

FEB 8 1973

Docket No. 50-331

Original signed by Roger S. Boyd, Assistant Director for BWR's, L
Walter Butler THRU: Walter R. Butler, Chief, BWR-1, L

INFORMATION MEETING WITH IOWA ELECTRIC LIGHT AND POWER COMPANY
REGARDING THE MAIN STEAMLINE ISOLATION VALVE SEAL SYSTEM FOR THE
DUANE ARNOLD ENERGY CENTER

On February 7, 1973, an information meeting was held with representatives of the Iowa Electric Light and Power Company (IELP) to discuss the status of the IELP work on a seal system for the main steamline isolation valves of the Duane Arnold Energy Center (DAEC). The purpose of this meeting was to determine the status of the DAEC seal system design prior to the February 8, 1973, ACRS meeting on the Duane Arnold Energy Center. This ACRS meeting was postponed until March 1973 due to pressing ACRS business. The attendance at this meeting is attached.

The IELP representatives indicated that three systems were considered for installation at the Duane Arnold Energy Center. Each of the alternatives are discussed below.

1. Water Seal System

This system would inject water into the steam lines upstream of the inboard isolation valve forming a water seal to prevent leakage through the isolation valves. The applicant indicated that because of the difficulties in proving that valve warpage and increased leakage would not occur as a result of water injection, this seal system was rejected. The applicant indicated that it was aware of the water seal system being proposed on another plant, Nine Mile Point Unit 2, and that if that proposed system were approved, IELP would reconsider use of the water seal system.

2. Nitrogen Seal System

This system would inject nitrogen between the main steam line isolation valves. The nitrogen would be at sufficient pressure to allow leakage only into the containment. The applicant indicated this system was rejected because a potential for pressurizing the primary containment exists and because of the recent Staff concern regarding nitrogen repressurization of the primary containment in our review of the CAD system.

3. Leakage Control System

This is the system IELP intends to file in Amendment 12 to the FSAR on about February 23, 1973 for the Duane Arnold Energy Center.

The system uses the existing drain lines located upstream of the outboard isolation valve to return any leakage thru the inboard valves to the reactor building where it will be filtered by the Standby Gas Treatment System and discharged via the plant stack. Each of the four steamlines would have this vent capability. The system would be manually actuated. The applicant indicated that dose calculations based on use of this system have not been completed but expected that 10 CFR Part 100 guideline values would be the bases for acceptance, using the TID 14844 source term. The system will be designed to ASME Section III, Class 2 code requirements, seismic category I requirements, and will be testable. Interlocks will be used to prevent opening of the control vent valves unless the pressure inside the steam line is less than 50 psia.

The applicant indicated that the installation schedule for this system would be determined by the availability of nuclear grade valves, which IELP believes to be long-lead valves (in terms of procurement) such that the system could not be completed until the first refueling outage.

Original signed by
Raymond R. Powell

Raymond R. Powell, Project Manager
Boiling Water Reactors Branch 1
Directorate of Licensing

OFFICE ▶	L:BWR-1	L:BWR-1				
SURNAME ▶	RRPowell:ld	WRButler				Hemo
DATE ▶	2/8/73	2/8/73				

MEETING ATTENDANCE

IOWA ELECTRIC LIGHT & POWER COMPANY

February 7, 1973

AEC

R. Powell
L. Connery
J. Richardson

Bechtel

T. Broad

GE-PGSD

C. Darrow
L. Gifford
A. Smith
N. Horton
D. Shen
O. Foster

IELP

J. Ward
J. Newman
C. Sandford