

July 27, 1990

Docket No. 50-206
and 50-361

Mr. Harold B. Ray
Senior Vice President
Southern California Edison Co.
Irvine Operations Center
23 Parker Street
Irvine, California 92718

Mr. Gary D. Cotton
Senior Vice President
Engineering and Operations
San Diego Gas & Electric Co.
101 Ash Street
San Diego, California 92112

Gentlemen:

SUBJECT: AUTHORIZATION FOR USE OF ALLOY 690 AS AN ALTERNATIVE TO ALLOY 600
IN STEAM GENERATOR TUBE PLUGS IN ACCORDANCE WITH 10 CFR 50.55a(a)(3)
(TAC NOS. 77174 AND 77175)

By letter dated July 24, 1990, you requested to use plugs fabricated of nickel-chromium-iron UNS N-06690 material (Alloy 690) as an alternative to Alloy 600 to plug tubes in the steam generators of San Onofre Nuclear Generating Station, Unit Nos. 1 and 2.

The Alloy 690 material has mechanical properties similar to Alloy 600 and has superior corrosion resistance properties. The NRC staff endorsed the use of the Alloy 690 for fabrication of mechanical plugs for steam generator tubes in NRC Bulletin No. 89-01, "Failure of Westinghouse Steam Generator Tube Mechanical Plugs", May 15, 1989. Moreover, by letter dated June 28, 1990, the staff approved the use of Alloy 690 plugs for the steam generators at San Onofre Nuclear Generating Station, Unit No. 3.

We have reviewed your request and supporting information and conclude that the use of Alloy 690 in the requisite product forms as a proposed alternative to the use of Alloy 600, will provide an acceptable level of quality and safety. Therefore, based on the above, Alloy 690 in the requisite product forms is acceptable as an alternative to the use of Alloy 600 and its use for plugging tubes in steam generators is authorized under the provisions of 10 CFR 50.55a(a)(3).

Sincerely,

Original Signed By:

John T. Larkins, Acting Director
Project Directorate V
Division of Reactor Projects - III,
IV, V and Special Projects
Office of Nuclear Reactor Regulation

cc: See next page

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San Onofre Nuclear Generating
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