

CO INQUIRY REPORT NO. 50-247/72-13

Subject: Consolidated Edison Company

License No.: DPR-26

Facility: Indian Point 2 - PWR

Title: Equipment Failure - Control Rod Malfunction

Prepared By: G. L. Madsen  
G. L. Madsen, Reactor Inspector

5/22/72  
Date

A. Date and Manner AEC was Informed:

On April 29, 1972, G. L. Madsen, Reactor Inspector, was at IP-2 for the purpose of witnessing preoperational rod drop testing with the primary system in the "hot" condition. Rod H-10 failed to drop freely when tested in the hot-no flow condition. On May 1, 1972, Mr. J. Makepeace, Startup Manager at IP-2, telephoned to inform RO:I that rod K-2 also failed to drop freely during drop testing in the hot-no flow condition.

B. Description of Particular Event or Circumstance:

Preoperation rod drop testing was being performed. The 53 rods had been successfully tested in the cold-no flow, cold-flow, and hot flow conditions. During rod drop testing in the hot-no flow condition rods H-10 and K-2 failed to drop freely and stopped in the partially withdrawn position. Subsequent attempts to run the rod revealed an inability to move the rods throughout the full length of travel.

C. Action by Licensee:

On May 15, 1972, Mr. Makepeace telephoned to inform RO:I of the following actions and findings relating to the K-2 and H-10 rod drop problems:

1. The reactor vessel head was removed.
2. Rod H-10 was observed to be extending out of the reactor core some 40 inches further than the remaining rods.
3. Rod H-10 was withdrawn by exertion of an external force of about 900 lbs. (Rod weight about 300 lbs.)
4. Upon inspection, one vane of the rod spider was missing from rod H-10. (This vane has two rod pins attached.)

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5. The upper internals were removed.
6. An object was observed within the fuel bundle which contained rod H-10.

The licensee's investigative efforts are continuing. Present plans include the removal of adjacent fuel assemblies, closer examination of rod H-10 to determine the failure mechanism, and to identify the object which is lodged within the fuel assembly which contained rod H-10.

The licensee reports that their investigation to date has not identified a problem with respect to rod K-2. Their investigation with respect to this rod is also continuing.

The licensee will submit a report to DRL on this matter.