UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

HOUSTON LIGHTING & POWER COMPANY)
) Docket No. 50-466
(Allens Creek Nuclear Generating)
Station, Unit No. 1))

AFFIDAVIT OF DR. JOHN S. WILEY AND W. R. SHELTON

State of California
County of Santa Clara

I, Dr. John S. Wiley, Manager Chemical and Radiological Methods Unit, within the Nuclear Power Systems Engineering Department of the General Electric Company, of lawful age, being first duly sworn, upon my oath certify that the statements contained in the attached pages and accompanying exhibits are true and correct to the best of my knowledge and belief.

Executed at San Jose, California,
July 29, 1980.

John S. Wiley

I, William R. Shelton, Senior Engineer, within the Nuclear Power Systems Engineering Department of the General Electric Company, of lawful age, being first duly sworn, upon my oath certify that the statements contained in the attached pages and accompanying exhibits a·e true and correct to the best of my knowledge and belief.

Executed at San Jose, California,
July 29, 1980.

William R. Shelton

Subscribed and sworn to before me this 29 day of July, 1980.

Ruthe M Kinnamon
NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE.

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My commission expires March 28 of 1981.

OFFICIAL SEAL
RUTHE M. KINNAMON
NOTARY PUBLIC - CALIFORNIA
SANTA CLARA COUNTY
My comm. expires MAR 28, 1981

175 Curtner Ave., San Jose, CA 95125

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(Allens Creek Nuclear Generating Station, Unit No. 1)	§	

Affidavit of
Dr. John F. Wiley and William R. Shelton

My name is John F. Wiley, I am employed by the General Electric Company as Manager, Chemical and Radiological Methods Units, a position I have held since 1971. A statement of my experience and qualifications is set out as Exhibit I.

My name is William R. Shelton. I am employed by the General Electric Company as Senior Engineer, Materials Application Group, Nuclear Power Systems Engineering Department. A statement of my experience and qualifications is set out as Exhibit II.

This affidavit addresses the concerns raised by Mr. Doherty in his Contention No. 43. Mr. Doherty asserts that General Electric Company (and, supposedly, Applicant) takes exception to the provisions of Regulatory Guide 1.54 which pertains to the cleaning and coating of stainless steels. This is not the case.

Regulatory Guide 1.54, "Quality Assurance Requirements for Protective Coatings Applied to Water-Cooled Nuclear Power Plants," is concerned primarily with preventing the release of coating materials inside the containment by radiation decomposition, chemical reaction or heat in a post-accident environment. Regulatory Guide 1.54 is also secondarily involved in other quality assurance requirements for coating ferritic and galvanized steels, aluminum, concrete and masonry, and preparing (cleaning) and coating stainless steel.

The latter requirement forbids the use of certain chemical compounds which may contribute to intergranular stress corrosion cracking of stainless steel. In fact, General Electric does not coat the stainless steel used to fabricate nuclear steam supply components; therefore, General Electric complies fully with Regulatory Guide 1.54 by avoiding all coatings and coating preparations.

The apparent source of Mr. Doherty's confusion is the fact that General Electric offered a set of alternate proposals to various provisions in Regulatory Guide 1.54. He cited references to correspondence on the matter between G.E. and the NRC. None of these proposed alternates in any way deals with cleaning or coating stainless steels. For completeness and clarity, copies of the proposals, the NRC response, and further related correspondence are provided in Exhibit A.

General Electric's requirements[1/] for cleaning stainless steel for purposes other than coating preparation is in complete accord with Regulatory Guide 1.37, "Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water-Cooled Nuclear Power Plants." PSAR p. C1.37-1 says the Applicant will comply with Section C.4 of Regulatory Guide 1.37, which states:

> Chemical compounds that could contribute to intergranular cracking or stress-corrosion cracking should not be used with austenitic stainless steel and nickel-base alloys. Examples of such chemical compounds are those containing chlorides, fluorides, lead, zinc, copper, sulfur, or mercury where such elements are leachable or where they could be released by breakdown of the compounds under expected environmental conditions (e.g., by radiation).

In sum, no coatings of any type will be used on stainless steel in the nuclear steam supply system. General Electric's stainless steel cleaning requirements are in accordance with Regulatory Guide 1.37, and Applicant commits in the PSAR to follow Regulatory Guide 1.37.

1/ G.E. Plant Requirement "Cleaning of Piping and Equipment," Doc. No. 22A2749, Rev. 2, May 17, 1979.