

January 7, 1969

50-286

R. S. Boyd, Assistant Director for Reactor Projects, DRL
THRU: S. Levine, Assistant Director for Reactor Technology, DRL

INDIAN POINT NO. 3 - QUALITY ASSURANCE [Original signed by R.C. DeYoung
for S. Levine]

A report on our review of the quality assurance program proposed
for the Indian Point No. 3 facility is enclosed.

[Original signed by A. Dromerick]

A. Dromerick, Chief
Containment & Component Technology
Branch
Division of Reactor Licensing

RT-40A
DRL:C&CTB:FL

Enclosure:
QA Review for Indian Point 3

cc: F. Schroeder, DRL
S. Levine, DRL
D. Muller, DRL
J. Murphy, DRL
R. DeYoung, DRL

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SURNAME ▶	Liederbach/sp	Dromerick	DeYoung	Levine		
DATE ▶	1/7/69	1/7/69	1/7/69	1/7/69		

QUALITY ASSURANCE

The Regulatory staff is in the process of developing criteria for guidance in the area of quality assurance. At the present time these criteria are still evolving. For our evaluation of the quality assurance program for the Indian Point No. 3 facility we used the guidelines established for our recently completed review of the Zion application. As expected, the manner and extent to which the quality assurance programs for these two differently owned and designed facilities met with our evaluation guidelines differed.

Indian Point No. 3 is a turnkey project. The applicant (Consolidated Edison) gave to Westinghouse the prime responsibility for assuring adequacy in all design and construction activities. The principal subcontractor, United Engineers and Constructors (UE&C), will prepare all construction specifications and manage all construction work. Most of the quality assurance activities will be carried out by Westinghouse and UE&C. Each of these organizations has a quality assurance organization and each will have a separate quality assurance program for the Indian Point No. 3 project. Consolidated Edison has stated that they will also have a quality assurance organization for this project. The applicant's quality assurance program will include monitoring of the Westinghouse & UE&C efforts. Most of this surveillance will be performed directly for the applicant by the U. S. Testing Company, but some will also be conducted by Consolidated Edison's own engineers.

The overall quality assurance program is described in the application, and in particular in Supplements 1 and 5 to the PSAR. On the basis of this information and recent discussions we have determined that the applicant's quality assurance program is in general accord with our guidelines. In some areas the program is excellent and exceeds other programs we have reviewed. These areas include (1) the steps being taken to assure close association and interchange of information at all levels between respective functional groups, including those associated with the applicant and all subcontractors, (2) the applicant's decision to have the U. S. Testing Company report directly to the applicant and perform surveillance according to a preliminary, yet carefully delineated USTC surveillance plan, (3) the intent of the applicant to assure that independent checking of designs at important interfaces will be carried out between UE&C and Westinghouse, and between these and other important organizations, and (4) the applicant's intent to use his own engineers in a number of quality assurance activities to supplement those being performed for him by USTC.

There are, however, some areas of the quality assurance program about which we remain concerned and which must yet be resolved. These areas are:

- (1) A clearer definition is required of the applicant's exact organization and role in this project, including a detailed discussion of the applicant's internal quality assurance organization, and his other line and staff organizations.

In addition a list of titles of Quality Assurance Procedures and Quality Control Instructions to be used by the applicant to prescribe the QA activities, procedures and efforts to be undertaken and the organizations to be involved is required.

- (2) A clearer definition of the organization and programs to be used by the U. S. Testing Corporation is required. A determination must be made as to whether USTC is playing a larger role in quality assurance efforts than it normally performs. A list of the qualification requirements for the USTC quality assurance personnel is also required. In addition a list of titles of Quality Assurance Procedures and Quality Control Instructions to be used by USTC is required.
- (3) Lists of titles of Quality Assurance Procedures and Quality Control Instruction to be used by Westinghouse and UE&C is required.
- (4) The applicant should indicate more clearly his intent to require Westinghouse and UE&C to provide a specific plan that will assure independent review.
- (5) The applicant should provide further assurance that he will have and use a planned systematic procedure for audits, designed to assure independence of inspectors and QA organizations from those responsible for meeting construction or manufacturing budgets and scheduled deadlines. A clearer definition of the manner in which the applicant and Westinghouse will monitor UE&C is required.

We are continuing our discussions with the applicant in order to resolve our concerns. We intend to meet with the applicant prior to the ACRS January meeting and will report the results orally to the Committee. We intend to resolve all outstanding areas of concern prior to issuance of the construction permit.

In conclusion we believe that, upon successful resolution of the remaining areas of concern, the applicant's Quality Assurance Program will meet our present Quality Assurance guidelines.