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February 10, 1993

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U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

Gentlemen:

Subject: Docket Nos. 50-206, 50-361, and 50-362
Annual Sealed Source Leakage Report - 1992
San Onofre Nuclear Generating Station (SONGS),
Units 1, 2, and 3

The purpose of this submittal is to provide the sealed source leakage report required by SONGS Unit 1 Technical Specification (TS) 4.12, "Miscellaneous Radioactive Materials Sources," and Units 2 and 3 TS 3/4.7.7, "Sealed Source Contamination," in accordance with TS 6.9.1.4 annual reporting requirements.

On September 10, 1992, a Chlorine-36, extended area reference sealed source, serial number BR-974, was smear tested and found to be leaking above SONGS TS limits (greater than or equal to 0.005 microcuries of removable contamination). The leakage was detected using the wipe test method. This method of leak testing uses a NU-CON smear moistened with methanol which is wiped over the surface of the sealed source. The smear was allowed to dry and was counted in an alpha and beta counter. The Chlorine-36 sealed source smear test indicated 0.006 microcuries of beta/gamma contamination and less than 0.005 microcuries of alpha contamination. The instrument in which the source was last used and the source storage location were tested and found free of contamination.

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The source was manufactured by Amersham Corporation in May of 1989. The source construction consists of Chlorine-36 incorporated in an anodized layer of 0.3 mm thick aluminum foil mounted into a corresponding capsule. When the source was assayed on May 10, 1989, it contained an activity of 992 nanocuries.

The source had a visible laceration approximately 0.5 mm wide and 9 mm long across one corner of the foil surface which was determined to be the cause of the leakage. Although it can not be definitely determined when the source was damaged, it is believed to have occurred on May 13, 1992, when it was used for calibrating SONGS Unit 1 Stack Monitor, R-1220, since this was the last recorded use of the source. The sealed source was removed from service as required by SONGS TSs.

The sealed source leakage being reported here was the only instance in 1992 in which a sealed source at SONGS exceeded the TS leakage limits.

If you have any questions or require any additional information, please let me know.

Sincerely,

John P. Maul

cc: J. B. Martin, Regional Administrator, NRC Region V
C. W. Caldwell, USNRC Senior Resident Inspector, Units 1, 2, and 3

bcc: (See attached)