

ATTACHMENT 11

MAR 31 1982

Mr. Elden Williams
ELCO
1518-B E. Edinger
Santa Ana, California 92705

Dear Mr. Williams:

As indicated to you in my letter of March 5, 1982, we have continued to review the details of Matthew Jay's patent pertaining to BWR piping. We have concluded that the approach proposed by Mr. Jay would be generally acceptable both for initial construction and repair operations, although we would probably require some additional controls on minimum delta ferrite for the cast pipe safe ends.

We have also discussed this matter with General Electric. They informed us that the method covered by the Matthew Jay patent has not been used by them, either for new construction or repair, and we know of no instance where it has been used. General Electric has developed and used an approach that is somewhat similar in which weld overlays and weld buttered pipe weld preparations accomplish the same overall purpose. This is referred to as "corrosion resistant cladding" in their documents and in NUREG-0313, Rev. 1 (which you referenced).

Although the NRC reviews and approves specific methods used to prevent intergranular stress corrosion cracking, utilities are free to select their preference among the several approaches we have stated in NUREG-0313, Rev. 1 to be acceptable. Utilities usually consider cost, schedule, materials availability, and their own preference when selecting the approaches they will use. Accordingly, if you have an interest in promoting the use of Matthew Jay's procedure, you should contact the utilities, either directly or through the Electric Power Research Institute (EPRI), Palo Alto, California.

Sincerely,

Original Signed by
H. R. Denton

Harold R. Denton, Director
Office of Nuclear Reactor Regulation

cc: Congressman Edward J. Markey
bcc: Ivor J. James, Jr., Patent Counsel
Nuclear Energy Business Operations
General Electric Company
175 Curtner Avenue
San Jose, CA 95125

8205040025 XA

PETE WILSON
CALIFORNIA

COMMITTEES
ARMED SERVICES
AGRICULTURE, NUTRITION, AND FORESTRY
SPECIAL COMMITTEE ON AGING

United States Senate

WASHINGTON, D.C. 20510

May 9, 1984

Mr. Steve Kent
Office of Congressional
Relations
Nuclear Regulatory Commission
1717 H Street, N.W.
Washington, D.C. 20555

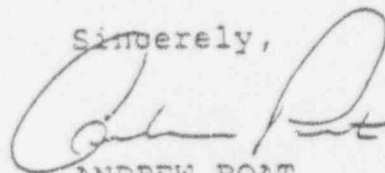
Dear Steve:

I recently received the attached letter from a constituent in California. I would appreciate your assistance in responding to his concern.

In the course of his letter, he makes reference to contact with the Nuclear Regulatory Commission. Would it be possible to determine with whom he has corresponded?

Again, I would appreciate any assistance possible.
Thank you for your consideration. -

Sincerely,



ANDREW POAT
Legislative Assistant

Enclosure

5/18..To EDO for Direct Reply..Suspense: May 29..OCA to Ack..84-0535

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LAW FIRM OF
MICHAEL J. ROARK
A PROFESSIONAL CORPORATION
231 FOURTH AVENUE
CHULA VISTA, CA. 92010

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TO: <i>Meg</i>	FYI/ACTION ✓
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TELEPHONE (714) 420-4041	

February 6, 1984

Senator Pete Wilson
880 Front Street
Room 6-S-9
San Diego, CA 92188

Re: Matthew Jay
U.S. Patent 4,209,123
Prevention of Sensitization
of Welded-Heat Affected Zones

Dear Senator Wilson:

In lieu of myriad of technical jargon, we list the following in simple terms as a preamble to our quest in seeking your help and guidance to our problem.

We trust that with your assistance, we undoubtedly can help allay the existing negative public opinion prevailing over the unsafe practices and unjust costly operations of nuclear reactors whose brunt is borne by the consumer of energy at large.

Preamble:

In simple terms, the Boiling Water Reactors (BWR) use stainless steel piping systems to convey water from the reactor to other associated stations which in turn, produce steam to drive the generators which produce electricity.

Stainless steel pipes are used because of all the other commercially available alloys they are safe, corrosion resistant and most economical for the temperatures and pressures encountered in service.

Most stainless steel piping is made of wrought metal, not cast metal; as the sizes and pipe wall thickness employed do not lend themselves to casting processes.

February 6, 1984
Page Two

Wrought metal consists of granular microstructure. Consequently, when such pipe is being welded together, the welding heat (approximately 3,000 degrees Fahrenheit), creates the weld joint to be fused and filled with weld metal. Stainless steel being a poor conductor of heat, cools very slowly. The wrought base metal of the pipe adjacent to the cast structure of the weld, when exposed to a heat range of 800 to 1,600 degrees Fahrenheit, causes the Heat Affected Zone (HAZ) to sensitize.

Sensitization is an inherent characteristic of stainless steels and other nickel bearing alloys containing chromium and carbon and means that atomic particles of chromium and carbon depart from the surface of the grains, join together, and form a chromium-carbide which recedes into the grain boundaries.

Grain boundaries are the spaces between the grains that bond the material together. Boundaries are a form of energy which Science knows little about because the nature of electricity is not known.

Stainless steel pipe, which has been sensitized at the welded joints and used at certain stages of a nuclear reactor piping system, is prone to the loss of the microstructure in the weld heat affected zone (HAZ). Grain by grain keeps falling out of the HAZ until a void has been created throughout the entire thickness of the pipe wall and a leak results. This process has been labeled by the industry as "inter-granular stress corrosion cracking (IGSCC)".

Repairs to the continually occurring leaks cost the nuclear industry millions upon millions of dollars annually. Secondly, most of such pipe is radioactive and repair personnel are unjustly being exposed to radiation at the risk of their health and life. News accounts of these pipe cracks are attached hereto as Exhibits.

Subject:

Mr. Matthew C. Jay, who is represented by our office, has modified the manufacturing process of stainless steel pipe and developed a pipe which will not sensitize and be prone to leaks. A copy of his Patent is attached.

Mr. Jay's patented piping will not sensitize, nor cause leaks, it will reduce inspection cycles in service, prevent repairs, and eliminate exposure of personnel to radiation.

February 6, 1984
Page Three

Mr. Jay's process does not alter the chemical analysis of the basic type of 304 stainless steel pipe, nor will it be necessary to:

- a. reduce carbon content ELC;
- b. employ stabilizers type 321-347;
- c. employ enriched alloys type 316;

These only add to the cost of the pipe needlessly and only minimize, but does not prevent sensitization.

The General Electric Company and ~~the~~ NRC have approved Mr. Jay's process and, in fact, termed it the "safe-ends process".

In regard to Mr. Jay's knowledge, and "hands on" experience for over forty years, it should be noted that he has received recognition from both DOD and DOE for his consulting work for these government agencies in solving quite similar problems in nuclear weaponry and intercontinental ballistic missiles and other metal joining problems.

Recent reports by the NRC reveal that leaks in piping systems have been found to be much more extensive and dangerous than they had been led to believe.

Mr. Jay, others on his behalf, and our office, have for several years, corresponded and conversed with nuclear industry personnel, personnel at the NRC and other government oriented persons, seeking assistance in utilizing Mr. Jay's process, and his expertise. There appears to be a noticeable reluctance on the part of anyone in nuclear power hierarchy to even contact him.

Hopefully this last attempt to alert leaders in government, in the industry, and in the media of this solution, will finally produce the interest and follow through that Mr. Jay's process and knowledge deserves. Anything that you or your office can do to expedite that interest, follow through, or concern, will be most appreciated.

Yours very truly,

MICHAEL J. ROARK
Attorney at Law

June 21, 1984

ps+E

The Honorable Richard L. Ottinger, Chairman
Subcommittee on Energy Conservation and Power
Committee on Energy and Commerce
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

Enclosed for your information is a report by the Advisory
Committee on Reactor Safeguards on the Diablo Canyon Nuclear Power
Plant.

Sincerely,

Carlton Kammerer, Director
Office of Congressional Affairs

Enclosure:
As stated

cc: Rep. Carlos Moorhead

IDENTICAL LETTER SENT TO:
Sen. Simpson/cc: Sen. Hart
Rep. Udall/cc: Rep. Lujan
Rep. Markey/cc: Rep. Marlenee
Sen. Wilson
Sen. Cranston
Rep. Lagomarsino
Rep. Thomas
Rep. Panetta

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July 6, 1984

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The Honorable Richard L. Ottinger, Chairman
Subcommittee on Energy Conservation and Power
Committee on Energy and Commerce
United States House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

Enclosed for your information is an announcement that the Nuclear
Regulatory Commission's independent Advisory Committee on Reactor
Safeguards will hold a technical meeting from July 12 to July 14.

It is planned to mail this information to the news media today,
July 6, 1984.

Sincerely,

Carlton Kammerer, Director
Office of Congressional Affairs

Enclosure:
As stated

cc: Rep. Carlos Moorhead

IDENTICAL LETTER SENT TO:
Sen. Simpson/cc: Sen. Hart
Rep. Udall/cc: Rep. Lujan
Rep. Markey/cc: Rep. Marlenee

Similar letter w/ additional paragraph
re: River Bend sent to:
Sen. Johnston
Sen. Long
Rep. Long
Rep. Moore

Similar letter w/ additional
paragraph re: Diablo Canyon
sent to:
Sen. Wilson
Sen. Cranston
Rep. Lagomarsino
Rep. Thomas
Rep. Panetta

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

August 2, 1984

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The Honorable Richard L. Ottinger, Chairman
Subcommittee on Energy Conservation and Power
Committee on Energy and Commerce
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Enclosed for your information is an announcement that the presiding Atomic Safety and Licensing Board has scheduled a prehearing conference on August 9 in San Francisco in the Nuclear Regulatory Commission proceeding on the application of General Electric Company for renewal of its operating license for the test reactor located at the Vallecitos Nuclear Center near Pleasanton, CA.

It is planned to mail this information to the news media today, August 3, 1984.

Sincerely,

Carlton Kammerer, Director
Office of Congressional Affairs

Enclosure:
As stated

cc: Rep. Carlos Moorhead

IDENTICAL LETTER SENT TO:

Sen. Simpson/cc: Sen. Hart
Rep. Udall/cc: Rep. Lujan
Rep. Markey/cc: Rep. Marlenee
Sen. Cranston
Sen. Wilson
Rep. Stark

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

August 24, 1984

AC

The Honorable Richard L. Ottinger, Chairman
Subcommittee on Energy Conservation and Power
Committee on Energy and Commerce
United States House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

Enclosed for your information is an announcement that a joint subcommittee of the Nuclear Regulatory Commission's Advisory Committee on Reactor Safeguards will hold a technical meeting on September 10 to discuss Pacific Gas and Electric Company's plans for decommissioning the Humboldt Bay nuclear power plant in California.

It is planned to mail this information to the news media today, August 24, 1984.

Sincerely,

Carlton Kammerer, Director
Office of Congressional Affairs

Enclosure:
As stated

cc: Rep. Carlos Moorhead

IDENTICAL LETTER SENT TO:

Sen. Simpson/cc: Sen. Hart

Rep. Udall/cc: Rep. Lujan

Rep. Markey/cc: Rep. Marlenee

Sen. Cranston

~~Sen. Wilson~~

Rep. Bosco

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