

Iowa Electric Light and Power Company

October 31, 1989

NG-89-2886

Dr. Thomas E. Murley, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-137
Washington, DC 20555

Subject: Duane Arnold Energy Center
Docket No: 50-331
Op. License No: DPR-49
Response to Generic Letter 89-16, "Installation of a
Hardened Wetwell Vent"
Reference: Generic Letter 89-16, "Installation of a Hardened Wetwell
Vent," dated September 1, 1989
File: A-101b, A-106a, A-107c, T-23a

Dear Dr. Murley:

Generic Letter (GL) 89-16 requested that each licensee with a Mark I containment provide your staff with its plans for installation of a hardened wetwell vent. We have elected to proceed with the design and installation of a hardened vent under the provisions of 10 CFR 50.59.

We have a conceptual design of a hardened wetwell vent for the Duane Arnold Energy Center (DAEC) that we believe addresses the Commission's concerns for reduction of the risk associated with a TW (loss of decay heat removal) accident sequence. A brief description of this conceptual design is provided in Attachment 1.

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Iowa Electric now anticipates completing the hardened vent installation by December 31, 1992. We will keep you informed of our plans, milestones and schedules through the semi-annual updates to our Integrated Plan.

Very truly yours,



Daniel L. Mineck
Manager, Nuclear Division

DLM/BHJ/pjv+

Attachment

cc: B. Johnson
L. Liu
L. Root
R. McGaughy
J. R. Hall (NRC-NRR)
A. Bert Davis (Region III)
NRC Resident Office
Commitment Control #890346

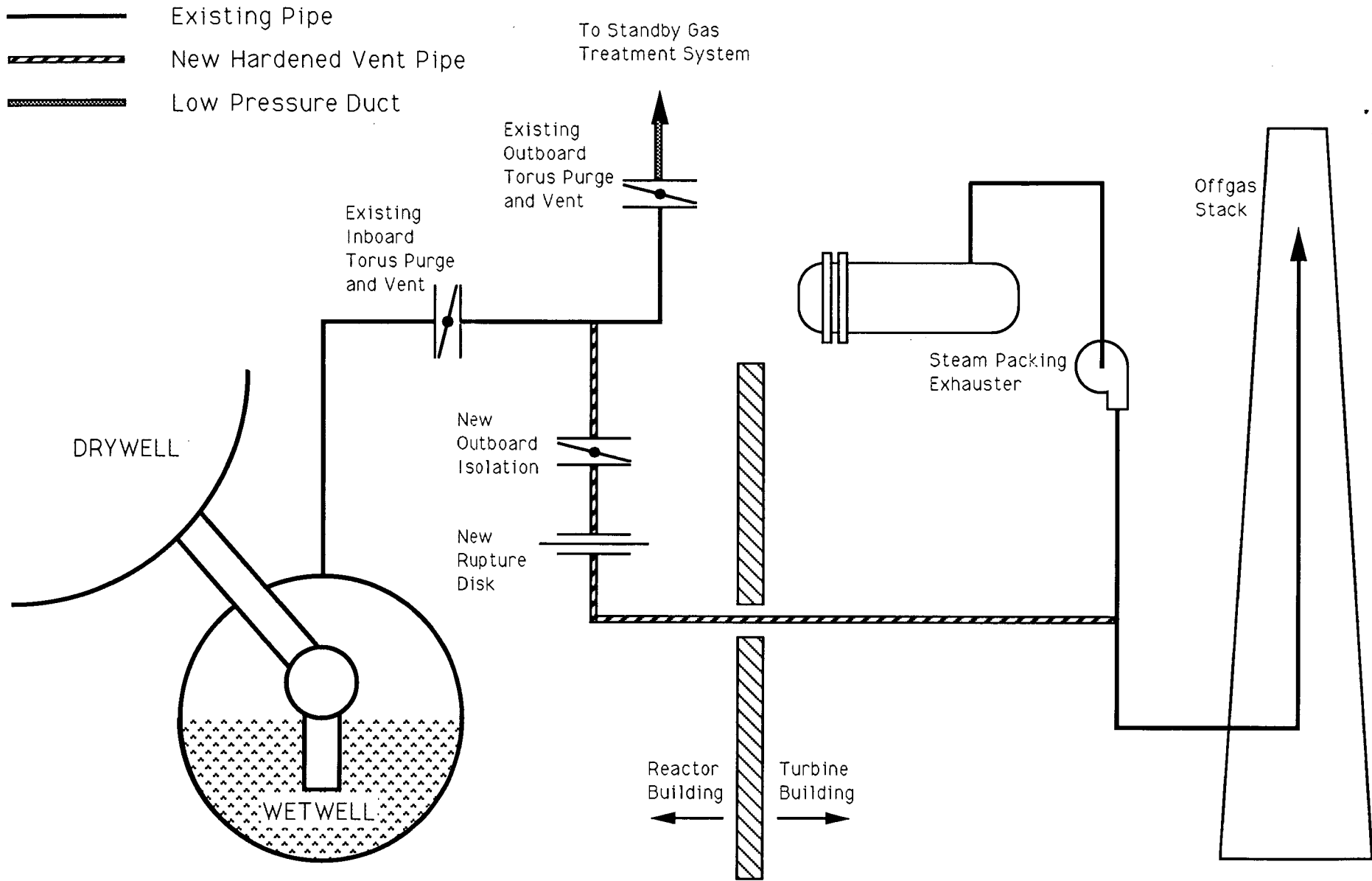
CONCEPTUAL DESIGN OF THE DAEC HARDENED WETWELL VENT

Our conceptual design for the hardened wetwell vent will connect the existing piping in the reactor building for the wetwell purge exhaust to existing piping in the turbine building for the discharge from the steam packing exhauster (see Figure 1). The discharge piping for the steam packing exhauster leads to the plant offgas stack, providing for an elevated release point.

The new piping will be eight inches in diameter and will connect to the wetwell purge exhaust piping between the existing inboard and outboard torus purge and vent isolation valves. An additional air-operated outboard isolation valve and a rupture disk will be installed in the new piping. The design will allow the vent to operate during station blackout event, i.e., it will be AC independent commensurate with the duration specified by DAEC's compliance with the station blackout rule. The new isolation valve will fail-safe on loss of air, but will have a compressed air accumulator to support valve operation following a loss of instrument and service air. Controls for the existing inboard isolation valve will be modified to allow it to be operated independent of AC power. Valve control and position indication will be provided in the control room.

The new piping from the tap on the wetwell purge exhaust piping through the new isolation valve will be ASME Section III, class 2 and will be seismically supported. The remainder of the piping will be non-safety grade 150 psig carbon steel piping.

No additional shielding provisions are envisioned. Also, existing equipment for monitoring radiation in the drywell, wetwell, and offgas stack will provide capability for this proposed installation.



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FIGURE 1