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TITLE: HIGH ACTIVITY IN THE PLANT

RESPONSIBLE FOR	<i>M. E. Newton</i>		
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(H-3)
HIGH ACTIVITY IN THE PLANT
SYMPTOM-ACTION MATRIX

ACTIONS	SYMPTOMS							
	1.1 Gas Waste Compressor Cooling Activity High IRIS-46212 II-03A 4-6, IRIS-46211 II-13C, 1-5		1.2 Area Monitor Activity High II-01C, 4-1		1.3 Activity Detected Locally		1.4 Criticality Alarm Fuel Storage Building**	
OPERATOR ACTION								
2.1 Determine source of radiation.	XX	XX	XX	XX	XX	XX		
2.2 Evacuate affected area. If control room, evacuate per AOP-R. Sound the radiological alarm.			XX	XX	XX	XX	XX	XX
2.3 Shutdown affected gas waste compressor & manually isolate the cooling water.	XX							
2.4 Notify control room.					XX		XX	
2.5 Attempt to isolate/ remedy radiation source.	XX	XX	XX	XX	XX	XX		
2.6 Ensure CAS reports personnel accounta- bility. Initiate search if necessary.			XX		XX		XX	

**NOTE: A local alarm in the Fuel Storage Building would alert personnel of a criticality accident during new fuel handling.



DISCUSSION OF SYMPTOMS

SYMPTOMS

- 1.1 Gas Waste Compressor Cooling Activity High RIS-46212, I-03A, 4-6, RIS-46211, I-13C, 1-5.

RIS-46211 and RIS-46212 are in series on the discharge piping of the Gas Waste Compressor's cooling water, and monitor for cooling jacket leaks which could allow contaminated gases to enter the service water system.

- 1.2 Area Monitor Activity High I-01C, 4-1.

Twenty monitors placed in various locations in the Reactor, Turbine, and Service Building continuously monitor for radiation in the plant environment.

- 1.3 Activity Detected Locally.

It is possible that personnel could detect activity locally with the use of the Continuous Air Monitors (CAMs), portable instruments, or Health Physics surveys before a level was reached that would alarm one or more of the permanently installed monitors.

- 1.4 Critically Alarm Fuel Storage Building.

A local alarm in the Fuel Storage Building would alert personnel of a criticality accident during new fuel handling.

DISCUSSION OF OPERATOR ACTIONS

OPERATOR ACTIONS

- 2.1 Determine source of radiation.

- a) Check System 63, Radioactive Gas Waste.
- b) Check System 23, Helium Purification.
- c) Check System 11, PCRV Auxiliary Piping.
- d) Check System 13, Fuel Handling Purge.
- e) Check System 14, Fuel Storage Building.



If the activity is coming from one of the plant systems, prompt operator action can greatly reduce the extent of the problem. The above systems were identified as the most likely and extensive sources of potential leakage, but are not the only possible sources of activity.

- 2.2 Evacuate affected area. If control room, evacuate per AOP-R. Sound the radiological alarm.

Personnel should be evacuated from area of radiation exposure and directed to the Health Physics Access Area for contamination checks to avoid the spread of contamination. Sound the plant Radiological Alarm under the conditions specified in Administrative Procedure G-5, Personnel Emergency Response.

- 2.3 Shutdown affected gas waste compressor and manually isolate the cooling water.

If a gas waste compressor cooling jacket develops a leak, it must be isolated to avoid contaminating the service water system.

- 2.4 Notify Control Room.

The Control Room is the focal point of plant communications and control. Plant personnel are at the disposal of the Shift Supervisor to perform whatever tasks may be necessary to deal with the specific situation. However, personnel should not be needlessly exposed to radiation and should be directed away from areas of radiation exposure if they are not needed.

- 2.5 Attempt to isolate/remedy radiation source.

- 2.6 Ensure CAS reports personnel accountability. Initiate search if necessary.

This will insure that all personnel are safe and accounted for or whether a search for missing persons needs to be started.