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L I C E N S E E C O D E		L I C E N S E N U M B E R		L I C E N S E T Y P E		J O		S T		C A T 58	
CONT											
R E P O R T S O U R C E		L		6		0 5 0 0 0 2 8		0 7		0 8 2 6 8 2	
		60		61		D O C K E T N U M B E R		56		E V E N T D A T E	
E V E N T D E S C R I P T I O N A N D P R O B A B L E C O N S E Q U E N C E S											
On 8/26/82, while obtaining a sample of the Gas Stripper Surge Tank gaseous effluent, the control room operator observed a high spike on the Vent-Vent gaseous monitor. The maximum instantaneous release rate was 53% above the T.S. allowable. This is contrary to T.S.3.11.B.1 and reportable per T.S.6.6.2.a(2). No radioactive particulates or iodines were released. Therefore, the health and safety of the public were not affected.											
SYSTEM CODE CAUSE CODE CAUSE SUBCODE COMPONENT CODE COMP. SUBCODE VALVE SUBCODE											
M		B		11		E		12		B	
13		P		I		P		E		X	
14		A		15		X		16			
LER/RO REPORT NUMBER EVENT YEAR SEQUENTIAL REPORT NO. OCCURRENCE CODE REPORT TYPE REVISION NO.											
17		8		2		0		9		0	
18		1		2		T		1		0	
ACTION TAKEN FUTURE ACTION EFFECT ON PLANT SHUTDOWN METHOD HOURS ATTACHMENT SUBMITTED NPRD-4 FORM SUB. PRIME COMP. SUPPLIER COMPONENT MANUFACTURER											
X		18		A		19		Z		20	
21		Z		21		0		0		0	
22		Y		23		N		24		L	
25		X		9		9		9		9	
CAUSE DESCRIPTION AND CORRECTIVE ACTIONS											
A small amount of gas leaked through a damaged quick-disconnect on the sample vessel during the sampling. The sampling operation was immediately suspended. All quick disconnects associated with sampling operations will be inspected and replaced as required. The less restrictive release rate of Standard Tech. Specs. is being incorporated into the Surry Tech. Specs.											
FACILITY STATUS % POWER OTHER STATUS METHOD OF DISCOVERY DISCOVERY DESCRIPTION											
E		28		1		0		0		29	
30		N/A		A		21		Operator Observation		32	
ACTIVITY CONTENT RELEASED OF RELEASE AMOUNT OF ACTIVITY LOCATION OF RELEASE											
G		33		N		34		3.22 Curies		Aux. Bldg. Vent to Atmosphere	
PERSONNEL EXPOSURES PERSONNEL INJURIES LOSS OF OR DAMAGE TO FACILITY											
0		0		0		37		Z		38	
39		N/A		0		0		0		40	
41		N/A		Z		42				43	
PUBLICATION ISSUED DESCRIPTION											
N		44		8209160508		820909		PDR		ADOCK 05000280	
45		S		PDR		N/A					
NAME OF PREPARER J. L. Wilson											
P-CNE (804) 357-3184											

ATTACHMENT 1

SURRY POWER STATION, UNIT NO. 1

DOCKET NO: 50-280

REPORT NO: 82-090/01T-0

EVENT DATE: 08-26-82

TITLE OF THE EVENT: Instantaneous Release Rate Exceeded

1. DESCRIPTION OF THE EVENT:

On August 26, 1982, with Unit 1 and Unit 2 at 100% power, operations personnel were obtaining a sample of the Gas Stripper Surge Tank gaseous effluent. Special precautions had been established, including the stationing of Health Physics personnel at the sample sink, the use of hand held radiation monitoring equipment at the sink, establishment of continuous communications with the control room and stationing a control room operator at the Ventilation Vent Radiation monitors (RM-VG-103 & 104) in the control room.

Approximately 30 seconds after the sample valves (1-SS-42 and 1-SS-73) were opened to purge the sample vessel, the control room operator observed that the gaseous monitor was increasing above background and immediately called personnel at the sample sink. The operator at the sink isolated the sample vessel as soon as he heard the page over the station intercom system. The release duration was approximately 30 seconds.

The High Activity Alarm of the Vent-Vent gaseous monitor was locked in for less than 60 seconds. The monitor spiked to a maximum reading of 6×10^4 CPM and then returned to background levels. The maximum flow rate through the Ventilation Vent stack at this time was 130,000 CFM, which, when used to assess the release rate, resulted in a maximum instantaneous release rate of 53% above the Tech. Spec. allowable limit. This is contrary to Technical Specification 3.11.E.1 and is reportable in accordance with Tech. Spec. 6.6.2.a(2).

2. PROBABLE CONSEQUENCES AND STATUS OF REDUNDANT EQUIPMENT:

Calculations based on the indicated Ventilation Vent flow rate of 130,000 CFM and isotopic analysis of samples from the Gas Stripper Surge Tank determined that a total 3.22 Curies of Noble gases were released. This resulted in a maximum calculated dose rate and integrated whole body dose at the site boundary of 0.0724 Mr/hr. and 0.000603 mrem, respectively. A release of this magnitude is only 5% of the Standard Technical Specification release rate, which shows that the Surry Tech. Spec. is extremely conservative. Due to the gaseous nature of the release, there were no radioactive particulates or iodines released, and no offsite contamination was generated. Therefore, the health and safety of the public were not affected.

3. CAUSE:

The male quick-disconnect on the sample vessel had been damaged. The stem was bent such that it may have prevented an air-tight connection with the female disconnect. In addition, the teflon seal on the female quick disconnect had been damaged from having the bent stem forced into it. These conditions allowed a small amount of gas to leak into the sample sink when the sample vessel was being purged. This gas was immediately vented out of the sample sink into the Ventilation Vent System, where it passes through charcoal filters and particulate and gaseous monitors, and is then released to atmosphere via the #2 Vent Stack.

3. Cause (continued)

A contributing factor to the high activity of this gas is the higher than normal activity in Unit 1 primary due to known, but not specifically identified, fuel defects. In addition, a reactor trip had occurred two days prior to the sampling, which had enhanced the release of fission products into the primary.

4. IMMEDIATE CORRECTIVE ACTION:

The sampling operation was suspended as soon as the radiation monitor began its upward swing. An immediate assessment of the release data determined that the release was approximately 50% over the tech. spec. limit. The Shift Supervisor then activated the Station Emergency Plan and declared an Unusual Event. Appropriate EPIP's were initiated and offsite agencies were notified.

5. SUBSEQUENT CORRECTIVE ACTIONS:

An investigation was initiated to determine the location and source of the release. Valves in the sample system were pressure tested for leaks, the sample vessel and its disconnects were pressure tested and inspected, and a test was performed to determine the transport time of gases through the Vent-Vent system.

6. ACTIONS TAKEN TO PREVENT RECURRENCE:

All sample vessels and quick disconnect fittings associated with sampling operations will be inspected and replaced as required. A change to the Technical Specifications is being processed to reflect the less restrictive release rate specified in the Standard Technical Specifications.

7. GENERIC IMPLICATIONS:

None.