

ADVISORY COMMITTEE ON REACTOR SAFEGUARDS  
United States Atomic Energy Commission  
Washington 25, D. C.

July 25, 1959

Honorable John A. McCone  
Chairman  
U. S. Atomic Energy Commission  
Washington 25, D. C.

Subject: HALLAM NUCLEAR POWER FACILITY (HNPF)

Dear Mr. McCone:

The Advisory Committee on Reactor Safeguards considered the design of the Hallam Nuclear Power Facility at its Seventeenth Meeting on July 24, 1959.

The proposed design is described in reports cited below. The Committee has had the benefit of meetings with the contractor, Atomics International, at its March and July 1959 meetings, a visit by a Subcommittee to the SRE, a prototype at Santa Susanna, meeting with the contractor there, and the Hazards Evaluation Branch analysis and discussion.

This is a 240 thermal megawatt, sodium-graphite power reactor to be located in a sparsely settled region of southeastern Nebraska. It is similar in design to the 20 thermal megawatt SRE at Santa Susanna. This prototype has been operated by the contractor without serious difficulty.

The system is contained in a number of interconnected steel lined concrete cavities believed by the Committee to be capable of containing fission products that might be released accidentally. An improved filter system for collecting radioactive fumes from a sodium fire, should one occur, will be required.

Considering SRE experience, the isolated site with adequate exclusion distance, and the design proposed, the Committee believes that this proposed reactor can be constructed with reasonable assurance that it can be operated without undue risk to the health and safety of the public.

Sincerely yours,

C. Rogers McCullough  
Chairman

cc: A.R.Luedecke, GM  
H.L.Price, DI&R

July 25, 1959

References:

- 1) NAA-SR-3379 - Preliminary Safeguards Report Based on Uranium-Molybdenum Fuel for the Hallam Nuclear Power Facility, issued on February 10, 1959.
- 2) NAA-SR-3379 - Supplement I - Supplement to the Preliminary Safeguards Report Based on Uranium-Molybdenum Fuel for the Hallam Nuclear Power Facility, April 1959.
- 3) NAA-SR-MEMO- - Additional Safeguards Evaluation for  
4067 the U-Mo Fueled Core of the Hallam Nuclear Power Facility, issued July 7, 1959.
- 4) Division of Licensing and Regulation Report to the ACRS on the Hallam Nuclear Power Facility, February 27, 1959.
- 5) Division of Licensing and Regulation Report to the ACRS on the Hallam Nuclear Power Facility, April 28, 1959.
- 6) Division of Licensing and Regulation Report to the ACRS on the Hallam Nuclear Power Facility, July 6, 1959.
- 7) Office Memorandum from the Director of the Division of Biology & Medicine on the Hallam Nuclear Power Facility, July 17, 1959.