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Congress of the United States
House of Representatives
2307 Rayburn Building
Washington, D.C. 20515

October 30, 1979

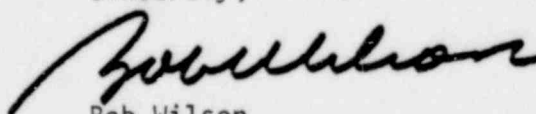
Honorable Joseph M. Hendrie
Chairman
Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Chairman:

Enclosed is a letter I have received from a constituent which is self-explanatory. I would be grateful if you would have someone take a look at it and, if the proposal is meritorious, I would suggest that you contact the constituent directly. I would also appreciate it if you would advise me of the results of your consideration of the proposal.

With best wishes.

Sincerely,



Bob Wilson
Member of Congress

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8001160 377

Matthew E. Jay

and ASSOCIATES



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The Honorable Bob Wilson, Congressman
880 Front Street, 6S-15
San Diego, CA 92188

October 23, 1979

Dear Congressman Wilson:

Re: Safety Device which Permits Venting of Radioactive Superheated
Incondensable Gases, Steam and Water from a Nuclear Reactor
Without Adversely Affecting Human Life or Environment.

Introduction

Malfunctions in a nuclear reactor which result in the build-up of incondensable gases in the primary vessel cause loss of cooling water by displacement (Example: Three Mile Island Nuclear Reactor Mishap).

The more gas that is created, the more water is displaced causing pressures and temperatures within the vessel to increase. This condition becomes prone to the following consequences.

1. If the gases are not vented into the atmosphere to permit more water to enter the vessel and such temperature continues to increase, the first failures (leaks) will occur in the weld areas of the stainless steel piping systems or related weldments which have been sensitized during welding cycles at time of fabrication. The higher the temperature, the greater gaseous density, the shorter the time span at which fractures and cracks will occur.

Thus, escaping gases, steam and water will vent into the containment vessel and the temperatures and pressures will steadily but gradually decline. At this slow pace it may take weeks before appreciable cooling can be realized.

Note: At this writing it is now possible to obtain High Integrity Type 304 Austenitic stainless steel piping systems which do not sensitize at welding cycles.

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The above action contaminates the entire containment vessel and will create a dangerous condition, let alone a gargantuan task of clean-up and disposal of thousands of gallons of radioactive water.

2. If the gases are not vented and temperatures continue to rise, more water will be displaced and the consequences that follow could be devastating.

Venting:

To this date the only means of venting highly radioactive gases and liquids during an emergency is to the atmosphere. Consequences which follow are unthinkable.

Down-Time:

The cost of downtime for the Three Mile Island Reactor is considered to be in excess of one-million dollars per day. The monetary loss incurred by the industry at this reactor alone would have financed the proposed safety device at each of all the operating reactors in the United States.

The Safety Device:

The following proposal entails a state-of-the-art which is commonplace in the mining industry with all encroaching data relative to the safety of being utilized for containment of radioactive materials being available (See enclosed sketch).

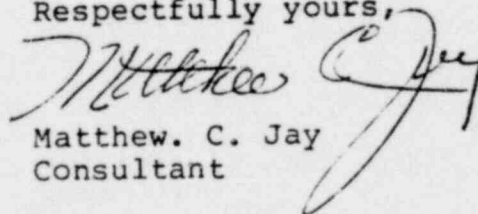
Basically the answer is a deep shaft in the ground but of particular design, geometry, size, configuration and detail to perform the specific subject task.

What begins as a mine-shaft will upon an emergency result as a permanently sealed vault for disposing radioactive gases and water from a reactor; dissipating into the earth without any detrimental affects to the environment with complete safety to the public.

From the industry viewpoint a one-billion dollar reactor saved.

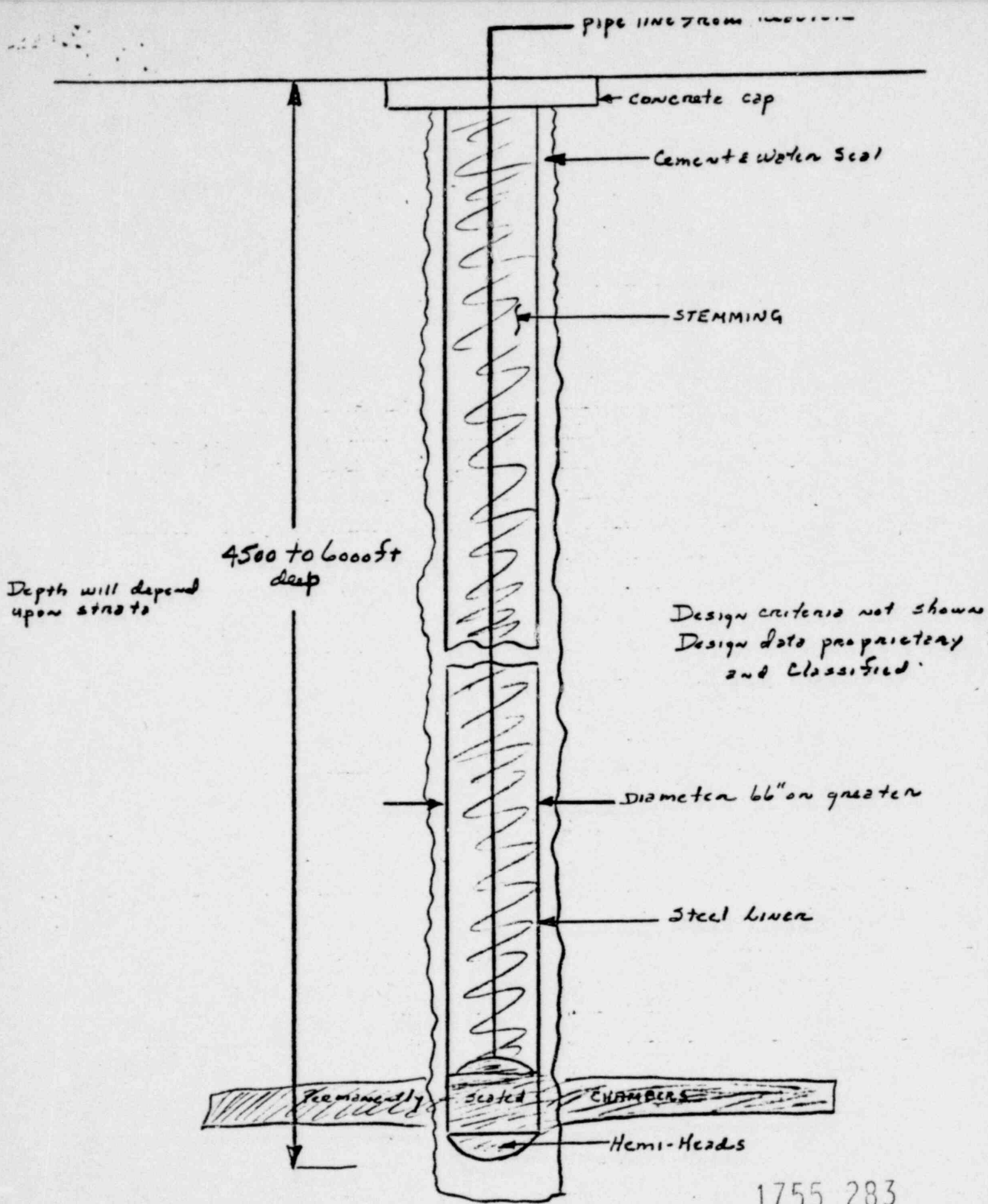
From the general public viewpoint, thousands of fatalities potentially averted without any necessity for evacuation.

Respectfully yours,


Matthew. C. Jay
Consultant

MCJ/sjb

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Radioactive

NOT TO SCALE