



ATTACHMENT TO LICENSEE EVENT REPORT 78-063/03X-2  
COMMONWEALTH EDISON COMPANY (CWE)  
DRESDEN UNIT-2 (ILDRS-2)  
DOCKET #050-237

During normal operation, radiation protection personnel reported that stack gas sample pump flow appeared to be abnormally low. An operator confirmed that 2/3 "A" pump flow was 2.6 SCFM; 2/3 "B" pump flow was 0.0 SCFM (flow greater than 2.9 SCFM is considered normal). Tech Spec section 3.8.A.1. requires continuous chimney monitoring, but states that during plateout tests, when both pumps must be out of service, the steam jet air ejector monitors may be used to satisfy the plant chimney monitoring requirements if the reactor is operating at a steady-state power level. Although a plateout test was not being performed when both pumps were forced out of service, the reactor had been operating in the steady-state condition for 13 hours, and both steam jet air ejector monitors were operable. During the period from 1725 to 1930 hours, while the 2/3 "A" sample pump and suction filter were being replaced to provide rapid compliance with Tech. Spec requirements, the steady-state operation of the unit and the static response of the SJAE monitors ensured that no unacceptable releases occurred. Because the cause of failure could not be readily identified on the 2/3 "B" sample pump, it was decided to first restore the operability of the "A" sample pump by simply replacing the pump and suction filter. Personnel errors resulting in stack gas sample pump problems have occurred occasionally in the past. (50-237/1976-63)

Normal wear products from the carbon impeller vanes collected in the sample lines, pump cavity, and filter of the 2/3 "A" pump, resulted in reduced pump efficiency and flow. The zero-flow condition on the 2/3 "B" pump was caused by an improper valve lineup.

As stated above, the 2/3 "A" sample pump and suction filter were replaced. The 2/3 "B" sample pump was returned to service at 1125 hours on 10/4/76, after the valving error was discovered.

Reevaluation of the events related to the temporary loss of stack gas sampling capability on October 3, 1976, has resulted in the following conclusions:

1. The proximate cause of the event was personnel error (cause code A). This conclusion is based on the fact that, at the time of the event, the operator was unable to establish flow in the standby sample train even though no equipment malfunction existed.
2. The root cause of the event was the inadequacy of the system description in the applicable operating procedure -- DOP 1700-4. Had a piping and valve diagram been included in the procedure, the operator would certainly have been able to readily perform the valving required to place the standby sample train in service.

To avoid recurrence, procedure DOP 1700-4, Off-Gas Vent (Stack) Radiation Monitoring System, was revised, and a valve and piping isometric drawing was added. In addition, a complete system modification recently completed has eliminated any need for a posted valve and piping diagram in the area.

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