NA OH SPILL

BLDG. 133  SAN SU

FEBRUARY 18, 1986
INCIDENT

- APPROXIMATELY 1000 GALLONS OF WATER WITH 2.4% NaOH WERE RELEASED TO A FLOOD CONTROL CHANNEL AT APPROXIMATELY 2:30 PM ON FEBRUARY 18, 1986: EQUIVALENT TO 200 LBS NaOH.

- LIQUID VACUUMING, COUPLED WITH FLUSHING, YIELDED APPROX. 2500 GALLONS OF WASTE ANALYZED AT 0.02%: EQUIVALENT TO 42 LBS NaOH. THE BALANCE (160 LBS OF NaOH) WENT INTO THE SRE POND WHERE IT WAS DILUTED AND/OR NEUTRALIZED.

- THE 2500 GALLONS OF RECAPTURED SOLUTION WERE RELEASED TO THE LA SEWER SYSTEM WITH APPROPRIATE PERMISSION.

\[ \text{pH} = 10.5 \]
SKETCH FOR NaOH SPILL BRIEFING 2-27-86
CAUSE OF INCIDENT

0 The release occurred because a rubber expansion plug in the 4-in. PVC drain line of a caustic-containing sump worked free, allowing the sump to drain.

0 Inspection of the plug showed it to be in good condition, but the PVC piping was noted to be slightly "bell-mouthed".

0 An Atlas engine test was performed at 2:30 PM (within 1/4 mi).

0 It is suspected that the plug "popped" out of position due to a combination of the tapered tube, the slippery caustic solution, and the ground vibration from the engine test.
CORRECTIVE ACTION

- THE DRAIN LINE IS NOT NEEDED FOR THE OPERATION OF THE SODIUM TREATMENT FACILITY: THE LINE WILL BE SEALED SHUT.

- FACILITIES ENGINEERING IS DETERMINING THE BEST WAY TO EXPEDITIOUSLY SEAL THE DRAIN LINE.

- EST. SEAL DATE: 2/28/86
IMPACT

0 THE COST OF THE CLEANUP AND DISPOSAL IS INDIRECT.

0 THE COST OF THE REPAIR WILL BE COVERED BY DOE (ETEC) GENERAL PLANT PROPERTY FUNDS.

0 THE LOSS OF THE FACILITY IS DELAYING COMPLETION OF BLDG, 100 CLEAN-UP, LMFBR NA DISPOSAL, AND DISPOSAL OF ETEC NA RESIDUES.
THE METHOD OF Nα TREATMENT IS TO BURN THE Nα IN BULK FORM OR AS CONTAINED IN PIECES OF PIPING; CAPTURE THE EFFLUENT AEROSOLS IN A WET VENTURI SCRUBBER; WASH OUT THE BURN ROOM; DRAIN THE SCRUBBER AND THE WASH LIQUID INTO THE SUMP; AND HAVE THE CAUSTIC SOLUTION SHIPPED TO A DISPOSAL SITE AS HAZARDOUS WASTE BY A LICENSED WASTE DISPOSAL CONTRACTOR.
0. Block 133 was designed for the disposal of small quantities of sodium which are generated as waste by the liquid metal test activities at Santa Susana.

0. On one occasion, we accepted off-site NA for disposal.

0. The facility is licensed by the State Department of Health Services as a hazardous waste treatment site, and has a permit to operate from the Ventura County APCD.

0. Exemption of the facility from DHS licensing appears imminent because the effluent caustic was_value.
Two spills from this facility have occurred within the last two years. The first was a leak, due to corrosion, from an above-ground holding tank; the second was the failure of a prior rubber expansion plug.

Corrective action to the last; similar, spill was to replace the failed plug and to change the facility operating procedure to require visual inspection that the plug was in good condition each time the sump was emptied.

A IR was submitted in May, 1985 to Rockeydyme industrial planning to upgrade the sump to be legal under new EPA underground vessel guidelines.