

Bechtel Power Corporation

Engineers, Constructors

Fully Owned Subsidiary

San Francisco, California

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June 26, 1984

BLI-04

Mr. J. D. Geier
Illinois Power Company
500 South 27th Street
Decatur, Illinois 62525

Subject: Clinton Independent Design Review
Job No. 15478-003
Systems Selection Justification

Dear Mr. Geier:

In our letter (BLI-03) to you of June 20, 1984, Bechtel suggested the vertical review portion of the Clinton Power Station IDR be based on two systems: the high pressure core spray system (HPCS) and the Class 1-C ac electrical power system. These systems permit a comprehensive review of design activities both functional and discipline related. In addition to the direct system design, design of other facilities will be considered where they are physically coupled or otherwise closely associated. For each system, installation should be well advanced permitting evaluation of the full range of AE activities.

From the functional standpoint, the systems permit assessment of the AE design and design process, the AE-MSSS interface, and design interfaces for the AC with vendors or contractors. They provide good examples of relevant engineering and design activities including seismic considerations, nuclear safety analysis, HPIH/MCLR design, fire protection, system interaction reviews and environmental qualifications.

From a technical discipline standpoint, the two systems selected permit a good evaluation of design by all disciplines including mechanical, electrical, control and instrumentation, fluid systems and civil-structural engineering and design. Insight into associated areas is also readily available through HPCS and SLCS pipe support, structural steel embedments and connections to basic structural members and foundations.

The HPCS system has a broad design involvement wherein the criteria has been established by the MSSS supplier, the detail design by the A-E is reviewed by others, and the supply is from a variety of sources. It is a major safety system for fluids, functions over a wide pressure-temperature range, and must reflect many operating modes. The design should be

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representative of other fluid system designs. The ac power system is substantially established by the AE, is reviewed in different ways, and is the basic power supply for safety-related electrical equipment. It is also an area which has been reviewed less commonly in other, related reviews, and should serve to complement them.

We trust our basis for system selection is satisfactory and we will be prepared to discuss the subject at the meeting with the NRC on June 28, 1964.

Very truly yours,



G. L. Parkinson
Project Manager

GLP/CWN/rlp

cc: James Milhann, NRC