

PRELIMINARY NOTIFICATION

September 26, 1977

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE--PNO-77-169

This preliminary notification constitutes EARLY notice of an event of POSSIBLE safety or public interest significance. The information presented is as initially received without verification or evaluation and is basically all that is known by IE staff on this date.

Facility: Commonwealth Edison Company, Dresden Unit No. 1
(DN 50-010), Morris, IL

Subject: OFFGAS EXPLOSION

Commonwealth Edison Company reported to RIII (Chicago) that at 3:00 a.m. on September 25, 1977, a hydrogen explosion occurred in the Dresden Unit No. 1 offgas system. Upon investigation, the licensee determined that the rupture disc on both air ejectors had blown. A controlled shutdown was immediately initiated. Offgas radioactivity being discharged from the stack to the environs at the time of the incident was approximately 12,000 microcuries per second and offgas radioactivity at the air ejectors was 25,000 microcuries per second (approximately 5% of the Technical Specifications limit.) At the time of the incident, the offgas exhausting from the rupture disc entered the reactor turbine building and was exhausted to the stack through the turbine building ventilation system. Some radioactive material was released to the atmosphere at essentially ground level through leakage from the stack access hatch. While the amount of radioactivity released to the environs is not believed to be significant, environmental samples have been taken by the licensee to confirm this evaluation. No personnel overexposure occurred.

The State of Illinois has been notified. The licensee does not plan to issue a press release at this time. Region III is considering issuance of a press release.

An RIII inspector has been dispatched to the site.

RIII (Chicago) received notification of this occurrence by telephone from the Dresden Station at 8:00 a.m. on September 25, 1977.

Contact: GHBidinger, IE x27551 LJCunningham, IE x27551 LBHigginbotham x28098

Distribution: Transmitted H St 2:48:

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Commissioner Kennedy

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C. C. Kammerer, CA
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R. J. McTiernan, OIA

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PRELIMINARY NOTIFICATION

Copy to R. Brown 9-28-77

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PDR FOIA
HIATT82-545 PDR

NOTIFICATION

ITEM OR EVENT

REGIONAL ACTION

(ED)

TELEPHONE-9/25/77

~~THE LICENSEE REPORTED THAT THE WESTERN ENGINE REPRESENTATIVE WAS ON SITE REVIEWING EMERGENCY DIESEL GENERATOR TESTING (GENERAL MOTORS DIESEL) AND THAT THE DUTY TIME MONTHLY TEST WILL BE INCREASED TO 4 HOURS AT RATED LOAD AFTER THE ENGINE REACHES OPERATING TEMPERATURES (REF: TEE 3876.2.1 (1)). THE MANUFACTURER REPRESENTATIVE APPARENTLY INDICATED THAT CARBON BUILDUP IN THE CYLINDERS AND EXHAUST SYSTEM IS CONTINUING TO BE A PROBLEM. THE GENERIC IMPLICATIONS ARE BEING REVIEWED BY THE REGION.~~

~~RIII IS FOLLOWING AND WILL PROVIDE ADDITIONAL INFORMATION AS NECESSARY.~~

TELEPHONE-9/25/77

AT 5:00 A.M. ON 9/25/77, A HYDROGEN EXPLOSION OCCURRED IN THE UNIT 1 OFFGAS SYSTEM. UPON INVESTIGATION, THE LICENSEE DETERMINED THAT THE RUPTURE DISC ON BOTH AIR EJECTORS HAD BLOWN. A CONTROLLED SHUTDOWN WAS IMMEDIATELY INITIATED, RESULTING IN "HOLD RECS IN" AT 6:19 A.M. OFFGAS REACTIVITY AT THE STACK AT THE TIME OF THE INCIDENT WAS APPROXIMATELY 12,000 UCI/SEC AND OFFGAS READINGS AT THE AIR EJECTORS WAS 25,000 UCI/SEC. (APPROXIMATELY 5% OF THE IS LIMIT). AT THE TIME OF THE INCIDENT, THE OFFGAS EXHALSTING FROM THE RUPTURE DISC ENTERED THE REACTOR TURBINE BUILDING AND WAS EXHAUSTED TO THE STACK THROUGH THE TURBINE BUILDING VENTILATION SYSTEM. SOME RADIOACTIVE MATERIAL WAS RELEASED BY LEAKAGE FROM THE STACK ACCESS HATCH. ENVIRONMENTAL SAMPLING IS IN PROGRESS.

RIII INSPECTOR DISPATCHED TO SITE, PR-III-77-60 IS BEING ISSUED. THE STATE OF ILLINOIS HAS NOTIFIED.

DRESDEN-1

radioactivity