



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76012

bcc to DAC:ADM:
CENTRAL FILES
PDR:HQ
LPDR
~~TIC~~
NSIC

May 6, 1980

STATE

Docket No. 50-285

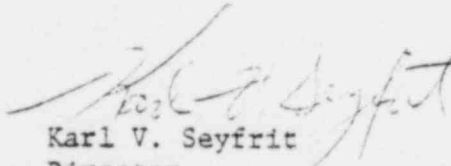
Omaha Public Power District
ATTN: W. C. Jones, Division Manager -
Production Operations
1623 Harney Street
Omaha, Nebraska 68102

Gentlemen:

Enclosed is IE Bulletin No. 80-10 which requires action by you with regard to your power reactor facility with an operating license. For facilities with a construction permit, no action is required; the Bulletin is providing information only.

Should you have questions regarding this Bulletin or the actions required of you, please contact this office.

Sincerely,


Karl V. Seyfrit
Director

Enclosures:

1. IE Bulletin No. 80-10
2. List of Recently Issued
IE Bulletins

cc: S. C. Stevens, Manager
Fort Calhoun Station
Post Office Box 98
Fort Calhoun, Nebraska 68102

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D.C. 20555

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IE Bulletin No. 80-10
Date: May 6, 1980
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CONTAMINATION OF NONRADIOACTIVE SYSTEM AND RESULTING POTENTIAL FOR UNMONITORED,
UNCONTROLLED RELEASE OF RADIOACTIVITY TO ENVIRONMENT

Description of Circumstance

At the Brunswick Nuclear Facility, the auxiliary boiler was operated for an extended period of time with radioactively contaminated water in the boiler at levels up to 2×10^{-2} microcuries per milliliter. A tube leak in the firebox of the oil fired auxiliary boiler resulted in an unmonitored, uncontrolled release of radioactivity to the environment.

The initial contaminating event was caused by the use of a temporary heating hose from the auxiliary boiler to a radioactive waste evaporator concentrate tank. Upon cooling and condensation of the steam in the temporary hose, contaminated water siphoned from the concentrate tank back to the auxiliary boiler. Due to additional, continuing leaks in the heat exchanger of the waste evaporator (to which the auxiliary boiler also provides process steam), the licensee's efforts to decontaminate the auxiliary boiler feedwater had been ineffective.

Maintenance of proper boiler chemistry was difficult because blowdown options were severely restricted due to the contamination. As a result, a boiler tube failure caused on the order of 100 millicuries of radioactive material to be released off-site via the auxiliary boiler fire box and smokestack in the form of steam. This resulted in increased environmental levels of cesium and activation products being detected as far as eight miles downwind from the site boundary.

Action to be Taken by Licensee with an Operating License

1. Review your facility design and operation to identify systems that are considered as nonradioactive (or described as nonradioactive in the FSAR), but could possibly become radioactive through interfaces with radioactive systems, i.e., a nonradioactive system that could become contaminated due to leakage, valving errors or other operating conditions in radioactive systems. In particular, special consideration should be given to the following systems: auxiliary boiler system, demineralized water system, isolation condenser system, PWR secondary water clean-up system, instrument air system, and the sanitary waste system.
2. Establish a routine sampling/analysis or monitoring program for these systems in order to promptly identify any contaminating events which could lead to unmonitored, uncontrolled liquid or gaseous releases to the environment, including releases to on-site leaching fields or retention ponds.

RECENTLY ISSUED IE BULLETINS

Bulletin No.	Subject	Date Issued	Issued To
80-05	Vacuum Condition Resulting In Damage To Chemical Volume Control System (CVCS) Holdup Tanks	3/10/80	All PWR power reactor facilities holding Operating Licenses (OLs) and to those with a Construction Permit (CP)
80-06	Engineered Safety Feature (ESF) Reset Controls	3/13/80	All power reactor facilities with an Operating License (OL)
79-03A	Longitudinal Weld Defects In ASME SA-312 Type 304 Stainless Steel Pipe	4/4/80	All power reactor facilities with an Operating License (OL) or Construction Permit (CP)
80-07	BWR Jet Pump Assembly Failure	4/4/80	All GE BWR-3 and BWR-4 facilities with an Operating License (OL)
80-08	Examination of Containment Liner Penetration Welds	4/7/80	All power reactors with a Construction Permit and/or Operating License (OL)
80-09	Hydramotor Actuator Deficiencies	4/17/80	All power reactor operating facilities and holders of power reactor construction permits

Enclosure