

Pennsylvania Engineering Corporation
Pecor Division

March 14, 1972

Mr. L. Manning Muntzing
Director of Reactor Licensing
U.S. Atomic Energy Commission
Washington, D. C.

Subject: Docket No. 50-247
Indian Point No. 2 Nuclear Power Plant
Consolidated Edison Company of New York

Gentlemen:

This letter is forwarded to directly request the present "as built" engineering drawings of the design, manufacturing, assembly and installation of several Class I components of the subject nuclear power plant. It is realized a construction permit No. CP PR-21 was issued October 14, 1966 to Consolidated Edison Company for the construction of the 873MW(e) nuclear generating station. In addition, our staff has noted a recent press release No. 0186 dated October 20, 1971 of the Atomic Energy Commission stating that Consolidated Edison Company is permitted to commence fuel loading of the subject nuclear power plant but is prohibited from reaching a point of criticality or start up operation for commercial power generation.

Our company in December 1966 received from Pittsburgh Bridge & Iron preliminary "sketches" of several Class I structures of the subject power plant for purposes of bidding to fabricate these Class I structures and parts.

Pittsburgh Bridge & Iron had received in the latter part of 1966 these Westinghouse Electric Corporation "sketches" from United Engineers and Constructors of Philadelphia, Pennsylvania. United Engineers and Constructors were the architect engineer firm under contract with the Westinghouse Electric Corporation, Pittsburgh, Pennsylvania. The Consolidated Edison Company had contracted with the Westinghouse Electric Corporation for the complete Indian Point No. 2 nuclear generating station, ready for operation.

In January 1967 and the next three months additional Westinghouse Electric Corporation drawings were received by our company through the subject chain of subcontractors. Our company in turn submitted proposals to Pittsburgh Bridge & Iron Works to construct the various Class I items. In each case without exception the Westinghouse Electric Corporation drawings indicated both the design criteria and the choice of material for the important parts and assemblies. PB&I awarded a contract to our company on May 28, 1967, No. 13838.

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On July 19, 1967 our company received from Pittsburgh Bridge & Iron two fundamentally important and essential contract documents covering (1) Specifications and (2) Special Conditions for the fabrication, assembly and test of the subject assemblies. This serious failure of not notifying our company of these basic contractual documents was the direct responsibility of Westinghouse Electric Corporation in that these documents were Westinghouse Electric Corporation documents as completed by their architect engineers, United Engineers & Constructors. The documents were dated December 12, 1966 and October 1, 1966 respectively.

It is essential to recognize the safety aspects of these Class I structures. The weldments and testing thereof of the parts and assembly could not be completed in accordance with standard commercial practices but were to be in accordance with special requirements of the American Welding Society. This included qualified welders and qualified welding procedures for the weldments.

In general the original Westinghouse Electric Corporation drawings for the structures and parts of our purchase order 13838 dated May 22, 1967 with Pittsburgh Bridge & Iron contained serious deficiencies. Dimensioning and tolerancing of the features of the parts were not in accordance with nationally accepted engineering standards; e. g., the ASA standards. The errors, omissions and incorrect features of the Westinghouse drawings included problems of positioning of the components and assemblies. The Westinghouse drawings did not indicate required engineering standards relating to the important standards of non destructive testing of the weldments.

The Westinghouse drawings indicated serious problems of assembly with parts and equipment furnished by other suppliers; e. g., the steam generators of the Indian Point No. 2 power plant. Our company fabricated the steam generator supports in accordance with the inadequate and incorrect Westinghouse drawings. Our staff observed in 1968 the steam generators were delivered with serious deviations with respect to both size and form. As of December 1, 1971 there is a serious problem of plant safety because of the deviations of both the steam generator supports and the out of tolerance steam generators delivered by other suppliers.

Your attention is called to the inadequate, incomplete and questionable design of the important reactor support ring, one of the principal items of our contract 13838 with PB&I. This Class I structure was to be fabricated in accordance with a "sketch" identified as Westinghouse Electric Corporation No. 9321-F-1287 and finally a drawing marked Revision I dated February 1967. There are a number of very serious deviations with respect to the fabrication

of this important structure. These deviations have not been recorded by our staff because we have not received, after repeated requests, the present "as built" Westinghouse Electric Corporation drawing 9321-F-1287, Rev. 4. Our shop records conclusively indicate a serious problem of distortion during heat treatment of the welded assembly and subsequent problems of non destructive testing. It should be noted the Westinghouse Electric Corporation to date has not indicated an engineering standard of rejection or acceptance for the dye penetrant examination of this Class I structure. As of December 1, 1971 we believe there are problems of this structure with respect to the safety of operation of Indian Point No. 2 plant for the design life of 30 years.

Our staff is cognizant of the legal requirements stated in the Code of Federal Regulations, Title 10-Atomic Energy of the United States Government. Title 10-Atomic Energy is public law and is the expressed intent of the Congress of the United States in accordance with the Atomic Energy Act of 1946 as amended by the Act of 1954. There are additional numerous subsequent amendments as enacted by the several Congresses of the United States. There is the essential and important requirement of owners and operators of commercial nuclear power plants to assure the safety and well being of the citizens of the United States. The referenced paragraphs are detailed as follows -

a. Part 20 - Standards for Protection Against Radiation

This part requires the Director of Reactor Licensing of the Atomic Energy Commission to assure that at all times the levels of radiation within the containment structure, the plant site and adjacent to the plant site for the design life of the plant to be within the stated precise and exact limits dosage of radiation of all types.

b. Part 50 - Licensing of Production and Utilization Facilities

This section has direct application to the serious problems as of December 1, 1971 and of the Class I structures and parts of Indian Point No. 2 completed by our company under contract with Pittsburgh Bridge & Iron. In particular, your attention is called to Section 50.34, paragraph b, "The description should be based on the design criteria for the facility as a whole and for those major component parts which are essential to the safe operation of the facility, and are essential to the safe operation of the facility, and should be presented in sufficient detail to allow an evaluation of the adequacy of the various means proposed to minimize the probability of danger from radio activity to persons both on and off site." As of December 1, 1971 our company

has not and cannot record the large number of deviations of the structure of purchase order 13838 because to date we have not received the so called "as built" drawings required to be on file with the Director of Reactor Licensing of the AE.

- c. Your attention is called to Section 50.35 subparagraphs a, b, and c. In particular, subparagraph c states: "any construction permit will be subject to the limitation that a license authorizing operation of the facility will not be issued by the Commission until (1) the applicant has submitted to the Commission by amendment to the application, the complete final safety analysis report, portions of which may be submitted and evaluated from time to time, and (2) the Commission has found that the final design provides reasonable assurance that the health and safety of the public will not be endangered by the operation of the facility in accordance with the requirements of the license and the regulations in this chapter."
- d. Your attention is also called to Section 50.36, subparagraph b which states: "Appendix A is provided as a guide to the type of materials which the Commission would generally expect to be covered by the technical specifications." Your attention is called to Section 50.40, paragraph (a) which states: "the processes to be performed, the operating procedures, the facility and equipment, the use of the facility and other technical specifications, or the proposals in regard to any of the foregoing collectively provide reasonable assurance that the applicant will comply with the regulations in the chapter, including regulations in Part 20 and the health and safety of the public will not be endangered."

This letter is directed to the Atomic Energy Commission to suggest the proposed operating license for Indian Point No. 2 nuclear generating station, Buchanan, New York, of Consolidated Edison Company, New York, be positively withheld until the Commission can thoroughly examine the complete contract file and related final technical data of the structures and parts fabricated and shipped by our company in 1967 and 1968. In addition we request of the Director of Reactor Licensing the complete "present" file of Westinghouse Electric Corporation drawings of the structures and parts of our purchase order 13878 with PB&I.

Our company as of December 1, 1971 has not either marked or recorded on the applicable drawings the large number of deviations which occurred during the fabrication of the items. The principal problem is of course the Westinghouse Electric Corporation through its chain of subcontractors will not forward

to us their file of present "as built" drawings.

It is not possible for the AEC to inspect these structures to assure safety of operation until the deviations are officially recorded by our company for these Class I structures.

Our staff will be pleased to meet with your staff to explain or clarify the serious problems outlined in this letter. We shall pursue all possible means for a resolution of the many problems of Indian Point No. 2 power plant. In our opinion these problems have a direct relation to the safety of the operation of the subject power plant for the AEC licensed design life of 30 years.

Very truly yours,

PENNSYLVANIA ENGINEERING CORPORATION



H. K. Brill, President
PECor Division

HKB:s

FROM
Pennsylvania Engineering Corp.
H. E. Krill, President
New Castle, Pa.

CONTROL NUMBER
4315

FILE LOCATION

DATE OF DOCUMENT
3/14/72

ACTION COMPLETION DEADLINE
4/4/72

TO
L. Manning Huntzinger

ACTION PROCESSING DATES
Acknowledged _____
Interim Report _____
Final _____

PREPARE FOR SIGNATURE OF:

Chairman

Director of Regulation

DESCRIPTION **Ltr** Original Copy Other
Requests the present "as built" engineering drawings of the design, manufacturing, assembly and installation of several Class I components for Indian Point 2, pointing out deficiencies in contract for fabrication and testing & suggesting proposed operating license be withheld until the Commission can examine the contract file and related final technical data

REMARKS

REFERRED TO
Morris f/action

DATE
3/21/72

IS NOTIFICATION TO THE JCAE RECOMMENDED? _____

Cys:
Bloch
Low
Shapar
(50-247)
Docket File

*COPIES SENT PDR
5/24/72*

PDR cy NS sent