitter malfunctioned and become permanently disabled due to high vibration of the valves. Subsequent replacement by an identical Copes Vulcan Position Transmitter also resulted in similar failure in a very short period of time.

The use of a Bailey Position Transmitter, which is not susceptible to vibration, changes the plant configuration in that it eliminates the need for transducers 1N27K0113 and 1N27K0713. This new configuration, however, will not affect plant system components or structures that prevent occurrence of accidents listed in FSAR Table 15.03, as it is considered an improvement to the current N27 system design with respect to reliability of occurrence or the consequences of an accident/malfunction of safety related equipment previously evaluated in the FSAR.

- II. No. The substitution of a Bailey Type RO-20 Position Transmitter on valves 1N27F0010 and 1N27F0110 in lieu of the Copes Vulcan Position Transmitter does not create a possibility of an accident of a different type than previously evaluated in the FSAR. The function remains the same and any consequences of failure previously analyzed also applies.
- III. No. This item is not governed by the Technical Specifications.

SE No.: 87-0347

Source Document: DCF 87-0317, Rev. 0

Description of Change

Install a dry cleaner and clothes dryer in Turbine Power Complex El. 593'6". (Civil/Structural Evaluation).

Summary

- I. No. Addition of the nonsafety equipment in the nonsafety building does not adversely affect the building, therefore, the occurrence or consequence of a previously evaluated accident has not been increased.
- II. No. The structure remains capable of performing its designed function, therefore, addition of the nonsafety equipment to the building does not create an unevaluated accident.
- III. No. Since the structure's integrity is not impaired, the margin of safety defined in the bases of any Technical Specification is not reduced.

SE No.: 87-0348

Source Document: DCF 87-0162, Rev. 0
FDDR KL1-6418, Rev. 2

Description of Change

Replace check valves 1E22F538 A/B (High Pressure Core Spray System), with a more reliable model check valve per DCF 87-0162, Rev. 0 and FDDR KL1-6418, Rev. 2.

Summary

- I. No. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in Section 9.5.9 of the FSAR is decreased because the new and more reliable check valves are designed to better ensure retention of the starting air supply in the redundant safety related air receiver tanks.
- II. No. The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the new check valves will not change the system performance, it will only make the system more reliable.
- III. No. The margin of safety as defined in the bases for any Technical Specification is increased due to the reason stated in response to Item I above.

SE No.: 87-0349

Source Document: DCP 85-0432, Rev. 0

Description of Change

Add a seal weld on a 1" female pipe thread lube oil drain connection on 1R46B001A, B (Standby Diesel Generator Jacket Water Cooling System).

Summary

- I. No. The subject design change is performed in accordance with the original system piping design requirements and therefore does not increase the probability of equipment malfunction or occurrence of an accident previously evaluated in the FSAR.
- II. No. The subject design change is in accordance with the original design codes and hence introduces no new potential for an accident or malfunction than any previously evaluated. EQ is not affected as evidenced by the acceptable EQ evaluation for this DCP.
- III. No. The Technical Specifications are not affected by the subject change, hence the margin of safety as defined in the bases for any Technical Specification is not affected.

SE No.: 87-0351

Source Document: DCP 87-0115, Rev. 0

Description of Change

Relocate instrument 1D23-TE-N100B in the Containment Atmosphere Monitoring System (D23). (I&C/Mechanical Evaluation)

Summary

- I. No. As stated in FSAR Section 7.6.1.8.b, paragraph 10, "All controls, instrumentations, and sensors have been selected to meet the normal, accident, and post accident worst case environmental conditions of temperature, pressure, humidity, radiation and vibrations expected at their respective locations."

With the subsequent relocation of 1D23-TE-N100B, the temperature region is less intense and vibrational loads are reduced by elimination of annulus pressurization loading. This relocation reduces the harshness of the environmental conditions. Therefore, the probability of occurrence or the consequence of an accident or malfunction of equipment important to safety is not increased, but in fact, reduced.

- II. No. Relocation of the instrument uses the same design criteria with respect to ASME codes and electrical installation. Therefore, possibility of accident or malfunction of different type is not created.
- III. No. Margin of safety for drywell averaging described in Technical Specification 3/4 4.6.2.6 is not reduced by the relocation of instrument 1D23-TE-N100B.

SE No.: 87-0351

Source Document: DCP 87-0115, Rev. 0

Description of Change

Relocate instrument 1D23-TE-N100B in the Containment Atmosphere Monitoring System (D23). (I&C/Mechanical Evaluation)

Summary

- I. No. As stated in FSAR Section 7.6.1.8.b, paragraph 10, "All controls, instrumentations, and sensors have been selected to meet the normal, accident, and post accident worst case environmental conditions of temperature, pressure, humidity, radiation and vibrations expected at their respective locations."

With the subsequent relocation of 1D23-TE-N100B, the temperature region is less intense and vibrational loads are reduced by elimination of annulus pressurization loading. This relocation reduces the harshness of the environmental conditions. Therefore, the probability of occurrence or the consequence of an accident or malfunction of equipment important to safety is not increased, but in fact, reduced.

- II. No. Relocation of the instrument uses the same design criteria with respect to ASME codes and electrical installation. Therefore, possibility of accident or malfunction of different type is not created.
- III. No. Margin of safety for drywell averaging described in Technical Specification 3/4 4.6.2.6 is not reduced by the relocation of instrument 1D23-TE-N100B.

SE No.: 87-0352

Source Document: MFI 1-87-250, Tags 1 thru 4
W.O. 87-4177, 87-478

Description of Change

Install pressure snubbers to attenuate the high frequency pressure signals applied to 1E31-N084A/B. (Leak Detection System)

Summary

- I. No. The addition of snubbers represents no substantive change to the plant. It simply eliminates false, noisy signals. True signals will still be seen.
- II. No. All equipment involved will operate as intended by the FSAR. The snubbers will in no way alter any accident analysis.
- III. No. All Technical Specifications will be continuously met.

SE No.: 87-0354

Source Document: DCN 01659

Description of Change

Drawing change to the Combustible Gas Control System (M51) P&ID's, involving adding the H₂ recombiners to the drawing, correcting valve 1472 numbers on the back-up purge line, and adding as-built information to check valves on the H₂ Analyzer piping drain lines.

Summary

- I. No. The DCN does not involve a change to the operation or function of the Combustible Gas Control System. Additionally the hydrogen recombiners are already described in FSAR Section 6.2.5 and Fig. 6.2-6.3. Thus the probability of an accident to occur and the consequences of such an accident, or malfunction of safety-related equipment have not increased.
- II. No. The DCN does not create the possibility of an accident or malfunction of a different type than previously evaluated in the FSAR. The DCN is not adding any components or changing the operation or function of the Combustible Gas Control System.
- III. No. The DCN does not reduce the margin of safety as defined in the bases for the Technical Specifications. The DCN does not change or alter system operation or function in any way.

SE No.: 87-0356

Source Document: DCP 87-0234, Rev. 0

Description of Change

Add a drainline and isolation valve to RHR/RCIC steamline on 'A' side and a drainline on 'B' side immediately upstream of 1E12F052A,B with a return path to the 4" RCIC steamline.

Summary

I. No. A. Probability of occurrence of an Accident increased?

FSAR Chapter 15.6.4 addresses steam system breaks outside containment. The addition of the RHR drain lines adds interconnected piping to the RHR/RCIC steamline and an isolation valve for the 'A' side drain line. However, per FSAR 3.6.2.1.6.a, no breaks are postulated in piping having a nominal diameter less than or equal to one inch. Therefore, no new breaks in steam systems outside containment are postulated, and the probability of occurrence of this type of accident is not increased.

B. Consequences of an Accident increased?

Proposed design change ensures the capability of RHR to meet its design function. No credit is taken for RCIC in FSAR Chapter 15 accident analyses.

C. Probability of malfunction of equipment important to safety increased?

Proposed design change decreases probability of malfunction. The design change will eliminate condensate accumulation in the RHR steamline and alleviate the thermal stratification and the resultant unpredicted piping movements. Additionally, it will eliminate any potential for water hammer damage during initiation of RHR steam condensing mode and simplify system operation.

The additional condensate drainage added to the RCIC steam line will not impair the functional capability of the RCIC system. During standby readiness, the condensate will be controlled by the RCIC steam supply drain pot along with capability to isolate the 'A' side drain line. During RCIC operation, the additional condensate entrained in the RCIC steam is acceptable for turbine operation.

SE No.: 87-0356 (Continued)

Summary (Continued)

0. Consequences of malfunction of equipment important to safety increased?

RHR steam condensing loop A & B and RCIC are all subject to a common cause failure (ie: RHR/RCIC steamline). Common drainline and isolation valve on the 'A' side between these systems does not introduce a new common cause failure. The proposed modification meets all applicable design criteria.

II. No. The addition of an RHR/RCIC steamline drain and 'A' side drain isolation valve does not introduce any new type of accident or malfunction beyond that which is presently addressed in the FSAR accident analyses.

III. No. Condensate drainage of the RHR/RCIC steamline does not affect Technical Specification. This design change will increase assurance of RHR and RCIC operability.

SE No.: 87-0357

Source Document: DCP 87-0109, Rev. 0
DCP 87-0170, Rev. 0

Description of Change

Reactor Core Isolation Cooling/Residual Heat removal leak detection modification.

Summary See S.E. 87-0078.

SE No.: 87-0358

Source Document: DCP 87-0391, Rev. 0

Description of Change

Add insulation to piping/components/structures in the drywell.

Summary

- I. No. The addition of insulation does not increase the probability of occurrence of an accident previously evaluated in Chapter 15 of the FSAR.

Malfunction of equipment important to safety (RHR, RCIC, HPCS & LPCS) as described in Section 6.2.2.2 of the FSAR is not increased by this insulation addition for the following reasons:

1. This DCP adds unjacketed insulation to piping/components/structures in the drywell area. The present insulation installation configuration in the drywell consists of a number of areas that were over jacketed or where jacketing was removed. While metal jacketing will act to minimize the affects of an accident on non-metallic fiberglass insulation materials, it cannot be considered to provide complete protection against impinging jet loads. Thus, the resultant affects of these loads on both jacketed and unjacketed insulation material would be essentially the same in a severe accident.
2. If any insulation breaks away from the piping or equipment in the drywell, the insulation would most probably fall to the drywell floor instead of the weir annulus (covered mostly with grating and partially obstructed by the MSR_V discharge lines at the weir elevation and overhead).
3. Any insulation that falls to the drywell floor will float when the water level rises in the lower drywell region to the point where the weir wall acts as a skim to prevent the entrance of insulation materials. Entrance to the weir annulus is further impeded by the grating and lines described in 2, above.
4. Any floating insulation materials entering the annulus areas would need to be drawn downward and out through the vents by the ECCS suction lines. Materials drawn through these vent openings to the suppression pool will either sink or float because of low flow velocities, further limiting materials that could potentially enter the ECCS suction lines/strainers. The consequences of insulation materials entering these suction lines are discussed in Item D, below.

Summary (Continued)

5. Suction strainer locations are about 19 to 20 feet from the drywell wall/vent openings, about 10 feet below post LOCA pool level and about 4 feet above the suppression pool floor. Since the design velocity through the strainer is only about 1.0 ft/sec, the possibility for insulation migration to the strainer is highly unlikely. Thus, the addition of unjacketed insulation blankets will have no impact on the ECCS suction strainer performance in the event of an accident.

C. Consequence of an accident increased?

The consequence of an accident as described in Chapter 15 of the FSAR is not increased by the addition of insulation inside the drywell.

D. Consequence of failure of equipment important to safety increase?

In the event insulation does migrate to the 6 ECCS pump strainers (3 RHR, 1 HPCS, 1 RCIC & 1 LPCS) as discussed in B.5, RPV injection or pool cooling will be unaffected because the pump suction lines and strainers are designed to provide design flow rate and required NPSH with the strainers 50% clogged. Furthermore, Owens Corning Topical Report OFC-1 has already evaluated the impact of insulation materials entering the ECCS pumps, piping, and nozzles downstream of the suction strainers and concluded that system performance would not be degraded.

Addition of insulation per this DCP remains in conformance with the topical report and does not negatively impact the capability of the RHR, HPCS, RCIC & LPCS to continue to meet their design bases as defined in Chapters 5 and 6 of the FSAR.

II. No. Possibility for an accident or malfunction of a different type than previously evaluated in the FSAR?

The possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR is not created for the same reasons as stated in Items IA, B, C, & D above.

III. No. Is the margin of safety as defined in the bases for any Technical Specification reduced?

The margin of safety as defined in the bases for the ECCS in Section 3/4.5 of the Technical Specifications is not reduced for the same reasons as stated in Items IA, B, C & D above.

SE No.: 87-0362

Source Document: DCP 86-0832, Rev. 1

Description of Change

Add 5K ohm resistors to the outputs of frequency transducers 1R43N0713A,B and 1E22N0729. These will convert the 0-1 ma output signal to 0-5V to the ERIS system.

Summary

- I. No. This design change does not impact plant systems, components, or structures that prevent occurrence of those accidents listed in FSAR Table 15.0.3. It does not increase the consequences of an accident beyond the unacceptable consequences as defined in FSAR Section 15.0.3.1.

The addition of the new resistors adds another potential failure mode to the existing safety-related transducers previously evaluated in the FSAR. However, overall plant safety will be increased since the addition of the resistors will increase the loop accuracy of the ERIS signals. The consequences of a potential malfunction, due to the addition of the resistors is not increased, since it meets existing single failure criteria and does not increase the common mode failure probability.

- II. No. The addition of the resistors does not create a different accident or malfunction than previously evaluated in the FSAR, since it does not create a new disturbance that would threaten fuel or reactor coolant boundary.
- III. No. These frequency transducers are not described in the Technical Specifications.

SE No.: 87-0365

Source Document: DCP 86-0020, Rev. 0

Description of Change

Install a radioisotopic fume hood in the Radwaste Building.

Summary

- I. No. Test solidifications are performed under the hood which is inside the seismic Radwaste Building. Therefore, no release of radioactive material is involved with this change.
- II. No. All equipment is non-seismic, nonsafety since all radioactive material tested will be contained by the Radwaste Building.
- III. No. The radioisotopic fume hood only provides a place to perform the test solidification which is required by the Technical Specifications. Therefore, the margin of safety is not reduced.

SE No.: 87-0367

Source Document: DCP 86-0020, Rev. 0

Description of Change

Add ductwork, supports and dampers to provide lab hood (OP34E001) with an exhaust in the Radwaste Ventilation System.

Summary

- I. No. The item is an addition to the exhaust of the Radwaste Ventilation System. Because the system is nonsafety, it is not mentioned in any Chapter 15 accident analysis. In addition, because the system is not included in any transient analysis from Chapter 15, the single active failure requirement is for maintainability and reliability reasons.
- II. No. Added equipment does not change the function of the Radwaste Ventilation System. The same possibility for a malfunction is present both before and after the item is implemented.
- III. No. No safety limit from the Technical Specifications applies to the Radwaste Building Ventilation.

SE No.: 87-0368

Source Document: DCP 86-0892, Rev. 0

Description of Change

Remove Fuel Handling Building egress ladder.

Summary

- I. No. This DCP removes an outside egress ladder and has no affect on safety evaluated in the FSAR.
- II. No. Removal of the ladder would not increase the possibility of an accident or malfunction.
- III. No. Removal of this ladder does not affect the Technical Specifications.

SE No.: 87-0369

Source Document: SP-2450, Rev. 0

Description of Change

Generic consideration of the effect on safety-related concrete structures due to the installation process associated with Hilti Kwik Bolts.

Summary

I. No. Installation Standard Specification SP-2450, "Technical Requirements for installing Hilti Kwik Bolts", mandates its use for all Hilti Kwik Bolt installations for maintenance/rework and new installation activities. The installation process of Hilti Kwik Bolts per SP-2450 does not adversely affect the structural integrity of concrete structures since:

- a. No rebar is allowed to be cut without prior engineer approval (Items 5:01.1 and 5:02.2.b of SP-2450).
- b. Minimum bolt-to-bolt spacings and distances to free edges of concrete are controlled per Items 5:01.6, 5:01.7, 5:01.9 and 5:02.4 of SP-2450. This bolt spacing control ensures that, at bolt working load levels, concrete spalling and/or pull-out cone failures will not occur.
- c. Overall strength adequacy of concrete structures due to any significant increased loading from added expansion anchors is ensured via case-by-case review and approval of individual DCP's by the MDS Structural element. To account for miscellaneous attachments of piping, conduit, tray, duct, etc., a distributed load was applied to all safety-related concrete structures in the original design calculations. 10CFR50.59 Applicability Checks and Safety Evaluations (as needed) performed with the individual DCP's document that the overall structures, as described in the FSAR, are not compromised strengthwise.

Since the structural integrity of Safety Class concrete structures is not compromised by the Hilti Kwik Bolt installation process, the probability of occurrence or consequences of an accident or equipment malfunction as previously described in the FSAR is not increased.

- II. No. Since structural integrity is not impaired per Item I above, the installation process for Hilti Kwik Bolts does not create the possibility for an accident/malfunction of a different type than previously evaluated in the FSAR.
- III. No. Since the integrity of the structure is not affected per Item I above, the margins of safety defined in the bases of the Technical Specification are not reduced.

SE No.: 87-0370

Source Document: SP-2500, Rev. 0

Description of Change

Generic consideration of the effect on safety-related concrete structures due to the installation process associated with Drillco Maxi-Bolts.

Summary

- I. No. Installation Standard Specification SP-2500, "Technical Requirements for installing Drillco Maxi-Bolts", mandates its use for all Drillco Maxi-Bolt installations for maintenance/rework and new installation activities. The installation process of Drillco Maxi-Bolts per SP-2500 does not adversely affect the structural integrity of concrete structures since:
- a. No rebar is allowed to be cut without prior engineering approval (Items 5:00.1 and 6:00.1.e).
 - b. Minimum bolt-to-bolt spacings and distances to free edges of concrete are controlled per Item 5:00.2 of SP-2500. This bolt spacing control insures that, at bolt working load levels, concrete spalling and/or pull-out cone failures will not occur.
 - c. Overall strength adequacy of concrete structures due to any significant increased loading from added expansion anchors is insured via case-by-case review and approval of individual DCP's by the MDS Structural element. To account for miscellaneous attachments of piping, conduit, tray, duct, etc., a distributed load was applied to all safety-related concrete structures in the original design calculations. 10CFR50.59 Applicability Checks and Safety Evaluations (as needed) performed with the individual DCP's document that the overall structures, as described in the FSAR, are not compromised strengthwise.

Since the structural integrity of Safety Class concrete structures is not compromised by the Drillco Maxi-Bolt installation process, the probability of occurrence or consequences of an accident or equipment malfunction as previously described in the FSAR is not increased.

- II. No. Since structural integrity is not impaired per Item I above, the installation process for Drillco Maxi-Bolts does not create the possibility for an accident/malfunction of a different type than previously evaluated in the FSAR.
- III. No. Since the integrity of the structure is not affected per Item I above, the margins of safety defined in the bases of the Technical Specification is not reduced.

SE No.: 87-0371

Source Document: DCP 87-0445, Rev. 0

Description of Change

Add a flange and spacer in RHR (E12) test return line (Loop A) to facilitate repair/maintenance on valve 1E12F024A.

Summary

- I. No. The components to be installed are non-active. Their only function is as a pressure boundary. The design meets the requirements of the G1-2 line spec. Various other flanged connections exist in this system. Leakage from the new flanged connection, should it occur, will be noted through monitoring floor drains, which is the current method for identifying leakage from other flanged connections.
- II. No. These are passive components whose only function is as a pressure boundary. They are designed/manufactured to ASME code requirements for pressure boundary components.
- III. No. Technical Specification requirements and margin of safety are not changed by this DCP.

SE No.: 87-0372 (Continued)

Summary (Continued)

The consequences of an accident previously evaluated in the FSAR are unchanged. Since the function and performance of the original design is maintained by this change, the Diesel Generator's response to an accident is unchanged and hence the consequences of a malfunction of equipment previously evaluated are unchanged or are mitigated. The original function and performance of the standby Diesel Generator Control System has been maintained by this change (as demonstrated above). The redundancy of the Division 1 & 2 standby Diesel Generators with respect to each other is not affected by this change since no division to division interconnections are added. The redundancy within the Division 2 Diesel Engine Control Panel start circuitry is maintained by this change, additionally, the reliance on the engine pneumatic control system for the Division 2 Diesel to start and load is reduced, such that the Division 2 Diesel Generator could not potentially respond to an emergency start signal with a complete loss of control air. However, shutdown systems would be inoperable. The reliability of the Division 2 Diesel Generator Control Air System has been enhanced by this change with the addition of a redundant regulated control air supply. Hence, in the event of an equipment malfunction previously evaluated, the Division 2 Diesel Generator control System's response would be unchanged or possibly unaffected.

- II. No. No new possibility for an accident is created by this change as it is limited in scope to the Diesel Generator Control System, which by itself cannot cause a design basis accident.

No new possibility for a malfunction of equipment of a different type than any evaluated previously is introduced by this change, since all of the new components used to make this change meet all of the original equipment qualification requirements. The physical installation of these components and their associated tubing and wiring is being done to the original installation requirements. Additionally, the engine control system designer, I.M.O Delaval is analyzing the installation of this modification to ensure it conforms to the original seismic qualification requirements of IEEE-344-1975. Hence, the new design conforms to the original design codes/standards and creates no new potential for malfunctions not previously evaluated.

- III. No. Since the Technical Specifications remain unchanged as the result of the subject design change, the margin of safety as defined in the bases for any Technical Specification remains unchanged.

SE No.: 87-0372

Source Document: DCP 87-0276, Rev. 0

Description of Change

Modify the Division 2 standby diesel engine control system configuration and logic to enhance overall diesel generator reliability. (Mechanical I&C Evaluation)

Summary

- I. No. The probability of occurrence of an accident previously evaluated in the PSAR is unchanged with respect to this design change as this change is limited in scope to the Standby Diesel Generator Control System which by itself cannot cause a design basis accident.

The probability of occurrence of a malfunction of equipment important to safety is reduced by the subject design change. The primary scope of this change is to minimize the number of active pneumatic components of the standby Diesel Generator Control system. 9 solenoid valves and 19 pressure switches are being removed by this change, being replaced by 5 electromechanical relays and manual switch contacts. These replacement components maintain the same redundancy and function of the original design with significantly fewer active parts, thus enhancing reliability. No reliability is lost by replacing electric solenoid valves with electromechanical relays, since they are similar devices with respect to actuation and require the same power supply to operate. Because of these "substitutions" this change places less reliance on the control air system for the Diesel Generator to start and load, and also enhances control air system reliability and monitoring by the addition of a redundant control air filter, regulator, low pressure alarm switch and a local pressure gauge.

Additionally, the reliability of the Diesel Generator is further enhanced by the replacement of the lube oil and jacket water keep warm temperature control switches. The new design switches feature a narrower deadband which will maintain the keepwarm temperatures closer to the keepwarm setpoint. This lower range should also reduce Diesel Generator Room and control panel temperatures.

Due to the large scope of this design change, the control panel wiring is being modified to simplify the original design by minimizing the number of terminations while maintaining separation criteria. These changes will clarify installation of this DCP and aid troubleshooting of any future problems encountered. The subject change is implemented under the equipment qualification requirements of the original design, as evidenced by the acceptable equipment qualification evaluation for this DCP.

Hence the function, installation and performance of this new design is equal to or better than the original design and the probability of a malfunction of equipment is thus unchanged or reduced.

SE No.: 87-0373

Source Document: DCP 87-0276B, Rev. 0

Description of Change

Modify the Division 2 standby diesel engine control system configuration and logic to enhance overall diesel generator reliability. (Electrical I&C Evaluation)

Summary: See S.E. 87-0372.

SE No.: 87-0374

Source Document: DCP 87-0444, Rev. 0

Description of Change

Relocate the hi-side connection for level transmitter 1N21-LT-N338 (N21 Condensate System) from Tap 19 to Tap 21 on the hot surge tank.

Summary

- I. No. The design change enhances the stability of 1N21-LT-N338 operation and the design adheres to the requirements set forth for the 1N21 system therefore the probability of occurrence or consequences of an accident or malfunction previously evaluated in the FSAR is not increased.
- II. No. Relocation of 1N21-LT-N338 from Tap 19 to Tap 21 does not create a different type of malfunction or possibility of accident, since design integrity remains the same for both the tubing and Taps 19 and 21.
- III. No. This change is to provide stability to 1N21-LT-N338. This added stability will provide greater control of the Hot Surge Tank and Feedwater Control System. The margins of safety set forth in Technical Specifications will not be affected.

SE No.: 87-0375

Source Document: DCP 86-0853, Rev. 0

Description of Change

A Reactor Recirculation (B33) Flow Control Valve (FCV) runback can occur without any alarming. This DCP adds two alarms to the annunciator panel 1H13-P680 for FCV "A" runback and FCV "B" runback.

Summary

- I. No. The new alarms will aid the operator when Reactor Recirculation FCV runback is occurring to positively identify this operating condition. The B33 control system will operate as designed and does not affect any safety systems.
- II. No. No new failure modes have been created since the B33 control system operation has not changed.
- III. No. This item does not affect the Technical Specification, thus the margin of safety has not been reduced.

SE No.: 87-0376

Source Document: DCP 37-0139A

Description of Change

Add a high radiation access control fence/gate for TIP Drive Units area.

Summary

- I. No. The fence/gate is for ALARA purposes only. The fence/gate is adequately supported to function as intended. Therefore, the probability of occurrence or the consequences of an accident or malfunction is not increased.
- II. No. The fence/gate does not create the possibility for an accident or malfunction of a different type than previously evaluated. The fence/gate is supported for loading, therefore, the possibility of a malfunction or accident is not created.
- III. No. The installation of the fence/gate does not affect the Technical Specifications.

SE No.: 87-0377

Source Document: DCP 87-0237, Rev. 1

Description of Change

Install different type heaters and temperature elements to thermostatically control the operation of electrical heaters used in defrosting the Offgas Vault Refrigeration System air handling unit. (Electrical Evaluation).

Summary: See SE No. 87-0378.

SE No.: 87-0378

Source Document: DCP 87-0237, Rev. 1

Description of Change

Install different type heaters and temperature elements to thermostatically control the operation of electrical heaters used in defrosting the Offgas Vault Refrigeration System Air Handling Unit. (Mechanical - HVAC Evaluation).

Summary

- I. No. The modification includes the replacement of the electric heaters with a different type better suited for the application, and allows the heaters to be thermostatically controlled as well as time controlled during defrosting of air handling units. Although the heater rating differs from the original values, the design of the heaters will ensure more efficient heat transfer to the air handling unit components. Also, the thermostatic control will allow the heater to function on an as needed basis as well as being time controlled (i.e. heater may shut off on temperature prior to time selected). This design change does not affect the overall system function to provide cooled air to the offgas vaults, therefore, the design change will not affect the parameters upon which the accident and transient analysis in the FSAR were based.
- II. No. The design change includes the installation of more efficient electric defrost heaters than originally supplied and allows the heaters to be thermostatically controlled as well as time controlled. The new heaters serve the same function as those originally supplied. The operation of the heaters is similar since the thermostatic control is in addition to the existing time control. Therefore, this design change does not affect overall system function, and malfunctions of a different nature will not be created.
- III. No. The Technical Specification addresses the offgas process system. The design change will not affect this system since vault refrigeration system overall function will not be affected.

SE No.: 87-0379

Source Document: SCR 0-87-1053

Description of Change

Change the vertical setpoint of seismic switch (MPL #ODS1N0150) from .05G to .075G to be in conformance with the latest setpoint value in the FSAR.

Summary

- I. No. Vertical setpoint has changed from .05 G to .075 G per FSAR Amendment #25.
- II. No. Vertical setpoint will be changed to be in conformance with FSAR.
- III. No. Vertical setpoint is not implicitly or explicitly mentioned in the Technical Specifications.

SE No.: 87-0380

Source Document: DCP 87-0425, Rev. 0

Description of Change

Install lantern rings in valves 1B21-F065 A & B (Nuclear Boiler System).

Summary

- I. No. The original design of valves 1B21-F065 A & B included lantern rings. Split rings will be installed in these valves by DCP 870425 to facilitate leak rate testing of the valve stem packing. Stem leakage will not increase as the lantern ring does not serve a sealing function.
- II. No. The intent of the test is not altered. "Through seat leakage" of valves, 1B21-F065 A & B will be neglected by the new testing method. This test was previously evaluated in Safety Evaluation Report Supplement No. 7, pages 6-13 and 6-14.
- III. No. The Technical Specification leak rate testing requirements for valves 1B21-F065 A & B (Table 3.6.4-1 b) remain unchanged.

SE No.: 87-0381

Source Document: DCP 87-0428, Rev. 0

Description of Change

Install stud attachments to the containment vessel conduit supports and electrical devices.

Summary

- I. No. 2500 pound load is the maximum allowed for stud attachment to the vessel. Loads due to the conduit supports and electrical devices are much smaller than 2500 pounds.
- II. No. The structural integrity of the containment vessel is not impaired by the additional loads. Therefore, the possibility of an accident/malfunction of a different type is not created.
- III. No. Since the integrity of the containment vessel is not compromised, the margin of safety as defined in the bases for any Technical Specification is not reduced.

SE No.: 87-0382

Source Document: DCP 86-0798, Rev. 0

Description of Change

Add additional circuits required for Unit 1 safe shutdown when the Unit 2 batteries are in use as a backup. The new circuits have been analyzed for the potential of fire to affect redundant trains.

Summary

- I. No. With cables wrapped in Fire Area 1CC4e, the Unit 2 cables used as back up will have the separation from redundant train of safe shutdown circuits and components required by 10CFR50, Appendix R.
- II. No. The new circuits and components do not involve or affect the function of any fire protection systems or increase the fire hazard.
- III. No. The fire protection of safe shutdown systems is not defined in Technical Specifications. The change will have the protection required to meet fire design basis requirements.

SE No.: 87-0383

Source Document: SCR 1-876-1488

Description of Change

Revise the close, open, and maximum torque switch setpoints for Reactor Water Cleanup valve 1G33-P053.

Summary

- I. No. 1G33-P053 is a containment isolation valve whose as-design setpoints were imposing = 6800 lbs. of thrust as derived from diagnostic testing as compared with the as-left target thrust of = 9500 lbs. Even though the new setpoints are greater than the vendor recommendations, they are still less than the design maximums of the operator and valve. There is no increased possibility of an accident or malfunction of the equipment.
- II. No. There is no possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR caused by the torque switch setpoint change.
- III. No. The margin of safety is increased by the new setpoints due to the conservatism built into our calculation methods.

SE No.: 87-0385

Source Document: DCP 87-0394, Rev. 0

Description of Change

Reroute the radwaste tank drain.

Summary

- I. No. The valve and piping being installed is equivalent in design to all the other equipment. Therefore, a chance of a leak of radioactive fluid is not increased.
- II. No. The draining of the solid radwaste tank is consistent with established plant procedures. The procedures and the design are unchanged, therefore, no different accidents are created.
- III. No. The margins of safety for the processing of radioactive waste are not reduced by adding this tank drain valve.

SE No.: 87-0386

Source Document: SCR 1-87-1400, Rev. 0

Description of Change

Revise the close, open and maximum torque switch setpoints for Reactor Water Cleanup System Valve 1G33-F028.

Summary

- I. No. Valve 1G33-F028 is a containment isolation valve, whose as-design setpoints were imposing = 4800 lbs. of thrust as determined from diagnostic testing as compared with the target thrust of = 9400 lbs. Even though the new setpoints are greater than the vendor recommendations, they are still less than the design maximums of the operator and valve. There is no increased possibility of an accident or malfunction of the equipment nor a change to the FSAR.
- II. No. There is no possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR caused by the torque switch setpoint change.
- III. No. The margin of safety is increased by the new setpoints due to the conservatism built into our calculation methods.

SE No.: 87-0387

Source Document: SCR 1-87-1477, Rev. 0

Description of Change

Change the field adjusted loose parts setpoint in FSAR Chapter 8 from 0.35 ft-lb to 0.40 ft-lb to allow for greater noise immunity.

Summary

- I. No. The loose parts detection system (R63) will operate as designed and will not affect any safety systems. Changing the setpoint from .35 ft-lb to .4 ft-lb improves operation by eliminating noise induced trips or alarms while still maintaining a conservative trip setpoint within the .5 ft-lb FSAR specification.
- II. No. No new failure modes have been created since changing the setpoint does not alter the operation of the system.
- III. No. This item does not affect Technical Specifications, thus the margin of safety has not been reduced.

SE No.: 87-0388

Source Document: DCP 87-0219, Rev. 0

Description of Change

Incorporate a permanent design change to inhibit the Reactor Recirculation System (B33) PCV runback at slow speed operation of the recirculation pumps.

The current design for the B33 PCV Runback Circuit can be actuated when recirculation pumps are in fast or slow speed operation. The B33 PCV runback is not needed when the recirculation pump is operating at slow speed. (I&C Evaluation) Also See S.E. 87-0389.

Summary

- I. No. The B33 control system will operate as designed and does not affect any safety systems. The safety and reliability of the B33 control system are not degraded by the design change.
- II. No. No new failure modes have been created since system performance and safety have not been changed.
- III. No. This item does not affect the Technical Specifications, thus the margin of safety has not been reduced.

SE No.: 87-0389

Source Document: DCP 87-0219, Rev. 0

Description of Change

Reactor Recirculation System (B33) FCV runback at low recirculation pump speed. (Mechanical Evaluation)

Summary

- I. No. Preventing the recirculation flow control valve runback at low recirculation pump speed is not important to safety and is not discussed in the FSAR.

A design basis of the recirculation system is to reduce recirculation flow (runback) during one of the following operating events.

- a. RPV at Level 4 and RFP trip or
- b. Loss of condenser circulating pump(s)

The primary purpose of the above is to reduce reactor power, thereby protecting the integrity of the core. The runback circuitry change considered here applies only to the recirculation pumps operating at slow speed 450 rpm. Power reduction (recirculation flow runback), is not necessary at low operating power, mainly because reactor power escalation is not expected at low pump speed and corresponding low power condition. Hence a safety concern does not exist.

- II. No. Preventing recirculation flow control valve runback will not precipitate an accident or malfunction of another type previously evaluated in the FSAR.
- III. No. Eliminating recirculation flow control valve runback at low speed will not affect any margin of safety discussed in the Technical Specification.

SE No.: 87-0390

Source Document: DCN 01784, Rev. 0

Description of Change

Revise Drawing D-914-004 to change MPL number from OP54F5593 to the correct MPL number of OP54F5589 for solenoid control valve for the diesel fire pump in the Fire Protection System.

Summary

- I. No. There is no increase in probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR as this is an editorial change only.
- II. No. There is no possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR, as this is an editorial change only.
- III. No. The margin of safety as defined in basis for any Technical Specification is not reduced, as this is an editorial change only.

SE No.: 87-0391

Source Document: DCN 01785

Description of Change

FSAR Section 9.3.3.2.4 description and system diagram for control complex drains D-911-671 (appearing as Figure 9.3-17 of FSAR) require revision to properly identify rooms with drains that input into the laundry and floor drain sump.

Summary

- I. No. FSAR Section 9.3.3.2.4 revision and drawing changes are simply editorial. Drains (design of P68 System) have not changed.
- II. No. Drains have not changed. Input drain lines to laundry and floor drain sump remain unaltered.
- III. No. Same as above, system design is unaltered.

SE No.: 87-0392

Source Document: DCN 01778, Rev. 0

Description of Change

Update Drawing B-814-060, Rev. D to show 900 lb class flanges for 1N25-LT-N222B (High Pressure Heater Drains and Vents System) to agree with the field installation.

Summary

- I. No. The presently installed 900 lb. rated flanges are good for 1640 psig at 600 degrees F, which complies with the requirements of ANSI B16.5. These values exceed the system design conditions of 1250 psig and 575 degrees F. Based on the comparative data, the equipment is within the safety limits evaluated for this system. Therefore, the probability of occurrence or the consequences of an accident or malfunction of this equipment is not increased.
- II. No. Since the same basic design exists and the probability or occurrence of an accident or malfunction is not increased, the possibility of an accident or malfunction of a different type previously evaluated in the FSAR, does not exist.
- III. No. The margins of safety defined in the bases for the Technical Specifications are not reduced, since the reliability of the system has not been reduced to a point that will be below the acceptable system design parameters.

SE No.: 87-0393

Source Document: DCP 87-0208, Rev. 0

Description of Change

Reroute the detergent drain tank drain in the Liquid Radvaste System.

Summary

- I. No. The design of the piping is consistent with the original system design. Therefore, no increase in the occurrence of an accident will be involved.
- II. No. The only accident that could happen is a pipe break and this has already been evaluated in the FSAR.
- III. No. This change does not affect directly the discharge of radioactive liquid and therefore, does not reduce the margin of safety defined in the bases for any Technical Specification.

SE No.: 87-0394

Source Document: SCR 1-87-1342 and 1-87-1343

Description of Change

Revise the setpoint, allowable limit/safety limit, and add the leave-as-is and reset values for the RCIC/RHR high flow monitoring instruments (1E31-N684 A & B).

Summary

- I. No. The proposed setpoint parameter changes to utilize a 52.1" H₂O (ΔP) flow setting for RCIC/RHR high flow instrumentation is considered conservative to the Technical Specification setpoint (105" H₂O). Since Perry Plant instrumentation will be more sensitive to trip associated isolation values on RCIC/RHR line breaks, the proposed setpoint changes are based on startup testing results. Since the proposed settings are conservative to the Technical Specification setpoints, the probability of occurrence/consequences of an accident or malfunction of safety-related equipment evaluated in the FSAR is not increased. RCIC system reliability is not affected by reducing the subject high steam line flow setpoint.
- II. No. Incorporation of the proposed setpoint parameters for RCIC/RHR high flow instrument trip units has no effect on the plant other than increasing the plant's design sensitivity to detect RCIC/RHR line breaks. Therefore, a different type of accident or malfunction than previously evaluated in the FSAR is not created.
- III. No. The proposed setpoint parameter changes are conservative to the values stated in Technical Specification Table 3.3.2.2,6c, therefore the margin of safety defined in plant Technical Specifications is not reduced.

SE No.: 87-0395

Source Document: SCR 1-87-1502, Rev. 0

Description of Change

Revise the open and close torque switch setpoints for Reactor Water Cleanup System Valve 1G33-F053.

Summary

- I. No. 1G33-F053 is a containment isolation valve, whose design setpoints were imposing = 6800 lbs. of thrust as derived from diagnostic testing as compared with the target thrust of = 9400 lbs. Even though the new setpoints are greater than vendor recommendations, they are still less than design maximums of the operator and the valve. There is no increased possibility of an accident or malfunction of equipment.
- II. No. There is no possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR caused by the torque switch setpoint change.
- III. No. The margin of safety is increased by the new setpoints due to conservatism built into our calculation methods.

SE No.: 87-0396

Source Document: DCP 87-0463, Rev. 0

Description of Change

Modify valve stems on the Residual Heat Removal System valves 1E12-F0242 A & B.

Summary

I. No. The stem is to be modified at its base where it contacts the wedge, to reduce the contact area. This is a standard design for some gate valve manufacturers. This change does not alter the center-line length nor decrease the diameter of the stem. It has no effect on the actuator setpoints or capabilities. The change is intended to minimize the consequences of wedge rolling by maintaining the stem center-line closer to the center-line of the wedge.

The critical dimensions of the stem will remain as originally designed and qualified, therefore, valve function and operation will not change. No possibility for an accident or malfunction is created by this design change. This modification is being made with the concurrence of the valve manufacturer and at the direction of his agent.

II. No. See Item 1 above.

III. No. See Item 1 above.

SE No.: 87-0397

Source Document: DCP 87-0387, Rev. 0

Description of Change

Repair damper in the Annulus Exhaust Gas Treatment System (M15) as described in NR PPDS-2450.

Summary

- I. No. The repair being made to the damper meets original requirements and was approved by the vendor. Therefore, based on the fact that the damper function meets original requirements the parameters upon which the accident analysis in the FSAR was based have not been affected.
- II. No. The repair to the damper blade is an acceptable repair and will function as designed. Therefore, malfunctions of a different type will not be created.
- III. No. This repair will allow the Annulus Exhaust Gas Treatment System damper to modulate as designed to maintain the annulus at a negative pressure. Therefore, the margin of safety as specified in the Technical Specification has not been reduced.

SE No.: 87-0399

Source Document: DCP 87-0452, Rev. 0

Description of Change

Add flange and spacer in Residual Heat Removal Test Return Line (Loop B) to facilitate repair/maintenance on valve 1E12-F024B.

Summary

- I. No. The components to be installed are non-active. Their only function is as a pressure boundary. The design meets the requirements of the G1-2 line spec. Various other flanges exist in this system. Leakage from the new flanged connection, should it occur, will be noted through monitoring floor drains, which is the current method for identifying leakage from other flanged connections.
- II. No. These are passive components whose only function is as a pressure boundary. They are designed/manufactured to ASME Code requirements for pressure boundary components.
- III. No. Technical Specification requirements and margin for safety are not changed by this DCP.

SE No.: 87-0400

Source Document: FSAR 87-048

Description of Change

Clarify CEI's commitment to Regulatory Guide 1.58 such that personnel who perform nondestructive examination activities shall meet the qualifications of ASNT-TC-1A (1980), as modified by ASME Code Case 356.

Summary

- I. No. This change does not result in any modifications to the assumptions or consequences of any accidents analyzed in Chapter 6 or 15 of the FSAR.
- II. No. This change does not affect any plant structure, systems or component. This change does not result in any changes to system operation.
- III. No. This change does not affect any of the qualification requirements of individuals specified in the Technical Specifications.

SE No.: 87-0402

Source Document: DCN 1734

Description of Change

Change to drawing to reflect the as-built trip logic of the mechanical vacuum pump and associated valves from the Main Steam Line (MSL) Radiation Monitors.

Summary

- I. No. The Mechanical Vacuum Pumps and associated valves are nonsafety. Isolation of these pumps and valves is not taken for credit in the Accident Analysis of FSAR Chapter 15, and is not required by Tech Specs. The current trip logic is acceptable, since it trips the pumps and closes the valves from either MSL Radiation Monitoring Channel A or C. This logic is more conservative than the one-out-of-two twice MSL channel trip logic.

Isolation of the pumps/valves is desirable in the event of gross core failure to prevent the direct release of gaseous radioactive effluents. Even in the event that the MSL Radiation Monitoring Channels B or D are inoperable (1/2 scram), the location of the A and C monitors still provides monitoring capability of the B and D Main Steam Lines; the A and C monitors would still detect core fail and isolate the mechanical vacuum pumps and valves.

Loss of the mechanical vacuum pumps due to single failure of the MSL Radiation Monitoring Channels A or C should have minimal impact on plant reliability since the pumps are only used when reactor power is 0-5%.

Based on the current design logic and its intended function, the probability of occurrence or the consequences of an accident/malfunction of safety-related equipment previously evaluated in the FSAR is not increased. Also, the possibility for an accident or malfunction of a different type than previously evaluated in the FSAR is not created.

- II. No. See Item I. above.
- III. No. Technical Specification Table 3.3.2-1 Note d. describes the MSL Radiation Monitor to the Mechanical Vacuum Pump trip logic, however, this is an item of information and this logic is not required by Technical Specifications. The current trip logic does not impact this Technical Specification and the margin of safety as defined in the bases for any Technical Specification is not reduced.

SE No.: 87-0403

Source Document: PAP-0205 "Operability of Plant Systems, Rev. 5

Description of Change

Authorization of Radwaste Technician to return radwaste equipment to service independent of the Unit Supervisor. Reference: FSAR Appendix IA Item I.C.6 which states "The approval of the Unit Supervisor will also be required to return any equipment addressed by limiting conditions for operation in plant technical specifications, back to service."

Summary

- I. No. This change from the FSAR wording is administrative in nature. PAP-0905, Work Order Process, allows work orders written against equipment controlled from and located in the Radwaste Facility to be authorized by the Radwaste Technician based on an initial review by the Unit Supervisor or the Project Work Center Senior Reactor Operator. These work orders are then reviewed and accepted for closure by the Radwaste Technician. Allowing the Radwaste Technician instead of the Unit Supervisor to authorize return to service of radwaste equipment will not increase the frequency of occurrence of situation that could result in or contribute to accidents as evaluated in the FSAR.
- II. No. The method of operation and design of the radwaste systems is not being altered. Thus no unevaluated accident or malfunction conditions are created.
- III. No. Operational requirements are not being altered. Requirements for restoration remain the same without regard to the level of authority restoring the equipment.

SE No.: 87-0405

Source Document: SCR 1-87-1494 thru 1499.

Description of Change

Revise setpoints for alarm trip units in the Reactor Recirculation System (B33).

Summary

- I. No. The revised setpoints do not change the basic system control function of the Reactor Recirculation System and do not affect any safety system.
- II. No. No new failure modes have been created since the basic operation function have not been changed.
- III. No. The setpoint changes do not affect the Technical Specifications. Thus, the margins of safety have not been reduced.

Description of Change

Evaluate the high supply airflow in branch duct leading to the 642'-0" elevation from the lower drywell cooling (M13) unit fan 1M13-C001A.

Summary

- I. No. High airflow in branch duct leading to 642'-0" elevation with lower drywell cooling unit redundant supply fan 1M13-C001A in operation does not affect the overall system function; total cooling unit flow and total system flow is within the required range per FTI-GEN-P0011 for M13. Although the flowrate in this branch duct is above the required value, this condition has no adverse effect on flow in other branch ducts, i.e., actual flow is within the required range per PTI. The slight increase in flow to the 642'-0" elevation will have no adverse effect on temperatures, therefore, there will be no adverse effect on the qualification of safety related equipment/instruments in the area. Since this nonconforming condition does not affect the system overall function, and does not adversely affect the qualification of safety-related equipment/instruments in the area, the parameters upon which the accident analysis in the FSAR was based, have not been affected.
- II. No. The nonconforming condition does not affect the system overall function and does not adversely affect the qualification of safety related equipment/instruments in the area, therefore, malfunctions of a different type will not be created.
- III. No. Drywell average temperature limit as described in Technical Specification Section 3.6.2.6 will not be affected by this nonconforming condition since the temperature is based on an overall average. The increase in airflow to the 642'-0" elevation will increase slightly the available cooling capacity at this elevation. This condition will have no adverse affect on area temperatures, therefore, the margin of safety as defined in Technical Specification has not been reduced.

SE No.: 87-0407

Source Document: DCP 87-0486, Rev. 0

Description of Change

Modify APRM flow cards in the Neutron Monitoring System.

Summary

- I. No. The output from the APRMs supplies trip signals to the Radiation Protection System. The modification to the APRM flow card filters' oscillations of about 9 Hz to eliminate spurious trips. The filtering will not cause a time delay in the flow biased simulated thermal power signal and; therefore, the function and response time of the APRM flow card will remain the same. There will be no increase in the probability of an accident or malfunction of equipment that was previously evaluated in the FSAR.
- II. No. The flow card modification does not change the operation or function of the APRM cards, so there will not be any accidents or malfunctions of a different type created.
- III. No. The modification will not affect any setpoints in the Technical Specifications and will not reduce the margin of safety as defined in the bases.

SE No.: 87-0408

Source Document: DCN 1801

Description of Change

Add recorder point numbers to Drawing D-302-081, 082 for recorder 1N27-R066, Feedwater System.

Summary

- I. No. this item is an editorial change to the drawing for clarification of recorder points.
- II. No. See Item I. above.
- III. No. See Item I. above.

SE No.: 87-0410

Source Document: Safety Tagout 1-87-2954

Description of Change

Residual Heat Removal relief valve 1E12-F055E is gagged closed and will be returned to operable before increasing reactor coolant temperature above 200°F (entering Operational Condition 1, 2 or 3). An active LCO for Technical Specification Section 3.4.8 is in effect.

Summary

- I. No. This relief valve is for protection during steam condensing. The setpoint for this valve is 475-495 psig, whereas, the RHR pump shutoff head is 303 psig. Thus, this relief valve is not required as long as the reactor pressure vessel is below 200°F.
- II. No. No plant operation in Condition 4 or 5 can challenge the gagged valve.
- III. No. With the action statement for Technical Specification Section 3.4.8 being met, the bases in Technical Specifications are unchanged. Since RHR "B" is operable for its safety functions, the Technical Specification Section 3.5 are not affected.

SE No.: 87-0411

Source Document: SVI-N27-T9121, Rev. 2, TCN 2
SVI-N27-T9414, Rev. 1, TCN 1

Description of Change

1B21-F065A(B) is now tested by using "through-seat" leakage and adding to bypass leakage. This TCN will only add stem and bonnet leakage to bypass leakage. Safety Evaluation No. 87-0380 approved deleting "through-seat leakage."

Summary

- I. No. See Safety Evaluation No. 87-0380.
- II. No. See Safety Evaluation No. 87-0380.
- III. No. See Safety Evaluation No. 87-0380.

SE No.: 87-0412

Source Document: DCP 86-0338, Rev. 3

Description of Change

Add a flow straightener to the anion backwash line in the Condensate Demineralizer System (N24).

Summary

- I. No. This instrument and backwash line are not evaluated in the FSAR. The regeneration serves no safety function.
- II. No. Flow straightener is used only to improve accuracy of downstream flow element. No safety components are affected by this change.
- III. No. This system is not a part of the Technical Specifications.

SE No.: 87-0413, 87-0414

Source Document: DCP 85-0434, Rev. 9
DCP 86-0950, Rev. 3

Description of Change

Delete pneumatic testing as stated in the FSAR.

Summary

- I. Clarification of the offgas (N64) integrity test after piping modifications/repair does not affect an accident previously evaluated. FSAR Chapter 15.7 has evaluated a seismic event along with a charcoal vessel failure. Probability of occurrence (rupture of the system) is not increased.

Malfunction of the system important to safety is not increased by clarification of the integrity test. Sensitivity of the pressure boundary will be satisfied by the mandatory requirement of welds by nondestructive examination based on the following observation.

ANSI B31.1, 1983 Edition has changed its position on requiring an integrity test along with a sensitivity test. The 1983 Code requires both tests to be performed. A later Addenda of the 1983 Code (Paragraph 137.3.2) requires either a hydrostatic test, pneumatic test or mass-spectrometer test. The 1973 ANSI B31.1 Code allows 100% radiography of all welded joints to be used to demonstrate leak tightness in lieu of hydrostatic, pneumatic, or initial service leak test.

SE No.: 87-0413, 87-0414 (Continued)

Summary (Continued)

The extent of the pneumatic test or bubble is to pressurize the system for 30 minutes at 1.20 times the design pressure of 350 psi and locate leaks. Sensitivity of this type as compared to other tests (see Attachment 1) ranges from 10^{-1} to 10^{-4} Std cm³ per second. Mass-spectrometer test is an extremely accurate test with sensitivity limits down to 10^{-11} Std cm³ per seconds.

Chemical penetrants such as liquid penetrants may detect leakage beyond 10^{-3} Std cm³ per second, especially in considering all liquid penetrants indications as relevant defects that must be repaired.

It is acknowledged that General Electric feels that this nondestructive examination test method is not as sensitive as the helium test. However General Electric has stated that helium testing is only a recommendation and it is intended that this recommendation be followed whenever practicable. This is consistent with industry practice.

Nondestructive examinations of offgas pressure boundary welds (i.e., radiography or liquid penetrant exam) will be continued to assure weld integrity is consistent with previous construction requirements.

Accidents previously addressed in FSAR Chapter 15.7, "Radioactive Gas Waste System Leak or Failure" do not impose doses exceeding limit specified in 10CFR100. Clarification of the integrity test does not increase the consequence (dose release) of these accidents.

Failure of the offgas piping (i.e., a rupture of the piping system because a pneumatic test was not performed) does not increase dose release above those values described in Chapter 15.7.

- II. Pipe rupture is the only malfunction possible from not performing a pressurized integrity testing to 420 psig after modification/repairs. With the above mentioned nondestructive examination performed along with the sensitivity test (helium) a pipe rupture or a breach of pressure boundary is extremely unlikely. In the event the pressure boundary is broken, the failure is bounded by Chapter 15.7. An accident or malfunction of a different type is not possible.
- III. No. Margin of safety as outlined in Section 3/4.11.2, "Gaseous Effluents," is not affected or reduced by clarifying the integrity test of the offgas system following rework/modification.

SE No. 87-0414
Source Document: DCP 86-0950

Description of Change

Clarification of the Offgas System (N64) integrity test following piping modifications/repair.

Summary

- I. No. Clarification of the offgas (N64) integrity test after piping modifications/repair does not affect an accident previously evaluated. FSAR Chapter 15.7 has evaluated a seismic event along with a charcoal vessel failure. Probability of occurrence (rupture of the system) is not increased.

Malfunction of the system important to safety is not increased by clarification of the integrity test. Sensitivity of the pressure boundary will be satisfied by the mandatory requirement of welds by non-destructive examination (NDE).

Accidents previously addressed in FSAR Chapter 15.7, "Radioactive Gas Waste System Leak or Failure" do not impose doses exceeding limit specified in 10CFR100. Clarification of the integrity test does not increase the consequence (dose release) of these accidents.

Failure of the offgas piping (i.e., a rupture of the piping system because a pneumatic test was not performed) does not increase dose release above those values described in Chapter 15.7.

- II. No. Pipe rupture is the only malfunction possible from not performing a pressurized integrity testing to 420 psig after modification/repairs. With the above mentioned NDE performed, along with the sensitivity test (helium), a pipe rupture or a breach of pressure boundary is extremely unlikely. In the event the pressure boundary is broken, the failure is bounded by Chapter 15.5. An accident or malfunction of a different type is not possible.
- III. No. Margin of safety as outlined in Section 3/4.11.2, "Gaseous Effluents", is not affected or reduced by clarifying the integrity test of the Offgas system following rework/modification.

SE No.: 87-0415

Source Document: SCR 1-87-1576

Description of Change

Revise, open and close torque switch setpoints for 1E12-F024A, Residual Heat Removal System.

Summary

- I. No. Even though the new setpoints are greater than vendor recommendations they are still less than design maximums of the operator and the valve. This is determined by movats diagnostic test at full system pressure. There is no increased possibility of an accident or malfunction of equipment.
- II. No. There is no possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR caused by the torque switch set.
- III. No. The margin of safety is increased by the new setpoints due to the conservatism built into our calculation methods.

SE No.: 87-0416

Source Document: DCP 87-494, Rev. 0

Description of Change

Replace a 2.2 ohms series resistor (C-H Type G3AP220) with 0.5 ohms resistor (C-H Type GSAP50) in the Reactor Core Isolation Cooling System (E51) to ensure valve 1E51-F013 will operate with no battery charger available.

Summary

- I. No. The RCIC System is designed as one of the systems to assure that sufficient water inventory is maintained in the reactor vessel. This system has been designed to operate without AC power available. The pump discharge to reactor isolation valve F013 which is DC operated is required to open automatically for an RCIC system initiation. Calculations have indicated that this valve may not open due to excessive voltage drop in the valve motor circuit should the system be called upon to operate with a simultaneous loss of the battery charger (loss of AC to charger or charger failure). The replacement of the 2.2 ohm series resistor with a 0.5 ohm series resistor will decrease the circuit voltage drop and increase the torque to assure that this valve will operate with no battery charger available. Therefore, this change enhances the overall reliability of the RCIC System and will not increase the probability of an accident or malfunction and will not increase the probability of an accident or malfunction and will not reduce any margins of safety previously evaluated. This change will not affect the present opening or closing capability of the valve. This item is not described in the FSAR and will not affect the design as described in FSAR Chapters 5, 6 and 8.
- II. No. See Item I. above.
- III. No. This change will not affect the system operability as described in the Technical Specification, Section 3/4.4.2.

SE No.: 87-0417

Source Document: DCP 87-0514, Rev. 0

Description of Change

Recirculation flow transmitter process span recalibration and 1C51R614 recorder scale change in the Reactor Recirculation System (B33).

Summary

- I. No. The subject Design Change Package has been developed to require calibration of Recirculation System Flow Transmitters (1B33N001A/B, 1B33N0014A-D, and 1B33N0024A-D), to actual recirculation system drive flows observed during the Startup Test Program. Previous calibration was performed using GE predicted Beginning of Life Drive Flow valves. Additional recalibration is required for Recorder 1C51R0614 including a plant desired scale change (0-125% flow), based on transmitters, 1B33N0014A and 1B33N0024A inputting to the recorder.

Incorporation of startup Recirculation System Flow Data is not considered to affect plant safety or reliability. Calibration of transmitters to actual flow conditions should ensure that true flow biased and high-flow clamped high power SCRAM/Rod Block and recirculation flow rod block signals are sensed by plant instrumentation. General Electric, by issuance of FDDR KL1-6593, concurs with the above conclusion.

The probability of occurrence or the consequences of an accident or malfunction of safety-related equipment previously evaluated in the FSAR (Chapter 15) is not increased.

- II. No. The scope this design change is limited to recalibration of Recirculation Flow Transmitters to actual process flow conditions. There is no impact to the operability of other systems nor other FSAR Chapter 15 analysis than evaluated in Item II. above.

A different type of accident or malfunction not previously evaluated in the FSAR is not created.

- III. No. The margin of safety in the Technical Specification is not reduced, since system operability requirements in Sections 2.0, 3/4.3.1 and 3/4.3.6 are not changed.

SE No.: 87-0418

Source Document: DCP 87-514, Rev. 0

Description of Change

Replace the RCIC Loop A(B) Flow Recorder (1C51-R614) scales with a 0-125% range. The present scale is 0-50,000 gpm.

Summary

- I. No. Modification of this range provides the operator with more meaningful process units which should increase plant safety and remove the probability of occurrence or the consequences of an accident or malfunction of equipment.
- II. No. Revision of the scale does not create a different accident or malfunction than previously evaluated in the FSAR, since it does not create a new disturbance that would threaten fuel or reactor coolant boundary.
- III. No. This scale change does not impact Technical Specifications with respect to Human Factors.

SE No.: 87-0419

Source Document: SOI-M14, Rev. 6, TC-1
VLI-D23, Rev. 1, TCN-2

Description of Change

Operate the Containment Vessel and Drywell Purge System (M14) under Δp control rather than flow control. The new source valve 1D23-F060 and the new Δp control loop are not shown on Figures 7.6-7 and 9.4-17, respectively, in the FSAR.

Summary

- I. No. The operation of the M14 system under Δp control rather than flow control will not increase the probability of an accident or the malfunction of equipment important to safety for the following reasons:
 - A. A malfunction or mispositioning of the D23 source valve, F060, feeding the new control loop cannot increase this probability because the control loop it feeds is not safety-related or important to safety, and the valve is located outboard of the D23 source line's containment isolation valves.
 - B. The new Δp control loop does not affect any safety-related component in the M14 system. A loss of the control loop will not cause an accident of itself nor hinder in the mitigation of one.
- II. No. The operation of the M14 system under Δp control is subject to the same operational requirements as the system operating under flow control. No design parameters of the system are changed and thus no adverse affect on the drywell, containment or their contained equipment is possible. The M14 system, exclusive of its containment isolation valves, is not analyzed by the FSAR for an accident scenario.
- III. No. The margin of safety, as defined in the bases of Technical Specifications is not reduced by operation of the system under flow control, since operation under the new control loop does not affect the operation of the M14 supply or exhaust valves. These are the only M14 components considered in the bases of Technical Specifications.

SE No.: 87-0422

Source Document: DCP 86-0997, Rev. 0

Description of Change

Add power monitoring relays to each Neutron Monitoring System (C51) source and intermediate range (SRM and IRM) channel to initiate the channel inoperative trip function upon loss of negative 20 volt DC power. (I&C Evaluation)

Summary

- I. No. This design modification revises SRM/IRM channel (12 total) "INOP" trip logic circuitry to initiate an "INOP" trip upon loss of negative 20V DC power to the SRM/IRM channels. This change will be specifically accomplished by adding power monitoring relays to the negative power supply circuitry. Implementation of the proposed change is considered a design upgrade, since the potential for reactor startup with inoperative SRM/IRM channels exceeding Technical Specification minimum channel operability requirements will be avoided through automatic means. This design change is also consistent with the recommendations described in Significant Event Report (SER) 33-86.

Based on above, the probability of occurrence or the consequences of an accident/malfunction of safety-related equipment evaluated in FSAR Chapters 7 and 15 is not increased.

- II. No. This design change is limited to the modifications discussed above for SRM/IRM "INOP" trip circuitry. No other systems are impacted by this design change. The possibility for an accident or malfunction of a different type than evaluated previously in the FSAR is thus not created.
- III. No. The margin of safety is not reduced since the SRM/IRM inoperative trip function requirements found in Technical Specification Sections 2.0, 3/4.3.3, and 3/4.3.6 are not impacted by this design change.

SE No.: 87-0423

Source Document: DCN 1817, Rev. 0

Description of Change

Revise FSAR Figures 10.1-3 Sheet 1 and 2 to show the actual pipe sizes for the inlet and outlet of the safety relief valves on Feedwater Heat Exchangers 1N27-B001A and B, and 1N27-B002A and B.

Summary

- I. No. This change consists only of changing the pipe sizes shown on the P&ID's to correspond to the as-built isometric drawings which correspond to the inlet and outlet size of the safety relief valves. The FSAR does not address these valves and their corresponding pipes beyond their description on the P&ID.
- II. No. Changing the P&IDs to show the correct as-built conditions in the field does not create a possibility for an accident or malfunction different than those previously evaluated in the FSAR.
- III. No. This change has no effect on the Technical Specifications. Therefore, the margin of safety is not reduced.

SE No.: 87-0426

Source Document: DCN 1837

Description of Change

Revised note on Drawing D-302-871 describing the operating requirements of valve 1C11-F120, Vacuum Breaker, to conform to the installed valve characteristics.

Summary

- I. No. The modified valve operating limit has no effect on the scram event. The possibility of the change affecting the time needed for a scram reset and a second scram to occur has been evaluated by GE. GE determined that if the F120 valve was acting as the vent path during scram discharge volume drain down (primary vent blocked) there would be no significant change of drain down rate at least until after the level corresponding to the permissive for the next scram was cleared. Thus rescrum considerations are unchanged.
- II. No. The valve has no other function than being the alternate vent path for scram discharge volume (SCV) discussed above.
- III. No. No change results to SDV vent and drain system operability as described in the Technical Specifications.

SE No.: 87-0427

Source Document: DCN 1799

Description of Change

Removal of redundant primary alarm trip setpoints data, references to nonexistent notes from various functional diagrams, and deletion of the high drywall pressure interlock from these drawings per GE FDDR KL1-6587, Rev. 2.

Summary

- I. No. The items under evaluation do not change the basic Reactor Recirculation System operating functions nor do they affect safety systems. This DCN updates the drawings to reflect previously incorporated changes; no change to the plant is involved.
- II. No. The items under evaluation do not change the basic Reactor Recirculation System operating functions nor create failure mode not already addressed in Sections 5.4.1, 7.6.1.6, 7.7.1.3 and 15.3 of the FSAR.
- III. No. The items under evaluation are not addressed in the Technical Specification so that no margin of safety as defined are reduced.

SE No.: 87-0428

Source Document: DCN 1841

Description of Change

Revision of drawings to reflect reference drawing number change. Drawings D-808-081, Sheet 1 and 2 have been voided and replaced by Drawings B-308-025, Sheet 200 and 201.

Summary

- I. No. This DCN revises the drawing references only, it does not increase the probability of an accident or malfunction of equipment important to safety.
- II. No. No possibility of a different type of accident or malfunction is created by this change.
- III. No. The margin of safety as defined in the bases for any Technical Specification is not reduced by this DCN as it only revises the drawing reference number.

SE No.: 87-0429

Source Document: DCP 87-0162A, Rev. 0

Description of Change

Replace the High Pressure Core Spray (HPCS) Division 3 Air Compressor (1E22-C004A) diesel engine with an AC electric motor. (Electrical Evaluation)

Summary

- I. No. This is a nonsafety motor and therefore it is not required to operate during a LOCA to shutdown the plant.
- II. No. This AC electric motor powered HPCS diesel air compressor (1E22-C004A) will function the same as the B Compressor so therefore, it cannot create any different types of accidents other than those previously evaluated.
- III. No. Changing the diesel motor to an AC electric motor makes the air compressor more reliable so it does not reduce any safety margins described in Technical Specifications.

SE No.: 87-0430

Source Document: DCP 87-0162A, Rev. 0

Description of Change

Replace the High Pressure Core Spray (HPCS) Division 3 Air Compressor (1E22-C004A) diesel engine with an AC electric motor. (Mechanical Evaluation)

Summary

- I. No. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in Section 9.5.9 of the FSAR is decreased because the electric motor will be more reliable than the diesel engine when starting the air compressor 1E22C004A. Air compressor function remains the same for the normal standby condition with the new electric motor. Starting of this air compressor is not required for either LOCA or Loop accident conditions.
- II. No. The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the replacement electric motor will not change the system performance, it will only make the system more reliable.
- III. No. The margin of safety as defined in the bases for any Technical Specification is increased due to the reason stated in response to Item I.

SE No.: 87-0431

Source Document: DCP 86-0843, Rev. 0

Description of Change

Addition of Bailey Instrument summers and alarms to the Drywell Atmosphere Temperature Monitoring System (1D23) instrumentation to provide average temperature indication and high average temperature alarms. (I&C Evaluation)

Summary

- I. No. These modifications provide high average drywell temperature annunciation/indication and have no impact on FSAR Table 7.1-4 and Section 7.5 requirements to provide safety-related recording/indication (post accident and normal). This design capability is unchanged. The modifications provide an operational aid in determining average drywell temperature or alerting the operator that Technical Specification limitations (Sections 3.6.2.6 - 135°F max. average temperature) may be exceeded. FSAR Sections 5.2, 7.5, and 7.6 which require modification are considered system description changes with no impact to safety concerns. Setpoint information associated with the new alarm units is identical to the alarm settings being replaced in the setpoint list. Based on the above, the probability of occurrence/consequences of an accident or malfunction of safety-related equipment previously evaluated in the FSAR is not increased.
- II. No. The system instrumentation integrity is not reduced by this change. No possibility for an accident or malfunction of a different type than any evaluated previously in FSAR is created.
- III. No. This modification does not reduce the margin of safety and is within the scope of the Technical Specification Section 3.6.2.6.

SE No.: 87-0433

Source Document: SVI-B21-T9423, Rev. 2

Description of Change

Change SVI-B21-T9423 to allow performance of a local leak rate test on penetration P423 and valve 1B21-F016 with the between seat drain valves closed.

Summary

- I. No. Sealing of the upstream seating surface by pressurizing downstream of the valve would be equivalent to a test of the downstream seating surfaces provided a proper fitup is obtained (as determined by a blue check or equal). Since the test pressure acting on the wedge is a constant regardless of direction, it is reasonable to assume the combination of the seats is actually providing the seal and dependence is not solely on one seat or the other. The test pressure does not provide a significant force to unseat and/or seat the wedge.

Drain valve closure more clearly represents accident conditions since the valves are closed during normal operation.

- II. No. Based on an acceptable fitup (as determined by blue check or equal) on both the upstream and downstream seats of the valve, it can be concluded that an acceptable LLRT in the direction opposite to the normal flow will repeat itself when the flow is in the normal direction. Therefore, no new malfunction is created.

Drain valve closure more clearly represents accident conditions since the valves are closed during normal operation.

- III. No. Operability of the valve is not affected as stated in Section 3/4.6.4 of the bases of the Technical Specification. This is based on an acceptable fitup on the upstream and downstream seat of the valve. Leakage criteria as stated in the bases of the Technical Specifications is not changed.

SE No.: 87-0434

Source Document: DCP 87-00216

Description of Change

Revise the MSIV vendor manual to incorporate changes to the MSiV actuator. The changes to the actuator involve the elastomer "O" rings and gasket changes from Viton to EPT.

Summary

- I. No. The probability of occurrence of an accident as discussed in FSAR Section 5.4.5.2 is not increased, because this change will only provide better environmental operating margin for the MSiV actuator. The EPT provides both improved radiation and temperature operating characteristics than Viton. Hence, this change will improve both safety and operability of the MSiV during normal and design basis condition.
- II. No. The changes made to the actuator will improve the design of the plant through improvement in the material design changes.
- III. No. The margin of safety as defined in the Technical Specifications is not reduced by this change.

SE No.: 87-0435

Source Document: MFI 1-87-311

Description of Change

To provide the alternate moisture separator reheater drain tank and feedwater heater 1N27-B001A/B drain valves with an input signal to open prior to opening the heater cascading valves. This MFI will aid in control of Reactor Vessel conductivity during the upcoming start-up.

Summary

- I. No. By controlling the moisture separator reheater drain tanks and feedwater heaters 1N27-B001A/B, the water level with the alternate drain valve level will be maintained at the same or lower than normal elevation, which does not increase the accident or malfunction probability previously evaluated in the FSAR.
- II. No. The accident or malfunction has been previously evaluated in the FSAR Section 15.2.3, and no different type of accident is created.
- III. No. The margin of safety for any Technical Specification bases is not reduced by the MFI.

SE No.: 87-0436

Source Document: DCP 87-0434

Description of Change

Installation of alarming air pressure sensing devices in each of the fume hoods within the Chemistry Oil Laboratory to alert personnel to a loss of ventilation. (Mechanical - HVAC Evaluation)

Summary

- I. No. These alarms serve no safety-related function. They are only used to inform chemistry personnel of a decrease or loss of ventilation.
- II. No. These alarms can not create an accident scenario since they are contained within a laboratory area and do not interface with other parts of the plant.
- III. No. This system is not a part of the Technical Specifications.

Description of Change

Periodic maintenance was not performed on some ITT actuators as required in the vendor manual. This safety evaluation analyzed affect on system operability for interim operation of valves OM25-F260A,B; OP47-F045A,B and OP47-F085A,B with indeterminate service life of the actuator's seals and O-rings. This interim operation is to last until the seals and O-rings are reworked per this NR.

Summary

- I. No. OM25-F260A and B - These vortex dampers are described in Sections 6.4.2 and 6.4.3 of the FSAR. Failure of either or both dampers due to a failed actuator does not result in loss of the M25 System function (see Table 6.4-4)). The dampers are designed to fail to the closed position until a mechanical stop is reached. This position is required for the Emergency Mode of operation so the M25 supply and M26 exhaust fans have compatible flow rates. A failure results in the dampers being spring assisted in a position for Emergency mode of operation. If this occurs while operating in the Normal Mode, the M25 System continues to operate but at a slightly reduced flow rate. The Control Room will still be maintained at its design ambient conditions. If the failure occurs in the Emergency Recirculation mode, it will have no impact since the dampers are already in the failed position. Thus, if both dampers (A and B train) fail, there would be no impact to the M25 System function.

OP47-F045A and B, OP47-F085A and B - These 3-way throttling valves regulate chilled water flow to the M23 and M25 supply plenum cooling coils respectively. Operation of the P47 System is described in Section 9.4.9 of the FSAR. Failure of these valves due to the actuators will not result in loss of chilled water flow to the M23 and M25 supply plenums. The valves are designed to fail to the position allowing 100% flow to the cooling coils. This increase flow rate may result in slightly lower discharge air temperature from the fans. Electric duct heaters are available in the M23 and M25 duct work to compensate for this if required. Therefore, if all valves in both "A" and "B" train fail, there would be no impact to the P47 System function.
- II. No. Failure of the valves will not result in loss of system function. Therefore, we have not created for the possibility of an accident or malfunction of a different type than any evaluated previously in the FSAR.
- III. No. There is no change to the safety function of the M25/26 and P47 System. Thus we have not reduced the margin of safety as defined in the bases for the Technical Specifications.

SE No.: 87-0438

Source Document: DCP 87 Rev. 0

Description of Change

Install a partial-depth opening in the Offgas Building Dryer Skid Room wall to permit removal of the offgas system Heater Coils (1N64-C006A/B).
(Civil/Structural Evaluation)

Summary

- I. No. The partial-depth opening is being installed in the knockout portion of a shield wall. Removal of concrete from this localized area of the wall will have no adverse affect on the structural integrity of the wall. Cutting a maximum of 2 vertical and 2 horizontal reinforcing bars and cutting a maximum of 2 dowels is acceptable per calculations in FC 15:03, Rev. 1. Cutting the rebar and dowels will not impair the integrity of the wall for the imposed loads.
- II. No. Since the structural integrity of the wall is not impaired, the possibility of an accident or malfunction of a different type is not created.
- III. No. This opening in the concrete wall does not affect the margin of safety as defined in the Technical Specifications.

SE No.: 87-0439

Source Document: SP-2150, Rev. 0, Technical Requirements for Procurement of Concrete

Description of Change

Allows the Designer to use Type 1 cement where the heat of hydration is not a concern on a case by case basis in concrete structures.

Summary

- I. No. The approval on a case by case basis by the Designer to use Type I cement where the heat of hydration is not a concern does not affect the design integrity of the concrete structures. Also, the use of Type I cement in nonsafety concrete does not affect the plant as described in the FSAR. Therefore the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased.
- II. No. As stated above, the provision to allow the use of Type I cement does not affect the design integrity of concrete structures. Therefore, a possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR is not created.
- III. No. The Technical Specifications are not involved.

SE No.: 87-0441

Source Document: DCP 86-0641, Rev. 0

Description of Change

Add chemical addition tanks to the Auxiliary Boilers to allow easier phosphate additions and tighter control of boiler chemistry.
(Mechanical-Chemical Evaluation)

Summary

- I. No. The chemical addition system is not apart of the safety evaluation for the auxiliary steam system. The system description does not describe the mechanisms for adding chemicals.
- II. No. The chemical addition system only provides long term preventative maintenance for the boiler and has no immediate impact on the boiler therefore, the safety evaluation is not impacted and there is not a new type of malfunction to be evaluated.
- III. No. The chemical addition system does not impact the Technical Specifications.

SE No.: 87-0440

Source Document: MFI 16-771

Description of Change

Route hose from the shroud catch basin to the equipment sump in the drywell.

Summary

- I. No. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated has not increased, due to the fact that the FSAR Section 5.2.5.4 "Limits for Reactor Coolant Leakage" addresses both identified and unidentified leakage which cannot exceed 30 gpm, of which 25 gpm is identified leakage and 5 gpm is unidentified leakage. Inspection of the valve revealed that the leakage was coming from the body-bonnet area. By identifying this leakage, this leakage now can be classified as "identified" rather than "unidentified". By identifying the leakage, the hose can be routed to the equipment drain sump which is established as the "identified leakage sump" per the FSAR. The identified leakage is not reactor coolant pressure boundary leakage.
- II. No. The possibility of an accident or malfunction of a different type previously evaluated is not increased. The floor drain sump will still be utilized to detect unidentified leakage such as a crack in the primary system piping as described in the FSAR, and the equipment drain sump will still be used to detect equipment/identified leakage as described in the FSAR.
- III. No. The margin of safety as described in the Technical Specifications is not reduced. The limits of 25 gpm identified and 5 gpm unidentified will still be adhered to.

SE No.: 87-0443

Source Document: MFI 1-87-326

Description of Change

Remove main steam valve 1N11-F503A and pressure test point 1N11-R415A, and install a pipe cap on the pipe nipple.

Summary

- I. No. The removal of valve 1N11-F503A and pressure test point 1N11-R415A does not affect the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR.
- II. No. The removal of valve 1N11-F503A and pressure test point 1N11-R415A does not create the possibility for an accident/malfunction of a different type than evaluated previously within the FSAR Section 15.6.4.
- III. No. The removal of valve 1N11-F503A and pressure test point 1N11-R415A does not effect the bases for any Technical Specification.

SE No.: 87-0444

Source Document: LLJED 87-348

Description of Change

Install a jumper to bypass the Reactor Recirculation System B33-F060B minimum valve position limit switch in the recirculation pump start logic. The limit switch is broken and located within the drywell.

Summary

- I. No. Administrative requirements require that the flow control valve be at minimum position prior to installing the jumper. This will force the recirculation system operations to conform to the FSAR.
 1. No. The minimum valve position limit switch closes the recirculation flow control valve to its minimum position upon attempting to switch recirculation pumps from slow to fast speed. This function will be performed remote manually and will be controlled administratively while the jumper is installed. Thus, the function, as described in the FSAR remains the same.
 2. No. Administrative controls will ensure that initial conditions assumed in the FSAR for inadvertent start of an idle recirculation pump will be met.
 3. No. Installation of this jumper does not affect the bases for any Technical Specification.

SE No.: 87-0445

Source Document: DCN 1723, Rev. 0

Description of Change

Delete the Reactor Water Cleanup System startup strainers from the P&ID.

Summary

- I. No. Removal of temporary startup strainers 1G36D031A and B will not affect the pressure integrity of the system. Therefore, this will not increase the probability of an accident as described in Chapter 15 of the FSAR.
- II. No. Removal of the temporary strainers will not affect the pressure boundary of the system. This will enhance reactor water cleanup pump performance.
- III. No. The reactor water cleanup system is not addressed in the bases of the Technical Specifications.

SE No.: 87-0446

Source Document: DCP 87-0273B

Description of Change

Install two 30 foot gates in the plant perimeter security fence (P56) to allow access to the construction area to support construction of the Maintenance Support Facility. (Electrical-Security Evaluation)

Summary

- I. No. The plant security fence not affect safety systems and there is no affect on plant equipment.
- II. No. The integrity of the security fence shall remain the same. No increased probability of an accident is created.
- III. No. The security fence design is not addressed in the Technical Specifications.

SE No.: 87-0448

Source Document: DCP 87-0503, Rev. 0

Description of Change

Add two check valves to the auxiliary steam (P61) line supplying the radwaste evaporators to prevent the back flow of contaminated steam from the evaporators. (Mechanical Evaluation)

Summary

- I. No. The addition of the two check valves has no effect on any safety-related equipment previously evaluated within the FSAR.
- II. No. The addition of the check valves reduces the possibility of an accident by preventing potentially contaminated steam from flowing from the radwaste evaporators back to the auxiliary boilers.
- III. No. This change has no effect on the Technical Specifications.

SE No.: 87-0450

Source Document: NR MMQS-2825, Rev. 0

Description of Change

The internal panel wiring and computer cables in the following Control Room Reactor Protection System (1C71) panels (1H13-P692, -P693 and -P694) did not appear to meet separation criteria. Also wiring for different divisions was in the same panel. This safety evaluation and the associated nonconformance report analyzes these deficiencies for their affect on system operability and plant safety.

Summary

- I. No. The design of the panel wiring conforms to the General Electric Design Criteria. Analysis of RPS circuit compliance with Regulatory Guide 1.75 is contained in GE Design Record File A-00-01511-2 (16). Since the panel wiring meets existing criteria the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased.
- II. No. Design complies with Regulatory Guide 1.75 per GE design record file A-00-01511C-2 (16) therefore there is no possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR.
- III. No. Cable separation is not identified in the Technical Specifications.

SE No.: 87-0451

Source Document: NR MMQS-2828, Rev. 0

Description of Change

Varglass sleeving was improperly installed on some relays and their associated wires in the Control Room Reactor Protection System (1C71) panels (1H13-P692 and -P693). This safety evaluation and the associated nonconformance report analyzes the deviation for its affect on system operability and plant safety.

Summary

See Safety Evaluation 87-0450.

SE No.: 87-0452

Source Document: SCR 1-87-1555
1-87-1556
1-87-1557
1-87-1558
1-87-1559
1-87-1560

Description of Change

These setpoint change requests revise the low power trip and alarm setpoint parameters and high power trip setpoint parameters based on startup test results (SVI-F41-T3003 and T3005).

Summary

- I. No. The low power trips alarm and high power trip setpoints were revised based on startup test results (SVI-F41-T3003 and T3005). This action is in accordance with direction provided by General Electric via its Design Spec. 22A609YAA Rev. 8. The revised setpoints specified in units of first stage turbine pressure (psig) correspond to add the consistent with FSAR analysis and Tech Spec limits (LPSP = 20% Pwr +15%-0% and HPSP = 70%-15%+0% power). The probability of occurrence or the consequences of an accident or malfunction of safety-related equipment previously evaluated in the FSAR is therefore not increased.
- II. No. The scope of the subject setpoint changes is limited to the LPSP and HPSP Rod Block functions and is not associated with any other system function or design. A different type of accident or malfunction not previously evaluated in the FSAR is thus not created.
- III. No. There is not reduction in the margin of safety, since the proposed setpoints (turbine first stage pressure) are consistent with Tech Spec. LPSP and HPSP setpoints (20% and 70% power) in Table 3.3.6-2 Tech Spec changes also not required.

SE No.: 87-0453

Source Document: NR PPDS-2832, Rev. 0

Description of Change

Oil sample from a 55 gallon drum (from which oil was added to the reactor recirculated pump 1B33-C0001B) contained a large amount of water and some sediment in it. This nonconformance report and associated safety evaluation evaluated the affect on the plant and system operability.

Summary

- I. No. Both worse case potential failures (shaft seizure and/or shaft break) have been analyzed per FSAR Figures 15A.6-33 and -34. No increased probability of malfunction is anticipated since the bearing temperatures will be closely monitored at 2 hour intervals to detect any unstable condition. Bearing temperatures are remotely alarmed as well.
- II. No. Oil contamination can not cause any other potential accident effect beyond motor failure described in Item I. above.
- III. No. Recirc pump motor oil quality is not related to Technical Specification safety margin.

SE No.: 87-0454

Source Document: NR NEDN-0863, Rev. 0

Description of Change

After bearing replacement, new belt installation and changing of tension on Offgas System (N64) fan (1N64-B0112D), vibration readings at two locations were still in excess of acceptance criteria.

Summary

- I. No. The high vibration readings at two locations on assembly have been evaluated and determined not to impact operation of unit or system.

Motor base vibration at one isolated point is in the rough range however, this vibration is not transmitted to other points on the assembly. Outer bearing vibration is excessive in the axial direction; however, much of this is due to vibration of the plenum housing.

Since operation of the unit is not adversely affected due to this condition, the parameters upon which the accident analysis in the FSAR was based, have not been affected.

- II. No. The use as is disposition of the nonconformance report does not add anything to the unit or system. Failure analysis related to this unit has therefore not been affected.
- III. No. The operation of this unit is not affected as determined in the NR justification. Therefore, Technical Specifications are not affected.

SE No.: 87-0455

Source Document: DCP 87-0588, Rev. 0

Description of Change

Removal of the damaged edge seal for modulating damper 1M15-F080B to permit acceptable operation of a damper blade. (Mechanical-HVAC Evaluation)

Summary

- I. No. The repair being made to the damper (1M15-F080B) will not affect the function of the system as in the FSAR Section 6.5.3.2.1b (Page 6.5-11&12). The damper in question provides a modulating function, not an isolation function. The isolation function for the system is provided by check dampers. Although the removal of the edge seal will allow minimal bypass leakage, the damper performs its desired function in the partially open to the full open position. Also, in the event of an accident, the damper is required to be full open. In addition, the system was checked for correct operability per Safety Evaluation 87-119 with damper 1M15-F080B in the full open position and damper 1M15-F070B modulating and found satisfactorily.

Based on the fact that the damper function meets original requirements, the parameters upon which the accident analysis in the FSAR was based, have not been affected.

- II. No. Removal of the damaged edge seal will allow the damper to perform its intended modulating function in accordance with FSAR Section 6.5.3.2.3. The FSAR has already evaluated damper 1M15-F030B for the fail open position. Therefore, malfunctions of a different type will not be created.
- III. No. The repair will allow the M15 damper to modulate as designed to maintain the annulus at a negative pressure as described in the Tech Spec (Sec. 3/4.6.6). Therefore, the margin of safety as specified in the Technical Specification has not been reduced.

SE No.: 87-0456

Source Document: LLJED 1-87-353

Description of Change

Lift positive lead(s) and install jumper on Westronics Recorder 1E31-R612 (Leak Detection System), to disable Point #8, in order to temperature monitor Reactor Recirculation valve B33-F061B.

Summary

- I. No. There will not be any adverse change to the operability of valve B33-F067B important to safety not previously evaluated. The monitoring temperature element is a passive monitoring system.
- II. No. The floor drain sump level, a redundant system as defined in the FSAR, eliminates the possibility for an accident or malfunction not previously evaluated.
- III. No. The margin of safety as defined in the Technical Specifications is not reduced by this change.

SE No.: 87-0457

Source Document: OM1A: PAP-1921

Description of Change

Cancellation of PAP-1921, "Fire Barrier Removal and/or Control Room Boundary Penetration Work."

Summary

- I. No. Content of PAP-1921 has been incorporated into PAP-1914, impairment of fire protection systems.
- II. No. There are no potential initiating causes of threats to the fuel and the reactor coolant pressure boundary.
- III. No. Only the administration aspects of the fire protection program are covered in the bases of the Technical Specifications.

SE No.: 87-0458

Source Document: DCP 85-0067, Rev. 0

Description of Change

Add on isolation damper to the oil laboratory fume hood exhaust duct.
(Mechanical-HVAC Evaluation)

Summary

- I. No. The M21 system is nonsafety-related and, therefore, is not included in any accident analysis. Furthermore, because the system functions the same as it did prior to the change, there is no change to any credit that is taken for transient evaluations.
- II. No. Because the system function is not changed, there is no additional possibility for an accident or malfunction.
- III. No. M21 is not addressed in any Technical Specification margin of safety.

SE No.: 87-0459

Source Document: DCP 87-0519, Rev. 0

Description of Change

This design modification changes the design flowrates at individual supply registers within the steam tunnel to provide better air distribution to alleviate a local hot spot in the area of leak detection temperature sensor 1E31-N0604B. (Mechanical-HVAC Evaluation)

Summary

- I. No. This design change revises the design flowrates at individual supply registers in the same area to provide a better air distribution. However the total system flow value is not affected, therefore, the overall system is not affected. Based on the fact that the overall system function has not changed, the parameters upon which the accident analysis in the FSAR was based have not been affected.
- II. No. The design change will provide better supply air distribution with the same amount of air; the change does not affect overall system function. Therefore, malfunctions of a different type will not be created.
- III. No. The Technical Specification addresses maximum temperatures in steam tunnel for main steam line isolation in the event of a steam leak. At this time, 1E31-N0604B is recording a temperature which is much higher than 1E31-N0604A,C&D although they have approximately the same heat source. This indicates poor air distribution such that an average area temperature will be realized without local hot spots, and therefore, the margin of safety as defined in the bases for any Technical Specification is not reduced.

SE No.: 87-0460

Source Document: DCN 1877

Description of Change

Addition of replacement part numbers to the drawing for the High Pressure Core Spray Diesel Generator starting air system valves per General Electric FDDR-KL1-6601, Rev. 0

Summary

- I. No. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the FSAR are not increased by this design change because the replacement valves are identical to the original valves as to fit, form, function, qualification, and interface to plant design.
- II. No. The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created by this design change because the replacement valves are identical to the original valves as stated in Item I. above.
- III. No. The margin of safety as defined in the bases for Tech Spec Section 3/4.8.1 is not reduced by this design change because the replacement valves are identical to the original valves as stated in Item I. above.

SE No.: 87-0461

Source Document: DCN 01913, Rev. 0

Description of Change

Change to Liquid Radwaste System (G50) drawing to show the correct valve tag for G50-F537A.

Summary

- I. No. DCN 1913 updates the drawing with correct valve identification. It does not affect the probability of occurrence or the consequences of an accident or malfunction.
- II. No. This identification correction does not increase the possibility for an accident or malfunction of a different type than previously evaluated.
- III. No. The margin of safety is defined in the bases for any Technical Specification is not reduced by this change to the drawing.

SE No.: 87-0462

Source Document: DCP 87-0595, Rev. 0

Description of Change

Modify Fuel Handling Building Ventilation System (M40) fan shaft bearing pillow block installation for OM40-C002B (FHB exhaust fan) by replacing dovetail pins with stop blocks to ensure bearing housing does not shift. This change was necessary to accommodate a 180° rotation of the bearing pillow blocks.

Summary

- I. No. The installation of stop bars as an alternative to doweled bearing housing onto the base plate conforms to the recommendations in the vendor's manual. The operability of the exhaust fan and system is not changed and therefore this change does not increase the probability of occurrence or the consequences of an accident or malfunction.
- II. No. The installation of stop bars is an acceptable alternative to doweled bearing housing to the baseplate and therefore this change does not increase the possibility for an accident or malfunction of a different type than any evaluated previously.
- III. No. This modification conforms to the vendor's manual recommendations and therefore does not affect the margin of safety as defined in the Technical Specifications.

SE No.: 87-0463

Source Document: OM15A, Rev. 7, TCN-01

Description of Change

Change to the PNPP Emergency Plan (OM15A) to accommodate administrative changes to the Emergency Organization, to correct a QA audit finding associated with identification of radiation monitors, and to provide updates to letters of agreement.

Summary

- I. No. This is an administrative change only and does not affect the status or operability of plant systems or functions. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety is not increased.
- II. No. This administrative change does not increase the possibility for an accident or malfunction of a different type than any previously evaluated.
- III. No. This administrative change does not affect the margin of safety as defined in the bases for any Technical Specification.

SE No.: 87-0466

Source Document: DCP 87-0332, Rev. 0

Description of Change

Install sample connections on offgas sampling panel (D17-J034) for detection of helium during condenser leak checks.

Summary

- I. No. The addition of sample connections does not affect the performance of the offgas sampling system and it provides an expedient way of determining air in-leakage to the condenser. It does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated.
- II. No. Design and installation parameters for this change were the same as those for the original panel. The possibility for an accident or malfunction of a different type than previously evaluated has therefore not been increased.
- III. No. This change does not affect any margin of safety defined in the bases of the Technical Specifications since the addition of the sample connections do not alter the system function or reliability.

SE No.: 87-0467

Source Document: MFI 1-87-368

Description of Change

Modify the Safety-Related Instrument Air (P57) system by removing the internals from check valves 1P57-F509A/B, and 1P57-512A/B.

Summary

- I. No. P57 has been re-designed as a low pressure system. Consequently, two additional air receivers, 1P57-A003A/B have been added to hold sufficient air volume. The size of these receivers is sufficient to meet design requirements for system air volume.

While a high pressure system, the nonsafety and safety portions of the system were separated by 1P57-F512A/B. As a low pressure system, the boundary is moved to 1P57-F555A/B and the former high pressure receivers 1P57-A001A/B and A002A/B are no longer required to store system pressure. Thus F509A/B and F512A/B are not needed and the removal of their internals has no impact on operability of the P57 system and therefore does not increase the probability of occurrence or the consequences of an accident.

- II. No. The new low pressure system with air receiver tanks A003A/B is sufficient for ADS operation. The only change in system operation resulting from this action is that the compressor duty should be reduced (i.e., fewer starts and stops with longer run times). This should improve compressor reliability. Thus, the possibility for an accident or malfunction of a different type than previously evaluated is not increased.

- III. No. The margin of safety as defined in the bases of the Technical Specifications has not been reduced for the reasons cited above.

SE No.: 87-0468

Source Document: TXI-043

Description of Change

TXI to permit operation of 1M14 in drywell purge mode with one supply, one exhaust and one purge fan during Conditions 4 or 5.

Summary

- I. No. This TXI does not affect the 1M14 containment isolation valves and therefore the safety-related portion of the 1M14 system is not affected. Operation of the 1M14 system in a partial purge mode does not increase the probability of occurrence or the consequence of an accident or malfunction of equipment important to safety previously evaluated in the FSAR.
- II. No. Operation of the 1M14 System in a partial purge mode does not increase the possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR.
- III. No. The 1M14 purge mode of operation is not addressed by the Technical Specifications, therefore is not reduced.

SE No.: 87-0470

Source Document: FSAR CR 87-074

Description of Change

Change the FSAR to delete the requirement to perform an inplace DOP (dioctyl phthalate) test for the HEPA filter banks located downstream of the charcoal adsorber bed in the non-ESF exhaust plenum.

Summary

- I. No. This change does not affect system operation or function. The downstream HEPA filter banks are used as roughing filters to trap carbon fines given off by the charcoal bed upon initial loading and are not necessary to perform the system function of filtering contaminated particles at a 99.95% efficiency. The upstream HEPA filters perform this function. Therefore, the probability of occurrence or the consequences of an accident or malfunction at equipment important to safety is not increased.
- II. No. Deleting the requirements of inplace DOP testing for the downstream HEPA filters does not impact the ability of the exhaust plenums to perform their intended design function. In addition, there are no hardware changes and thus there is no increase in the possibility of an accident or malfunction of a different type than previously evaluated.
- III. No. There is no change to the plant as described in the bases of the Technical Specifications and therefore, the margins of safety are not affected.

SE No.: 87-0471

Source Document: DCN-01934, Rev. 0

Description of Change

Change to valve tagging and drawing cross-references on piping isometrics (P51 - Service Air). Also, revision to "road-mapping" of branch lines to Auxiliary Boilers on P&ID's (P61 - Auxiliary Steam System).

Summary

- I. No. This is an editorial change. The functions of both P51 and P61 remain the same. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety is not increased.
- II. No. There is no change to either system, therefore, the possibility for an accident or malfunction of a different type than previously evaluated is not increased.
- III. No. The Technical Specification bases do not address and are not affected by the P51 or P61 systems and therefore, margins of safety are not reduced by these editorial changes.

SE No.: 87-0472

Source Document: FDDR-KLI-5282 Rev. 0 and Rev. 1./MRN #5 to File #16-G.

Description of Change

Change to allow operation of the OffGas Vault Refrigeration System (N64A) in the range 0-40°F vs. 0°F.

Summary

- I. No. There is no increase in the probability of occurrence or the consequences of any accident previously evaluated in the FSAR for the offgas system, since the accidents associated with offgas are not dependent on or related to operating temperature of the charcoal adsorber vaults.
- II. No. There is no increase in the possibility for an accident or malfunction of a different type than previously evaluated in the FSAR. The probability of a malfunction of the charcoal adsorber vault refrigeration system will actually be decreased by allowing elevated operating temperatures. These temperatures (0-40°F) are sufficient to assure proper operation of the charcoal adsorbers and to prevent inadvertent ignition of the charcoal.
- III. No. There is no decrease in the margin of safety as defined in the bases for any Technical Specification and gaseous effluent limits specified in Technical Specification 3.11.2.2 will not be exceeded within this new operating temperature range.

SE No.: 87-0473

Source Document: DCP-870560, Rev. 0

Description of Change

Modify the Service Air System (P51) supply to the Condensate Demineralizer System (N24) to prevent backleakage of water from N24 to P51. This will be accomplished by adding two additional isolation valves and an intermediate tell-tale drain.

Summary

- I. No. There are no accidents or malfunctions of equipment important to safety for P51 or N24 described in the FSAR and therefore, no increase in these probabilities or consequences of accidents resulting from these changes.
- II. No. This change simply enables these two systems to remain isolated from each other when required as originally designed and thus does not increase the possibility for an accident or malfunction of a different type than any previously evaluated.
- III. No. Technical Specification bases do not address P51 or N24 and therefore, the margins of safety as defined in the bases for the Technical Specifications are not affected.

SE No.: 87-0475

Source Document: MFI #1-87-374

Description of Change

Remove ASME Instrument Valves from Main Steam (N11) system. These valves are experiencing fracture and resulting in steam leaks. Valves 1N11-F503A, B and C were removed and replaced with pipe caps.

Summary

- I. No. The removal of these valves and deletion of their respective pressure test points does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR.
- II. No. The removal of these valves does not create the possibility for an accident or malfunction of a different type than previously evaluated.
- III. No. The removal of 1N11-F503A, B & C does not affect the basis of any Technical Specification and therefore, does not reduce the margin of safety as defined in the bases of the Technical Specifications.

SE No.: 87-0474

Source Document: TDI Owners Group Design Review/Quality Revalidation
(DR/QR) Report, Appendix II "Generic Maintenance Matrix"

Description of Change

Revise vendor manual.

Summary

- I. No. The changes to the DR/QR "Generic Maintenance Matrix" have no effect on the probability of occurrence of an accident as evaluated in Chapter 15 of the FSAR, as these changes are limited to the standby diesel generators which cannot cause a design basis accident.

The consequences of an accident as evaluated previously in the FSAR are not affected by these changes since equipment reliability is maintained. These changes implement no physical design changes which reduce equipment redundancy or compromise system independence. Hence the plant's ability to mitigate the consequences of an accident evaluated previously would remain unchanged with respect to these changes.

The consequences of a malfunction of equipment important to safety are unchanged with respect to these changes, since they maintain the reliability of the standby diesel generators. These changes maintain the existing plant design and implement no physical design changes which might reduce redundancy or compromise system independence. These changes would have no effect on the plant's response as evaluated previously.

- II. No. No possibility for an accident is created by this change, as these changes are limited in scope to the standby diesel generators, which by themselves cannot cause a design basis accident.

No possibility for a malfunction of equipment of a different type than previously evaluated is created by these changes, as they implement no physical design change which could reduce component reliability or redundancy, or compromise system independence. These changes maintain equipment reliability to the level which was evaluated previously in the FSAR.

- III. No. The margin of safety as defined in the bases to Technical Specification Section 3/4.8 relates to the redundancy of the Division 1 and 2 diesel generators. Since these changes maintain the reliability and redundancy of the Division 1 and 2 diesel generators, the margin of safety as defined in bases for the applicable Technical Specifications is not affected.

SE No.: 87-0476

Source Document: DCP 86-0616, Rev. 0

Description of Change

Modify the Condensate Storage Tank (P11) dike area drain to discharge to the Liquid Radwaste System (G50) through the Floor Drain System (P68). The CST dike area was discharging to the storm sewer.

Summary

- I. No. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety is not increased. The scope of DCP 86-0616 simply reroutes the present Condensate Storage Tank (CST) retaining basin drain line from the storm sewer system to liquid radwaste and does not involve equipment important to safety. This design change is necessary since "representative" samples of CST overflow water collected in the basin cannot be obtained for analysis. Therefore, drainage to the storm sewer system as described in FSAR section 9.2.6.3 cannot be permitted. Furthermore, the design change will bring the Condensate Storage System into compliance with Standard Review Plan 9.2.6, Section III, 3.e and Regulatory Guide 1.143, Section C.1.2 which state that CST overflow shall be connected to the radwaste system.
- II. No. The possibility for an accident or malfunction of a different type than previously evaluated in the FSAR has not been created by this DCP. Any potential CST overflow or rupture will be contained by the dike as presently designed. The basin drain line isolation valve 1P11-F531 shall remain "normally closed" which at periodic times will be opened for drainage to radwaste. This will ensure, by design, that CST overflows are processed and then released by way of the discharge tunnel entrance structure as stated in FSAR Section 11.2.3.3.
- III. No. This design change does not reduce any margin of safety as defined in the bases for Technical Specifications. CST overflow or rupture will remain contained and then routed to radwaste for processing.

SE No.: 87-0477

Source Document: DCP 87-0657, Rev. 0

Description of Change

Replace APRM flow cards with G.E. modified cards. Existing recirculation flow loop in the Neutron Monitoring System (CS1), exhibits oscillations in the flow output that affects the steady operation of the system and could lead to a scram when operating in the MEOD regions.

Summary

- I. No. The output from the APRM's Lupplies trip signals to the RPS. This modification will simply eliminate spurious trips by providing a more stable and thus, more accurate response. There is no increase in the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR.
- II. No. This change in flow cards does not change the operation or function of the APRM's and thus, there is no increase in the possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR.
- III. No. This modification does not affect any setpoints in the Technical Specifications and does not reduce the margins as defined in the bases for any Technical Specifications.

SE No.: 87-0478

Source Document: DCN 01929, Rev. 0; P&ID 302-212, Rev. R, C-12

Description of Change

Correct drafting error showing flow observation glass P61-D501A/B downstream of heat exchanger P61-B004A/B rather than upstream. The as-built configuration, as well as the design intent provides for the observation glass to be upstream.

Summary

- I. No. This correction of a drafting error does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR.
- II. No. Since neither the design intent nor the as-built configuration changed, the possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR has not changed.
- III. No. The service water system and the auxiliary steam system are not addressed in Technical Specifications, therefore, the margins of safety as defined in the bases for any Technical Specification are not affected.

SE No.: 87-0479

Source Document: FSAR CR 87-148

Description of Change

Change to FSAR Section 9.2.7.3 to note that valve OP41-F040D (Service Water System P41) exists and will be powered by Unit 2 diesel generator, when it becomes operable, during a LOOP.

Summary

- I. No. This is not a change to the plant. It is simply a documentation of what presently exists. Therefore, the probability of occurrence or the consequences of an accident or malfunction of equipment is not increased.
- II. No. The possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR is not increased because there is no change to the design of the plant.
- III. No. The margins of safety as defined in the Technical Specifications are not affected by this FSAR change.

SE No.: 87-0480

Source Document: MFI-1-87-375

Description of Change

Change to the Feedwater System (N27) leak collection apparatus for 1N27-F559B to allow leakage to be routed to the equipment drain sump in the drywell to allow this leakage to be classified as identified leakage.

Summary

- I. No. This change will better enable the operators to determine when new unidentified leakage occurs by removing this known component from the sum of unidentified leakage. No change has been made to the function or operation of the feedwater system and thus, there is no increase in the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR.
- II. No. Since this leakage will be collected and measured and contribute to the Total Identified Leakage which is controlled by Technical Specifications, there is no increase in the possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR.
- III. No. The collected leakage contributes to Total Identified Leakage which is controlled by Technical Specifications. There is no decrease in the margin of safety as defined in the bases for any Technical Specification.

SE No.: 87-0481

Source Document: DCP 87-0612, Rev. 0

Description of Change

Upgrade P54C003 Fire Jockey Pump. When this is not in service, permanent pumps would cycle more frequently than advisable, causing an increased possibility of pump impairments. By upgrading the jockey pump as recommended by UFNDOR, service life should be extended, reducing exposure of P54 protection to impairments.

Summary

- I. No. Upgrade of pump will increase reliability of fire protection system by increasing capacity of jockey pump. This will reduce potential for unavailability of jockey pump.
- II. No. There are no potential initiating causes of threats to the fuel and the reactor coolant pressure boundary.
- III. No. Only administrative aspects of fire protection are covered in Technical Specification.

SE No.: 87-0482

Source Document: SXI-0016, Rev. 0

Description of Change

Isolate steam flow to the RCIC (E51) turbine using the Inboard Steam Supply Isolation Valve, 1E51-F063.

Summary

- I. No. Closing valve 1E51-F063 against steam flow does not exceed the valve's specified design function.
- II. No. The 1E51-F063 valve is designed to automatically isolate the RCIC steam supply line when a leak is detected. Closing the valve manually is not a different type of isolation.
- III. No. The RCIC system is considered inoperable while testing is in progress.

SE No.: 87-0483

Source Document: SOI-P47, Rev. 3

Description of Change

Operate the Control Complex Chilled Water System (CCCW, P47) discharge temperature control valves as manual flow control valves instead of automatic temperature control valves.

Summary

- I. No. With all considerations given to present design and this modification to the SOI, the probability of occurrence or the consequences of an accident or malfunction of equipment has been greatly reduced. The P47 CCCW System had failed to start during recent LOOP/LOCA testing. This TCN will satisfy the permissive circuit permitting an auto start of the CCCW system following a LOOP or LOCA. Per Section 7.3.1.1.6c of the FSAR, the purpose of this valve is to restrict cooling water flow when Emergency Closed Cooling Water System cooling water temperatures fall below 55°F. A design change has been performed on the Emergency Closed Cooling System to prevent the cooling water temperature from falling below 55°F.
- II. No. There is no possibility of an accident of a different type than previously evaluated. By placing the controller in a manual position, it eliminates the possibility of a malfunction of the auto controller, thereby enhancing reliability.
- III. No. The margin of safety as defined in the Technical Specification is not reduced. The CCCW system is not covered by Technical Specification, but is required to support Control Room habitability. This change increases the reliability to support this function.

SE No.: 87-0485

Source Document: SCN 00094-ISS-2400

Description of Change

Welding procedures and welder qualifications per ASME IX may be substituted for American Welding Society (AWS) D10.9, AR-3 level qualifications to perform National Fire Protection Association (NFPA) welding work. This change is made to establish uniformity of welding procedures/welder qualifications between safety and nonsafety-related work.

Summary

- I. No. Welding procedure/welding qualifications of ASME IX meet those of AWS D10.9, AR-3 level.
- II. No. See Item I. above.
- III. No. See Item I. above.

SE No.: 87-0486

Source Document: DCN 1949

Description of Change

Revised input point numbers for recorder 1N31R001 on system diagram drawings. Added additional reference drawing in notes referring to other inputs for recorder 1N31R001 on elementary diagram drawings.

Summary

- I. No. This DCN updates the drawings to reflect previously incorporated changes and added drawing references. No change to the operating plant is involved.
- II. No. The items under evaluation do not change the basic operating system function nor create failure modes not already addressed in Chapters 7, 9, 10 and 15.
- III. No. The items under evaluation are not addressed in the Technical Specification and no margins of safety as defined are reduced.

SE No.: 87-0487

Source Document: MFI 1-87-387

Description of Change

Provide the first and second stage reheater drain tanks with input signals that switch the normal and alternate drains to heater 6B.

Summary

- I. No. By controlling the first and second stage reheater drain tank water levels with the alternate drain valve, level will be maintained at the same or lower than normal elevation which does not increase the accident or malfunction probability previously evaluated in the FSAR.
- II. No. The accident or malfunction is previously evaluated in FSAR Section 15.2.3.
- III. No. This MFI does not affect the margin of safety for any Technical Specification.

SE No.: 87-0488

Source Document: DCP 86-0725, Rev. 4

Description of Change

Change to Drawing 302-745 to change the line specification.

Summary

- I. No. The piping being installed is compatible with the original design for corrosion protection.
- II. No. Since the design is comparable, no different accident types are possible.
- III. No. The change in piping specification does not affect liquid or solid effluents.

SE No.: 87-0489

Source Document: MFI 1-87-389

Description of Change

Connect 6A normal level controller to alternate drain valve to control 6A heater level in its normal control band, while discharging to the condenser.

Summary

- I. No. By controlling the 6A heater level with the alternate drain valve, level will be maintained at the same or lower than
- II. No. The accident or malfunction is previously evaluated in FSAR Section 15.2.3.
- III. No. This MFI does not affect the margin of safety for any Technical Specifications.

SE No.: 87-0494

Source Document: ONI-R10, Rev. 1

Description of Change

Bypassing of Leak Detection System (E31) inputs to RCIC Isolation Logic with switches 1E31-S2A and 1E31-S2B.

Summary

- I. No. Bypassing the Leak Detection (E31) system signal to the RCIC isolation logic does not inhibit an isolation, because the RCIC system steam line isolation valves are powered from Divisional AC busses: 1E51-F063 is from EF1D07-XN, 1E51-F064 is from EF1A07-U, and 1E51-F076 is from EF1C07-G; and, since all AC busses are assumed to be de-energized when ONI-R10 is entered, therefore there is no power available to close any of the RCIC steam line isolation valves. However, it does prevent the RCIC turbine trip that would occur due to RCIC isolation logic initiation caused by E31 system actuation on either RCIC Room temperature/delta-temperature or Steam Tunnel temperature/delta-temperature.

During a Station Blackout, there is no power available to the Emergency Closed Cooling System (ECC), Emergency Service Water (ESW), or ECC Pump Room Cooling (M39) systems which are necessary to provide RCIC Room cooling, and there is no power available to the Steam Tunnel Cooling (M47) system to provide Steam Tunnel Cooling. Therefore, high temperature/delta-temperature indications are not indicative of a leak, but are caused by the lack

SE No.: 87-0494 (Continued)

Summary (Continued)

of cooling to the monitored areas; however, the RCIC isolations that would still be indicative of a leak, high steam flow and low steam pressure, are not bypassed during this evolution.

The probability of an accident or consequences of an accident or malfunction of equipment important to safety and previously evaluated in the FSAR are not increased because the E31 signals being bypassed are not valid indicators of a RCIC steam line break during the accident for which this ONI is written and the signals which would still provide a valid indication of a RCIC steam line break are not bypassed.

- II. No. As explained above, although the accident considered by the ONI is already beyond the bounds of the FSAR analyses, the bypassing of the E31 inputs the RCIC isolation logic does not add to the possibility for an accident of a different type than previously evaluated in the FSAR, because the signals being bypassed are not valid indicators of a steam line break when there is no RCIC Room or Steam Tunnel Cooling available.
- III. No. In the Technical Specification bases for isolation actuation instrumentation, "it is assumed that the AC power supply is lost and is restored by startup of the emergency diesel generators." ONI-R10 is written to mitigate the consequences of an accident in which AC power is lost and is not restored automatically by the diesel generators. In the case assumed by the Technical Specifications, RCIC Room cooling would be available, and therefore, the bypassing of that isolation signal would not be necessary. However, in the case under consideration, neither RCIC Room cooling nor Steam Tunnel cooling is available, therefore it is necessary to bypass both of these signals to ensure the availability of RCIC to provide adequate core cooling. Therefore, the margin of safety as defined in the bases for Technical Specifications is not reduced.

SE No.: 87-0495

Source Document: DCP 87-0689, Rev. 0
DCP 87-0724, Rev. 0

Description of Change

Modify Division 2 Standby Diesel Generator Control System to replace pneumatic logic pressure switches with electromechanical relay contacts. The intent of this change is to enhance Division 2 Diesel Generator Control System reliability by minimizing the number of "active" components during engine starts while maintaining the redundancy and function of the original design.

Summary

- I. No. The probability of occurrence of an accident previously evaluated in the FSAR is unchanged with respect to this design change as this change is limited in scope to the Division 2 Standby Diesel Generator Control System which by itself cannot cause a design basis accident.

The probability of occurrence of a malfunction of equipment important to safety is reduced by this design change. The scope of this change further minimizes the number of active pneumatic components in the Division 2 Diesel Generator Control System. Pressure switches and a pneumatic shuttle valve are no longer required to function, except to maintain their pressure boundary, as the result of this change. The added relays maintain the same redundancy and function of the original design with fewer active parts, thus enhancing reliability. The replacement time delay relays are a similar design to the original relays. The change of time delay setpoint from 5 seconds to 15 seconds enhances control system function, combined with the addition of redundant run relay contacts in place of pressure switch 1R43N062B (PS10B). This part of the change ensures the engine's speed is reset to its preset "setpoint" in the event of receipt of a bus undervoltage or "LOCA" signal, while the engine is running and loaded on the grid. This function further ensures the Division 2 Diesel Generator will perform its intended designed function.

A potential problem, however does exist in the governor control circuit, wherein the actuation of the manual governor raise/lower switch concurrent with the first 15 seconds after receipt of a LOCA signal during operation of the diesel generator for testing, could result in a failure of that diesel's electric governor's motor operated potentiometer. This change allows the governor speed reset to occur in the event of either a LOOP or LOCA signal versus the existing design which allows reset only in the event of a LOCA.

SE No.: 87-0495 (Continued)

Summary (Continued)

Although the probability of this malfunctions occurrence is very small, DCP 87-724 has been initiated to eliminate all possibility of its occurrence. Therefore, DCP 87-689 and DCP 87-724 will be implemented concurrently. The Safety Evaluation for DCP 87-724 may be referenced for further discussion of the Governor Control Modification.

The time delay relay setpoint change will also allow the Division 2 diesel to crank for up to 15 seconds, upon receipt of any start signal until 200 rpm is attained. The operator is given the ability to interrupt cranking of the engine with the addition of "STOP" relay contacts. Thus, in the event of a malfunction during cranking, the operator has the ability to interrupt cranking and correct the malfunction before all starting air is consumed. This setpoint change 15 second cranking has no effect on the Division 2 "Automatic" start circuit with an emergency start signal as the engine would attempt to crank until speed is maintained above 200 rpm or starting air pressure is reduced to 150 psig. The "5-start" capability of the Division 2 Diesel Generator is not compromised by this change.

Hence the redundancy function, installation, and performance of this new design is equal to or better than the original design and the probability of a malfunction of equipment is thus unchanged or reduced.

The consequences of an accident previously evaluated in the FSAR are unchanged with respect to this design change since the redundancy, function, and performance of the original design is maintained by this change. The Division 2 diesel generator's response to an accident is unchanged and hence the consequences of an accident are unchanged.

The consequences of a malfunction of equipment previously evaluated are unchanged or are mitigated as the result of this design change. The original redundancy, function, and performance of the Division 2 Diesel Generator Control System has been maintained by this change as demonstrated above. The redundancy of the Division 1 and 2 Diesel Generators with respect to each other is not affected by this change as no physical interconnections are added. The reliance on the engine pneumatic control system for the Division 2 Diesel Generator to flash the generator's field. Upon startup and to switch from synchronous to isochronous and reset engine speed upon receipt of an undervoltage or LOCA signal, has been completely eliminated and converted to electric control. Thus, in the event of a Division 2 Diesel Generator pneumatic control system malfunction,

SE No.: 87-0495 (Continued)

Summary (Continued)

the generators response to a start, bus undervoltage, or LOCA signal would not be affected. Hence in the event of an equipment malfunction previously evaluated, the Division 2 Diesel Generator's Control System response would be unchanged.

- II. No. No new possibility for an accident is created by this change as it is limited in scope to the Diesel Generator Control System, which by itself cannot cause a design basis accident.

No new possibility for a malfunction of equipment of a different type than evaluated previously is introduced by this change since the design/manufacture of the added relays is identical to existing relays which are installed as safety-related in the Division 2 DG Control System. The physical installation of these relays and their associated wiring is being done in a similar manner to the original installation. This change is implemented under the equipment qualification requirement of the original design. Hence this new design conforms to the original design codes/standards and thus creates no new potential for malfunctions not previously evaluated.

- III. No. The Division 2 Diesel Generator's ability to meet Technical Specification requirements is not affected by this design change. Hence, the margin of safety as defined in the bases for any Technical Specification is unchanged with respect to this change.

SE No.: 87-0496

Source Document: DCP 87-0428A, Rev. 0

Description of Change

Add new circuits which utilize containment penetration 1R72-S029.

Summary

- I. No. This DCP is being generated to add new circuits which will utilize spare #2 AWG conductors located in containment penetration 1R72-S029. These new circuits and the associated penetration conductors are being designed to be protected by two series sets of 90 amp, U/L Class J fuses.

FSAR Q&R 430.81 presently only addresses the use of U/L K5 or RK5/0 fuses for protection of penetration conductors from short circuit conditions. Engineering review has also determined that other circuits presently built and energized which utilize other penetration(s) conductors of various sizes are currently protected by U/L J fuses.

Engineering analysis (by calculation and/or vendor fuse curve review) has determined that U/L Class J fuses provide equal or superior protection of the penetration conductors during short circuit conditions. Therefore, containment integrity will not be jeopardized by the use of U/L Class J fuses.

- II. No. See Item I. above.
- III. No. This design change does not affect Technical Specification Section 3.8.4.1 or 4.8.4.1.

SE No.: 87-0497

Source Document: FSAR CR 87-047

Description of Change

Change FSAR Sections 3.9.1.2 and 3.9.3.2 to permit utilization of valves manufactured by other approved vendors or qualified by other acceptable methods than presently identified in the FSAR.

Summary

- I. No. This FSAR change does not alter current system designs or the criteria by which those designs were developed.

This change deletes unnecessary reference to specific valve manufacturers and the method(s) used to qualify their designs.

FSAR Section 3.2 adequately addresses required design criteria. Paragraph 3.9.3.2.4.2 addresses acceptable qualification methods.

Neither Section 3.2 nor Paragraph 3.9.3.2.4.2 are changed by this request.

- II. No. The possibility for an accident or malfunction of a different type is not created since system designs are unaffected, as shown in Item I. above.

- III. No. This change does not alter any margin of safety provided by the current design.

SE No.: 87-0498

Source Document: FSAR CR 87-060

Description of Change

Change FSAR Sections 3.10 and 3.11 to reflect changes in the purpose and contents of the Equipment List, of the Auditable File, changes from the construction phase to the operations phase and delete various tables and figures in Section 3.11.

Summary

- I. No. No qualification data for equipment in the plant is being changed.

- II. No. No bases for qualification of equipment in the plant is has been changed.

- III. No. No bases for qualification of plant equipment is changed.

SE No.: 87-0499

Source Document: DCP 86-0680, Rev. 1

Description of Change

Modify the Two-Bed Demineralizer (P21) distribution anion and cation mixing tees.

Summary

- I. No. P21 water does not impact equipment important to safety and does not impact the plant such as to cause a design basis accident.
- II. No. P21's impact on the plant has not changed, since the change ensures the mixing performs its required function while minimizing corrosion.
- III. No. The margin of safety as defined in the bases for any Technical Specification is not impacted or reduced.

SE No.: 87-0500

Source Document: DCP 87-0291, Rev.0

Description of Change

Modify the feedwater booster pump trip logic so that a power failure to the control logic will not trip the pumps. (I&C Electrical Evaluation)

Summary

- I. No. The probability of occurrence of the loss of feedwater event has been decreased since a loss of control power will no longer trip all of the feedwater booster pumps.
- II. No. A new type of accident or malfunction has not been created that would threaten the fuel or the reactor coolant pressure boundary.
- III. No. The feedwater booster pump trip logic is not described in the Technical Specifications.

SE No.: 87-0501

Source Document: DCP 87-0433, Rev. 0

Description of Change

Installation of tube plugs and stabilizing bars within the Fuel Pool Cooling and Cleanup System (FPCC-G41) heat exchangers OG41-B001A and B. (Mechanical Evaluation)

Summary

- I. No. Probability of occurrence of accidents as stated in Chapter 15 of the FSAR are not increased by the plugging of heat exchanger tubes in the OG41 system. The exchanger plugging cannot cause a fuel handling accident to occur.

Plugging the OG41 heat exchanger tubes (which is considered a normal maintenance activity) will not increase probability of the malfunction of equipment. The only effect is on the performance of the heat exchanger; the heat transfer capabilities are not significantly decreased. With a slight decrease in capability (plugging of less than 3.5% of the tubes in each heat exchanger), calculations performed indicate that the "maximum normal conditions" (Reference FSAR 9.1.3.1.1) of 127°F for the pool water may increase approximately 2°F. The calculations assume two pumps and two exchangers are operating and each heat exchanger is fouled approximately 50% (heat transfer rate of 247). Temperature limit of 127°F was set to establish a minimum acceptable environment for personnel working in the vicinity of the fuel pools.

In the event of an OG41 pump malfunction the fuel pool temperature remains below 150°F.

Modification to equipment (plugging less than 3.5% of the tubes) used for normal operating conditions of the spent fuel pool system does not have an effect on radioactive releases or fuel cladding failure.

Failure of the equipment has been previously addressed in Chapter 9.1.3 of the FSAR. The spent fuel pool cooling system is supplemented by the RHR system to maintain the equipment below 150°F. The slight reduction of the conservative heat transfer removal rate will not increase usage of the RHR system, but will slightly reduce the conservative heat removal capabilities during normal operating conditions of the FPCC system.

- II. No. Plugging heat exchanger tubes is in no way creating a new category of disturbance that are considered as potential initiating causes of threats to the fuel and the reactor coolant pressure boundary.

SE No.: 87-0501 (Continued)

Summary (Continued)

III. No. Plugging of 3.5% of the fuel pool heat exchanger tubes does not effect the ability to maintain suppression pool makeup system below 100°F (Reference Technical Specification 4.6.3.4), during Operational Conditions 1, 2, and 3. Maximum "abnormal" heat load (Mode 5) will be during a full core off-load which fill the fuel handling pools (4,020 bundles) and stores 130 bundles in the containment pool. Included with this off-load is the decay heat of 3,402 bundles discharged over an eight year period. With both FPCC system pumps and heat exchangers operational, and the RHR system used to supplement the G41 system, water temperature will be maintained below 106°F. There is no Technical Specifications limit on upper pool temperature during Mode 4 or 5, therefore this Design Change does not affect change Technical Specifications.

SE No.: 87-0504

Source Document: DCP 87-0052A, Rev. 0

Description of Change

Installation of the tie in piping and root valves for the feedwater (1N27) zinc injection bypass line. (Mechanical Evaluation)

Summary

- I. No. The modification described in this DCP affects the nonsafety portion of the feedwater system. This has no direct or indirect impact on any safety-related systems. FSAR Table 10.4-2 accounts for a feedwater pipe break and analyses in Section 15A.6.5.3d describes the consequences and operator action. The installation of these root valves 1N27F797 and 1N27F798 does not increase the likelihood of a pipe break or the resultant consequences. Even if a break before the valve did occur, flow from the break would be so small so as to allow the operator sufficient time to isolate the break. Ensuing actions would remain as described in FSAR Section 15A.6.5.3d.
- II. No. The addition of these root valves does not pose any new accident potential that was not already posed for feedwater pump warmup lines or vent valves. A worst case scenario involving a break before the root valve would be considered a small line break LOCA outside containment. This scenario is evaluated in Section 15A.6.5.3d and Section 15.6.6 of the FSAR. The worst case described (i.e., break before the root valve) falls within the scope of these analyses. Also, each valve will be fitted with a threaded pipe cap tacked in place until the remaining portion of the zinc injection bypass line is installed. This action will avert any type of event (except a line break) that may result in potential flooding or spillage into the space.
- III. No. The Technical Specifications do not address the feedwater system.

SE No.: 87-0505

Source Document: FSAR Question and Response 620.05

Description of Change

Part of the response to FSAR Question and Response (Q&R) 620.05 indicated that the safety parameter display system (SPDS) would be completely implemented within 30 days after completion of the Warranty Run. The response assumed that the 100% power Warranty Run would be performed after completion of all test conditions. With the Warranty Run now being performed in Test Condition 6 this administrative change now indicates that the SPDS would be fully implemented within 30 days after completion of the startup test program as originally planned.

Summary

- I. No. The change is administrative in nature. Per Safety Evaluation 87-0492, the Warranty Run was rescheduled from after Test Condition 8 to Test Condition 6. FSAR Q&R 620.05 requested a schedule for full implementation of the SPDS. The provided response assumed that the 100% Warranty Run would be performed after completion of all Test Conditions. The SPDS displays are to be verified to properly respond to the plant conditions that exist during the different phases of the testing program.

Since the Warranty Run was performed prior to Test Condition 7 and 8, the SPDS has not yet been verified to properly respond to all Test Conditions. This will be completed prior to completion of the Startup Test Program.

Q&R Response Paragraph 3, which required the SPDS to be fully implemented within 30 days of the completion of the Startup Test Program will still be satisfied.

This change deletes "... the 100% power warranty run..." from Q&R 620.05 response paragraph (2) and replaces it with "the Startup Test Program." This change is Administrative in nature and satisfies the intent of the original Q&R. Therefore, the probability of occurrence or consequences of an accident previously evaluated in the FSAR are not increased.

- II. No. The SPDS will be updated before the completion of the Startup Test Program as originally intended. Consequently, this change does not create the possibility for an accident or malfunction of a different type than previously evaluated in the FSAR.
- III. No. This change does not reduce the margin of safety as defined in the bases of any Technical Specification limits.

SE No.: 87-0506

Source Document: DCN 1924

Description of Change

Revise Drawing SS-304-072-109, Sheets 1 and 2, Feedwater System (N27) to correct a drafting error of a pipe elevation, and correct the multiple parts list equipment tag number to agree with the plant as-built condition.

Summary

- I. No. This drawing change revises the drawing to correct drafting error of pipe elevation and equipment tag only, it does not increase the probability of an accident or malfunction of equipment important of safety.
- II. No. The possibility of a different type of accident/malfunction is not created by this change.
- III. No. The margin of safety as defined in the bases for any Technical Specification is not reduced by this change as it revises the drawing to correct drafting error and equipment tag number.

SE No.: 87-0507

Source Document: DCP 87-666, Rev. 0

Description of Change

Installation of Leak Detection (1E31) System bypass switch indicator lights for switches 1E31-S1A and B; S2A and B; and S4A and B to indicate when the corresponding logic and relays are in their normal operating state. (I&C Electrical Evaluation)

Summary

- I. No. The neon lamps are used for indication of circuit operation while running a functional surveillance test instruction at no time will the lamps affect the isolation relays operation. Therefore, the probability of an accident or malfunction of equipment will not be increased.
- II. No. Since the lamps will not change system operation no new types of accidents or malfunctions are created.
- III. No. The addition of the indicator lamps do not affect Technical Specifications.

SE No.: 87-0510

Source Document: DCP 87-0724, Rev. 0

Description of Change

This design change adds an electromechanical relay into the Division 2 Diesel Generator governor control circuit. This added relay combined with additional contacts of existing relays will change the operation of the manual governor control switches such that they are made inactive during standby conditions and when the governor speed reset is actuating. (Mechanical Evaluation)

Summary

- I. No. The probability of occurrence of an accident previously evaluated in the FSAR is unchanged with respect to this design change as this change is limited in scope to the Division 2 Standby Diesel Generator control system which by itself cannot cause a design basis accident.

The probability of occurrence of a malfunction of equipment important to safety is reduced by this design change. The resulting function of the Division 2 Diesel Generator (DG) governor control circuit eliminates the potential of inadvertent mispositioning of the governor's preset position while the engine is in standby condition. This change also prevents failure of the governor's motor operated potentiometer during speed reset from (simultaneous) dual actuation by the reset circuit and the manual control switches.

The relay added by this change meets or exceeds the environmental equipment qualification requirements for the original design as evidenced by the acceptable equipment qualification evaluation for this DCP. The installation of this relay meets or exceeds the seismic qualification requirements for the original design for the same reason. The remainder of this design change (i.e., wiring, separation requirements, etc.) is similar to the existing design. Hence the installation of this design change is equal to the original design, and the function and performance of this design is equal to or better than the original design. Thus the probability of a malfunction of equipment with respect to this change is unchanged or reduced compared to that evaluated previously.

The consequences of an accident previously evaluated in the FSAR are unchanged with respect to this design change since the installation, function, and performance of the original design are maintained or enhanced by this change, the Division 2 Diesel Generator's response to an accident is unchanged, and hence the consequences of an accident as previously evaluated are unchanged.

The consequences of a malfunction of equipment previously evaluated are unchanged with respect to this design change. The design of the parts and installation used for this change is equal to or better than the requirements of the original design, as discussed above.

SE No.: 87-0510 (Continued)

Summary (Continued)

The function and performance of the Division 2 Diesel Generator control system has been maintained similar to the original design. The redundancy of the Division 1 and 2 Diesel Generators with respect to each other is not compromised by this design change as no physical interconnections are added. Hence, in the event of an equipment malfunction previously evaluated, the Division 2 Diesel Generator's response would be unchanged.

- II. No. No new possibility for an accident is created by this change as it is limited in scope to the Division 2 Diesel Generator control system which by itself cannot cause a design basis accident.

No new possibility for a malfunction of equipment of a different type than any evaluated previously is introduced by this change since the design and qualification of the parts and installation used in this change are equal to or better than those used in the original design. Hence this new design conforms to the original design codes/standards and thus creates no new potential for malfunctions not previously evaluated.

- III. No. The Division 2 Diesel Generator's ability to meet Technical Specification requirements is not affected by this design change. Hence the margin of safety as defined in the bases for any Technical Specification's unchanged with respect to this design change.

SE No.: 87-0512

Source Document: SXI-015

Description of Change

This special test instruction, SXI-015 demonstrates a method of operation for the Control Room Ventilation System. The test logic will allow a Control Room return fan or emergency recirculation fan to remain running until the starting fan comes up to speed to prevent a sudden vacuum surge at the plenum condensate loop seal. This prevents a potential in leakage path into the Control Room boundary.

Summary

I. No. The short duration of fan overlap operation will not adversely effect any previously evaluated occurrences of the FSAR. Transient pressure at the worst case bases for this SXI would exist when the emergency recirculation fan OM26C001A(B) and return fan OM25C002A(B) are operating together at full speed. Adding the total static pressure of each fan to this pressure is less than one third of design pressure rating for the system ductwork. Therefore no adverse effects to the Control Room ventilation system would occur.

Reference: Spec. 642
Gen-M-016 Air balance data for OM25/26

II. No. There is no possibility for an accident or malfunction not previously evaluated. SXI-015 is intended to correct an identified deficiency in the system.

III. No. SXI-015 does not effect train redundancy per Technical Specification 3.7.2 or any of the surveillance requirements of 4.7.2.

SE No.: 87-0513

Source Document: MFI 1-87-407

Description of Change

Installation of Betz monitor system across the Turbine Building Closed Cooling System (P44) heat exchangers. This will assist in determining the root cause of gross corrosion on heat exchanger tubes. This modification was installed under W.O. 87-9282.

Summary

- I. No. This impacts both the Service Water System (P41) and the P44 System. Both systems are nonsafety and are not required for the safe shutdown of the reactor.
- II. No. This system is installed from one drain valve to another and performs no other function than to hold metal coupons while service water flows through the bed. Therefore, no new possibilities for accident/malfunction are created.
- III. No. The associated drain valves or heat exchanger have no relevant Technical Specification associated with them. Therefore, there is no impact on the margin of safety.

SE No.: 87-0514

Source Document: DCN 01965

Description of Change

Add a label (MPL) for the agitator in the Condensate Filtration System (N23) precoat tank.

Summary

- I. No. The drawing update has no effect on any plant equipment previously evaluated.
- II. No. The drawing update does not change the function of the agitator and so does not cause the possibility of an accident.
- III. No. The agitator and N23 system are not in the Technical Specifications.

SE No.: 87-0515

Source Document: DCP 87-0654, Rev. 0

Description of Change

Revise the reactor feed pump (RFP) turbine trip logic to use the limit switch of the turbine steam control valves instead of the Low Pressure stop valve limit switch. (I&C/Electrical Evaluation)

Summary

- I. No. This DCP will improve system reliability by eliminating false RFP trip signals to the feedwater control system. The feedwater control system will operate as designed and does not affect any safety systems.
- II. No. No new failure modes have been created since operation has been improved not changed.
- III. No. This item does not affect the Technical Specifications thus the margin of safety has not been reduced.

SE No.: 87-0516

Source Document: DCP 87-0555

Description of Change

Residual Heat Removal Pressure Transmitters 1E12N062A,B,C,D circuit board replacement. (I&C/Electrical Evaluation)

Summary

- I. No. The circuit board replacement of the transmitter improves the accuracy response of the transmitters which will not produce any consequential effect to safety previously evaluated in FSAR Chapter 6 and 15.
- II. No. Upgrade of the transmitters' circuit boards will not create any possibility of an accident/malfunction of a different type than previously evaluated in the FSAR. The accuracy response of the transmitters will be improved under applicable accident conditions.
- III. No. All design functions required in the transmitters remain unaltered. Technical Specification Section 3/4.3.9 setpoints are not impacted.

SE No.: 87-0517

Source Document: MFI 1-87-082

Description of Change

Install a temporary strainer in a sample line in the Condensate Demineralizer System (N24). Valve 1N24F030A is a pilot actuated solenoid valve. It sticks open due to resin fouling in its pilot sensing line. Installation of this strainer will prevent this from happening and allow measurement of the amount of resin bleed through.

Summary

- I. No. 1N24F030A is not safety-related and failure of this valve to operate properly will not increase consequences of an accident described in the FSAR.
- II. No. Installing the strainer does not create the possibility of accidents not described in FSAR.
- III. No. N24 is not a Technical Specification system failure of valve 1N24F030A to operate properly will not reduce margin of safety of Technical Specification bases.

SE No.: 87-0518

Source Document: DCN 1987, Rev. 0

Description of Change

Revise drawings to show as-built and operating conditions. This DCN changes FSAR Figures 9.5-18, 19, and 20, i.e., Drawings D302-052, 053 AND 054 respectively.

Summary

- I. No. The only safety concern with respect to the FSAR, is the leakage of contaminated water from the radwaste evaporators into the Auxiliary Steam System. This DCN changes the related sample station valve line up from normally closed to open. This reduces the possibility of an accidental contamination of the Auxiliary Steam System.
- II. No. The as-built/as operated condition documented by the DCN has no effect on the plant other than as-stated in Item I. above.
- III. No. The Auxiliary Steam System is not addressed in the Technical Specifications.

SE No.: 87-0519

Source Document: DCN 1416, Rev. 0

Description of Change

Addition of pressure indicators to P&ID (D302-603 and 302-604) per Field Change Request (FCR) 5067.

Summary

- I. No. There is no change to the plant as a result of this DCN. Indicators are shown on electrical drawings (208-016 SH A03). This is an editorial change only and does not affect any equipment in the plant.
- II. No. There is no change to the plant as a result of this DCN. This is considered an editorial change and no accident or malfunction can result from this DCN.
- III. No. The bases of the Technical Specifications do not require the indicators to be shown on P&ID's. The margin of safety is not reduced.

SE No.: 87-0520

Source Document: SCR 1-87-1886 thru 1890

Description of Change

Increase the Residual Heat Removal System (E12) waterleg pump low pressure alarm setpoints by 1 psig.

Summary

- I. No. This is a nonsafety function device (1E12-N654 A & B). It's only output is an alarm to warn that the discharge lines are not filled. The setpoint change is in the conservative direction. Therefore the possibility of a malfunction is decreased.
- II. No. The function of these instruments is not changed. They will alarm on waterleg pump low pressure as previously described in the FSAR.
- III. No. These instruments are not addressed in the Technical Specifications.

SE No.: 87-0521

Source Document: PAP-0507

Description of Change

Revision of PAP-0507 adds several new instruction types to the PNPP Operations Manual which are not currently described in the PSAR.

Summary

- I. No. The addition of new instruction types to the operations manual does not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety.
- II. No. This administrative procedure change does not create any possibility for accident or malfunction.
- III. No. The addition of instructions to the operations manual does not reduce the margin of safety defined in the Technical Specifications.

SE No.: 87-0523

Source Document: DCP 87-0756, Rev. 0

Description of Change

This design change removes the shuttle valve in the Division 2 Standby Diesel Generator Pneumatic Control System located in the line between solenoid valves 1R43-F030B/F032B and 1R43-F020B/F022B. (Mechanical Evaluation)

Summary

- I. No. The probability of occurrence of an accident previously evaluated in the FSAR is not increased by this change as it is limited in scope to the Division 2 Standby Diesel Generator which by itself cannot cause a design basis accident.

The probability of occurrence of a malfunction of equipment previously evaluated is not increased by this change. The scope of this change entails the removal of a shuttle valve from the Division 2 Diesel Generator Pneumatic Control System and capping it's tubing/fitting connections. The active function of this shuttle valve is no longer required as the result of DCP 870689. Hence, the removal of this valve and the capping of it's connections has no functional effect on Division 2 diesel's control system. This change enhances the reliability of the Division 2 diesel's control system by the removal of a component with moving elastomeric parts and replacing it with fixed threaded pipe caps. The number of threaded connections in the Division 2 Diesel Generator's Control System is unchanged and an active pneumatic component with elastomeric parts is eliminated as the result of this change.

The caps installed as the result of this change are being installed in accordance with requirements which meet or exceed the original design requirements.

This design change does not compromise the equipment qualification or seismic qualification of the original design as evidenced by the acceptable equipment qualification evaluation for this DCP.

This design change does not compromise the redundancy built in to the Division 2 diesel control system, nor does it compromise the redundancy between the divisional diesels, as it creates no cross ties.

Hence, the redundancy, function, installation and performance of the new design is equal to or better than the original design and the probability of a malfunction of equipment important to safety as previously evaluated in the FSAR is unchanged.

SE No.: 87-0523 (Continued)

Summary (Continued)

Since the redundancy, function, installation and performance of the original design is maintained by this change as demonstrated above, the Division 2 Diesel Generator's response to an accident is unchanged. Hence the consequences of an accident as previously evaluated are unchanged as the result of this design change.

In the event of a malfunction in the Division 2 diesel's pneumatic control system, the Diesel Generator's response to any type of start or shutdown signal would not be affected by this change, as it has no functional effect on the system as the result of DCP 870689. (DCP 870689 is already implemented.) Since this design change (DCP 870756) maintains the redundancy, function, installation, and performance of the original design as demonstrated above, the Division 2 diesel's response to a malfunction of equipment is unchanged. Hence the consequences of a malfunction of equipment previously evaluated are unchanged.

- II. No. A new possibility for an accident is not created by this change as it is limited in scope to the Division 2 Diesel Generator control system by itself cannot cause a design basis accident.

No new possibility for a malfunction of equipment of a different type than any evaluated previously is introduced by this change since it maintains the function, redundancy, installation, and performance of the original design as demonstrated in Item I. above. Hence the new design meets or exceeds the design requirements of the original design and thus creates no new potential for malfunctions not previously evaluated.

- III. No. The Division 2 Diesel Generator's ability to meet Technical Specification requirements is not affected by this design change. Hence the margin of safety as defined in the bases for any Technical Specification is unchanged with respect to this change.

SE No.: 87-0526

Source Document: DCP 87-0536, Rev. 0

Description of Change

Revire the Limitorque switch to close and seat the RCIC turbine trip - throttle valve (1E51-F510) on torque upon actuation, and revire limit switch LS-7 to obtain the correct indication upon operation of the torque switch. (Electrical Evaluation)

Summary

- I. No. The RCIC turbine trip-throttle valve 1E51-F510 acts as a quick closing, emergency trip valve to protect the turbine from damage upon receipt of a turbine trip signal. The valve is used in the normal shutdown of the system and has no active safety function for opening or closure using the motor operator.

USAR Section 5.4.6.2.5.1.b requires the verification of the position of the turbine trip throttle valve before it can be reset. With the present design, the valve may not exhibit correct indication upon operation of the torque switch when it does not torque shut but closes on limit switch actuation. However, the torque switch being placed in series with the limit switch does not constitute a significant design deficiency. In the unlikely event that the torque switch operates due to mechanical binding in the operator, additional external limit switches are included as part of the valve which indicate open/close position of the valve stem. The indication determines the valve was closed by spring operation and that the operator successfully latched the spring going open. Operations would be required to reset the spring manually if the operator was unable to close the spring completely.

Since the Limitorque operator is used to reset the tripping spring and not to close the valve against steam flow, there is no requirement for a special torque switch setting to achieve a specific thrust value to close against differential pressure. Changing the design will enhance the operability of the valve; therefore, it will not increase the probability of an accident or malfunction and will not reduce any margins of safety previously evaluated.

- II. No. See item I. above.
- III. No. Technical Specification Sections 3/4.3.5 or 3/4.7.3 are not affected.

SE No.: 87-0527

Source Document: DCP 87-0536, Rev., 0

Description of Change

Revise the logic for the RCIC System turbine trip throttle valve 1E51-F510 to reflect the revised opening cycle. (I&C Electrical Evaluation)

Summary

- I. No. The Design Change does not affect the function of the trip/throttle valve as shown in FSAR Figure 7.4-1 (Sheet 4 of 5). The change is required to protect the motor operated valve from overtorquing. Therefore, the probability of an accident or equipment malfunction previously evaluated is not increased. FSAR CR is included in DCP.
- II. No. Since the function is not changed a new accident or equipment malfunction is not created.
- III. No. Technical Specification Sections 3/4.3.5 or 3/4.7.3 are not affected.

SE No.: 87-0528

Source Document: DCP 87-0603

Description of Change

Install unions on the seal water lines for both sets of the Liquid Radwaste (G50) System concentrated waste pumps (OG50-C0023A,B and -C0023C,D) to allow for disassembly and maintenance.
(Mechanical-Chemical Evaluation)

Summary

- I. No. The unions to be installed are comparable in design to the existing piping. Therefore, no increase in the probability of an accident exists.
- II. No. The unions are in seal water piping which does not carry radioactive water. Therefore, no possibility for a different accident type exists.
- III. No. The unions do not affect the discharge of liquid or solid effluents, so no reduction in the margin of safety exists.

SE No.: 87-0529

Source Document: Startup Test Exception Closeout Work Sheet for TER 107-1

Description of Change

Allow normal plant procedures to cover retest for STI-C51-011 LPRM calibration, for LPRMs 08-41A, 32-49A, 32-25A and 32-57A (i.e., for not testing the four LPRMs in the Startup Test Program).

Summary

- I. No. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR is not increased.
- II. No. Since all APRM's are operable, no different type of accident or malfunction is being created.
- III. No. Operation with inoperable LPRM's is allowed by Technical Specifications, Operation, however, will be in accordance with Technical Specifications.

SE No.: 87-0530

Source Document: NR PPS-1976

Description of Change

Emergency Service Water (P45) yard piping hydrostatic tests were under pressurized.

Summary

- I. No. GAI calculation No. P45-21 revised design pressure to 140 psig and is adequate. This will not affect FSAR evaluation including Chapter 15 and will not increase the probability of any accident or malfunction.
- II. No. Due to the over conservatism in the original design, the revised design pressure is adequate. This will not create any new accident or malfunction.
- III. No. Yard piping design is not addressed in the Technical Specification bases, which do not consider yard piping pressure.

SE No.: 87-0531

Source Document: DCN 00139

Description of Change

Update drawings D-302-612, Rev. H, D-352-612, Rev. G for flanges that were previously installed in the Instrument Air System (P52).

Summary

- I. No. The addition of the flanges will allow alternate sources of water to cool the instrument air compressors so the consequences of the loss of Nuclear Closed Cooling System (P43) will be reduced.
- II. No. Loss of instrument air has already been evaluated. This change will reduce the possibility of losing instrument air.
- III. No. The instrument air system is not in the Technical Specifications.

SE No.: 87-0532

Source Document: DCP 87-0524B, Rev. 0

Description of Change

Modify to Post Accident Sampling System (P87) containment isolation valves (OP87-F0049 and OP87-F0055) from the normally closed mode to the normally open mode, closing on containment isolation or power loss signal. This modification allows continuous reactor water sample to the Zinc Injection Monitor. (Mechanical-Chemical Evaluation)

Summary

- I. No. This modification involves changing the mode of operation for two containment isolation valves 1P87F055 and 1P87F049 from normally closed manually open to normally open automatically close. Closure of these two valves will be initiated by a containment isolation signal or loss of power signal. Changing the mode of operation on these two valves does not alter the valve function, only the valve position listed in FSAR Table 6-2 (pg. 159a). Also, the changes described in DCP 87-0524B are consistent with GDC 55, criteria referenced in the FSAR Chapter 6:6.2.4.1, i.e., power source requirements, closure times, missile protection, etc... Based on the items cited, the changes described in DCP 87-0524B do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the FSAR.
- II. No. DCP 87-0524B changes the classification of 1P87F049 and 1P87F055 to mechanically "active". These valves are designed to satisfy the single failure criteria for mechanical active system components that are required to perform a safety function. Therefore, there is no possibility of an accident or malfunction of a different type than that previously evaluated in Chapter 6 (6.2.4) and Chapter 15.
- III. No. No margin of safety is reduced by the changes described in DCP 87-0524B. It is anticipated that valves 1P87F055 and 1P87F049 will be transferred to the "Containment Isolation Automatic Valve" list in Table 3.6.4-1 and be subjected to the requirements of 3/4.6.4 including Section 4.6.4.2 per future Technical Specification change request. The Zinc Injection System will not be operable until this change is approved by NRC.

SE No.: 87-0533

Source Document: DCP 87-0524B, Rev. 0

Description of Change

This Design Change Package provides the design for changing solenoid control valve (SCV) 1P87-F049 and 1P87-F055 from non-1E (normally closed isolation valves) to Class 1E (normally open isolation valves for the Zinc Injection System. (Electrical Evaluation)

Summary

- I. No. This modification changes the mode of operation and power supply for containment isolation valves 1P87-F055 and F049 from non-1E normally closed, manually open to Class 1E normally open, automatically closed. Closure of these two valves will be initiated by a containment isolation signal or loss of power. Changing the mode of operation on these two valves does not alter the valve function, only the valve position listed in FSAR Table 6.2-23 (Pg. 6.2-159A). The changes are also consistent with GDC 55, referenced in FSAR Chapter 6 Section 6.2.4.1. Changing the power supply from non-1E to Class 1E (Div. I for F055 and Div. II for F-049) and moving the controls from the Post Accident Sampling System (PASS) panel to the control room does not alter the function of how the sample is taken, only the type of power and location of the controls. Based on the item stated, the changes described in this DCP do not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the FSAR.
- II. No. DCP 87-0524B changes the classification of 1P87F049 and 1P87F055 to mechanically "active". These valves are designed to satisfy the single failure criteria for mechanical active system components that are required to perform a safety function. Therefore, there is no possibility of an accident or malfunction of a different type than that previously evaluated in Chapter 6 (6.2.4) and Chapter 15.
- This DCP also adds the capability to override the containment isolation signal to allow post accident sampling. The function of the valves after an isolation has not changed because the valves were originally intended to be opened during an isolation; therefore, there exists no possibility of an accident or malfunction of a different type than previously evaluated in Chapter 9 (9.3.6) and Chapter 15.
- III. No. No margin of safety is reduced by the changes described in DCP 85-0524B. It is anticipated that valves 1P87F055 and 1P87F059 will be transferred to the "Containment Isolation Automatic Valve" list in Table 3.6.4-1 and be subjected to the requirements of 3/4.6.4 including Section 4.6.4.2 per future Technical Specification change request. The Zinc Injection System will not be operable until this change is approved by NRC.

SE No.: 87-0534

Source Document: DCP 87-0524B, Rev. 0

Description of Change

Installation of conduit supports to the containment vessel to support additional wiring for the Zinc Injection System.

Summary

- I. No. Per FC 1:29.1 (containment vessel stress analysis), a 2500# load is the maximum allowed for stud attachment to the vessel. Loads due to the conduit supports are much smaller than 2500# (Ref. FC 36:72). Therefore, the probability of an accident or malfunction is not increased.
- II. No. The structural integrity of the containment vessel is not impaired by the additional loads. Therefore, the possibility of an accident/malfunction of a different type is not created.
- III. No. Since the integrity of the containment vessel is not compromised, the margin of safety is defined in the bases for any Technical Specifications is not reduced.

SE No.: 87-0535

Source Document: FSAR Table 15.E.2-1

Description of Change

Clarify the Operating Limit Minimum Critical Power Ratio (OLMCPR) of 1.19 to apply only during operation in the Maximum Extended Operating Domain (MEOD) during Partial Feedwater Heating (PFH) or in the Increased Core Flow Region (ICFR) 420°F to 320°F of rated feed water temperature.

Summary

- I. No. The proposed change alters the FSAR Table 15.E.2-1 to conform with the current Technical Specifications. GE has confirmed that the table contains an error - namely that the MCPR Operating Limit for operation with Partial Feedwater Heating is too restrictive, and that the analysis that the table is based on allows for less restriction. Since this change is in accordance with the analysis, no unreviewed safety question is involved.
- II. No. This change introduces no new accident/malfunction types. The purpose of the MCPR operating limit is to protect the safety limit during a Chapter 15 transient. A change to the operating limit, in and of itself, can cause no accident or malfunction.
- III. No. This change is consistent with the Technical Specifications.

SE No.: 87-0536

Source Document: FSAR Table 13.1-1

Description of Change

Change FSAR Table 13.1-1 to read that "Supervising Operator - ANSI 18.1-1971 equivalent is Operator." This clarification makes Table 13.1-1 consistent with FSAR Section 13.1.2.3.

Summary

- I. No. This change is administrative only. It does not change the fact that the individual must possess a valid NRC license. This change does not impact plant safety.
- II. no. This change is administrative only. it does not impact plant safety.
- III. no. See Item II above.

SE No.: 87-0537

Source Document: DCN 2009

Description of Change

Revise drawing to reflect reference drawing number without sheet numbers.

Summary

- I. No. DCN revise drawing reference only. It does not increase the probability of an accident or malfunction of equipment important to safety.
- II. No. No possibility of different type of accident/malfunction is created by this change. This is administrative type of change to the drawing only.
- III. No. The margin of safety as defined in the bases for any Technical Specification is not reduced by this DCN as it revises a drawing reference without sheet number.

SE No.: 87-7538

Source Document: DCP 85-0441, Rev. 3

Description of Change

The 3" gate valves presently installed in the Unit 1 and 2 Instrument Air System for maintenance of the prefilters, dryers, and afterfilter have a history of excessive leakage. This DCP replaces these gate valves with stainless steel ball valves and replaces all of the copper piping with stainless steel from the receiver tanks to the valves just downstream of the afterfilters.

Rev. 3 of this DCP changes valves 1P52-F525A,B and 2P52-F525A,B from 1/4" globe style Whitey valves to 1/2" plug style Whitey valves, so as to prevent plugging with desiccant. (Mechanical Evaluation)

Summary

- I. No. Changing valves 1&2P52-F525A,B from globe style to plug style will not functionally change the system. The new plug style valves are being used for afterfilter drain valves and are less likely to plug-up with desiccant than the old globe style valves. This will decrease the likelihood of any desiccant getting past the afterfilters to any of the safety-related components served by this system.
- II. No. Changing the afterfilter drain valve type does not functionally change the system. Therefore, no new accidents or malfunctions are created.
- III. No. The margin of safety of Technical Specifications bases 3/4.6.1.3 and 3/4.6.2.3 are not reduced by this DCP revision. These bases take credit for the redundancy and reliability of the P51/P52 systems to support the containment and drywell airlocks. Changing the afterfilter drain valve type does not functionally change the system and therefore does not change its ability to supply air to the airlocks.

SE No.: 87-0539

Source Document: DCP 87-0039, Rev. 0

Description of Change

The Auxiliary Building flood detection level switches (1G61N0515A/B) located in the floor drain sump are highly inaccessible, presently an ALARA concern during calibration, and are prone to damage due to the enclosed sump arrangement. This design change replaces the existing Magnetrol level switches with FCI switches. (I&C Mechanical Evaluation)

Summary

- I. No. 1G61N0515A/B flood level detection switches provides a NONSAFETY-RELATED alarm function ONLY. Installing redundant nonsafety-related switches will not increase the probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the FSAR.

A result of an Engineering analysis completed in 1978 addressing the consequences of the potential flooding of the Control Complex from the moderate energy systems on the lower elevations was to install two safety-related level switches in the Auxiliary Building dirty radwaste sump (El. 574'-10"). The design intent at this time was met by installing two safety-related Magnetrol level switches within the sump confines (El. 568'-4").

Due to the fact that these switches are highly inaccessible, presents an ALARA concern during calibration, and are prone to damage due to the sump environment, Engineering's position is to install two nonsafety-related FCI level switches outside of the sump confinement.

The decision to install nonsafety-related level switches vs. safety-related is based on the following:

- A. Switch Function - Provide a NONSAFETY-RELATED alarm only.
- B. The G61 System is not described in the FSAR or Technical Specification as a requirement for plant shutdown.
- C. There is NO commitment to the NRC or any regulatory position which would demand the flood level detection system be safety-related.

- II. No. The installation of redundant nonsafety-related switches will not increase the possibility of an accident or malfunction of a difference type than any evaluated previously in the FSAR. The flood level detection system will function exactly as designed.
- III. No. The margin of safety as defined in the basis of the Technical Specification is NOT reduced. G61 flood level detection is not described in the Technical Specification.

SE No.: 87-0540

Source Document: DCP 87-0564, Rev. 0

Description of Change

Replace the currently installed Low Pressure Core Spray (E21) System water leg pump maintenance valve (1E21-F0035), Dresser valve with a Kerotest valve. Also, bore out the diaphragms on the following 1/2 inch Dresser valves (1E21-F0531, 1E21-F0507, and 1E21-F0522) these are vent and drain valves for the water leg pump (1E21-C0002). (Mechanical Evaluation)

Summary

- I. No. Replacing the Dresser valve 1E21F035 with a Kerotest valve will not affect the waterleg pump's ability to keep the LPCS discharge line filled. This valve is a maintenance valve for the waterleg pump. Replacement valve and fittings are rated for the same line spec as the original design. The modification to the 1/2" vent and drain valve do not have any effect on the valve being able to maintain pressure integrity. Note that the modification to the 1/2" Dresser valve was performed with acceptable results on NR OQC-3214.
- II. No. The operation of the keep fill portion of the LPCS system is unaffected by this change. Restricting orifice upstream of 1E21F035 was sized for a differential head of 96'. Replacing 1E21F035 with a 3/4" valve may dead head the pump. To avoid this, the orifice is to be enlarged .005" to accommodate the 1.5 PSID increase through the new valve. This will avoid premature failure of the waterleg pump. The chance of packing leaks may be increased due to this change. However, these are infrequently operated maintenance valves and should not affect system operability.
- III. No. The bases for the Technical Specifications remains unchanged in that the water leg pump will still be able to keep the LPCS pump discharge line full of water.

SE No.: 87-0541

Source Document: FSAR CR 87-105

Description of Change

Correction to an FSAR Section (9.2.8.3) that contained misleading information. It stated that the Nuclear Closed Cooling (P43) Pump C is supplied by the Unit 2, Division 11 4.16kV power supply.

Summary

- I. No. The Unit 2, Division 1 powered stub bus is just as reliable as the Unit 2, Division 11 powered stub bus. Therefore, neither the probability or the consequences of a P43 system failure is increased.
- II. No. No new accidents or malfunctions are potentially created by this change since the stub buses have equal reliability.
- III. No. Technical Specification basis are not affected since the P43 (Nuclear Closed Cooling) system is not addressed there.

SE No.: 87-0542

Source Document: DCP 87-0456L, Rev. 0

Description of Change

This safety evaluation analyzes from a civil/structural standpoint how one floor drain and two equipment drains are installed for the Service Building Hot Shop. The floor drain needs to be located in a central area. The equipment drains are required for the abrasive cleaning unit and HVAC condensate. (Civil/Structural Evaluation)

Summary

- I. No. The core bore penetration is being made in the Intermediate Building, West wall, at approximate building El. 616'-6". There will not be any reinforcing bars cut during the installation of this penetration.

Based on the fact that no reinforcing bars will be cut, the wall will remain adequate for the imposed loads with the penetration in place. Therefore, the consequences of an accident or malfunction of equipment important to safety, previously evaluated in the FSAR, is not increased.

- II. No. Since the structural integrity of the wall is not impaired, the possibility of an accident or malfunction of a different type is not created.
- III. No. This opening in the concrete wall does not affect the margin of safety in the Technical Specifications.

SE No.: 87-0543

Source Document: DCP 87-0456L, Rev. 0

Description of Change

Install hot shop and equipment drains in Service Building.

Summary

- I. No. The scope of this DCP simply provides two equipment drains and one floor drain in the proposed Service Building Hot Shop which will tie into the existing Intermediate Building drains. This relatively small addition to the extensive network of floor and equipment drains has no impact on equipment important to safety.
- II. No. Floor and Equipment Drains added as a result of this DCP do not create the potential for any accidents or malfunctions of a different type than previously evaluated in the FSAR. The two equipment drains will serve to collect drainage from the abrasive cleaning unit and condensate from the room's HVAC unit. Only one floor drain is required to accommodate the Service Building addition. Again, this modification is a relatively small extension of the existing network of floor and equipment drains that terminate in the Intermediate Building Floor Drain Sump.
- III. No. This design change does not reduce the margin of safety as defined in any bases for Technical Specifications. Drain line modifications do not affect Technical Specifications.

SE No.: 87-0544

Source Document: Manual Revision Notice #4 to GEK-75600, Vol. VII, Part 2

Description of Change

Manual revision to GEK-75600, Vol. VII, Part 2 (Control Rod Drop Accident).

Summary

I. No. See attached sheets.

II. No. Clarification of the design basis for RCIC does not increase the probability of occurrence of the Control Rod Drop Accident (or any other accident or transient) as stated in Chapter 15 of the FSAR.

RCIC remains as a safety-related system. Equipment associated with the RCIC system is unaffected, therefore probability of failure/malfunction of equipment important to safety is not increased.

Removal of the "Engineering Safety Feature" label for RCIC does not negatively affect or change the release of radioactive material to the environment. The consequences of rod drop are insignificant because of Rod Pattern Control System, Ref. FSAR 15.4.9.1.1. Fuel damage, system stresses or containment stresses in excess of that allowed by the ASME Codes, are also unaffected by this FSAR change. RCIC initiation to mitigate transients or accidents outlined in Chapter 15 is not reduced by this clarification. RCIC still remains as a safety-related system and remains available for safe shutdown of the plant.

Equipment associated with the RCIC system is unaffected by this FSAR clarification. Removal of the "ESF" label from the RCIC design basis does not affect the system from performing its design function. RCIC is still a safety-related system.

The proposed clarification to the FSAR would not create a new type of accident or malfunction. This change does not relate to events or transients that are considered as potential initiating causes of threats to the fuel and/or the reactor coolant pressure boundary.

III. No. The RCIC system is still a safety-related system. Margin of safety is not reduced by this clarification to the FSAR. (Technical Specification Reference 3/4.5 and 3/4.7)

SE No.: 87-0545

Source Document: MFI 1-87-441 and 1-87-443

Description of Change

Install blind flange at the 30" suction strainer inlet flange (1N27D004A) after removing suction strainer; install blind flange at 12" strainer outlet flange (1N27D006A) and the 26" discharge line shall be cut/capped upstream of 1N27-F100A as detailed in FCR 8422.

Summary

I. No. The isolation technique described in FCR 8422 does alter the plant as described in the FSAR. Figure 10.1-3 (Sheet 3) is the affected P&ID. The feedwater system is described in Sections 10.4.7.2.3 and 10.4.7.2.4. The isolation technique results in the plant being limited to around 95% power. Thus the accident analysis of Chapter 15 is affected in that the initial condition is 95% vs. the nominal 100%. However, 100% analysis envelopes 95% initial condition and Chapter 15 is not altered. The use of the MFP is not explicitly assumed in Chapter 15. It may be implicitly assumed in Section 15.2.7 in that the event is of moderate frequency. The Plant Technical Specifications are not affected by feedwater pump availability.

Use of the isolation technique does alter Chapter 10 of the FSAR as noted above. However, this portion of the feedwater system is designed per B31.1. The isolation technique is also per B31.1. Thus the same code (and thus any implied reliance) is used in both cases. Thus there is not a change in the probability or consequence of an accident as evaluated in the FSAR.

The use of the MFP vs. its standby status is not explicitly stated in Chapter 15. The only implicit reliance may be in the loss of feedwater flow (Section 15.2.7) in the moderate frequency. The moderate frequency means no more frequent than once per year. The simultaneous loss of the MFP and "B" RFP in contrast to the simultaneous loss of "A" and "B" RFP (MFP in standby and lost) is not considered to alter the moderate frequency category.

In brief, the FSAR accident/malfunction analysis are not affected since the same piping code is used and the MFP is not relied upon.

II. No. See Item I. above.

III. No. See Item I. above.

SE No.: 87-0547

Source Document: DCP 86-0194, Rev. 0

Description of Change

Convert Radwaste Building Ventilation System (M31) fans from direct-drive to belt-drive.

Summary

- I. No. The drive conversion does not impact any previously evaluated DBA or transient condition, because it is not described in any such evaluation.
- II. No. The drive conversion is functionally equivalent to the original condition and therefore, poses no different type of possible accident or malfunction.
- III. No. The definition of margin of safety in the Technical Specification does not consider the OM31 System.

No.: 87-0548

Source Document: DCP 87-0312, Rev. 0

Description of Change

Install conduits and replace #8 AWG power cables with #4 AWG power cables leading to motor operated valve 1E51-F045, to obtain required torque in the Combustible Gas Control System (E51).

Summary

- I. No. The RCIC System is designed as one of the systems to assure that sufficient water inventory is maintained in the reactor vessel. The valve 1E51-F045 is required to open automatically for an RCIC System initiation with a simultaneous loss of battery charger. This valve is required to operate at minimum battery voltage. Previously the cables were sized for 212 ft/lb. minimum required torque at 589 ft/lb. rated torque of the operator per the Gilbert Associates Inc. memo. However, per the vendor information, the operator is rated at 500 ft/lb.

With the present installation the MOV will be operated at 133V and 114 volts, but may experience trouble if asked to operate at 105 volts in the event of a control rod drop accident with a simultaneous loss of the battery chargers.

The replacement of #8 cables with #4 cables will decrease the circuit voltage drop and increase the torque to assure that this valve will operate with no battery charger available. Therefore, this change enhances the overall reliability of the RCIC system and will not increase the probability of an accident or malfunction and will not reduce any margins of safety previously evaluated.

- II. No. See Item I above.
- III. No. The margin of safety defined in the Technical Specifications is not reduced.

SE No.: 87-0549

Source Document: ONI P54, Rev. 3 (Fire Protection)

Description of Change

This instruction has been revised in its entirety. The response to receipt of a single alarm in the Secondary Alarm Station (SAS) has been modified to require putting brigade on standby, only if known plant conditions indicate probable fire.

Summary

- I. No. Intent of commitment to comply with NFPA 72D is met.
- II. No. There are no potential initiating causes of threats to the fuel and the reactor coolant pressure boundary.
- III. No. Only administrative aspects of fire protection are discussed in the Technical Specification, therefore, the margin of safety is not reduced.

SE No.: 87-0550

Source Document: DCP 87-0671, Rev. 0

Description of Change

Install combination communication jack stations (i.e., P.A., telephone, maintenance and calibration) at various levels in the Drywell.

Summary

- I. No. The P.A., telephone, and Maintenance and Calibration systems are nonsafety systems and a malfunction of these systems will not directly cause an accident. The expansion of these communication systems into the Drywell will not increase the probability of equipment malfunction for the remainder of the communication system components. This is because each P.A. handset has a power supply which is fused. A malfunction will only affect that one P.A. handset. The telephone and maintenance and calibration components are isolated from each other by wiring separate lines from each component back to a central patch/switch panel. Therefore, the system designs are such that a malfunction on one component does not affect the remainder of the communication system or any other equipment important to safety.
- II. No. A malfunction of the added P.A., telephone, and maintenance and calibration components will be the same as those already installed. The malfunction will affect the individual component and not the remainder of the communication system. Therefore, the possibility for an accident or malfunction of a different type than previously evaluated in the FSAR is not created.
- III. No. The P.A., telephone, maintenance and calibration systems are not discussed in the Technical Specifications.

SE No.: 87-0551

Source Document: DCP 87-0671, Rev. 0

Description of Change

Evaluate stud attachment to the containment vessel. (Civil/Structural Evaluation)

Summary

- I. No. Per containment vessel stress analysis, a 2,500 lb. load is the maximum allowed for stud attachment to the vessel. Loads onto the vessel due to the conduit supports are much smaller than 2,500 lb. Therefore, the integrity of the containment vessel is not impaired and the probability of an accident/malfunction is not increased.
- II. No. Since the integrity of the structure is not impaired, the possibility of an accident or malfunction of a different type is not created.
- III. No. Since the integrity of the structures is not affected, the margin of safety as defined in the bases for any Technical Specification is not reduced.

SE No.: 87-0552

Source Document: DCP 86-0568G, Rev. 0

Description of Change

Add a Plexiglas (Lexan) containment enclosure to the shield wall and Fuel Handling Building Fire Zone. This enclosure will add an additional 915 lb. at 8,000 BTU/lb. for an additional 8% fire load which is negligible. The detection equipment and manual suppression equipment is adequate for additional fire load.

Summary

- I. No. Design change is within scope of fire protection procedure, and will not affect, hinder, malfunction or cause an accident important to safety, nor affect safe shutdown, existing fire protection features are adequate for this design change.
- II. No. There are no potential initiating causes of threats to the Plant.
- III. No. Only administrative aspects of fire protection are covered in the Technical Specifications.

SE No.: 87-0553

Source Document: DCP 86-0568G, Rev. 0

Description of Change

Install a concrete shield wall and Plexiglas (Lexan) enclosure to the CRD Rebuild Room.

Summary

I. No. The following justifications preclude any possibility of an accident or malfunction to safety items as evaluated in the FSAR:

- A. The shield wall serves no safety function and is for ALARA concerns only, however, the wall was designed for seismic loads and will be installed as safety-related.

NOTE: This wall replaces the shield wall that was removed by DCP 860568B.

The addition of these items does not affect the structural integrity of the existing structures base, on calculations, and no figures in the FSAR need revised.

- B. All dowel installations are required to be performed in accordance with safety-related procedures, thereby maintaining the designed structural integrity of the building.
- C. Removal of the existing curbs will not affect the existing slab, since no rebar in the slab will be cut, and the concrete cover will be replaced.

II. No. Since the structural integrity of the building is not adversely affected per Item I., the possibility of an accident/malfunction of a different type is not created.

III. No. Installation of these items does not involve the Technical Specifications.

SE No.: 87-0554

Source Document: FCR 8422/8426

Description of Change

Install blind flanges at the 30" suction strainer inlet flange (1N27D004A) and at the 12" strainer outlet flange (1N27D006A); also cut and cap the 24" discharge line upstream of 1N27-F100A in the Feedwater System (N27) as detailed in this FCR. Operate plant at 100% power with Reactor Feed Pump (RFP) "B" and Mechanical Feed Pump (MFP).

Summary

- I. No. The isolation technique described in this FCR does not alter the plant as described in the FSAR. Figure 10.1-3 (Sheet 3) is the affected P&ID. The feedwater system is described in FSAR Sections 10.4.7.2.3 and .4. Both the feedwater system and the isolation technique are per ANSI/ASME B31.1. The same code and any implied reliance are used in both cases. Thus, there is no change in the probability or consequences of an accident as evaluated in the FSAR.

The use of the MFP versus its standby status is not explicitly stated in Chapter 15. The only implicit reliance may be in the loss of feedwater flow (Section 15.2.7) in the moderate frequency. The moderate frequency means no more frequent than once per year. The simultaneous loss of the MFP and "B" RFP in contrast to the simultaneous loss of "A" and "B" RFP (MFP in standby and lost) is not considered to alter the moderate frequency category.

- II. No. The FSAR accident/malfunction analysis are not affected, since the same piping code is used and the MFP is not relied upon.
- III. No. The Technical Specifications are not affected by the feedwater pump availability.

SE No.: 87-0555

Source Document: LLJED 1-87-077

Description of Change

Wire filter chokes in series with the Division III Diesel Generator Water Jacket Heater.

Summary

- I. No. The filter chokes installed are of a dual winding design with a current rating greater than twice the full load rating of the water jacket heater. If an individual winding were to open, the other winding would still be capable of carrying the full load. If any individual winding were to short, it would limit the filter chokes ability to suppress electromagnetic interference, but it would not interfere with the water jacket heater operation.

If multiple filter choke winding failures were to occur, resulting in the loss of the water jacket heater, this would sound the Division III Diesel Generator trouble alarm in the Control Room, and the local jacket water heater failure or low lube oil temperature (less than 85°F) alarms. As directed by the Alarm Response Instruction (ARI) E22-PO01, the operator would then ensure that the Division III Diesel Generator room heating is on. This heating system is provided to maintain the HPCS diesel room at an ambient temperature of greater than 40°F. The NRC Safety Evaluation Report Supplement 7, Section 9.6.4 reviews the existence of these alarms and subsequent operator response, and notes that the Division III Diesel Generator is qualified to start in ambient temperatures down to 40°F. Therefore, we can conclude that the Division III Diesel Generator would be operable for all potential failure modes of the installed filter chokes.

- II. No. The loss of Diesel Generator jacket water heating cannot create a new accident, since the diesel is used only for mitigation of events already described in the PSAR.

PSAR Sections 9.5.9.2.2 and 9.5.9.2.4 already assume the potential for loss of jacket water heating, since they describe the associated alarms and the provisions for periodic checks of the system to ensure proper operation (i.e., shift rounds).

- III. No. The Division III Diesel Generator would still be operable if jacket water heating was lost and would be available for the safe shutdown of the plant or to mitigate and control accident conditions.

SE No.: 87-0556

Source Document: FSAR CR 87-0539

Description of Change

Operate the Nuclear Closed Cooling System (P43) as contaminated due to a leaking heat exchanger in the Fuel Pool Cooling and Cleanup System (G41), as required by IE Bulletin 80-10 and PAP-0201.

Summary

- I. No. Chapter 9.2 of the FSAR assumes NCC (P43) is a non-contaminated system and will remain so. FSAR Section 9.2.8.3 allows for actions under similar circumstances, i.e., isolating the offending heat exchanger.
- II. No. No activities are performed which are not described in the FSAR.
- III. No. There is no affect on the Technical Specifications or the environment as the activity was contained in the P43 (NCC) system.

SE No.: 87-0557

Source Document: DCN 1865

Description of Change

Drawing change to the Combustible Gas Control System (M51) P&ID 302-831 to reflect that the 1M51-N0302A thermocouple was scrapped in place per Deficiency Report 02C-413.

Summary

- I. No. The DCN does not involve a physical change to the operation or function of the M51 system. It is a drawing change to incorporate the latest as-built condition of the plant on the M51 System P&ID. The probability of an accident to occur, the consequences of such an accident, or malfunction of safety-related equipment has not been increased.
- II. No. The DCN does not create the possibility of an accident or malfunction of a different type than previously evaluated in the FSAR. The DCN is not adding any components nor changing the operation/function of the M51 System.
- III. No. The DCN does not reduce the margin of safety as defined in the bases for the Technical Specifications. The DCN is not changing or altering the M51 system operation or function in anyway. It is simply correcting the system P&ID to agree with the related 208 series drawings.

SE No.: 87-0558

Source Document: DCN 1630
DCP 85-0532

Description of Change

Change Drawing D302-602 to remove valve 1B21-F554 and associated piping in the Nuclear Boiler System (B21). Change Drawing D302-606 to remove transmitter 1B33-N050A in the Reactor Recirculation System (B33).

Summary

- I. No. There is no change to the plant as a result of this DCN, which was initiated only to clean up paperwork. The removal of the pressure transmitter was evaluated in DCP 85-0532. Valve 1B21-F554 was removed from the Drawing D302-602, because it is duplicated on Drawing D302-606. No malfunction is created as a result of this change. Operability of the plant is not affected.
- II. No. See Item I. above.
- III. No. Revisions of Drawings D302-602 and D302-606 as described in Item I., do not affect the basis of the Technical Specification (Reference Section 3/4.3.4 and 3/4.4.1).

SE No.: 87-0560

Source Document: FSAR CR 88-174

Description of Change

Section 13.5.2.2.8 of the FSAR currently makes reference to a "Surveillance Manual." The proposed change deletes this reference from the description of the surveillance/test type instructions captured in Chapter 7 of the PNPP Operations Manual.

Summary

- I. No. Word change only. No effect on accident or equipment malfunction as described in the FSAR.
- II. No. This change does not create accidents or malfunctions that are different from those described in the FSAR. All required surveillances are covered by the PNPP Operations Manual.
- III. No. This change does not constitute a reduction of the margin of safety defined in the Technical Specifications, because it is an administrative word change only.

SE No.: 87-0562

Source Document: DCN 2046

Description of Change

Correct drawing reference.

Summary

- I. No. Editorial correction to a drawing reference has no effect on the probability of occurrence or the consequences of an accident previously evaluated in the FCAR.
- II. No. See Item I. above.
- III. No. See Item I. above.

SE No.: 87-0564

Source Document: SOI-P53, Rev. 2, TCN-002

Description of Change

Posting of a new procedure which gives direction to override/disassemble the Drywell Airlock Inner Door mechanical interlock to permit personnel egress upon failure of the normal Drywell Airlock operation. This disassembly is a change to the plant (Drywell Airlock) as described in the FSAR Section 5.8.2.1.4.

Summary

- I. No. If the Drywell Airlock Inner Door seal has failed along with the door inner mechanical interlock mechanism and the outer door seal is intact:

This interlock override as directed by the change to this instruction affects the Drywell Airlock Inner & Outer Door, which have Technical Specification action statements that address this situation. The time period allowed by the Technical Specifications are sufficient to allow the override and reassemble of the airlock within 24 hours. The short breach of containment would be during the opening of the Drywell Airlock Outer Door to permit personnel exit. Technical Specification 3.6.2.3 currently allows a total accumulated time of both Drywell Airlock doors open, to not exceed one hour per year.

The Drywell Airlock Inner Door is assumed inoperable prior to its disassembly. The performance of the change to the instruction is actually on an inoperable piece of plant equipment which will not introduce any new safety implications.

If the Drywell Airlock Inner Door seal is operational and the outer door has been left open:

With the Drywell Airlock Outer Door left open, total time accrued to the one hour per year limitation would be from the time that air was secured to the inner seal (closing 1P52-F774) until the exit was complete and the Drywell Airlock Outer Door was closed and the outer seal reestablished. The one hour per year limitation is not expected to be exceeded based on the frequency of Drywell entries during Modes 1, 2 & 3.

The limited frequency of Drywell entry during Modes 1, 2 & 3 is discussed in FSAR Q&R 480.49.b, Section 6.2-56.

SE No.: 87-0564 (Continued)

Summary (Continued)

If the Drywell Airlock Inner Door seal is operational and the Drywell Airlock Outer Door is inoperable:

Disabling the inner door will then require a plant shutdown in accordance with Technical Specification 3.6.2.3, since two Drywell Airlock Doors will then be inoperable.

- II. No. The overriding of the Drywell Airlock interlock would not introduce a new type of accident. Accidents relating to Drywell integrity are discussed in the FSAR.
- III. No. The margin of safety for Drywell Airlock Leakage is not reduced since the Drywell Airlock Inner Door is inoperable prior to the interlock disassembly. Thus, the action of disassembly cannot change the margin of safety.

In the event the Drywell Airlock Inner Door seal was intact prior to door disassembly, and the outer door was left open, the one hour per year limitation will not be exceeded based on the frequency of Drywell entries during Modes 1, 2 * 3. The margin of safety will not be affected as long as the one hour per year is not exceeded.

SE No.: 87-0565

Source Document: DCP 86-0574, Rev. 1

Description of Change

Install core drill in Radwaste Building wall, El. 652'2".

Summary

- I. No. This work will be done in accordance with safety procedures. No rebar will be cut during installation of the penetration, therefore removal of 4" diameter core in this localized area will not affect the integrity of the wall. Therefore, the probability of an accident is not increased.
- II. No. Per Item I., the structural integrity of the wall is not impaired. The possibility for an accident or malfunction of a different type is not created.
- III. No. Since the structural integrity of the wall is not affected, the margin of safety in the Technical Specifications is not reduced.

SE No.: 87-0566

Source Document: DCP 87-0617, Rev. 0

Description of Change

Add a curb in the Emergency Service Water Pump House, El. 601'-6" to prevent water run-off into the Diesel Fire Pump Room.

Summary

- I. No. All Dowel installations are required to be performed in accordance with safety-related procedures, thereby maintaining the designed structural integrity of the building.

Additional loads imposed by the curb, upon the El. 601'-6" roof slab, are insignificant and will not adversely affect the capacity of the slab.
- II. No. Since the structural integrity of the building is not adversely affected, per Item I., the possibility of an accident or malfunction of a different type is not created.
- III. No. Installation of this item does not involve the Technical Specifications.

SE No.: 87-0567

Source Document: FSAR CR 87-176

Description of Change

Various editorial comments to FSAR Chapter 5.0 as a result of review to update the FSAR per 10CFR50.71.

Summary

- I. No. No accident or malfunction to existing equipment is involved. The changes are editorial in nature, i.e., clarification of existing text, consolidation/deletion of repetitive material to enhance readability, etc.
- II. No. No new accident or malfunction involved. Changes are editorial.
- III. No. No Technical Specification margin or safety involved. Changes are editorial.

SE No.: 87-0568

Source Document: DCP 87-0306, Rev. 1

Description of Change

Modify the Standby Diesel Generator Fuel Oil (R45) drip return line. Revision of the drip return line for both Division 1 and 2 Diesel Generators to a nonsafety-related classification will substantially reduce installation costs with no impact on diesel safety or reliability.

Summary

- I. No. The modification of the fuel oil (R45) drip return system/lines per this DCP revision does not increase the probability of occurrence of an accident previously evaluated in Chapter 15 of the FSAR.

Malfunction of equipment important to safety (Division 1 and 2) Diesel Generators) as described in Section 9.5.4 of the FSAR is not increased by this modification for the following reasons:

1. This DCP revision changes the safety classification of the fuel oil drip return lines from safety-related to nonsafety-related. This downgrading of the fuel oil drip return lines has no impact on engine function or on available fuel supply because the drip return flow rate from the Diesel Generator injectors is expected to only be 0.4 to 4.0 gph. In the worst case fuel oil drip flow rate, the total oil lost over seven day period would only be 672 gallons which is well within the oil storage tank contingencies available for Standby Diesel Generator.
2. In the worst case seismic event where drip return pipe failure occurs, fuel oil from the drip return piping on the engine would discharge to the room floor drainage collection system. This postulated break location in the drip return line would be in an area approximately 3 feet or less from the floor and away from hot surfaces/equipment, thus not creating a potential fire hazard.

In addition, the fuel oil drip return flow rate as stated above is relatively small which facilitates fuel oil containment/collection by ordinary operator action in the event of pipe failure.

3. As stated in Item 2 above the fuel oil drip return line routing is relatively close to the floor of the Diesel Generator Room. In the worst case seismic event, breakup and fall down of this piping would not affect or damage safety-related equipment or piping.

SE No.: 87-0568 (Continued)

Summary (Continued)

- II. No. The possibility for an accident or malfunction of a different type than previously evaluated in the FSAR is not created for the same reasons as stated above. While this design change downgrades the safety classification of the fuel oil drip return line previously evaluated as safety related, it in no way affects Diesel Generator reliability of operability. Should there be any loss of fuel oil because of failure of nonsafety-related piping, it will have no impact on Diesel Generator performance and can be easily contained and collected, as required, by ordinary operator action.
- III. No. The margin of safety as defined in the bases for the standby Diesel Generators in Section 3/4.8.1 of the Technical Specification is not reduced for the same reasons stated above. Specifically the seven (7) day fuel oil storage volume is not affected by this design change revision.

SE No.: 87-0569

Source Document: FSAR CR 87-149

Description of Change

Change to FSAR Tables 5.2-1, 3.2-1, 3.2-7, Section 3.2.5 and 5.2.1.2.

Summary

- I. No. The accidents postulated in the FSAR are not affected by the documentary of the code cases and code editions used for construction. Further, the code cases used were approved generically by the NRC in Reg Guides 1.84 and 1.85 which are committed to the Chapter 1.8 of the FSAR.
- II. No. See Item I. above.
- III. No. The margin of safety as defined in the bases of Technical Specifications are not affected by the use of ASME approved code cases or the edition of the code used for construction.

SE No.: 87-0570

Source Document: FSAR CR 87-147

Description of Change

Clarify and more accurately identify the use of non-Class 1E Power Sources for the Reactor Protection System (C71) SCRAM Solenoids as described in FSAR Table 3.2-1 Section VII and Chapter 8, Section 8.3.1.4.1.8.

Summary

- I. No. The FSAR Change Request as submitted serves only to delineate and more clearly define the 120VAC power feeds associated with the RPS SCRAM solenoid valves. The clarification is denoted per Section 8.3.1.4.1.8 - Special Cable Routing Requirements. As stated, the respective power feed to each of the two (2) actuating trip solenoids are powered from non-Class 1E RPS bus "A" & "B" and are classified as non-Class 1E. Each power feed is isolated and separated from other assigned divisional RPS groupings to ensure the independence so that the proper operating functions and fail safe de-energization can be accomplished.

This Change Request does not affect existing plant installed configuration or prescribed operating requirements as addressed by General Electric design criteria.

The non-Class 1E power feeds do not compromise nor reduce the reliability of the RPS system in regards to its intended safety function. That is to prevent continued operation of the reactor under unsafe or potentially unsafe conditions.

- II. No. Inputs and control logic to the RPS system as defined per Section 7.2.1.1 of the FSAR are unchanged. This FSAR change only provides clarification for the respective 120VAC power feeds as discussed in Chapter 8.
- III. No. The margin of safety is not affected nor altered with respect to the various set points and limits as set forth in the Technical Specifications addressing actuation trip points or control parameters associated with the RPS system. The FSAR Change Request submitted only serves to clarify and denote the 120VAC power configuration.

SE No.: 87-0571

Source Document: LLJ 1-87-446

Description of Change

Install lifted leads/jumpers on Westronics Recorder 1E31-R612, Leak Detection System (E31), in order to disable points with an alarm condition.

Summary

- I. No. There will not be any adverse change to the operability of the valves important to safety not previously evaluated. The monitoring temperature element is a passive monitoring system.
- II. No. The floor drain sump level, a redundant system as defined in the FSAR, eliminates the possibility for an accident or malfunction not previously evaluated.
- III. No. The margin of safety, as defined in Technical Specification, will not be reduced.

SE No.: 87-0572

Source Document: MFI 1-87-448

Description of Change

Install pipe cap on pipe nipple for pressure test point 1N11-R460, and remove Valve 1N11-F710, Main Steam System.

Summary

- I. No. The removal of Valve 1N11-F710 and pressure test point 1N11-R460 does not effect the probability of occurrence or the consequences of an accident/malfunction of equipment important to safety previously evaluated in the FSAR.
- II. No. The removal of Valve 1N11-F710 and pressure test point 1N11-R460 does not create the possibility for an accident/malfunction of a different type than previously evaluated in Chapter 15, Section 6.4 of the FSAR.
- III. No. The removal of Valve 1N11-F710 and pressure test point 1N11-R460 does not effect the bases for any Technical Specifications.

SE No.: 87-0573

Source Document: DCP 87-0549

Description of Change

Deletion of the 50% Main Steam Flow Closure signal to Valve 1B21-F033, Nuclear Boiler System.

Summary

- I. No. Safety Analyses discussed in FSAR Chapters 6, 9 and 15 are not affected by deletion of the 50% flow closure signal to Valve 1B21-F033. Original system design documents specified closure of this valve above 50% main steam flow in order to increase plant thermal efficiency. Design review has shown that 1B21-F033 should be kept open at all operating loads to prevent excessive thermally induced stresses on containment penetration #423. The design integrity of penetration #423 is enhanced by this modification.
- II. No. The possibility for a primary containment failure is decreased by the proposed design change. No new accident or malfunction is created.
- III. No. The functional integrity of containment penetration #423 is improved by the proposed design change. The automatic operation of 1B21-F033 is not defined in the Technical Specifications.

SE No.: 87-0574

Source Document: LLJED 87-450

Description of Change

Remove Overload Relay OM25-74C to isolate it from the "A" train trip signal. This will allow the "A" train control room emergency recirculation mode to remain operable, while repairs to the OM25-C002A return fan meter cooling fan are made.

Summary

- I. No. Overload relay pulling will not affect Emergency recirculation mode of operation of the Control Room vent.
- II. No. Isolating the return fan at the "A" train will only affect normal mode of operation. No possible accident or malfunction than previously evaluated could occur.
- III. No. The Emergency recirculation mode of operation will remain operable as defined in Technical Specifications.