

**ADVISORY COMMITTEE ON REACTOR SAFEGUARDS**  
**UNITED STATES ATOMIC ENERGY COMMISSION**  
**WASHINGTON, D.C.**

March 8, 1958

Honorable Lewis L. Strauss  
Chairman, U. S. Atomic Energy Commission  
Washington 25, D. C.

Subject: GENERAL ELECTRIC BOILING WATER REACTOR AT VALLECITOS

Dear Mr. Strauss:

The problems of the Vallecitos Boiling Water Reactor were considered by the Advisory Committee on Reactor Safeguards with representatives of the Licensee, General Electric Company, and the Hazards Evaluation Branch. The pertinent documents are listed below.

General Electric has asked for three revisions to their license, Construction Permit CPPR-3 and License Nos. CX-2 and DPR-1 as amended, for this reactor: Amendment No. 14 would increase the number of rod type elements in a loading, from one to 14 for thermal powers up to 20 megawatts. Amendment No. 15 would increase allowable thermal power with mixed flat plate and fourteen rod type elements, from 20 to 30 megawatts. Amendment No. 16 would allow heating of the reactor from cold to operating temperature by nuclear heat at a rate not exceeding 1 Mw instead of by heat supplied to the coolant externally.

In view of the reported performance so far obtained in operations of this reactor, the Committee sees no significant increase in hazard in following these proposals provided that rod type elements be so dispersed in the core as to be as uniformly surrounded by plate type elements as possible.

There seems to be some possibility of a "cold-water" type accident in operation of the system and its controls as now constituted, i.e., sudden introduction of cold coolant into the reactor causing excessive increase in reactivity and power. This possibility should receive further study and if modifications of control systems or operating procedures are necessary to ensure against such an accident they should be made before resuming operation.

Sincerely yours,

/s/ C. Rogers McCullough

C. Rogers McCullough  
Chairman  
Advisory Committee on  
Reactor Safeguards

cc: K. E. Fields, GM  
H. L. Price, DL&R

Honorable Lewis L. Strauss

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References:

1. GE-BWR Report SG-VAL 1
2. GE-BWR Report SG-VAL 2
3. Amendments No. 13 thru No. 16
4. HEB Staff Report of Feb. 25, 1958