

Summary Report of Occurrences Reviewed From September 28 – October 2, 2009

Summary: 30 occurrences at 15 sites reviewed during this period.

Occurrences of Significant Interest (4)

Injury – 2 occurrences at 2 sites

- **EM – Savannah River Site (Significance Category 3).** On September 23, while subcontract E&I mechanics were troubleshooting a 480-volt circuit breaker within cubicle B-2-1B at the D Area Power House, an arc-flash occurred. The E&I mechanics had noticed that the breaker appeared to be misaligned within the cubicle and placed a metallic torpedo level on the breaker body to confirm alignment before racking (installing) the breaker into the cubicle. While racking in the breaker, the level fell onto the 'A' phase breaker stabs causing an arc-flash and fire within the breaker cubicle. D Area personnel used a portable fire extinguisher to quickly extinguish the small fire. The mechanic who was performing the task received second degree burns on both forearms and first degree burns on his face. He was sent to a burn unit at a local hospital and underwent surgery the next morning. The arc flash energy for the cubicle exceeded the rating for the protective clothing available on site. The breaker bus should have been de-energized before the task began. An investigation will be performed.
- **SC – Stanford Linear Accelerator Center (Significance Category 2).** On September 24, a Stanford University doctorate student reported eye discomfort while working on aligning a Class 3b 808 nm (~100 mW) laser at SLAC. He immediately went to SLAC Medical for evaluation and was referred to an ophthalmologist for definitive evaluation. The student reported loosening a tube from its mount to make an adjustment during an alignment. In doing so, the beam came out of the horizontal plane of the optical table and into his left eye, causing a burn to the retina. It is not known if the injury is permanent. Although the procedure specified that laser safety goggles were required for this activity, the student was not wearing any. The specific laboratory has been secured by the System Laser Safety Officer. SLAC has initiated a complete safety stand-down of all research laboratory use of Class 3b and 4 lasers. An investigation is underway.

Near Miss – 1 occurrence at 1 site

- **EM – Hanford Site (Significance Category 3).** On September 29, a 100 K Soil Remediation worker fell approximately 11 feet from scaffolding. The worker overreached while attempting to pull a bungee cord and lost his balance, momentarily caught himself, and then fell. The worker said that he was not injured, but was taken to AdvanceMed Hanford for evaluation. Work on scaffolding on the 100 K soil remediation project was suspended.

Equipment Degradation/Failure – 1 occurrence at 1 site

- **NE – Idaho National Laboratory (Significance Category 2).** On September 29, an automatic scram (shutdown) of the Advanced Test Reactor (ATR) occurred when circuit breaker B-1 on Diesel Bus 670-E-9 tripped open on a ground fault indication. The circuit breaker trip resulted in a loss of power to the diesel generator powered pumps in three of the five experiment loops and actuation of the associated pump circuit breaker under-voltage scram signals. The three affected experiment loops (1D-N, 2E-NW, and 1C-W) each had a

combination of diesel and commercial powered pumps operating to provide flow. Commercial power was uninterrupted and forced flow was maintained in all affected loops. Investigation into the cause of the ground fault trip of circuit breaker B-1 revealed a grounded motor stator for the 1C-W diesel powered pump motor M-3. The reactor is in a safe condition and once the cause is fully determined and corrected, the reactor can be restarted to continue the current operating cycle.

Other Occurrences (26). See Table (Note: The Table includes the occurrences listed above).

Occurrence Category	Number of Occurrences				Number of Sites
	E&E	NNSA	SC	DOE Total	
Injury - Industrial Hygiene/Occupational Safety	2	2	1	5	4
Near Miss	1	1	0	2	2
Authorization Basis	2	1	0	3	3
Radiological Concerns - Contamination/Exposure	3	0	2	5	4
Environmental	0	0	0	0	0
Fire Safety	0	0	1	1	1
Shipping/Quality Assurance	0	0	0	0	0
Criticality Concerns	0	0	0	0	0
Industrial Operations	1	0	0	1	1
Conduct of Operations - Lockout/Tagout	2	2	1	5	4
Electrical Safety	1	0	1	2	2
Vehicle Accident	0	0	0	0	0
Equipment Failures	2	1	0	3	3
Safeguards and Security	0	0	0	0	0
Suspect & Counterfeit Parts	1	1	1	3	3
Other	0	0	0	0	0
Total	15	8	7	30	

ORPS Significance Categories	OE	SC1	SC2	SC3	SC4	R
Totals for the Week:	0	0	4	16	10	0

Secretarial Office Summary

National Nuclear Security Administration	8 occurrences	(6 sites)
Office of Environmental Management	14 occurrences	(3 sites)
Office of Nuclear Energy	1 occurrence	(1 site)
Office of Science	7 occurrences	(5 sites)