

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-I-09-006

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by the Region I staff on this date.

Facility

Exelon Generation Company, LLC  
Three Mile Island, Unit 1  
Middletown, PA  
Docket: 50-289

Licensee Emergency Classification

Notification of Unusual Event  
 Alert  
 Site Area Emergency  
 General Emergency  
 Not Applicable

SUBJECT: THREE MILE ISLAND UNIT 1 CONTAMINATION EVENT (UPDATE)

This preliminary notification updates information previously communicated in a commissioner's technical assistant briefing, NRC Event Notification (EN 45514) and NRC Press Release (No. I 09-046).

At about 4:00 p.m., on November 21, while shut down for a refueling outage and steam generator (SG) replacement, TMI experienced local alarms inside the containment building due to airborne radioactivity levels.

As a precaution in response to the alarms, approximately 175 workers exited the containment. Several workers alarmed the portal monitors while leaving the radiologically controlled area around the containment building due to contamination levels, and were whole body counted to assess their radiation dose. Of these workers, initially 19 workers received doses ranging from 10 mrem to 38 mrem, which is a very small fraction of the annual federal occupational exposure limit (5000 mrem/yr). The number of personnel with residual contamination continued to decrease as normal biological elimination processes of internally deposited radioactivity takes place. It is not unusual for contamination events to occur during refueling outages and workers to be processed as they were in this event.

Exelon attributed the cause of the contamination event to a change in air pressure inside the containment building that dislodged loose surface contamination in primary piping systems. Some of the contamination became airborne and was detected by local containment air monitors. Exelon surveyed the area around the containment construction opening and did not detect any contamination. The airborne radioactivity readings returned to pre-event levels 4 to 6 hours after the initial alarms.

There was no effect on public health and safety as a result of this event. This event did not result in exceeding any emergency action levels, nor were any formal event notification criteria met. The workers that were affected by this event received radiation doses that were a small percentage of the annual occupational exposure limit. As a conservative measure, Exelon withheld these workers from future exposure pending detailed evaluation.

A number of Region I personnel and Headquarters personnel have responded to this event over the weekend. The Resident Inspectors, Health Physics Specialist Inspectors, and the Public Affairs Officer responded to the site to investigate the event and to address media inquiries. Exelon issued two press releases, and the NRC issued one press release on the event. The Region I Public Affairs Officers have responded to numerous media inquiries. Region I is

continuing to follow Exelon's evaluation of this event through the NRC's baseline inspection program.

The Commonwealth of Pennsylvania, as well as several Congressional representatives, were informed of the event.

The information presented herein has been confirmed with the Site Vice President - Three Mile Island, William Noll, and is current as of November 24, 2009 at 2:23 p.m.

This PN is issued for information only.

ADAMS Accession Number: ML093280879

CONTACT: G. Scott Barber  
(610) 337-5232

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**SUNSI Review Complete:** GSB (Reviewer's Initials)

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