ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:8805250157 DOC.DATE: 88/05/16 NOTARIZED: NO DOCKET #
FACIL:50-400 Shearon Harris Nuclear Power Plant, Unit 1, Carolina 05000400
AUTH.NAME AUTHOR AFFILIATION
WATSON,R.A. Carolina Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
Document Control Branch (Document Control Desk)

SUBJECT: Forwards quarterly rept of changes to procedures &/or plant mods for First Quarter 1988.

DISTRIBUTION CODE: IE47D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 18
TITLE: 50.59 Annual Report of Changes,Tests or Experiments Made W/out Approv

NOTES:Application for permit renewal filed. 05000400

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD2-1 LA	1	0	PD2-1 PD	5	5
	BUCKLEY,B	1	0			
INTERNAL:	ACRS	10	10	AEOD/DOA	1	1
	AEOD/DSP/TPAB	1	1	NRR/DLPQ/HFB 10	1	1
	NRR/DOEA/EAB 11	1	1	NRR/DREP/RPB 10	2	2
	NRR/DRIS/SGB 9D	1	1	NRR/PMAS/ILRB12	1	1
	NUDOCS-ABSTRACT	1	1	REG FILE 02	1	1
	RGN2 FILE 01	1	1			
EXTERNAL:	LPDR	1	1	NRC PDR	1	1
	NSIC	1	1			

TOTAL NUMBER OF COPIES REQUIRED: LTTR 31 ENCL 29

R I D S / A D D S

R I D S / A D D S

Carolina Power & Light Company

HARRIS NUCLEAR PROJECT
P.O. Box 165
New Hill, NC 27562

MAY 16 1988

File Number: SHF/10-13510C
Letter Number: HO-880104 (O)

10CFR50.59

U.S. Nuclear Regulatory Commission
ATTN: NRC Document Control Desk
Washington, DC 20555

SHEARON HARRIS NUCLEAR POWER PLANT UNIT 1
DOCKET NO. 50-400
LICENSE NO. NPF-63
QUARTERLY REPORT IN ACCORDANCE WITH 10CFR50.59

Gentlemen:

In accordance with 10CFR50.59 and CP&L Letter (NLS-86-454) of commitment dated December 9, 1986, the following report is submitted for the first quarter of 1988. This report contains brief summaries of changes to procedures and/or plant modifications, which change the plant as it is described in the FSAR. There were no tests or experiments conducted during this interval, which are not described in the FSAR which require reporting in this report.

Very truly yours,

R A Watson

R. A. Watson
Vice President
Harris Nuclear Project

MGW:gmw

Enclosure

cc: Dr. J. Nelson Grace (NRC - RII)
Mr. G. Maxwell (NRC - SHNPP)

IE47
1/1

CHANGE TO PROCEDURE AS DESCRIBED IN THE FSAR

TITLE: EPT-033 Rev. 1, Emergency Safeguards Sequencer (ESS) System Test

FUNCTIONAL SUMMARY: The FSAR specifies that the loading interruption on a containment spray actuation signal (CSAS) is tested during the periodic test (EPT-033) by depressing the CSAS test button during the third load block of the first program B simulation to test the ability of the containment spray pump (CSP) actuation to be delayed to the fourth load block.

This Revision simply changes the specified test to indicate that the CSAS Test will be run during Program C rather than during Programs B and C. It was determined during test implementation that the sequencer design would not support running the test as specified in the FSAR.

SAFETY SUMMARY: These changes have no affect on plant operations or plant equipment. The changes relate only to the method and sequence of ESS testing. This change does not increase the probability or consequences of analyzed accidents, nor introduce a different type of accident or equipment malfunction than already evaluated in the FSAR. Thus, no unreviewed safety question exists.

FSAR REFERENCE: Section 7.3.1.5

CHANGE TO PROCEDURE AS DESCRIBED IN THE FSAR

TITLE: PLP-106 Rev. 1, Technical Specification Equipment List Program

FUNCTIONAL SUMMARY: This procedure contains lists of equipment previously maintained in the Technical Specifications. These lists are duplicated in FSAR Chapter 16.3.

The following changes have been made:

- Administrative Control of the surveillance of snubbers has been revised in accordance with the guidance of OM-4, "Examination and Performance Testing of Nuclear Power Plant Dynamic Restraints (Snubbers)", proposed revision 2.

- The guidance of NRC Generic Letter 87-09 has been applied to the Containment Isolation Valve list, to permit mode changes with inoperable containment isolation valves provided the action statement of Technical Specification 3.6.3 is satisfied.

- A requirement to lock close all manual containment isolation valves has been added, in accordance with 10CFR50.

- An explanatory note has been added for containment isolation valves for the ECCS recirculation sumps and RHR suction, to identify the design requirements stated in FSAR Chapter 6.2.4, which notes that the closed system outside containment is relied upon as an isolation boundary. The note will help ensure that this closed boundary is identified as associated with containment integrity, and will permit a four hour allowed outage time for these isolation valves.

- An explanatory note has been added for relief valves classified as containment isolation valves, to ensure appropriate actions are taken for inoperable valves to satisfy the requirements of the safety analysis for their associated systems.

- Four items were removed from table 16.3-6, Containment Penetration Conductor Overcurrent Protection Devices, based on an engineering evaluation which determined that the circuits were of sufficiently low energy that protection was not required, as described in FSAR 8.3.1.1.2.15.

- The structure of tables 16.3-5 and 16.3-6 has been changed so that they are simpler to use for the operator.

- Numerous corrections to the text for typographical errors and consistency of wording were made.

SAFETY SUMMARY: The changes made to the tables incorporate the most current technical information available. The components and systems addressed in these tables are not related to the probability of initiation of accidents analyzed in the FSAR. No changes have been made to the design of components, or the conditions under which they operate, and so no increase in probability of equipment malfunction is introduced, nor are any new equipment malfunctions or accident scenarios created. The ability of the tabulated components to perform their intended safety functions is not diminished by this change; these components will therefore be available to mitigate the consequences of accidents and equipment malfunctions. The basis of the associated technical specifications is not altered. Based on these determinations, no unreviewed safety question exists.

FSAR REFERENCE: Section 16.3

CHANGE TO PROCEDURE AS DESCRIBED IN THE FSAR

TITLE: PLP-108, Environmental Qualification (EQ) Program

FUNCTIONAL SUMMARY: The purpose of this change is to delete the obsolete format for the EQ Equipment Master List (Figure 3.11.1-1) from the FSAR. Procedure PLP-108 describes the EQ program controls, responsibilities and implementation. Currently, the CP&L Nuclear Engineering Department (NED) generates and maintains the SHNPP EQ Equipment Master List using a Equipment Data Base System (EDBS) in lieu of the format described in the FSAR.

SAFETY SUMMARY:

This change only removes contradictory information between the FSAR and the approved EQ Program on how the EQ Master List will be maintained. This change does not increase the probability or consequences of analyzed accidents, nor introduce a different type of accident or equipment malfunction than already evaluated in the FSAR. Thus, no unreviewed safety question exists.

FSAR REFERENCE: Figure 3.11.1-1

CHANGE TO FACILITY AS DESCRIBED IN THE FSAR

TITLE: PCR-001819, Vacuum Pump Discharge Check Valves

FUNCTIONAL SUMMARY: This plant modification removed the internals from the Condenser Vacuum Pump discharge check valves (7AE-V5-1 and 7AE-V6-1). These valves were intended to prevent backflow of gases through an idle pump with one (1) vacuum pump operating. However, due to piping configuration (vertical installation in-lieu-of-horizontal) and check valve design (spring return), the valves did not open under all operating conditions. This caused improper pump operation; similar to pumping against shut-off head.

Removing valve internals provides an unrestricted flow path for pump discharge. With one (1) vacuum pump operating, backflow of gases into the idle train is prevented by the suction side valve (7AE-B7-1 or 7AE-B8-1) which automatically closes when its respective pump is not operating. PCR 001819 constitutes a change to FSAR Figure 10.1.0-4 to indicate the internals removed from the subject check valves.

SAFETY SUMMARY:

These components are part of the condenser evacuation system which is not required for safe shutdown of the plant. However, loss of condenser vacuum control will cause a turbine trip and subsequently a reactor trip; therefore, loss of condenser vacuum control function indirectly impacts the Reactor Coolant System. This impact is analyzed in Chapter 15 of FSAR. This change does not increase the probability or consequences of analyzed accidents, nor introduce a different type of accident or equipment malfunction than already evaluated in the FSAR. Thus, no unreviewed safety question exists.

FSAR REFERENCE: Figure 10.1.0-4

CHANGE TO FACILITY AS DESCRIBED IN THE FSAR

TITLE: PCR-000164, Fuel Pool Skimmer System Modification

FUNCTIONAL SUMMARY: This modification installs a high point vent on line 7SF6-48-1 & 4" and a permanent demineralized water connection on the fuel pool skimmer pump suction piping. The fuel pool skimmer system is a Non-Q, non-seismic (Quality Class E) system and functions to remove any floating debris from the surface of the various pools within the Fuel Handling Building. The flexible skimmer hoses were also replaced with a new hose design. The previous skimmer hoses were too flexible and collapsed on high flow due to semipermanent kinks in the hose. This change will require a change to FSAR Figure 9.1.3-3 to show the new vent valve and demineralized water line tie-in.

SAFETY SUMMARY:

The fuel pool skimmer system is a Non-Q, non-seismic (Quality Class E) system. The area bounded by this modification consists of the suction piping from the skimmers to the skimmer pump (including the new demineralized water line). This system interacts with the fuel pools which are Q-List, seismic, ASME B&PV Code Class 1 Structures. This modification includes a check valve in the added demineralized water line to prevent the possibility of contamination to the demineralized water system from the fuel pools.

An analysis was performed which showed that the new flexible hose material would not leach chlorides and is compatible with the fuel pool chemistry requirements provided in Table 9.1.3-3 of the FSAR. All other piping and components in contact with fuel pool water are austenitic stainless steel per requirements of Section 9.1.3.2 of the FSAR. This change does not increase the probability or consequences of analyzed accidents, nor introduce a different type of accident or equipment malfunction than already evaluated in the FSAR. Thus, no unreviewed safety question exists.

FSAR REFERENCE: Figure 9.1.3-3

CHANGE TO FACILITY AS DESCRIBED IN THE FSAR

TITLE: PCR-000165, Fuel Pool Cooling System Vent Valves

FUNCTIONAL SUMMARY: This modification installs high point vents on fuel pool cooling system lines 3SF12-14SB-1&4, 3SF16-1SA-1&4, 3SF16-2SB-1&4 and 3SF12-171SB-1&4. The fuel pool cooling system is a Q, Seismic Category I (Quality Class A) system, designed to ASME B&PV Code Section III Class 3 requirements and functions to remove residual heat loads generated by spent fuel stored in the fuel storage pools.

These added vents will enable plant personnel to vent air, and ensure solid fill, in the suction piping prior to initial system startup. This modification will require a change to FSAR Figure 9.1.3-1 to show the new vent valves.

SAFETY SUMMARY:

The components used for the vent valve connections are all stainless steel. This is compatible and consistent with the rest of the fuel pool cooling system. The modification adds (4) high point vent connections to the suction piping of the fuel pool cooling system similar to existing components already in the system. The vent connections are only one-inch components as compared to "worst case" breaks (suction line failure) already evaluated in the FSAR (Section 9.1.3.3). The vent connections are seismically qualified and will not introduce any new mode of failure.

This change does not increase the probability or consequences of analyzed accidents, nor introduce a different type of accident or equipment malfunction than already evaluated in the FSAR. Thus, no unreviewed safety question exists.

FSAR REFERENCE: Figure 9.1.3-1

CHANGE TO FACILITY AS DESCRIBED IN THE FSAR

TITLE: Fuel Handling Building (FHB) Emergency Exhaust System

FUNCTIONAL SUMMARY: This change allows the Alert Alarm setpoint for the FHB operating floor area radiation monitors to be adjusted above the now specified level of 2.5 mr/hr.

The Alert Alarm is an indicator to the Control Room, Radiation Control, and personnel working in the FHB that area Radiation levels are increasing. Ambient Radiation levels will vary depending on the type of work being performed in the FHB. Therefore, some flexibility is needed to allow the Alert Alarm Setpoint to be adjusted above ambient background Radiation levels. This will help reduce the number of nuisance alarms received at the RM-11 terminals.

SAFETY SUMMARY:

Deleting the specific value for the Alert Alarm setpoint has no effect on the FHB Area Radiation Monitors ability to perform its mitigating functions as described in section 15.7.4.1 of the FSAR. Automatic actuation of the FHB emergency ventilation and isolation of the FHB normal ventilation is initiated when the Area Radiation levels reach the High Alarm Setpoint. The High Alarm Setpoint will remain unchanged and is independent of the Alert Alarm Setpoint. This change does not increase the probability or consequences of analyzed accidents, nor introduce a different type of accident or equipment malfunction than already evaluated in the FSAR. Thus, no unreviewed safety question exists.

FSAR REFERENCE: Section 6.5.1.2.1

CHANGE TO FACILITY AS DESCRIBED IN THE FSAR

TITLE: PCR-001014, Waste Gas Compressors

FUNCTIONAL SUMMARY: This plant modification allows the use of ASME Section II or ASTM materials under the Radwaste-Q Program as spare parts for the Waste Gas Compressors. The Waste Gas Compressors are a part of the Gaseous Waste Processing System (GWPS). This change is required since Westinghouse had originally specified the Waste Gas Compressors as ASME Section III, Class 3 and the vendor no longer has an "N" stamp. Therefore, the vendor cannot supply ASME Section III qualified spare parts.

SAFETY SUMMARY:

Although Westinghouse supplied the Waste Gas Compressors as ASME Section III, Class 3, they were installed in a nonsafety application. SHNPP has committed to Regulatory Guide 1.143 via ETSB 11-1, Rev. 1 in FSAR Section 1.8 which requires the compressors to be included in the Radwaste-Q Program. This is consistent with FSAR Section 11.3 and Table 3.2.1-1. A review of Regulatory Guide 1.143 reveals that pressure retaining materials for compressors (assumed similar to pumps) must be specified to ASME Section II or Manufacturers' Standards. This PCR allows the use of ASME Section II or ASTM materials under the Radwaste-Q program, therefore, it meets or exceeds regulatory requirements.

This change does not increase the probability or consequences of analyzed accidents, nor introduce a different type of accident or equipment malfunction than already evaluated in the FSAR. Thus, no unreviewed safety question exists.

FSAR REFERENCE: Sections 11.3.2 and 15.7.1

CHANGE TO FACILITY AS DESCRIBED IN THE FSAR

TITLE: PCR-000751, Waste Process Building Cooling Water (WPBCW) System Chemical Addition Tank/Surge Tank Drain Cross-tie.

FUNCTIONAL SUMMARY: This modification adds pipe supports, reorients and extends the drain piping from the WPBCW Systems Chemical Addition Tank to the WPBCW Surge Tank overflow line. The extension of the drain line is hard piped into the Surge Tank overflow line to prevent contamination of the floor drain system with chromates from the WPBCW System.

Hard piping the drain line into the Surge Tank overflow line eliminates the possibility of draining the Chemical Addition Tank onto the WPB 291 elevation. The water in the Chemical Addition Tank contain chromates which are carcinogenic therefore this water is not suitable for the floor drain system. Also, exposure of personnel to the drain water is a safety hazard.

SAFETY SUMMARY:

The modification specifies carbon steel material which is the same material type and grade, pound rating and schedule as the original system requirements. The additional line is non-seismic and non-safety class. The reroute and extension of the drain piping does not change the system function. It prevents contamination of the floor drain system and enhances personnel safety.

This change does not increase the probability or consequences of analyzed accidents, nor introduce a different type of accident or equipment malfunction than already evaluated in the FSAR. Thus, no unreviewed safety question exists.

FSAR REFERENCE: Figures 9.2.10-1 & 9.3.3-5

CHANGE TO FACILITY AS DESCRIBED IN THE FSAR

TITLE: PCR-002210, Personnel Air Lock Door Evacuation

FUNCTIONAL SUMMARY: This change resulted from the discovery that the vendor manual/drawings specified the use of 1.0 HP DC motors to operate the containment personnel air lock doors when in fact 1.5 HP motors were provided. This resulted in the load on feeder cable 11020A to increase from 1000 watts to 2000 watts and therefore, did not meet design criteria. This modification upsizes feeder cable 11020A from a #10 to a #6 cable. FSAR Table 8.3.2-3 requires a revision to reflect the new load profile.

SAFETY SUMMARY:

The subject DC motors and associated circuits are non-safety related and do not perform any safety related operation. In the event that electrical power is interrupted, or the electric pump motors fail, operation of the air locks is possible using the manual hydraulic pumps provided for the air locks. The existing cable route for cable 11020A has not changed. Upsizing the feeder cable to a #6 will bring the circuit into compliance with the established ampacity criteria.

This change does not increase the probability or consequences of analyzed accidents, nor introduce a different type of accident or equipment malfunction than already evaluated in the FSAR. Thus, no unreviewed safety question exists.

FSAR REFERENCE: Table 8.3.2-3

CHANGE TO FACILITY AS DESCRIBED IN THE FSAR

TITLE: PCR-001582, Waste Gas Analyzer Rack Moisture Problem

FUNCTIONAL SUMMARY: This modification adds a moisture separator, drain pot and vent line to the Waste Gas Analyzer Sampling lines. Prior to this modification during operation of the Waste Gas Recombiners, moisture built up in the gas analyzer racks which subsequently resulted in false readings.

SAFETY SUMMARY:

This modification provides a means to prevent moisture buildup in gas analyzers of the Waste Gas Recombiners. This change will help prevent the analyzers from producing incorrect readings and reduce maintenance on the instruments. This modification does not change the design intent of the system and allows the effected instrumentation to work in the manner intended.

The Gaseous Waste Processing System has no function related to the shutdown of the plant. Various components are class 3, primarily waste gas decay tanks and associated piping up to the first isolation valve, for waste gas retention and reliability. This modification is outside the class 3 boundary. Since the Chapter 15 initiating event is a single rupture of a gas decay tank, this modification will not impact that analysis.

This change does not increase the probability or consequences of analyzed accidents, nor introduce a different type of accident or equipment malfunction than already evaluated in the FSAR. Thus, no unreviewed safety question exists.

FSAR REFERENCE: Figures 11.3.2-1
Figures 11.3.2-2

CHANGE TO FACILITY AS DESCRIBED IN THE FSAR

TITLE: PCR-001771, Condenser Vacuum Pump Air Release

FUNCTIONAL SUMMARY: This plant modification installed a moisture trap/separator and piping which allows the return of air (previously being released from the condenser vacuum pumps overflow drains and not being monitored for radiation) to a monitored discharge line as designed.

SAFETY SUMMARY:

This modification will ensure that vacuum pump discharged air is monitored for radiation. This modification does not change any system lineup, response time or operating characteristics.

This change does not increase the probability or consequences of analyzed accidents, nor introduce a different type of accident or equipment malfunction than already evaluated in the FSAR. Thus, no unreviewed safety question exists.

FSAR REFERENCE: Figure 10.1.0-4

CHANGE TO FACILITY AS DESCRIBED IN THE FSAR

TITLE: PCR-002418, Deletion of Automatic Fan Trip on Smoke Detection, AH-15SA, SB

FUNCTIONAL SUMMARY: This plant modification deletes the fire detection signal causing automatic shut down of the safety-related fans (AH-15SA, SB) feeding the Control Room. The engineering evaluation was performed in accordance with Generic Letter 86-10.

The purpose of the smoke detectors located inside the ventilation system for the Control Room were as follows:

1. The smoke detector located at the normal Outside Air Intake (OAI) to the Control Room ventilation system was originally designed to activate a Control Room Isolation (CRI) signal in accordance with FSAR Section 7.3.1.

2. The smoke detectors (3) located at the inlet of the AH-15 SA and SB supply fans and the normal Control Room exhaust were provided in accordance with NFPA 90A. This code requires shut down of the supply fans upon detection of the presence of smoke.

The detectors are located on the same fire detection zone 1-150. The control wiring diagrams reflect that upon receipt of a signal from fire detection zone 1-150, a CRI signal is activated which automatically closes the normal OAI and exhaust valves, stops the normal exhaust fan and starts the emergency filtration units. This is the automatic action required for the smoke detector described in Item 1 above. However, in addition to the CRI signal actions, the fire detection zone 1-150 signal also trips the normal supply fans (AH-15SA and SB) which, in turn, causes the normal recirculation damper to close. This causes the Control Room ventilation recirculation flow to be blocked. These actions cause the emergency filtration system to be declared inoperable since the action statement of Tech. Spec. 3.7.6 cannot be met.

The control wiring diagrams reflect that a safety injection (SI) signal or loss of offsite power (LOOP) signal via the load sequencer will automatically start the AH-15SA and SB supply fans and activate a CRI signal overriding a single failure of the fire detection zone 1-150 signal.

The design function for the OAI smoke detector was to act independent of those smoke detectors required to shut down the AH-15-SA and SB supply fans. If the circuits were independent, then a signal from the OAI smoke detector would have isolated the Control Room and allowed shut down of the plant from the Control Room.

SAFETY SUMMARY:

A modification of the control circuits was required to eliminate the automatic supply fan shutdown capability. This NFPA code deviation has been evaluated per RET25-M-01-F in accordance with Generic Letter 86-10 and found to be acceptable. The CRI signal activated by the OAI smoke detector will remain which meets the requirement of the NRC's SRP 6.4 and HNP's FSAR 6.4, Control Room Habitability. This modification will also prevent a single failure of the detection signal causing the emergency filtration system to be declared inoperable in conjunction with a high radiation signal or high chlorine concentration. Technical justification for deletion of the smoke detectors described in Item 2 above has been provided in the Engineering Evaluation No. RET25-M-01-F.

This change does not increase the probability or consequences of analyzed accidents, nor introduce a different type of accident or equipment malfunction than already evaluated in the FSAR. Thus, no unreviewed safety question exists.

FSAR REFERENCE: Section 6.4.2
Section 6.4.6
Section 9.5.1
Section 9.5A

CHANGE TO FACILITY AS DESCRIBED IN THE FSAR

TITLE: PCR-002105, Vacuum Pump Effluent Piping

FUNCTIONAL SUMMARY: This modification to the Main Condenser Evacuation System (MCES) adds drain piping, supports, and heat tracing on the drain piping from a low point in the Condenser Vacuum Pump Effluent Piping (Duct). This new piping drains condensation which was collecting in and leaking from the effluent piping.

SAFETY SUMMARY:

The MCES is non-nuclear safety class and non-seismic Category I. The added drain piping is routed to an equipment drain which is part of the industrial waste drain system. It is monitored through radiation monitor REM 3528 to prevent a release of radioactivity. The material for the drain piping is of the same material type and grade, pound rating, and schedule as the original system components, therefore, the system integrity is maintained. The addition of the drain piping, supports, and heat tracing does not change the operability or function of the Condenser Evacuation System.

This change does not increase the probability or consequences of analyzed accidents, nor introduce a different type of accident or equipment malfunction than already evaluated in the FSAR. Thus, no unreviewed safety question exists.

FSAR REFERENCE: Figure 10.1.0-4

CHANGE TO FACILITY AS DESCRIBED IN THE FSAR

TITLE: PCR-001796 - Cooling Tower Make-up (CTMU) and Cooling Tower Blowdown
PCR-002103 - Increase Cooling Tower Blowdown

FUNCTIONAL SUMMARY: This modification provides cross-tie piping between the Cooling Tower Basin Supply (Makeup), and the blowdown from the Cooling Tower Basin to the Main Reservoir. The cross-tie piping has two manual isolation valves, two flow meters, and motor operated valve and vent.

The cooling tower basin is treated with corrosion inhibitors to protect piping and components. The high cost of these chemicals makes it prudent to operate at high cycles of concentration - equivalent to 1500 gpm blowdown. However, 7400 gpm of blowdown is required for Radwaste Dilution. This modification provides a source of liquid radwaste dilution flow directly from the Cooling Tower Make-up pumps, bypassing the cooling tower basin. This modification will limit the loss of corrosion inhibitor chemicals resulting from a high blowdown flow from the Cooling Tower Basin.

SAFETY SUMMARY:

This modification adds another dilution water flow path along with flow rate measuring devices and controls. Even though the design basis of the Cooling Tower Blowdown and Make-up Systems is non-nuclear safety, two separate flow meters and channels have been provided. Therefore, should one channel fail, another is available. The CTMU/CTBD cross-tie flow instrumentation has been connected to the original Cooling Tower Blowdown Flow Instrumentation in such a way that the signals are summed and a total dilution flow is provided. This signal is interlocked to the Radwaste Discharge Valves to automatically isolate the liquid discharge in the event that total dilution flow falls below a preset value determined from the ODCM calculations. As required, any changes to the ODCM will be reported in the Semiannual Radioactive Effluent Release Report.

This change does not increase the probability or consequences of analyzed accidents, nor introduce a different type of accident or equipment malfunction than already evaluated in the FSAR. Thus, no unreviewed safety question exists.

FSAR REFERENCE: Section 11.2.1.1
Section 11.2.2.2