

**SMUD**

SACRAMENTO MUNICIPAL UTILITY DISTRICT □ P. O. Box 15830, Sacramento CA 95852-1830, (916) 452-3211
AN ELECTRIC SYSTEM SERVING THE HEART OF CALIFORNIA

GCA 87-075

JUN 30 1987

U. S. Nuclear Regulatory Commission
Attn: Frank J. Miraglia, Jr.
Associate Director for Projects
Philips Building
7920 Norfolk Avenue
Bethesda, MD 20014

APPLICATION OF DOW CORNING 732 RTV SILICONE SEALANT IN ESSENTIAL HVAC SYSTEMS

Dear Mr. Miraglia:

In the transmittal letter dated April 12, 1987, for NRC Inspection Report 50-312/87-14, the Sacramento Municipal Utility District received a Notice of Deviation concerning the District's deviation from certain recommendations of Regulatory Guide 1.52, "Design, Testing and Maintenance Criteria for Post Accident Engineered-Safety-Feature Atmosphere Cleanup System Air Filtration and Absorption Units of Light-Water-Cooled Nuclear Power Plants", Rev. 2, March 1978. Specifically, the District had applied Dow Corning 732 RTV Silicone Sealant to ductwork and mounting framework of the Control Room (CR)/ Technical Support Center (TSC) Essential HVAC System.

As committed in the District's response to the Notice of Deviation, dated May 27, 1987, Bechtel Power Corporation's evaluation of Dow Corning 732 RTV Silicone Sealant is enclosed. This evaluation provides the results of Bechtel's study of Dow Corning 732 RTV Silicone Sealant in Rancho Seco's CR/TSC Essential HVAC System. Based on the conclusions in the Bechtel evaluation, the District considers the application of Dow Corning 732 RTV Silicone Sealant to be acceptable.

If you have any questions regarding this matter, please contact Ron W. Colombo at (916) 452-3211, extension 4236.

Sincerely,

G. Carl Andognini
Chief Executive Officer,
Nuclear

Attachment 8707130515 870630
PDR ADDCK 05000312
Q PDR

cc w/atch:

G. Kalman, NRC, Bethesda (2)
A. D'Angelo, NRC, Rancho Seco
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Bechtel Western Power Corporation

Engineers - Constructors

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June 25, 1987
Letter No. BSL-6781

Mr. G. V. Cranston
Manager, Nuclear Engineering Department
Rancho Seco Nuclear Generating Station
Sacramento Municipal Utility District
14440 Twin Cities Road
Herald, CA 95638

Subject: Rancho Seco Nuclear Generating Station, Unit #1
Bechtel Job 12334, SMUD Task 037
Qualification of Silicone Sealant - Dow Corning
732 RTV Applied in CR/TSC HVAC Ductwork and Access Doors

- References:
1. Bechtel Letter to SMUD, December 19, 1984, Letter No. BSL-4403, Subject: Startup Field Report and Blue Memo's
 2. EPRI Report NP-4172 SP, August 1985, Radiation Data for Design and Qualification of Nuclear Plant Equipment
 3. EPRI Equipment Qualification Data Bank, Radiation Records, Page 13, Dated 05-11-87; and KING, R.W. et al, The Effects of Nuclear Radiation on Elastomeric and Plastic Components and Materials, Battelle memorial Institute, Report REIC 21, 1961
 4. Rancho Seco ERPT-E0187 and Drawings M-421; NCR No. S 6576, Rev. 1, dated 04-02-87; and Office Memorandum from Dave Abbott to Mike Parenteau, December 27, 1984, Subject: MOD 032-Startup Field Report No. 07-84 Silicone RTV Elastomer

Dear Mr. Cranston:

This letter is to further clarify Reference 1 with regard to the radiation qualification of silicone sealant Dow Corning 732 RTV which has been used for the Control Room/Technical Support Center HVAC ductwork and access doors.

Bechtel has concluded that the RTV silicone sealant that is located in a mild environment is qualified and acceptable, based on the following:

1. Radiation resistance of sealant is as follows:
 - o EPRI report NP-4172 SP (reference 2) states that the radiation level for no deterioration of properties of silicone sealant (Dow Corning 732 RTV) is 7.0×10^6 rads.

Bechtel Western Power Corporation

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- o The threshold value for the generic silicone sealants is 1.3×10^6 rads in accordance with the EPRI equipment qualification data bank report (reference 3).
2. Sealant is located in a mild environment which is defined as having a radiation level of less than 1.0×10^4 rads (reference 4).
3. The subject radiation level of 1.0×10^4 rads is bounded by the threshold dose for generic silicone rubber of 1.3×10^6 rads (Reference 3), and for silicone sealant (Dow Corning 732 RTV) of 7.0×10^6 (Reference 2).

If Bechtel can be of further assistance, please let us know.

Very truly yours,

BECHTEL POWER CORPORATION



R. E. Elias
Project Manager
Western Power Division

REL/jhc

Enclosures: Copies of Reference 1 through 4

cc: K. K. Jindal
T. M. Khan