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R. S. Boyd, Assistant Director for Reactor Projects, RL
THRU: D. R. Muller, Chief, Reactor Project Branch #1

INDIAN POINT UNIT NO. 3 SAFETY EVALUATION

The ACRS letter on Indian Point Nuclear Generating Unit No. 3 identified three items not previously mentioned requiring resolution with the regulatory staff. These items are quoted below with a discussion of the manner in which we plan to address these items in the Safety Evaluation.

1. ONSITE POWER

"The Committee believes that the onsite power sources should have a greater independence than in the proposed system, at least to the extent that they cannot be connected together with automatically operated devices."

The Safety Evaluation will state that the system, as proposed, does not meet the Committee's recommendation and that during construction of the unit, we will continue to review this area to assure that greater independence is provided, as recommended by the ACRS.

2. PUMP FLYWHEEL MISSILES

"Additional steps may be warranted to assure the integrity of the flywheel assembly, and the Committee recommends that details concerning the adequacy of design, the material characteristics, quality assurance, and inservice inspection requirements be resolved between the applicant and the Regulatory Staff."

The Safety Evaluation will state that the flywheel assembly receives detailed and extensive inspection as a part of the unit quality assurance and quality control programs. It will also receive specific attention from CO inspectors. The details of inservice inspection of the flywheel will be developed during the operating license review and will be included in the unit Technical Specifications.

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3. FUEL HANDLING ACCIDENT

"In view of the relatively high population density close to the Indian Point site, the applicant should review the assumptions made in the analysis of a refueling accident to see whether additional conservatism is warranted in assessing its effects and the provisions to cope with the accident."

The Safety Evaluation will state that a more detailed analysis of this accident will be conducted during construction. If deemed necessary as a result of this review, provisions can be made to reduce the radiological consequences of this accident by (1) installing an appropriate air handling system in the fuel storage building and (2) modifying operating procedures to require containment isolation during refueling.

In addition to these areas, our discussion of the Exclusion Area, Low Population Zone, and Population Center Distance should be carefully considered since the Indian Point site does not meet the letter of the 10 CFR Part 100 guidelines nor was the information presented in the Unit 2 Safety Analysis completely accurate. We intend to report these distances in the following manner:

"The Commission's Reactor Site Criteria, 10 CFR 100, provide guidelines for the maximum permissible offsite doses under accident conditions at the minimum exclusion distance (distance to the site boundary) and the low population distance. The guidelines also state that the distance to the nearest boundary of the closest population center should be at least 1-1/3 times the low population distance.

For Indian Point Unit No. 3, we measure a minimum exclusion distance 0.22 miles to the southwest. The nearest corporate boundary of Peekskill is 0.63 miles to the northeast; however, the nearest residential area of Peekskill is 0.84 miles to the east. Based on the population distribution in the vicinity of the site we consider the outer boundary of the Low Population Zone to coincide with the nearest residential area of Peekskill. However, since the applicant has assumed a Low Population Zone of 0.67 miles, we used this distance in evaluating potential off-site doses for the various assumed accidents.

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Our accident doses, Section 5.3, were calculated for distances of 0.22 miles (exclusion distance) and 0.67 miles (low population zone) in accordance with the foregoing."

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