

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE--PNO-TMI-82-03

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 NRC staff on this date.

Facility: Metropolitan Edison Company  
Three Mile Island, Unit 2  
Docket No. 50-320

Licensee Emergency Classification:  
X Unusual Event

Subject: OXYGEN DEFICIENT ATMOSPHERE IN THE REACTOR BUILDING

Prior to a scheduled personnel entry into the Unit 2 reactor building, at about 9:00 a.m. the reactor building purge was activated and air oxygen concentration was measured at 17% (normal O<sub>2</sub> concentration is about 20.5 - 21%). This O<sub>2</sub> deficient atmosphere was verified using another O<sub>2</sub> meter within about 30 minutes from the original measurements. To investigate the cause of this O<sub>2</sub> deficient atmosphere, a second team entered the reactor building to perform additional air sampling and visual observation. The team was equipped with explosive gas and O<sub>2</sub> detection instruments. Variable O<sub>2</sub> concentrations were noted on the 305' level with the lowest level at 12% O<sub>2</sub>. The detection equipment also indicated an explosive mixture at the 347' level. At that time, the team was ordered to immediately exit the building. A grab air sample from the 305' level was analyzed and indicated 1-1.5% H<sub>2</sub> with no detectable Co<sub>2</sub> and CO and 19% O<sub>2</sub>. At 5:25 p.m. the licensee declared an unusual event. The on-site NRC staff continues to monitor the licensee's investigations of the possible causes of the O<sub>2</sub> deficient atmosphere in the reactor building.

Media interest has occurred because of public sensitivity to TMI related events and the licensee issued a press release. The NRC also plans to issue a press release.

The Commonwealth of Pennsylvania has been notified.

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