



**Consumers
Power
Company**

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November 15, 1984

James G Keppler, Administrator
Region III
US Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

DOCKET 50-755 - LICENSE DPR-20 -
PALISADES PLANT - RESPONSE TO IE BULLETIN 84-03 - REFUELING CAVITY WATER SEAL

IE Bulletin 84-03 dated August 24, 1984 describes an incident involving the failure of a refueling cavity water seal with the refueling cavity flooded in preparation for refueling and requires a response prior to beginning refueling or within 90 days of receipt of the Bulletin, whichever is sooner. Our response follows:

The Palisades refueling cavity water seal is a passive seal. As shown in attached Figure 1, it consists of a rubber seal which fits over the one-inch gap between the reactor flange and the refueling cavity floor. Over this rubber seal is a metal cover which fits securely onto the seal. The seal cover secured by 36 hold-down clamps and centering bolts as shown.

These actions assure that any leak due to improper installation of the seal will be detected before any fuel is moved. The seal installation procedure requires that all of the hold-down clamps are secured and that the centering bolts are torqued properly. The procedure also requires that the seal be leak tested, using compressed air, following installation. In addition, the reactor cavity filling procedure requires that the leak channel beneath the seal (as shown in Figure 1) be monitored as the reactor cavity is filled.

Once the reactor cavity is filled there is no mechanism for a serious seal failure. The sealing surfaces are at the cavity/reactor gap and at the seal edges. Both boundaries must fail for a leak and then it would be a small local leak because even if the complete rubber seal were to fail the seal cover would be forced down by water pressure keeping the leak rate to very low levels.

The design of the Palisades spent fuel pool and transfer mechanism is such that draining the reactor cavity would not uncover fuel in the pool or transfer tube. Only fuel in the Refueling Machine or Service Platform would be subject to being uncovered. However, an analysis assuming complete loss

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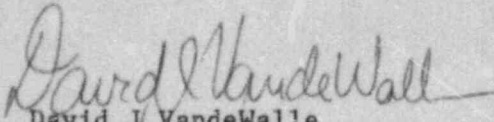
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of the rubber seal and seating of the seal cover shows that potential refueling cavity water seal leaks would be well within makeup capabilities. No changes to existing emergency procedures are required to address the concerns of this Bulletin.


David J. VandeWalle
Director, Nuclear Licensing

CC Director, Office of Nuclear Reactor Regulation
Director, Office of Inspection and Enforcement
NRC Resident Inspector - Palisades

Attachment

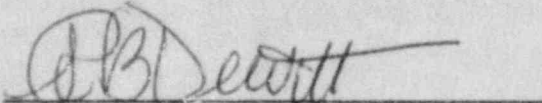
CONSUMERS POWER COMPANY
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REPOSE TO IE BULLETIN 84-03

At the request of the Commission and pursuant to the Atomic Energy Act of 1954 and the Energy Reorganization Act of 1974, as amended, and the Commission's Rule and Regulations thereunder, Consumers Power Company submits our response to IE Bulletin 84-03 dated August 24, 1984, entitled, "Refueling Cavity Water Seal." Consumers Power Company's response is dated November 15, 1984.

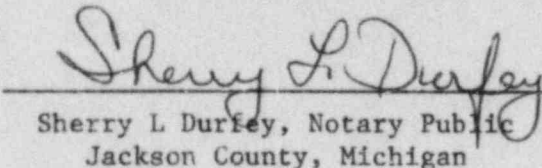
CONSUMERS POWER COMPANY

By



R B DeWitt, Vice President
Nuclear Operations

Sworn and subscribed to before me this 15th day of November 1984.



Sherry L. Durfey, Notary Public
Jackson County, Michigan

My commission expires November 5, 1986.

SHERRY LYNN DURFEY
Notary Public, Jackson County, Mich.
My Commission Expires Nov. 5, 1986

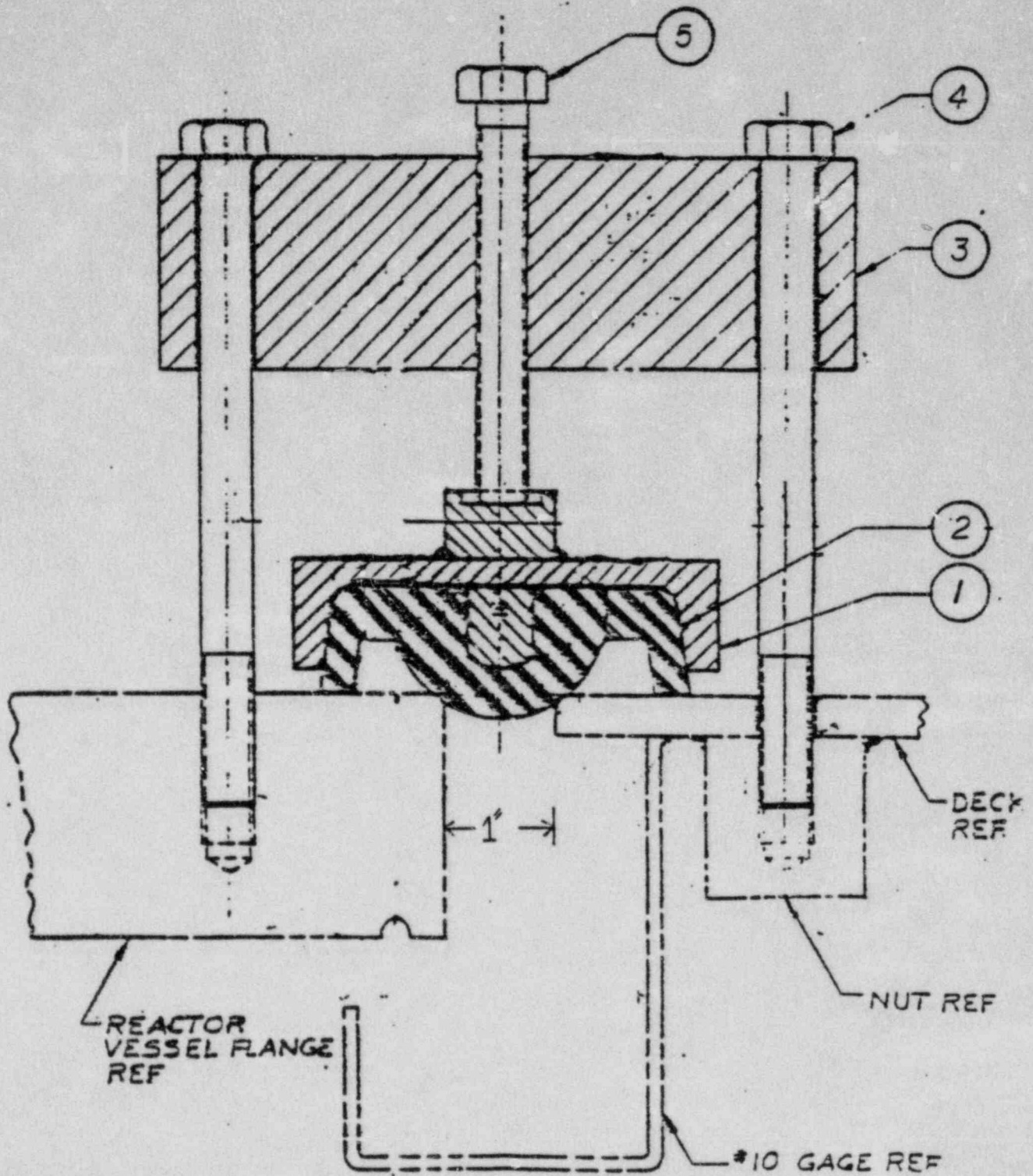
ATTACHMENT 1

Consumers Power Company
Palisades Plant - Docket 50-255

RESPONSE TO IE BULLETIN 84-03
REFUELING CAVITY WATER SEAL

FIGURE 1

FIGURE 1
PALISADES REACTOR CAVITY SEAL



1. Seal Cover
2. Seal
3. Hold-down Clamp

4. Hold-down Bolt
5. Center Bolt

Reference: 950Y244 * MI-BB Sh 678-1 and Sh 170-1