

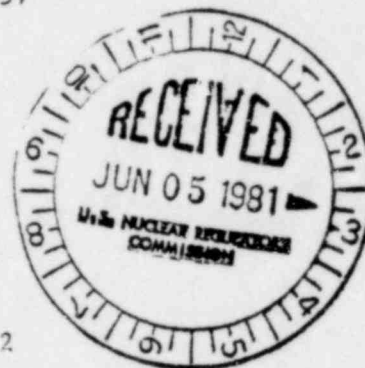
**Detroit
Edison**

2000 Second Avenue
Detroit, Michigan 48226
(313) 237-8000

June 4, 1981

EF2-53457

Mr. L.L. Kintner
U.S. Nuclear Regulatory Commission
Division of Project Management
Office of Nuclear Reactor Regulation
7920 Norfolk Avenue
Bethesda, Maryland 20014



Reference: Enrico Fermi Atomic Power Plant, Unit 2
NRC Docket No. 50-341

Subject: Letter to L.L. Kintner from Detroit Edison 5/21/81
Reactor Water Sampling, Analysis & Administrative Control

Dear Mr. Kintner:

Attached is an update to the Reactor Water Sampling and Analysis Parameters and Summary of Chemical Administrative Controls submitted in the referenced letter. This additional information was requested by P. Matthews and F. Witt.

Sincerely,

William F. Colbert

William F. Colbert
Technical Director
Enrico Fermi 2

WFC/sak

Attachments

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Detroit
Edison

2000 Second Avenue
Detroit, Michigan 48226
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May 21, 1981

*For Reference only
update by June 4, 1981
Edison letter.
Larry E. Schuerman*

Mr. L. L. Kintner
U. S. Nuclear Regulatory Commission
7920 Norfolk
Bethesda, Maryland 20014

References: EF-2 Technical Specifications
EF-2 NRC Docket No. 50-341

Subject: Reactor Water Sampling, Analysis,
and Administrative Control

Dear Mr. Kintner:

Attached to this letter are Reactor Water Sampling and Analysis parameters and a summary of Chemical Administrative Controls for reactor water maintenance. Reactor water copper will have an administrative trigger point of 40 ppb. In addition, Feedwater copper will have an administrative trigger point of 0.6 ppb.

If any additional information or clarification is required, please contact L. E. Schuerman.

Very truly yours,

W. F. Colbert

W. F. Colbert
Technical Director
Enrico Fermi 2

WFC:ca
Attachment

cc: G. Bethke
R. R. Eberhardt
E. Lasis
W. McNeil
L. E. Schuerman

Dupe of 8106040197

(3pp)

REACTOR WATER SAMPLING AND ANALYSIS

SUMMARY OF CORRECTIVE ACTION/ADMINISTRATIVE CONTROL

The Radchem Engineer or his delegate is responsible for:

(1) the interpretation and recording of data, (2) investigative analysis, (3) the identification of problem sources, and (4) recommendations to the Nuclear Shift Supervisor to control/minimize detrimental effects to reactor water and to the System.

Specific guidelines are outlined below:

Power Operation

When the reactor water conductivity exceeds a control point of $0.7 \mu\text{S/cm}$, increased sampling and investigative analysis (eg; Feedwater, Reactor water, Demineralizer Influent, pH and condenser leak determinations) will be performed to identify the source and control/minimize its effects. If reactor water conductivity is $\geq 1.0 \mu\text{S/cm}$ operations will continue as outlined in Enrico Fermi 2 Technical Specification Section 3.4.4.

Startup/Hot Standby

If reactor water conductivity exceeds a control point of $1.3 \mu\text{S/cm}$ and trending upward during startup/hot standby, increased sampling and investigative analysis (eg; Feedwater, Reactor water, Demineralizer Influent, pH and condenser leak determinations) will be performed to identify the source and control/minimize its effects. If reactor water conductivity is $\geq 2.0 \mu\text{S/cm}$ during startup/hot standby, operations will continue as outlined in Enrico Fermi 2 Technical Specification Section 3.4.4.

Copper

The control point for Copper (Cu) in reactor water is 40 ppb. If previous samples indicate an upward trend, increased sampling and investigative analysis (eg; Feedwater, Reactor water, Demineralizer Influent and pH determinations) will be performed to identify the source and control/minimize copper input. The number of excursions beyond the 40 ppb control point will be identified in the annual report.

WWM/slm

REACTOR WATER SAMPLING & ANALYSIS¹

<u>ANAYLSIS</u>	<u>NORMAL LIMITS/CONTROL POINTS</u>	<u>SAMPLING FREQUENCY</u>
*Conductivity	Power Operation $\leq 1.0 \mu\text{S/cm}$ Startup/Hot Standby $\leq 2.0 \mu\text{S/cm}$ Cold Shutdown $\leq 10.0 \mu\text{S/cm}$	Daily and Continuously
*Chloride	Power Operation $\leq 200 \text{ ppb}$ Startup/Hot Standby $\leq 100 \text{ ppb}$ Cold Shutdown $\leq 500 \text{ ppb}$	Daily and Every 8 Hours When Conductivity is $\geq 1.0 \mu\text{S/cm}$
*pH	Power Operation - 5.6-8.6 Depressurized 5.3-8.6	Daily and Every 8 Hours When Conductivity is $\geq 1.0 \mu\text{S/cm}$
Suspended Solids	500 ppb ²	Daily
Silica	1000 ppb ²	Daily
Boron	1000 ppb ²	Weekly
Fe	For Information	Monthly
Ni	For Information	Monthly
Cr	For Information	Monthly
Cu	40 ppb **	Weekly and Monthly
DO ₂	$\leq 200 \text{ ppb}$	As required by procedures

1 -Chemical analysis exclusively

2 -For information Only

*Critical parameters

**Control point

WWM/slm