Public Service

Public Service
Company of Colorado

16805 WCR 19 1/2, Platteville, Colorado 80651

June 17, 1985
Fort St. Vrain
Unit No. 1
P-85212

Regional Administrator
Attn: Mr. E. H. Johnson
Region IV
U. S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Docket No. 50-267

SUBJECT: Beta Radiation in FSV
Radioactive Effluents

REFERENCE: 1) G-84329, Johnson to Lee, Dated 09/04/84

2) P-84313, Gahm to Johnson, Dated 08/27/84

3) G-85096, Denise to Lee, Dated 03/11/85

Dear Mr. Johnson:

This letter is to inform you of our current status and future plans in regard to addressing the NRC concerns over beta radiation in Fort St. Vrain radioactive liquid effluents.

Concern over beta radiation, specifically in releases from the Reactor Building sump, first arose as a result of a release made on July 20, 1984 which exceeded the unknown radionuclide Maximum Permissible Concentration for beta radiation. Subsequent analyses determined that the activity was due to sulfur 35, and that no Maximum Permissible Concentrations were exceeded. This event was detailed in NRC Inspection Report 84-20 (Reference 1). Public Service Company reported on this incident via Licensee Event Report 84-009 (Reference 2). Per this Licensee Event Report, the source of the radioactivity in the Reactor Building sump was determined to be the drain line from a compressor in the helium purification system. The subject drain was plugged, and a survey of

85-505

1/1
H005
Return original
to RIV

all drains in the Reactor Building was performed. A copy of the drain survey (T-252) is enclosed for your information. The results of the survey indicate that all drains are correctly routed to either the Reactor Building sump or the liquid waste sump. We continue to believe that the July 20, 1984 event was an isolated case, and sample analysis results of the contents of the Reactor Building sump prior to and subsequent to the July 20, 1984 event confirm our belief. These records are available for NRC review at Fort St. Vrain.

With respect to answering the NRC concerns as contained in Reference 3, the following actions have been or are being taken:

1) Effective June 17 1985, all releases of liquid effluent from the Reactor Building sump will be performed in the batch mode in accordance with non-Technical Surveillance SR-OP-41-X, "Volume (Batch) Release from Reactor Building Sump". A copy of this Surveillance is enclosed for your information. As you will note, prior to the release of any liquid radioactive effluents, the contents of the sump will be sampled and analyzed for beta and gamma emitting radionuclides to ensure that 10CFR20 release limits are not exceeded. Subsequent samples will be taken every 24 hours during each release.

2) We are continuing our investigation into the feasibility of installing in-line beta-sensitive effluent monitors in the FSV Reactor Building Sump effluent discharge line. As discussed with Messrs. Phil Wagner and Blaine Murray of your staff, there currently do not exist commercially available on-line beta liquid effluent monitors. We have identified a beta liquid monitor being utilized in the biomedical industry, and we currently have this monitor on site for performance testing. Although from a technical standpoint the monitoring system is workable, keep in mind that the transfer of technology from a laboratory environment to an operational facility is not always practical.

   For example, the monitoring system requires very high purity water to function properly, and, as you know, the Reactor Building sump contents are less than pristine, to say the least. Due to the multi-faceted nature of our investigation, we are not prepared to offer a target date for completion at this time. We will, of course, keep you fully informed of our progress and any developments. Following the completion of our investigation, we would like to meet with you to discuss your concerns and our actions to address them.

We trust that the above actions will satisfy your concerns over beta radiation at Fort St. Vrain in the short term, and look forward to discussing our long term actions with you in the near future. Please contact Mr. M. H. Holmes at (303) 571-8409 if you have any questions on this matter.

Sincerely,

J. W. Gahm
Manager, Nuclear Production
Fort St. Vrain Nuclear
Generating Station

JWG:FJB/djc

Enclosures

P File

Public Service Company of Colorado

16805 WCR 19 1/2, Platteville, Colorado 80651

August 27, 1984
Fort St. Vrain
Unit #1
P-84313

Mr. E. H. Johnson, Chief
Reactor Project Branch 1
Region IV
Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

REFERENCE: Facility Operating License
No. DPR-34

Docket No. 50-267

Dear Mr. Johnson:

Enclosed please find a copy of Licensee Event Report No. 50-267/84-009, Final, submitted per the requirements of 10 CFR 50.73(a)(2)(i) and 10 CFR 50.73(a)(2)(v).

Very truly yours,

J. W. Gahm
Manager, Nuclear Production

JWG/djm

Enclosure

cc: Director, MIPC

8409052044 pdr

NRC Form 366
(9-83)

U.S. NUCLEAR REGULATORY COMMISSION
APPROVED OMB NO. 3150-0104
EXPIRES: 8/31/85

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Fort St. Vrain, Unit No. 1	0 5 0 0 0 2 6 7	1 OF 0 14

TITLE (4)
Liquid Waste Release Exceeded MPC For Unidentified Beta

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAMES	DOCKET NUMBER(S)
0 7	2 6	8 4	8 4	— 0 0 9	— 0 0	0 8	2 4	8 4	N/A	0 5 0 0 0
										0 5 0 0 0

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)			
POWER LEVEL (10)	0 0 0	20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
		20.405(a)(1)(i)	50.36(c)(1)	X 50.73(a)(2)(v)	73.71(c)
		20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
		20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
		20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
		20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER
Frank Novachek, Technical Services Engineering Supervisor	AREA CODE 3 0 3 7 8 5 - 2 2 2 4

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

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

SUPPLEMENTAL REPORT EXPECTED (14)

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

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

On July 20, 1984, initial analysis of the daily sample from the Reactor Building Sump indicated a higher level of tritium than the sample taken on the previous day. The sample tritium activity was below maximum permissible concentration (MPC). However, releases from the Reactor Building Sump were terminated until the tritium levels were reduced. The sample taken on July 21, 1984 indicated all radionuclides were below MPC, and releases resumed.

On July 26, 1984, a subsequent analyses performed on the July 20 Reactor Building Sump sample indicated concentration of unknown beta emitters was above MPC. For a period of approximately 37 hours on July 19 and July 20, a release could have occurred that was in excess of MPC for unidentified beta emitters. Releases from the Reactor Building Sump were terminated until the source of the high activity (unidentified beta emitters) was determined. Maintenance activities concerning the helium purification system regeneration compressor were discovered to be the source of the unidentified beta emitters in the Reactor Building Sump. The sump pumps were removed from service and plugs were installed in the floor drains in the area of the compressor.

The floor drains will be routed to the Liquid Waste System rather than the Reactor Building Sump.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Fort St. Vrain, Unit No. 1	0 5 0 0 0 2 6 7	8 4	— 0 0 9	— 0 0	0 2 OF 0 4

TEXT (If more space is required, use additional NRC Form 366A's) (17)

EVENT DESCRIPTION:

On Thursday, July 19, 1984, at approximately 0200 hours, with the reactor shutdown and depressurized for internal maintenance, the daily sample was taken from the Reactor Building Sump (T-7202) and analyzed, as usual, on the day shift. The analysis was normal with expected concentrations of radionuclides in the sump. On Friday, July 20, 1984, at 0244 hours, the daily sample was taken, and the day shift initial analysis indicated a higher level (but below MPC) of tritium. The Radiochemistry Supervisor informed the Shift Supervisor that the releases from the Reactor Building Sump should be terminated until the tritium levels were reduced. The Reactor Building Sump Pumps (P-7201 and P-7201S) switches were placed in the "pull to lock" position at 1600 hours on July 20, 1984. On Saturday, July 21, 1984, a direct Reactor Building Sump sample was taken at 0830 hours and analyses indicated that tritium, gamma, and gross beta activities were below MPC; the Shift Supervisor was informed and the Reactor Building Sump pumps were placed back in service at 1055 hours.

On Thursday, July 26, 1984, the sample from July 20, 1984 was analyzed for gross beta activity and 35-Sulfur and it was determined that the concentration of beta emitters was 2.24 times the MPC (for unknown radionuclides) at the time the sample was taken on July 20, 1984, at 0244 hours. It was concluded that sometime between approximately 0200 hours on July 19, 1984, and 0244 hours of July 20, 1984, a liquid release into the Reactor Building Sump occurred from an unknown origin that increased the radionuclide concentration in the sump. The Reactor Building Sump Pumps were not placed in the "pull-to-lock" position until 1600 hours on July 20, 1984. For a period of approximately 37 hours, a release could have occurred that was in excess of the MPC for unidentified beta emitters. A decision was made that this occurrence constituted an Unusual Event, and State and Nuclear Regulatory Commission authorities were notified on July 26, 1984.

ANALYSIS OF EVENT:

Radiochemical analysis of the backup sample taken July 20 from the Reactor Building Sump indicated a beta concentration of 4.79E-05 µci/ml. Based on the release rate of eight gallons per minute and the average cooling tower blowdown of 1632 gallons per minute, the calculated beta concentration released would be 6.72E-08 µci/ml. The MPC for unidentified beta is 3.0E-8 µci/ml, resulting in a concentration of unidentified beta 2.24 times MPC.

A sample of the July 20, 1984, sump sample was sent to an outside agency for a detailed analysis in order to determine the identity of the unidentified beta emitters. The results of the sample analyses have been received and have verified that no MPC values were exceeded during this release.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Fort St. Vrain, Unit No. 1	0 5 0 0 0 2 6 7	8 4	— 0 0 9	— 0 0	0 3 OF 0 4

TEXT (If more space is required, use additional NRC Form 366A's) (17)

CAUSE DESCRIPTION:

Other

On July 19, 1984, at 1405 hours the helium purification system regeneration compressor was removed from service to repair a seal leak. Contaminated water was released, as expected, when the compressor was disassembled. Any water released goes into the floor drains of the regeneration pit, which was believed to drain to the Liquid Waste Sump (T-6201). During an investigation into the source of the unidentified beta emitters, dye was released into the drain and found in the Reactor Building Sump instead of the Liquid Waste Sump.

CORRECTIVE ACTION:

On July 26, 1984, after it was determined a release could have occurred that was in excess of the MPC for unidentified beta emitters, the Reactor Building Sump Pump switches were placed in the "pull-to-lock" position while an investigation into the origin of the unidentified beta emitters took place.

After the source of the unidentified beta emitters was discovered to be the floor drains in the area of the regeneration compressor, the drains were plugged with inflatable plugs.

Public Service Company and the Nuclear Regulatory Commission conducted evaluations of continuous process beta monitors. Both Public Service Company and the Nuclear Regulatory Commission concluded that there were no instruments that would prevent a release of this type from happening again.

In an effort to inhibit a recurrence of this event, the floor drains from the regeneration pit will be rerouted from the Reactor Building Sump to the Liquid Waste Sump.

No further corrective action is anticipated or required.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Fort St. Vrain, Unit No. 1	0 5 0 0 0 2 6 7	8 4	— 0 0 9	— 0 0	0 4 OF 0 4

TEXT (If more space is required, use additional NRC Form 366A's) (17)

Laurie S. Bañagas
Laurie S. Banagas
Techical Services Technician

Frank J. Novachek
Technical Services Engineering Supervisor

L. Milton McBride
L. M. McBride
Station Manager

J. W. Gahm
Manager, Nuclear Production

INTER-DEPARTMENT MEMO - PUBLIC SERVICE COMPANY OF COLORADO

PPC-85-0634

DATE: February 13, 1985

TO: Mr. Jerry McCauley, Results Engineering Supervisor, FSV

FROM: Jeffery Nadeau, Results Engineer, FSV

ATTN:

SUBJ: SUMMARY OF DRAIN TEST T-252

Due to incidents in the past of unwarranted releases of radioactivity into the Reactor Building sump via drainage lines, a test has been initiated in response to LER 84-009-00 which determines the destination of drain lines within the Reactor Building. As a result, there should no longer be any incident of accidental release of activity to the Reactor Building sump because someone uses the wrong drain to dispose of radioactive liquid waste.

The results of test T-252 are as follows:

Number of drains to Reactor Building sump	47
Number of drains to Liquid Waste sump	28
Number of drains that remain clogged/untested	3
Total number of drains examined	78.

The drains that are clogged/untested can be reasonably assumed to drain to the Reactor Building sump. If this is assumed, they will be labeled as such and no radioactive waste will be dumped into them and no accidental release will be made. Also, these drains correlate very closely with the design that was intended (DWGs B-148 through B-153). The drains are listed under T-252 by description and location.

The method of testing these drains was either by visual inspection or by dye testing. A few drains had been previously verified. A letter from the dye manufacturer is attached to verify its environmental safety.

Any questions should be directed to Results or to the conductor of this test.

Jeff Nadeau

JF/dal

Attachments (2)

PUBLIC SERVICE COMPANY OF COLORADO

FORT ST. VRAIN NUCLEAR GENERATING STATION

REQUEST FOR TEST

TEST REF. NO. 252
SYST. REF. NO. 62/72
PAGE 1 OF 13

WORKING COPY

PREPARED BY: Bradley G. Barta — 11-9-84 (DATE)

REVIEWED BY: Doran D. Meade — 11/27/84 (DATE)

CONCUR WITH SAR: ☒ YES ☐ NO R A Heller (TECHNICAL SERVICES) — 11-29-84 (DATE)

ISSUE 1 REVIEWED, PORC # PORC 598 DEC 3- 1984 — (DATE)

APPROVED & ISSUED: D A Fuller (SIGNATURE) — 12/3/84 (DATE)

SAFETY SIGNIFICANT: ☐ YES ☑ NO

NFSC REVIEW:

RECORD AND CONTROL OF ISSUE

ISSUE NO.	PREPARED BY	PORC APPROVAL	APPROVED AND ISSUED EFFECTIVE DATE OF REVISION
2			
3			
4			
5			
6			
7			
8			

COMPLETED TEST REVIEWED: D A Fuller (OPERATIONS MANAGER (OR DESIGNEE) SIGNATURE) — 3/15/85 (DATE)

FORM 372 · 22 · 3398

PUBLIC SERVICE COMPANY OF COLORADO

FORT ST. VRAIN NUCLEAR GENERATING STATION

REQUEST FOR TEST

TEST REF. NO. 252
SYST. REF. NO. 62/72

1 PURPOSE OF TEST To determine the flow path of equipment and floor drains in the Reactor Bldg.

2 TEST OBJECTIVES Verify whether the equipment and floor drains (reactor bldg) drain into the Reactor Building sump or the liquid waste sump.

3 DESCRIPTION OF TEST (Use attached sheets if necessary) It is intended to trace out drains and their associated subheaders or headers in the Reactor Building. First, the individual drains will be located as needed. Then dye will be poured and flushed down the drain thus allowing the tester to trace the drain to one of the sump pits. All drains tested will be documented on the following data sheets.

4 DATA REQUIRED (Include applicable data sheets and integrate with procedure if possible) - Include room for "Remarks":

Equipment description / floor drain

Location

Drain (Reactor Bldg. or liquid waste sump)

5 ANTICIPATED RESULTS: All significant equipment and floor drains will be traceble to either the Reactor Building sump (T-7202) or the liquid waste sump (T-6201).

6 ACCEPTANCE CRITERIA: None.

NOTE: UPON COMPLETION OF THE TEST, DATA SHALL BE APPROPRIATELY ANALYZED AND TEST RESULTS AND RECOMMENDATION AND/OR EVALUATION SHALL BE SUMMARIZED AND PRESENTED TO THE SUPERINTENDENT OF OPERATIONS FOR FINAL APPROVAL AND FURTHER REVIEW BY PORC AND THE NFSC AND/OR FURTHER REPORT AND DOCUMENTATION REQUIREMENTS.

7 PRECAUTIONS, LIMITATIONS, AND SPECIAL ASSISTANCE (INCLUDE PROVISIONS TO VERIFY THAT LIMITATIONS ARE NOT EXCEEDED):

Follow SOP 62 and SOP 72. Particular drains may require the attention of Health Physics and/or Radiochemistry. Also, consult Operations, Radiochemistry and Health Physics about draining the sump pits so the testing can continue.

Suggestion: Use two people, one at the drain and one on level 1 for each drain trace test.

Beware of testing too many drains and increasing the concentration of dye in the sump pits beyond the point where additional dye tests become undetectable. Use different colored dyes, using the the lightest color first.

Special Assistance: Operations, Health Physics and Radiochemistry.

8 STANDARD OPERATING PROCEDURES SOP 62 and 72.

9 SAFETY EVALUATION See attached.

PUBLIC SERVICE COMPANY OF COLORADO

FORT ST. VRAIN NUCLEAR GENERATING STATION

REQUEST FOR TEST

TEST REF. NO. 252
SYST. REF. NO. 62/72
PAGE 5 OF 13

10 TEST EQUIPMENT (IF REQUIRED)

NAME	IDENTIFICATION NUMBER	LAST CALIBRATION DATE
Test dye	N/A	N/A

11 TEST CONDUCTOR (INCLUDE ALL ASSISTANTS)

PERMISSION TO INITIATE TEST M. E. Denniston (SHIFT SUPERVISOR - SIGNATURE) 12/28/84 (DATE)

12 PROCEDURE (SEE ATTACHED PAGES)

FORM 372-22-3402

12.0 Procedure

NOTE: There is no particular sequence in which the drains that are listed on the data sheets should be traced. Please reference section 7 of this test.

12.1 Reference the following data sheets and locate the piece of equipment or floor drain.

12.2 Pour dye into the drain and flush the solution down with water.

12.3 Visually verify whether the dye drains into the Reactor Building sump or the liquid waste sump.

12.4 Record which sump pit the dye drained into on the data sheet.

12.5 Repeat steps 12.1 through 12.4 until all drains have been traced.

Public Service

FORT ST. VRAIN NUCLEAR GENERATING STATION
PUBLIC SERVICE COMPANY OF COLORADO

ELEV. (FLOOR)	EQUIPMENT/DRAIN DESCRIPTION	LOCATION	DRAIN (RX BLDG SUMP)/ LIQ WASTE SUMP)
4740' Lvl 1	Floor	C-2401 He Transfer Comp	
	Floor	A-2401X He Dryer Bed	
	Floor (2)	Near S. of C-6301 Cont Wall	
	Floor	P-2102S B.W. Pump 1D	Rx. Bldg.
	Funnel	E-2105/2105S B.W. Cooler	NEW LIST ISSUED PER PDR 85-340
	Bed Drain Loop I, Sys 91	Northwest Corner	
	Bed Drain Loop II, Sys 91	Northwest Corner	
	Funnel (5 Drains)	F-2101, 2101S, 2103, 2103S, S-2103	
	Funnel	E-2104/2104S	
	Floor	NW Walkway (Near P-7202)	
	Funnel	T-2102 (C-2105, He Recirc Comp)	
	Funnel	T-2103 (C-2106, He Recirc Comp)	
	Funnel	P-2103 (Turb Water Removal A)	
	Funnel	P-2103S (Turb Water Removal B)	
	Floor	Near C-2107/2107S, He Recover Comp	
	Floor	Near T-2112	

Public Service

FORT ST. VRAIN NUCLEAR GENERATING STATION
PUBLIC SERVICE COMPANY OF COLORADO

ELEV. (FLOOR)	EQUIPMENT/DRAIN DESCRIPTION	LOCATION	DRAIN (RX BLDG SUMP)/ LIQ WASTE SUMP)
4740' Lvl 1	Funnel	T-2112 Gas Pressurizer	
	Funnel	T-2113 Gas Pressurizer	
	Floor	P-6101 (Chem Supply Room)	NEW LIST ISSUED PER PDR 85-340
	Funnel	E-2101	
	Funnel	E-2106	
	Funnel	T-7201, Drains to Funnel east of P-2106	
	Funnel	S-2103, Circ Aux Chem Injection	
	Floor	C-6301/6301S, Gas Waste Comp	
	Floor	West of Keyway, Center of Walkway	
	Floor	T-2104/2105 Bearing Water Surge A/B	
4756' Lvl 2	Floor	NE Corner, Wall No. 33	
	Floor	N., Wall No. 29, beneath HV-21331-2	
4771' Lvl 3	Sample Line V-6156, Funnel	T-6101 Level Indicator Drain	
	Floor	T-6101, through Crawl Space	
	Floor (2)	E. of T-6101, HP Chemical Storage	
	Floor	HP Laundry	

Public Service

FORT ST. VRAIN NUCLEAR GENERATING STATION
PUBLIC SERVICE COMPANY OF COLORADO

ELEV. (FLOOR)	EQUIPMENT/DRAIN DESCRIPTION	LOCATION	DRAIN (RX BLDG SUMP)/ LIQ WASTE SUMP)
4771' Lvl 3	Funnel (3 Lines)	'C' Circulator Accumulator Drains	
	Funnel (3 Lines)	'D' Circulator Accumulator Drains	
	Funnel (3 Lines)	'B' Circulator Accumulator Drains	
	Funnel (3 Lines)	'A' Circulator Accumulator Drains	NEW LIST ISSUED PER PDR 85-340
4781' Lvl 4	Sample Line (V-62246)	Wall 41	
	Bed Drains	C-2109/2109S Nitrogen Compressor	
	Sample Line (V-6226) Floor	Wall No. 39 and No. 40	
	Floor	Wall No. 36 and No. 37	
	Floor (2)	P-6202/6202S Liquid Waste Transfer	
4791' Lvl 5	Floor	N. Wall, Emergency Eye-Wash Station	
	Pit (Floor)	One Floor Access Plate between the following: Above F-6201/6231S, F-6101, A-6201/6201S, F-6301/6301S, F-6302/6302S and F-6304. All of the pit drains drain into the same header.	
4829' Lvl 7	Floor	Health Physics Shower	Liq. Waste
4839' Lvl 7½	Floor	P-4601/4601S Cooling Water Wall No. 85	
	Floor	P-4602/4602S Cooling Water Wall No. 87	

Public Service

FORT ST. VRAIN NUCLEAR GENERATING STATION
PUBLIC SERVICE COMPANY OF COLORADO

ELEV. (FLOOR)	EQUIPMENT/DRAIN DESCRIPTION	LOCATION	DRAIN (RX BLDG SUMP)/ LIQ WASTE SUMP)
4839' Lvl 7½	Floor	N. of C-2301S Note: This drain is one of five drains that drain into a common header visible below the platform. Other equipment in F-2301, F-2302 A-2309/2309S, F-2304, C-2301, and E-2307.	
4849' Lvl 9	Floor	A-4601/F-4601 Demineralizer/Filter	NEW LIST ISSUED PER PDR 85 340
	Floor	A-4602/F-4602 Demineralizer/Filter	
	Floor	Hot Service Facility	
4864' Lvl 10	Floor	C-1301/1302, Fuel Handling Purge Vacuum Pumps.	
4881' Refueling Floor	Floor	Regeneration Pit	
	Bed Drains (Funnel)	P-4605/4605S Glycol Water Pumps	
	Sample Line (V-4614-85)	S-4602 Nitrogen Recondenser Chiller NW Corner	
	Floor	E. Wall Betweem 7L and 7K	
	Floor	Center of Refueling Floor Between 4 and 4A, approx. 40 ft from J Wall	

PUBLIC SERVICE COMPANY OF COLORADO

FORT ST. VRAIN NUCLEAR GENERATING STATION

REQUEST FOR TEST

TEST REF. NO. 252
SYST. REF. NO. 62/72
PAGE 11 OF 13

13 VERIFY THAT THE SYSTEM HAS BEEN RETURNED TO NORMAL:

Donald P. Hood (SHIFT SUPERVISOR - SIGNATURE) 3/9/85 (DATE)

14 TECHNICAL SERVICES ACTION:

10 CFR 50.59 REPORT REQUIRED ☒ YES ☐ NO

TECH SPEC REPORT REQUIRED ☐ YES ☒ NO

REVIEWED BY O J Clary (SIGNATURE) 3/12/85 (DATE)

FORM 372-22-3403

Public Service™

FORT ST. VRAIN NUCLEAR GENERATING STATION
PUBLIC SERVICE COMPANY OF COLORADO

SAFETY EVALUATION

CN/TCR/SCR/PC TR
NO. 252
PAGE 12 of 13

CATEGORY

TYPE:

☐ CN OVERALL ☐ CN SUBMITTAL ☐ SETPOINT CHANGE REPORT ☒ TEST REQUEST
☐ TEMPORARY CONFIGURATION REPORT ☐ PROCEDURE CHANGE (FSAR) ☐ OTHER

CLASSIFICATION: ARE THE SYSTEM(S) EQUIPMENT OR STRUCTURES INVOLVED, OR DOES THE ACTIVITY AFFECT:

CLASS I	☐ YES	☒ NO	ENGINEERED SAFEGUARD	☐ YES	☒ NO
SAFE SHUTDOWN	☐ YES	☒ NO	PLANT PROTECTIVE SYSTEM	☐ YES	☒ NO
SAFETY RELATED	☐ YES	☒ NO	SECURITY SYSTEM	☐ YES	☒ NO

REMARKS REACTOR BUILDING DRAINS FLOW PATHS TEST.

EVALUATION Use Additional Sheets If Required

1. DOES THIS ACTIVITY AFFECT STRUCTURES, SYSTEMS, COMPONENTS, EQUIPMENT, TESTS, EXPERIMENTS OR PROCEDURES DESCRIBED IN THE FSAR OR TECH SPECS? ☐ YES ☒ NO

LIST THE APPLICABLE SECTIONS REVIEWED: THE FLOOR DRAINS AND EQUIPMENT DRAINS FLOW PATHS ARE NOT IDENTIFIED IN THE FSAR, OR TECH SPECS.

2. DOES THE ACTIVITY REQUIRE THAT CHANGE(S) BE MADE TO THE FSAR OR TECH SPEC? ☐ YES ☒ NO

LIST SECTIONS TO BE CHANGED AND THE CHANGES TO BE MADE:

3. DETERMINE WHETHER OR NOT THE ACTIVITY INVOLVED IS AN UNREVIEWED SAFETY QUESTION UTILIZING THE FOLLOWING GUIDELINES:

(A) HAS THE PROBABILITY OF OCCURRENCE OR THE CONSEQUENCES OF AN ACCIDENT OR MALFUNCTION OF EQUIPMENT IMPORTANT TO SAFETY PREVIOUSLY EVALUATED IN THE FSAR BEEN INCREASED?

☐ YES ☒ NO STATE BASIS: THESE DRAINS ARE NOT TAKEN INTO ACCOUNT IN ANY ACCIDENT IN THE FSAR.

(B) HAS THE POSSIBILITY OF AN ACCIDENT OR MALFUNCTION OF A DIFFERENT TYPE THAN ANY EVALUATED PREVIOUSLY IN THE FSAR BEEN CREATED? ☐ YES ☒ NO STATE BASIS: THIS FLOW PATH TEST WILL NOT ALTER THE NORMAL OPERATION OF THESE DRAINS.

(C) HAS THE MARGIN OF SAFETY, AS DEFINED IN THE BASIS FOR ANY TECHNICAL SPECIFICATION OR IN THE FSAR BEEN REDUCED?

☐ YES ☒ NO STATE BASIS: THERE IS NO MARGIN OF SAFETY ASSOCIATED WITH TESTING THESE DRAINS TO DETERMINE THEIR FLOW PATHS.

DOES THE ACTIVITY APPEAR TO: INVOLVE AN UNREVIEWED SAFETY QUESTION ☐ YES ☒ NO
BE SAFETY SIGNIFICANT ☐ YES ☒ NO

BY Scott Hafkotte (SIGNATURE) 11/26/84 (DATE) APPROVED Jim Gramling (SIGNATURE) 11/26/84 (DATE)

Form (C) 372 02 3382

PUBLIC SERVICE COMPANY OF COLORADO
FORT ST. VRAIN NUCLEAR GENERATING STATION

ENVIRONMENTAL EVALUATION

CN / OTHER TR
NO. 252
PAGE B of 13

FORM EA 372 24 4310

CATEGORY

TYPE: ☐ CN Overall ☐ CN Submittal (Other) TR

Are all measurable nonradiological effects of this activity confined to the on-site areas previously disturbed during site preparation, plant construction or previous plant operation? X Yes ☐ No

State basis ALL ACTIVITIES RELATED TO THIS TEST ARE INTERNAL TO THE REACTOR BUILDING

Is the activity required to achieve compliance with Federal, State or local environmental regulations? ☐ Yes X No

NOTE: If either answer is Yes, the activity does not involve an unreviewed environmental question. Sign and date the form. If both answers are No, the activity has the potential for creating an unreviewed environmental question. Complete the remainder of this evaluation form.

EVALUATION (Use additional sheets if required)

1. Is the activity identified in the final environmental statement (FES) ☐ Yes ☐ No
   Or Supplementary Environmental Documents (See Q-3)?
   Identify documents and document sections reviewed

2. Determine whether or not the activity involved is an unreviewed environmental question using the following guidelines. (If the answer to any of the following questions is Yes, then this activity involves an unreviewed environmental question.)

   (A) Will this activity result in a significant increase in any adverse environmental impact previously evaluated in the FES? ☐ Yes ☐ No State basis:

   (B) Will this activity result in a significant change in the types, or a significant increase in the amounts of effluents, or a significant increase in the authorized power level? ☐ Yes ☐ No
   State basis:

   (C) Does this activity involve an environmental matter not previously reviewed and evaluated in the FES?
   ☐ Yes ☐ No State basis:

Does the activity involve an unreviewed environmental question? ☐ Yes X No

By Scott Hofstetter 11/21/84 Approved* Jim Gramling 11/26/84

* REQUIRED ONLY FOR CHANGE NOTICE

Q-4

Public Service™

FORT ST. VRAIN NUCLEAR GENERATING STATION

PUBLIC SERVICE COMPANY OF COLORADO

ELEV. (FLOOR)	EQUIPMENT/ DRAIN DESCRIPTION	LOCATION	RX BLDG SUMP/ LIQ WASTE	METHOD
Turbine Side 1.	OVERFLOW TANK ~~Floor 4846'~~	BY Rx BLDG WALL ~~Center of room~~	LIQ WST	VISUAL - TIES INTO HP SHOWER DRAIN.
2.	Filter drain 4864'	F-7304	RX	VISUAL - TIES INTO J5 SEE # 1 LEVEL 8
3.	Filter drain 4885'	S-7301 Rx Bldg vent air	R X	VISUAL - TIES INTO J5
Tech Service Bldg	fumehood drains and lab Sink~~X~~	Chemical Labs	LIQ WST.	[illegible] 2-14-85

Test Conductor Signature [signature] Date 2-14-85

INTER-DEPARTMENT MEMO - PUBLIC SERVICE COMPANY OF COLORADO

PPC-85-0634

DATE: February 13, 1985

TO: Mr. Jerry McCauley, Results Engineering Supervisor, FSV

FROM: Jeffery Nadeau, Results Engineer, FSV

ATTN:

SUBJ: SUMMARY OF DRAIN TEST T-252

Due to incidents in the past of unwarranted releases of radioactivity into the Reactor Building sump via drainage lines, a test has been initiated in response to LER 84-009-00 which determines the destination of drain lines within the Reactor Building. As a result, there should no longer be any incident of accidental release of activity to the Reactor Building sump because someone uses the wrong drain to dispose of radioactive liquid waste.

The results of test T-252 are as follows:

Number of drains to Reactor Building sump	47
Number of drains to Liquid Waste sump	28
Number of drains that remain clogged/untested	3
Total number of drains examined	78

The drains that are clogged/untested can be reasonably assumed to drain to the Reactor Building sump. If this is assumed, they will be labeled as such and no radioactive waste will be dumped into them and no accidental release will be made. Also, these drains correlate very closely with the design that was intended (DWGs B-148 through B-153). The drains are listed under T-252 by description and location.

The method of testing these drains was either by visual inspection or by dye testing. A few drains had been previously verified. A letter from the dye manufacturer is attached to verify its environmental safety.

Any questions should be directed to Results or to the conductor of this test.

Jeff Nadeau

JF/dal

Attachments (2)

Service PUBLIC SERVICE COMPANY OF COLORADO NO. 85-510

PROCEDURE DEVIATION REPORT

Page 1 of 1

PROCEDURE NO. | TITLE: T-252 | ISSUE NO.

PORC REVIEW REQUIRED: ☐ YES ☒ NO

NOTE: IF PORC REVIEW IS REQUIRED, THE INITIATOR IS RESPONSIBLE TO ENSURE THAT THE PDR IS SUBMITTED FOR PORC REVIEW NO LATER THAN 14 DAYS FROM THE PDR IMPLEMENTATION DATE.

PAGE NO./ PARA. NO.	CHANGED FROM	CHANGED TO	REASON FOR CHANGE
PAGES 7-12 of 13	EXISTING LISTING OF DRAINS (PAGES 7-10 of 10)	NEW LIST TO INCLUDE ADDITIONAL DRAINS AND REVISED LOCATION DESCRIPTION (PAGES 7-12 of 15)	SOME DRAINS ON THIS LIST HAVE BEEN MISSED BY THE ORIGINAL LIST. THEREFORE, THE NEW LIST WILL INCLUDE MORE DRAINS THAN THE ORIGINAL AND THEIR LOCATION DESCRIPTIONS WILL BE REVISED TO ALLOW FOR MORE ACCURATE DESIGNATION OF EACH DRAIN

INITIATOR: Jeffrey Nadeau (SIGNATURE) 2-13-85 (DATE)

DEVIATION CATEGORY: ☒ TEMPORARY ☐ PERMANENT - DCCF ATTACHED

SUPERVISOR: Jerry D. McCauley (SIGNATURE) 2-13-85 (DATE)

APPROVALS

BY: Jerry D. McCauley (PLANT MANAGEMENT STAFF) 2-13-85 (DATE) BY: John P. Ahl (PLANT MANAGEMENT STAFF - SRO) 2-13-85 (DATE)

BY: (PROCEDURE AUTHORIZER) (DATE) BY: (PROCEDURE AUTHORIZER) (DATE)

BY: (PROCEDURE AUTHORIZER) (DATE) BY: (PROCEDURE AUTHORIZER) (DATE)

PORC: (MEETING NUMBER) (DATE)

INITIATOR: FORWARD ORIGINAL TO PORC CLERK. ATTACH COPY TO PROCEDURE BEING DEVIATED.

Public Service™

FORT ST. VRAIN NUCLEAR GENERATING STATION

PUBLIC SERVICE COMPANY OF COLORADO

ELEV. (FLOOR)	EQUIPMENT/ DRAIN DESCRIPTION	LOCATION	RX BLDG SUMP/ LIQ WASTE	METHOD
4740' Lvl 1 1.	Floor (2)	C-2401 He Transfer Comp/ SE Corner	RX	DYE TEST
2.	Floor (2)	East Center Room	RX	DYE TEST
3.	Floor (2)	C-6301/C-6301S gas waste comp West of each tank	LIQ. WST.	DYE TEST
4.	Floor (2)	C-6301/C-6301S East of each tank	RX	DYE TEST
5.	Floor	C-6301S behind tank in back	LIQ WST.	DYE TEST
6.	Funnel	Along wall South of liquid waste sump	LIQ WST	DYE TEST
7.	Floor	P-6101 Chem supply room	LIQ. WST.	DYE TEST
8.	Funnel	SE wall by elevator	RX	DYE TEST
9.	Floor	NE of keyway near T-2112	RX	DYE TEST
10.	Floor	North keyway near C-2107/2107S	RX	DYE TEST
11.	Floor	NW of keyway	RX	DYE TEST
12.	Funnel	T-2112 gas pressurizer near #9	RX	DYE TEST
13.	Funnel	T-2113 gas pressurizer near #9	RX	DYE TEST
14.	Funnel	Against wall north of C-2107/2107S	RX	DYE TEST
15.	Funnel	Near P-2103 North keyway	RX	DYE TEST

Public Service™ FORT ST. VRAIN NUCLEAR GENERATING STATION
PUBLIC SERVICE COMPANY OF COLORADO

ELEV. (FLOOR)	EQUIPMENT/ DRAIN DESCRIPTION	LOCATION	RX BLDG SUMP/ LIQ WASTE	METHOD
16.	Funnel	Near P-2103S North keyway	RX	DYE TEST
17.	Funnel	Next to 15	RX	DYE TEST
18.	Funnel	North side E-2101/E-2106	RX	DYE TEST
19.	Funnel	South of 10 North keyway against wall	RX	DUMPS INTO 10 - SIGHT VERIFIED -
20.	Funnel	South side E-2101/E-2106	RX	DYE TEST
21.	Funnel	Near P-7202 North keyway	RX	DYE TEST
22.	Funnel	East of 20 West of keyway	RX	DYE TEST
23.	Funnel	F-2103/2103S	RX	DYE TEST
24.	Funnel	South of 23 along wall S-2103	RX	DYE TEST
25.	Funnel	E2104/2104S North S/24 along wall	RX	DYE TEST
26.	Floor	West of keyway center of walkway near 23, 24, 25	RX	DYE TEST
27.	Funnel	E-2104/2104S South	RX	DYE TEST
28.	Floor	Loop 1 System 91 SW of keyway	RX	DYE TEST
29.	Floor	Loop II System 91 East of 28	RX	DYE TEST
30.	Funnel	Behind Loop I by south wall	CLOGGED	
31.	Funnel	F-2101/2101S	RX	DUMPS INTO 29 - VISUALLY VERIFIED -

FORM (C) 372 - 22 - 3643

Public Service™ FORT ST. VRAIN NUCLEAR GENERATING STATION
PUBLIC SERVICE COMPANY OF COLORADO

ELEV. (FLOOR)	EQUIPMENT/ DRAIN DESCRIPTION	LOCATION	RX BLDG SUMP/ LIQ WASTE	METHOD
32.	Funnel	North of Loop II by South wall	RX	DYE TEST
33.	Floor	Steam/Water dump tank	RX	DYE TEST
34.	Floor	Near P-2101S BW pump 1D SE of keyway	RX	DYE TEST
35.	Clean-out Opening	Directly West of 34 near wall	RX	DYE TEST
36.	Funnel	South of 34, 35, 4 lines drain	RX	DYE TEST
37.	Funnel	E-2105/2105S	RX	DYE TEST
38.	Funnel	West of 37 in same room	RX	DYE TEST
NOTE:	Upstream line comes off of main header to keyway and spills into elevator shaft in case of downstream clog.			
4756' Lvl 2 1.	Floor	NE corner wall #33	LIQ WST	VISUAL INSPECTION. TIES INTO HEADER MS WHICH WAS DYE TESTED
2.	Floor	North wall #29 beneath HV-2133-2	LIQ. WST.	SAME AS 1
4771' Lvl 3 1.	Sample line V-6156, Funnel	T-6101 level indicator drain	CLOGGED	
2.	Floor (2)	T-6101 through crawlspace	LIQ. WASTE	VISUAL INSPECTION TIES INTO MS
3.	Floor (2)	East of T-6101 ~~chemical storage room~~ RESIN CHANGE OUT ROOM	CLOGGED	
4.	Floor	HP laundry	LIQ WST	2-14-85 DRW
5.	Sample bin	Near 46 system coolers	LIQ WST	VISUAL FOLLOW LINE STRAIGHT TO LIQ WST.

Public Service™

FORT ST. VRAIN NUCLEAR GENERATING STATION
PUBLIC SERVICE COMPANY OF COLORADO

ELEV. (FLOOR)	EQUIPMENT/ DRAIN DESCRIPTION	LOCATION	RX BLDG SUMP/ LIQ WASTE	METHOD
6.	Funnel (2)	Next to S-7320 HVAC	LIQ WST.	VISUAL LEADS TO FUNNEL 6 ON LEVEL 1.
7.	Funnel	'C' Circulator accum drains through fire door	RX	VISUAL - GOES TO 36 ON LEVEL 1.
8.	Funnel	'D' Circulator accum drains	RX	SAME AS 7
9.	Funnel	'B' Circulator accum drains	RX	SAME AS 7
10.	Funnel	'A' Circulator accum drains	RX	DYE TEST TIES INTO CS HEADER
4781' Lvl 4 1.	Floor	Wall 41	LIQ WST	VISUAL - TIES INTO MS HEADER. SEE #2 LEVEL 5
2.	Floor	C-6302/6302S Nitrogen Comp	LIQ WST.	SAME AS 1
3.	Floor	Wall 39/40	LIQ WST	SAME AS 1
4.	Floor	Wall 36/37	LIQ WST	SAME AS 1
5.	Floor (2)	P-6202/6202S liquid waste transfer	LIQ WST	SAME AS 1
6.	Sample	West/Fuel well wall (V-62246)	LIQ WST	SAME AS 1
4791' Lvl 5 1.	Funnel (2)	On stairwell either side	RX	VISUAL - TIES INTO JS HEADER. SEE #1 LVL 8
2.	Floor	N. Wall eyewash station	LIQ WST	DYE TEST TIES INTO MS HEADER
3.	Pit	One floor access plate to the following: F-6201/6201S A-6201/6201S, F-6501/6501S F-6502/6502S	LIQ WST	~~DYE TEST~~ VISUAL - ALL DRAINS TIE INTO MS
4.	Floor	Truck Bay	LIQ WST	VISUAL TIES INTO MS

Public Service™

FORT ST. VRAIN NUCLEAR GENERATING STATION
PUBLIC SERVICE COMPANY OF COLORADO

ELEV. (FLOOR)	EQUIPMENT/ DRAIN DESCRIPTION	LOCATION	RX BLDG SUMP/ LIQ WASTE	METHOD
4829' Lvl 7 1.	Floor (2)	HP shower (Turbine side)	LIQ WST	2-14-85 EJO
2.	Sample	North wall	LIQ WST	VISUAL TIES INTO MS. SEE #2 LVL 5
4839' Lvl 8 1.	Floor	P-4601/4601S wall 85	RX	DYE TESTED TIES INTO JS HEADER
2.	Floor	P-4602/4602S wall 87	RX	VISUAL TIES INTO JS
3.	Sample line	N. wall fire water station	LIQ WST	VISUAL TIES INTO MS SEE #2 LEVEL 5
4849' Lvl 9 1.	Floor	A-4601/F-4601 demineralizer/filter	RX	DYE TESTED TIES INTO JS
2.	Floor	A-4602/F-4602 demineralizer/filter	RX	~~SAME~~ SAME AS 1
3.	Floor	HSF	LIQ WST	2-14-85 EJO
4864' Lvl 10 1.	Floor	C-1301/1302 fuel handling purge vacuum pumps	LIQ WST	VISUAL TIES INTO MS SEE #2, LVL 5
4881' Lvl 11 1.	Floor	Regeneration Pit	LIQ WST	PER CN 1915 FT WILL TEST
2.	Funnel	P-4605/4605S glycol water pumps	RX	VISUAL - TIES INTO CS HEADER SEE # 10 LEVEL 3
3.	Funnel	S-4602 nitrogen recondenser chiller	RX	SAME AS 2
4.	Floor	E. wall between 7L & 7K	~~RX~~ LIQ. WST	VISUAL - TIES INTO MS
5.	Floor	Center of refueling floor	RX	VISUAL TIES INTO JS SEE # 1 LEVEL 6.

T-252 file

INTER-DEPARTMENT MEMO - PUBLIC SERVICE COMPANY OF COLORADO

PPC-85-1166

DATE: March 21, 1985

TO: Mr. Jerry McCauley, Results Engineering Supervisor, FSV

FROM: Jeffrey Nadeau, Contract Results Engineer, FSV

ATTN:

SUBJ: SUPPLEMENT TO MEMO PPC-85-0634 IN RESPONSE TO MEMO PPC-85-1089

In memo PPC-85-1089, Item 4, it was noted that the floor drain for the System 47 heat exchangers (E-4701 and E-4702) on Elevation 4756 do not appear on the drain list in T-252. This is correct.

However, this drain had not been overlooked during the carry-out of the test. At one point, a dye test was being performed on the clogged Level 3 floor drain. A downstream clog forced the flow up and out through the unlisted drain and Health Physics performed a survey of the spill. This verifies the connection between this drain and the one clogged on Level 3. The drain in question was inadvertently left off the list.

Results intends to have the clogs cleared by contractors as soon as possible. This will clear the drains listed as "clogged" in T-252 as well as the unlisted drain mentioned above.

Jeffrey Nadeau

JN/skd

cc: PPC File

INTER-DEPARTMENT MEMO - PUBLIC SERVICE COMPANY OF COLORADO

PPC-84-3562

DATE: December 4, 1984

TO: [redacted], Manager, Nuclear Production

FROM: Peggy Collins, PORC Clerk

ATTN:

SUBJ: PROPOSED SPECIAL TEST T-252

In PORC meeting #598 on 12/3/84, the Committee reviewed Proposed Special Test T-252. The following is an excerpt from that meeting:

> "The Committee reviewed Proposed Special Test T-252. The purpose of this test is to determine the flow path of equipment and floor drains in the Reactor Building. This test will verify whether the equipment and reactor building floor drains drain into the Reactor Building sump or the liquid waste sump. Special assistance will be required by Operations, Radiochemistry and Health Physics. The Committee found this not safety significant because the test does not increase the probability of an accident and no new accident modes are generated. This is not an unreviewed safety question."

Please review this test with regard to Technical Specification AC 7.1.3.7, and advise if you would like me to forward to the NFSC for their review.

Peggy Collins
Peggy Collins

/pc

Attachment

____Please forward only this memo to the NFSC_____date_____

_✓_Please forward this memo and attachments to the NFSC_____

date 12/6/84

I concur with PORC findings.
J. W. Gahm

SENT 12-7-84

TITLE: VOLUME (BATCH) RELEASE FROM REACTOR BUILDING SUMP

DEPARTMENT: OPERATIONS

ISSUANCE AUTHORIZED BY			
PORC REVIEW	PORC 600 DEC 21 1984		EFFECTIVE DATE 12-21-84

Do not start test before_____ Week # _____

and must be completed by_____ Sch. Clerk

This procedure cannot be run in its entirety for the following reasons:

____ 1. This system is not operating.

____ 2. This system is not required to be operating and has a frequency of one month or less (reference Technical Specification, paragraph 2.18).

____ 3. Reactor is in "scrammed" condition.

____ 4. Loop I is in "Loop Shutdown" condition.

____ 5. Loop II is in "Loop Shutdown" condition.

____ 6. 1A Helium circulator is in "tripped condition".

____ 7. 1B Helium circulator is in "tripped condition".

____ 8. 1C Helium circulator is in "tripped condition".

____ 9. 1D Helium circulator is in "tripped condition".

____ 10. Other_____

_____

_____

____ 11. Reschedule test for_____

_____
Department Supervisor

Public Service

FORT ST. VRAIN NUCLEAR GENERATING STATION

PUBLIC SERVICE COMPANY OF COLORADO

1.0 PURPOSE

To ensure proper equipment in service prior to starting volume (batch) release from reactor building sump.

2.0 PRECAUTIONS, LIMITATIONS, AND SPECIAL ASSISTANCE

Health Physics

3.0 PREREQUISITES

3.1 Test Equipment

Name	Identification No.	Last Calibration Date
None		

3.2 References _____

_____

4.0 AUTHORIZATIONS

4.1 Departmental Approval

_____
Dept. Supervisor Date

4.2 Mech/Elec Clearance Issued, if required: Number N/A

4.3 Radiation Work Permit Issued, if required: Number N/A

4.4 Permission to initiate test

_____
Shift Supervisor Date

5.0 PROCEDURE

5.1 PRELIMINARY CHECKS

5.1.1 None

5.2 TEST PROCEDURE

5.2.1 Notify Health Physics that a volume (batch) release is needed.

_____

5.2.2 Obtain completed lab analysis for a volume (batch) release from Health Physics.

_____

5.2.3 Notify Health Physics that you are going to start a volume (batch) release from reactor building sump.

_____

5.2.4 Ensure continuous sampler is in service prior to starting release.

_____
Health Physics Signature

5.2.5 Perform valve lineup per SOP 62 for a volume (batch) release.

_____

_____ _____
Test Conductor Signature Date

5.2.6 Notify Shift Supervisor that volume (batch) release has been started.

_____

5.2.7 Notify Health Physics volume (batch) release is completed.

_____

5.2.8 Ensure that a sample is collected from the continuous sampler at the completion of the release.

_____
Health Physics Signature

5.2.9 Notify Shift Supervisor volume (batch) release has been completed.

_____

_____ _____
Test Conductor Signature Date

6.0 TEST CONDUCTOR'S REPORT

6.1 Were any procedure changes or deviations made to the test and DCCF/PDR initiated? (Attach copies if applicable)
Yes____ No__

6.2 Were all steps successfully completed as stated in test?
Yes____ No____

6.3 If the answer to 6.2 is NO, notify Department Supervisor and list conditions and/or SSR number(s):

_____

6.4 Test completed except for items noted in 6.3

_____ _____
Test Conductor Date

6.5 Test sheets and data sheets reviewed and approved except for items noted in 6.3

_____ _____
Department Representative Date

7.0 DEPARTMENT SUPERVISOR'S/TEST CONDUCTOR'S REVIEW
(If the answer to 6.2 is YES, sections 7.0 and 8.0 are not applicable go to Section 9.0)

7.1 Does the failure described in 6.3 require any action or impose any limit to operation per the applicable LCO(s)?
Yes____ No____ N/A____

7.2 Applicable LCO(s) ELCO 8.1.3b _____

Action or Limit_____

7.3 Is the reason test is not being completed at this time due to plant or equipment status?
Yes____ No____ N/A____

7.4 If the answer to 7.3 is YES, list condition(s) and/or SSR number(s):

_____

7.5 Is retest necessary for items listed in 6.3 and/or 7.4?
Yes____ No____ N/A____

7.6 If the answer to 7.5 is YES; list specific section(s) or step(s) to be retested.

_____

_____ _____
Dept. Supervisor/Test Conductor Date

8.0 RETEST SECTION
(If the answer to 7.5 is NO go to Section 9.0)

8.1 Verify satisfactory retest of section(s) or step(s) listed in 7.6

_____ _____
Retest Conductor Date

8.2 Retest reviewed.

_____ _____
Department Representative Date

9.0 APPROVALS

9.1 Test results approved. Satisfactory results confirm compliance with applicable LCO(s).

_____ _____
Department Supervisor Date

9.2 Notification of satisfactory test results and test conclusion:

_____ _____
Shift Supervisor Date

9.3 Requires Station Manager evaluation:

_____ _____
Department Supervisor Date

9.4

_____ _____
Station Manager Date

10.0 DATA SHEETS RECEIVED, VERIFIED SECTION 9.0 COMPLETE, AND SURVEILLANCE TEST RECORDS UPDATED.

_____ _____
Scheduling Technician Date