

ATTACHMENT 1
Adverse Condition Monitoring And Contingency Plan
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Elevated Tritium Concentration Detected Onsite

Plan Title

Date: 04/23/09 (Rev 1 on 04/26/09, Rev 2 on 04/29/09)

Unit: 1

Parameter: Elevated Tritium Concentration Detected Onsite

Condition Statement: On 04/15/09 tritium activity was detected in an outside vault. In preparation for work inside the Emergency Service Water vault, water found inside the vault was pumped into drums and sampled for gamma emitters, tritium, and pH. There were no gamma emitters identified, pH was 7.62 and tritium was 102,000 pCi/l. The reporting threshold to the New Jersey DEP for tritium is 2,000 pCi/l.

IR#: 907846

WR#: N/A

OP EVAL#: N/A

Indicator(s): Tritium levels greater than 2,000 pCi/l were identified in water pumped out of a concrete vault containing Emergency Service Water (ESW) cables, which were being replaced. Later other well samples were also found to have tritium levels greater than 2,000 pCi/l.

Enhanced Monitoring Frequency: Applicable work groups to obtain samples and perform inspections per table below.

Plotting Chart attached – No (Data Sheet Attached)

Contingency actions: This ACMP is for monitoring of conditions. If elevations in results are seen without understanding of the tritium source then an elevated action plan for source determination should be made at that time.

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Sample Point	Source	Frequency	Who Pulls Sample	Who Performs Analysis	Sampled Sent Off-Site Laboratory	Analysis
ESW Vault Water	Groundwater Sample	Daily	Chemistry	Chemistry	Once per month	Tritium/Gamma
		Empty depending on level (Keep water no higher than 6") Shaw/Maintenance				
MW-15K-1A	Groundwater Sample	Weekly	Normandeau	Chemistry	Once per month	Tritium/Gamma
W-50 W-52 W-53 W-54	Groundwater Sample	Weekly	Normandeau	Chemistry	Once per month	Tritium/Gamma
W-51	Groundwater Sample	Weekly	Normandeau	Chemistry	Once per month	Tritium/Gamma
W-3	Groundwater Sample	Monthly	Normandeau	Chemistry	Once per month	Tritium/Gamma
W-5	Groundwater Sample	Monthly	Normandeau	Chemistry	Once per month	Tritium/Gamma
W-6	Groundwater Sample	Monthly	Normandeau	Chemistry	Once per month	Tritium/Gamma
CST -9	Groundwater Sample	Monthly	Normandeau	Chemistry	Once per month	Tritium/Gamma
MW-11-1A	Groundwater Sample	Monthly	Normandeau	Chemistry	Once per month	Tritium/Gamma
W-4	Groundwater Sample	Monthly	Normandeau	Chemistry	Once per month	Tritium/Gamma
MW-11-2A	Groundwater Sample	Monthly	Normandeau	Chemistry	Once per month	Tritium/Gamma
Offsite Remp Wells	Groundwater Sample	Quarterly	Normandeau	Teledyne Brown	Quarterly	Tritium/Gamma
Drinking water sample (South Well)	Groundwater Sample	Monthly	Chemistry	Chemistry	Once per month	Tritium/Gamma
Main Condenser Discharge Canal Sample	Surface Water Sample	Daily *	Chemistry	Chemistry	Daily	Tritium/Gamma
SW-1 (Intake)	Surface Water Sample	Daily *	Chemistry	Chemistry	Daily	Tritium/Gamma
Route 9 Bridge	Surface Water Sample	Daily *	Chemistry	Chemistry	Daily	Tritium/Gamma
Pre-Drill samples	Soil Samples	Each well drill	Well Driller	Chemistry	On Request	Gamma
Excavation - Surface Sample	Soil Samples	Each Excavation	Excavating Person	Chemistry	On Request	Gamma
Excavation every foot level Sample Composite	Soil Samples	Each Excavation	Excavating Person	Chemistry	On Request	Gamma
No additional routines needed at this time.	Plant Data	On Request				

* Will be sent by courier to LGS for analysis to 200 pCi/L.

All samples are to be taken as follows:

Sample #1 for onsite analysis (500 mLs for gamma and 125 mLs for tritium)

Sample #2 for Teledyne Brown (1 gallon)

Sample #3 for State of NJ - Eberline Services

Requires three (3) 500 mL samples from the following locations:

1. Wells W-50 through W-54, and MW-15K-1A
2. Surface Waters intake, Rte 9 Bridge and Condenser Discharge

Requires one (1) 500 mL sample from the following locations:

1. W-3 through W-6, MW-11-1A and MW-11-2A

Requires split soil samples of one thousand (1,000) grams.

1. Wells W-50 through W-54.

Sample #4 for LGS (500 mLs) for Main Condenser Discharge, Route 9 Bridge, and Intake only.

Onsite analysis for Gamma will be 500 mLs counted in a 500 mL square bottle for 1,000 seconds.

Onsite analysis for Tritium will be a distilled blank (lab demin water) followed by distilling of the sample. These will then be run on protocol 5 (~50 minutes for each sample and blank).

At the end of every analysis the Chemistry Technician is to fill out the attached data sheet for the first 6 columns.

The Environmental Specialist will update the last three columns of the data sheet for shipment information.

Removal Criteria: At the discretion of the Chemistry Manager.

Prepared: Leanne Birkmire /s/ 04/29/09

Reviewed: Shift Manager Thomas Dunn /s/ 04/30/09

Approved: SOS/OPS Director Jeff Dostal /s/ 04/30/09

Forwarded to Plant Manager/Station Duty Manager/Site VP (check)

Identified on Morning Plant Status Template (check)

Termination Criteria Met, Plan Closed: Shift Manager _____ (Date)