

80-006/01T-0

LICENSEE EVENT REPORT

(CAR 1267)

CONTROL BLOCK: _____ (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

01 NYREGI 200-00000-003411114 _____ 5
7 8 9 14 15 25 26 30 57 CAT 58

CON'T
01 REPORT SOURCE L 605000244 7071180 8072480 9
7 8 60 61 68 69 74 75 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)
02 During routine analysis of samples from boric acid storage tanks concentration showed
03 11.7% and 11.8% boric acid. (T.S. 3.2.3.c) Reactor power reduction was started, and
04 tank contents enriched to 12%. With tanks isolated, analysis on 7/14/80 again indi-
05 cated low concentration. Tanks were again enriched. After titrant was changed, con-
06 centration was found greater than 13%. Power reduction was started, and proper con-
07 centration was restored.

09 SYSTEM CODE CAUSE CODE CAUSE SUBCODE COMPONENT CODE COMP. SUBCODE VALVE SUBCODE
P C 11 D 12 Z 13 A C C U M U 14 Z 15 Z 16
7 8 9 10 11 12 13 18 19 20

17 LER/RO REPORT NUMBER EVENT YEAR SEQUENTIAL REPORT NO. OCCURRENCE CODE REPORT TYPE REVISION NO.
80 - 006 / 01 T Z 0
21 22 23 24 26 27 28 29 30 31 32

ACTION TAKEN FUTURE ACTION EFFECT ON PLANT SHUTDOWN METHOD HOURS ATTACHMENT SUBMITTED NPRD-4 FORM SUB. PRIME COMP. SUPPLIER COMPONENT MANUFACTURER
E 18 G 19 B 20 Z 21 00000 Y 23 N 24 Z 25 Z 9 9 9 9 26
33 34 35 36 37 40 41 42 43 44 47

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)
10 Ascarite used to protect NaOH titrant from CO2 was saturated with water, some of
11 which dropped into titrant. Reagent check now being done in conjunction with tank
12 sampling. Consolidation incorporating all procedures which respond to exceeding
13 action limits being written. Sample frequencies to be increased during certain opera-
14 tions. Procedures for above to be in effect by 10/80. Mechanical modifications to
decrease dilution probability being considered. Tech. Spec. change to allow up to
13.5% being considered.

15 FACILITY STATUS % POWER OTHER STATUS 30 METHOD OF DISCOVERY DISCOVERY DESCRIPTION 32
E 28 100 29 NA B 31 Chemical analysis
7 8 9 12 13 44 45 46 80

16 ACTIVITY CONTENT RELEASED OF RELEASE AMOUNT OF ACTIVITY 35 LOCATION OF RELEASE 36
Z 33 Z 34 NA
7 8 9 10 11 44 45 80

17 PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION 39
000 37 Z 38 NA
7 8 9 11 12 13 80

18 PERSONNEL INJURIES NUMBER DESCRIPTION 41
000 40 NA
7 8 9 11 12 80

19 LOSS OF OR DAMAGE TO FACILITY TYPE DESCRIPTION 43
Z 42 NA
7 8 9 11 12 80

20 PUBLICITY ISSUED DESCRIPTION 45 NRC USE ONLY
N 44 NA
7 8 9 10 80



12

Attachment to LER 80-06/01T-0
Rochester Gas and Electric Corporation
R. E. Ginna Nuclear Power Plant, Unit No. 1
Docket No. 50-244

With the plant operating at full power the normal samples were taken of the boric acid storage tanks at 0815 hours on July 11, 1980. The samples indicated the concentrations had dropped to 11.7% and 11.8%. The shift supervisor indicated there had been operations performed which could have led to tank dilution. It was assumed at this time that the samples were correct.

A power reduction was commenced and the normal steps taken to isolate the tanks and increase the boric acid concentration. The concentrations were brought up to greater than 12.0% by 1540 hours. Samples were taken at 2 hour intervals during the next several days.

On July 14, 1980 the tanks again appeared to have been diluted even with all possible sources of dilution isolated. One tank was less than 12.0% and it was brought into specification within 3 hours. At 0900 hours the titrant was changed, and it was found that the old titrant was of incorrect concentration. It was determined that the tank concentrations then exceeded 13%. The same steps as mentioned above were taken and the boric acid concentrations were brought into specification by 1615 hours.

The source of the concentration change in the titrant was the Ascarite which is used to protect the NaOH titrant from CO₂. Ascarite is made with a caustic material, and it had become saturated with moisture. Hydroxide was dissolved in the liquid, which dropped into the titrant reservoir, contaminating the titrant. This gave the false indication that the boric acid concentration in the tanks was low. To insure this type of contamination does not reoccur the Ascarite tube is being placed lower than the titrant reservoir. The laboratory analysis procedure will be changed to include a QC check of the titrant each time the normal storage tank samples are taken. Procedures used in response to exceeding concentration administrative limits will be drawn together under a new comprehensive procedure which will include the sequence of sampling, QC, data evaluation and corrective actions.

There are certain operations that increase the probability of dilution of the tank contents. Procedures governing these operations will be changed to require notifying the laboratory to increase sampling frequency following these operations.

Mechanical modifications to further decrease the possibility of tank dilutions are being investigated.

Consideration is being given towards applying for a Technical Specification change to allow the maximum boric acid concentration of 13.5% since the present Technical Specification minimum temperature of 145°F will provide solubility of boric acid to a concentration of 14%.



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