| 7.774 | LICENSEE EVENT REPORT LER 82-7/1T Rev. 1 |
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| | CONTROL BLOCK: |
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| | PEPORT L 6 0 5 0 0 2 7 1 7 0 3 0 9 8 2 8 0 4 2 3 8 2 9 SOURCE 60 DOCKET NUMBER 68 69 EVENT DATE 74 75 REPORT DATE 80 |
| 0 2 | A procedure review revealed that 1.) SLC storage tank level and 2.) sodium |
| 03 | pentaborate concentration calculations did not correctly account for the |
| 04 | specific gravity of sodium pentaborate. There were no consequences of this |
| 0 5 | event. (See attached.) |
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| 0 <u>8</u> 7 8 | 9 SYSTEM CAUSE CAUSE COMP. VALVE |
| 09 | $\begin{array}{c} \hline code \\ \hline P_1 C \\ \hline 0 \\ \hline 1 \\ \hline 0 \\ \hline 1 $ |
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| | ACTION FUTURE ON PLANT SHUTDOWN HOURS 22 ATTACHMENT NPRD-4 PRIME COMP. COMPONENT MANUFACTURER G B Z 19 Z 20 Z 21 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| 10 | The required boron concentration in the SLC storage tank was less than |
| II | indicated because of errors in operating procedure equations. The affected |
| 12 | procedures were corrected. (See attached.) |
| 13 | |
| 14 | 80 |
| 15 | ACILITY STATUS LE 28 10 0 0 29 NA 30 METHOD OF DISCOVERY DESCRIPTION 32 B 31 Prc.edural Review 80 |
| | ACTIVITY CONTENT RELEASE AMOUNT OF ACTIVITY 35 LOCATION OF RELEASE 36 NA 44 45 80 |
| 17 | PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION 39 0 0 0 0 37 Z 38 NA 9 11 12 13 13 NA |
| | |
| 19 | LOSS OF OR DAMAGE TO FACILITY (13) |
| হ ি | PUBLICITY ISSUED DESCRIPTION (45) |
| 8 | 205040353 NAME OF PREPARER Warren P. Murphy PHONE (802) 257-7711 |

U.S. NUCLEAR REGULATORY COMMISSION

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VTVYS1 05000271 LER 82-7/1T Rev. 1

Event Description and Probable Consequences

A review of the SLC System procedures for controlling sodium pentaborate concentration in the SLC storage tank revealed the following deficiencies:

1. The SLC storage tank concentration vs. tank level correlation did not account for the specific gravity of sodium pentaborate. This resulted in a nonconservative error of approximately 5% when determining sodium pentaborate solution volumes.

2. The specific gravity of the SLC solution was not previously considered in the SLC concentration calculation. This resulted in an additional nonconservative error of approximately 5%.

Due to these 2 calculation errors, VY may have been unknowingly below the T. S. 3.4 limit and, therefore, is reporting this event in accordance wich T. S., Section 6.7.B.l.i.

There were no consequences of this event. At all times, the SLC System had sufficient concentration to provide its intended shutdown function. However, it does constitute a situation in which a system required corrective action to prevent operation in a manner less conservative than assumed in the accident analysis.

Cause Description and Corrective Action

The required boron concentration in the SLC storage tank was less than indicated because of errors in operating procedure equations. Plant Management took the following corrective action:

1. The affected procedures were immediately corrected.

2. The sodium pentaborate concentration in the SLC tank was increased to well above the Tech. Spec. Limits (as a result of LER 82-3).

3. A task force was established to investigate boron concentration calibration and SLC design basis. In addition to 1) and 2) above, VY has implemented the following task force recommendations:

a. An administrative margin of 1.5% has been applied to the sodium pentaborate concentration curve to account for system variances.

b. The specific gravity correction factor has been increased on SLC concentration equations to ensure conservative results.

The task force also concluded that the SLC design basis and current material purchase specs. were satisfactory.