

August 7, 1998 GDP 98-1062

United States Nuclear Regulatory Commission Attention: Document Control Desk Washington, D.C. 20555-0001

Paducah Gaseous Diffusion Plant (PGDP) Docket No. 70-7001 Event Report ER-98-22

Pursuant to 10CFR76.120(d)(2), enclosed is the required 30-day written event report covering the C-720 power outage which disabled the C-720 criticality accident alarm system (CAAS) beacons. The Nuclear Regulatory Commission (NRC) was notified of the event on July 14, 1998 (NRC No. 34507). This was considered an isolated incident; therefore, a list of commitments are not included in this report.

Any questions regarding this matter should be directed to Larry Jackson at (502) 441-6796.

Sincerely,

General Manager

Paducah Gaseous Diffusion Plant

Enclosure: As Stated

cc: NRC Region III Office

NRC Resident Inspector - PGDP

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## EVENT REPC I ER-98-22

### **DESCRIPTION OF EVENT**

On July 13, 1998, at 1522 hrs., during a thunderstorm, a lightning strike tripped 14KV air circuit breaker (ACB) 23D5D. When the breaker tripped, power was lost to the eight (8) C-720 facility criticality accident alarm system (CAAS) building warning beacons. These beacons are located on the outside of the building and provide visual indication of a CAAS alarm. The CAAS beacons are required to be operable by Technical Safety Requirement (TSR) 2.6.4.1. Power to C-720 was restored and the C-720 CAAS declared operable at 1544 hrs., on July 13, 1998. Pursuant to 10CFR76.120(c)(2), the Nuclear Regulatory Commission Headquarters (NRC-HQ) operations office was notified of this event on July 14, 1998, at 0843 hrs., and NRC No. 34507 was assigned.

The C-720 CAAS beacons receive 12)-VAC power from lightning panel LP-13K-A. This panel also provides power to all CAAS components within the C-720 facility. The power loss did not affect the CAAS audibility (horns) or CAAS detectability which have back-up power supplied by internal batteries. The beacons do not have a back-up power supply.

Also, the C-300 CAAS alarm annunciation capability required by the Compliance Plan Issue 50 Justification for Continued Operation (JCO) was not affected since the 48-VDC system in C-300 was not interrupted. Lightning panel LP-13K-A is fed from a transformer which is fed from power panel PP-13K. PP-13K receives power from substation C-720B which receives power through feeder 25D. The 25D feeder was tripped by the lightning strike and this removed power from its flowdown devices. All protective devices operated as designed, and no equipment was damaged.

#### CAUSE OF EVENT

#### A. Direct Cause

The action of the electrical system protective devices resulting from the lightning strike power surge removed power from the C-720 building CAAS beacons.

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# B. Root Cause

The root cause of this event is attributed to external phenomenon (lightning) which removed power from the C-720 CAAS beacons.

## CORRECTIVE ACTIONS

## A. Planned Corrective Actions

This is an isolated incident caused by natural phenomenon and thus, no corrective actions are planned at this time.

EXTENT EXPOSURE OF INDIVIDUALS TO RADIATION OR RADIOACTIVE MATERIALS

None

LESSONS LEARNED

N/A