Public Service Company of Colorado

16805 ROAD 19½
PLATTEVILLE, COLORADO 80651

March 6, 1981
Fort St. Vrain
Unit No. 1
P-81087

Mr. Karl V. Seyfrit, Director
Nuclear Regulatory Commission
Region IV
Office of Inspection and Enforcement
611 Ryan Plaza Drive
Suite 1000
Arlington, Texas 76012

Reference: Facility Operating License
No. DPR-34

Docket No. 50-267

Dear Mr. Seyfrit:

Enclosed please find a copy of Reportable Occurrence Report No. 50-267/81-015, Final, submitted per the requirements of Technical Specification AC 7.5.2(b)2.

Also, please find enclosed one copy of the Licensee Event Report for Reportable Occurrence Report No. 50-267/81-015.

Very truly yours,

Don Warembourg/cls

Don Warembourg
Manager, Nuclear Production

DW/cls

Enclosure

cc: Director, MIPC

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FORT ST. VRAIN NUCLEAR GENERATING STATION
PUBLIC SERVICE COMPANY OF COLORADO
16805 WELD COUNTY ROAD 19 1/2
PLATTEVILLE, COLORADO 80651

REPORT NO. 50-267/81-015/03-L-0

Final

IDENTIFICATION OF OCCURRENCE:

During the period from February 4, 1981, to February 20, 1981, the plant was operated in a degraded mode of LCO 4.2.10 on nine occasions.

These events are reportable per Fort St. Vrain Technical Specification AC 7.5.2(b)2.

EVENT DESCRIPTION:

Event 1

(See Figure 1) At about 0400 hours on February 4, 1981, while the average core outlet temperature was above 1200°F, the primary coolant total oxidants increased above 10 PPMV. The oxidants remained above 10 PPMV until about 0900 hours on February 4, 1981. This event constitutes operation in a degraded mode of LCO 4.2.10.

Event 2

(See Figure 1) At about 2200 hours on February 4, 1981, while the average core outlet temperature was above 1200°F, the total primary coolant oxidants increased above 10 PPMV. The oxidants remained above 10 PPMV until about 0530 hours on February 5, 1981. This event constitutes operation in a degraded mode of LCO 4.2.10.

Event 3

(See Figure 1) At about 2000 hours on February 6, 1981, while the average core outlet temperature was above 1200°F, the total primary coolant oxidants increased above 10 PPMV. The oxidants remained above 10 PPMV until about 2300 hours on February 8, 1981. This event constitutes operation in a degraded mode of LCO 4.2.10.

EVENT
DESCRIPTION: (Cont'd)

Event 4

(See Figure 2) At about 1300 hours on February 10, 1981, while the average core outlet temperature was above 1200°F, the primary coolant total oxidants increased above 10 PPMV. The oxidants remained above 10 PPMV until about 1400 hours on February 14, 1981. This event constitutes operation in a degraded mode of LCO 4.2.10.

Event 5

(See Figure 2) At about 0100 hours on February 15, 1981, while the average core outlet temperature was above 1200°F, the primary coolant total oxidants increased above 10 PPMV. The oxidants remained above 10 PPMV until about 0800 hours on February 15, 1981. This event constitutes operation in a degraded mode of LCO 4.2.10.

Events 6 and 7

(See Figure 2) On February 15, 1981, at about 1530 hours and again at about 1930 hours, the primary coolant oxidants increased above 10 PPMV for about one hour each time. The average core outlet temperature was above 1200°F on both occasions. These events constitute operation in a degraded mode of LCO 4.2.10.

Event 8

(See Figures 2 and 3) At about 1500 hours on February 16, 1981, while the average core outlet temperature was above 1200°F, the primary coolant total oxidants increased above 10 PPMV. The oxidants remained above 10 PPMV until about 2300 hours on February 18, 1981. This event constitutes operation in a degraded mode of LCO 4.2.10.

Event 9

(See Figure 3) At about 0200 hours on February 21, 1981, while average core outlet temperature was above 1200°F, the primary coolant total oxidants increased above 10 PPMV. The oxidants remained above 10 PPMV, except for short periods of time, until 1500 hours on February 23, 1981. This event constitutes operation in a degraded mode of LCO 4.2.10.

CAUSE
DESCRIPTION:

Event 1

The reactor power was increased from 60% to 65% at about 2230 hours on February 3, 1981. At this time, the average core outlet temperature increased from about 1235°F to about 1310°F, resulting in oxidant out-gassing from the core graphite which peaked at about 0600 hours on February 4, 1981.

Event 2

No specific cause can be associated with this event.

Event 3

During the period prior to and during this event, moisture was intentionally introduced into the primary coolant during scheduled tests of the dewpoint moisture monitor response times.

Event 4

At 0828 hours on February 10, 1981, during scheduled testing of the plant protective system, a spurious trip of both helium circulators in Loop 1 occurred. Either the circulator trip or the recovery process resulted in a moisture ingress which caused the very rapid increase in primary coolant oxidants.

Event 5

No specific cause can be associated with this event.

Event 6

No specific cause can be associated with this event.

Event 7

No specific cause can be associated with this event.

Event 8

No specific cause can be associated with this event.

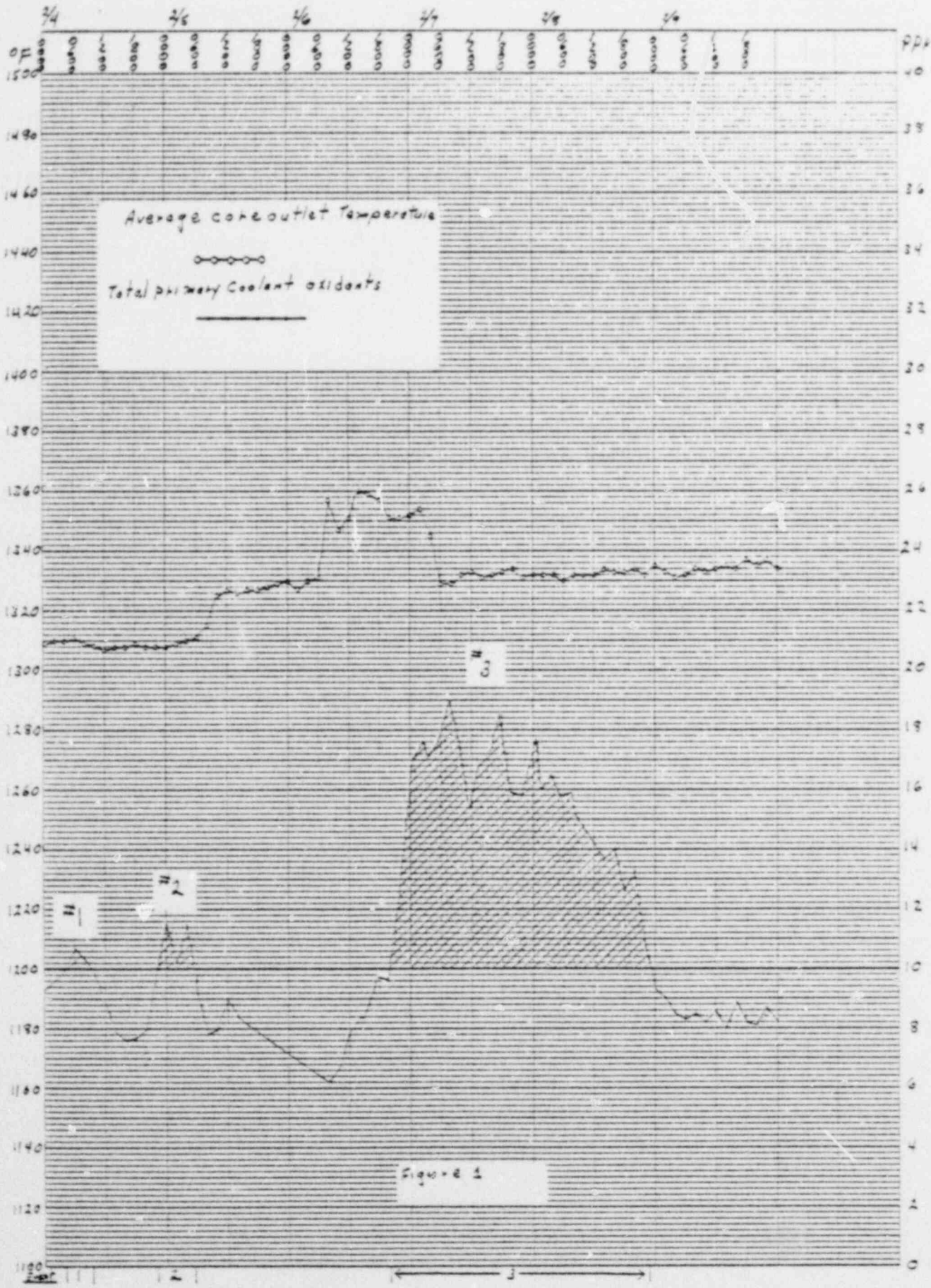
Event 9

During the period prior to and during this event, moisture was intentionally introduced into the primary coolant during scheduled tests of the dewpoint moisture monitor response time.

CORRECTIVE ACTION:

The corrective action for all events of operation in a degraded mode of LCO 4.2.10 during the period was to allow the primary coolant purification system to remove the primary coolant oxidants and thereby, bring them below the 10 PPMV limit of the LCO. During event #4, the reactor power level was reduced to lower average core outlet temperature and decrease the water/graphite reaction rate.

No further corrective action is anticipated or required for the nine events contained in this report.



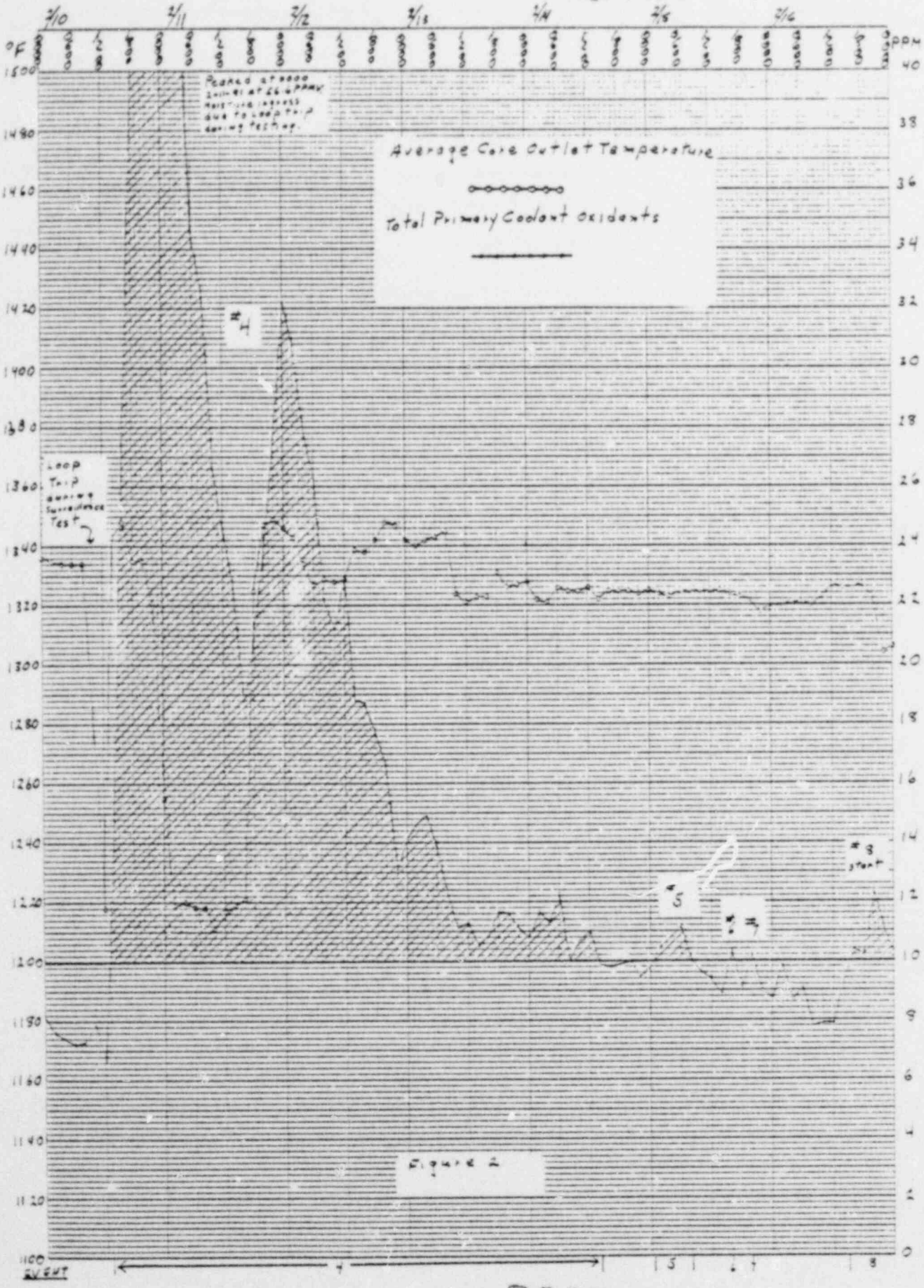
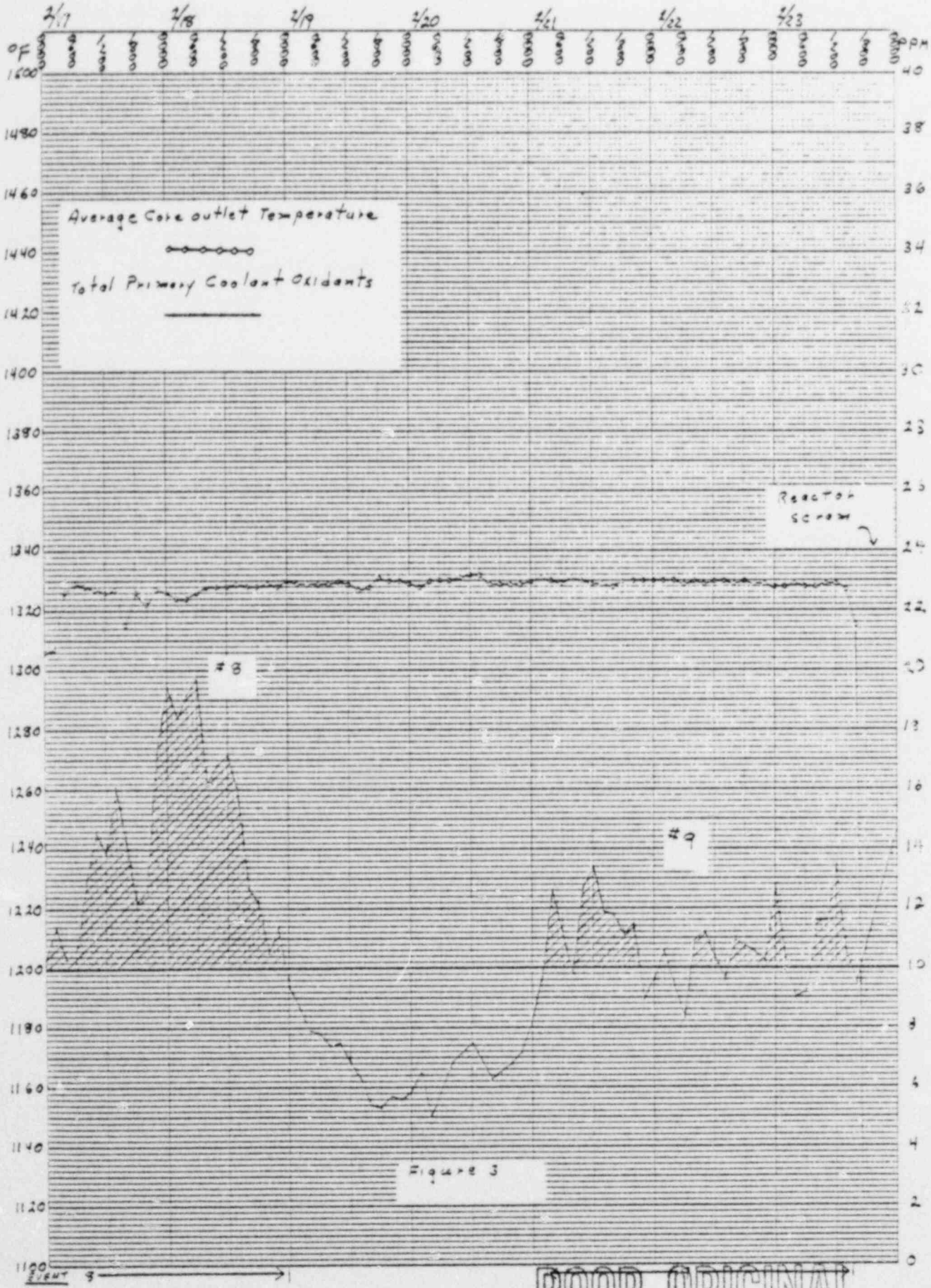


Figure 2

POOR ORIGINAL



Prepared By: Richard R. Frost
Richard R. Frost
Technical Services Supervisor

Reviewed By: J. W. Gahm
J. W. Gahm
Technical Services Supervisor

Reviewed By: FMM
Frank M. Mathie
Operations Manager

Approved By: Don Warembourg/om
Don Warembourg
Manager, Nuclear Production