January 17, 1984

Docket Nos. 50-206
LS05-84-01-021

Mr. K. Baskin, Vice President
Nuclear Engineering
Licensing and Safety Department
Southern California Edison Company
2244 Walnut Grove Avenue
Post Office Box 800
Rosemead, California 91770

Dear Mr. Baskin:

SUBJECT: PROPOSED BNL DATA GATHERING VISITS TO OPERATING REACTORS

Re: San Onofre Nuclear Generating Station, Unit No. 1

The Nuclear Regulatory Commission has contracted with Brookhaven National Laboratory to study occupational dose reduction at nuclear power plants. The three contracts which have presently been let are summarized in Enclosure A.

Studies I and II, entitled "Occupational Dose Reduction at Nuclear Power Plants" and "Evaluation of Occupational Dose Reduction Actions," involve collecting hard data on high exposure jobs and dose reduction modifications. In order to facilitate this study, stations should have job exposure computer data bases. Since your station is one of the few which meets these criteria, it would be appreciated if you would participate in this effort. The nuclear stations selected comprise plants from eight different utility groups throughout the U.S. They include General Electric, Westinghouse, Babcock & Wilcox, and Combustion Engineering NSSS plants. The project objectives and the approach which BNL is taking to gather this information have been reviewed by an ad hoc dose reduction working group consisting of representatives from INPO, EPRI, EEI, Westinghouse, Bechtel, and Commonwealth Edison. The collected data and other dose reduction information will be published and distributed to all participating nuclear power stations.

The data outlined in Enclosure B will be collected by two Brookhaven Health Physicists who have past plant experience. The names, social security numbers, and security clearance numbers for these persons are given below:

	SS#	Badge #
John Baum		
Bruce Dionne		

They will procure the available information with minimal impact on your station personnel. The type of ALARA information required and the estimated degree of involvement is listed in Enclosure B.

Your permission to access this ALARA data on the following dates, April 9, 10, 11, & 12, 1984 is hereby requested. Please direct your response, any changes to the plant visit dates, and any questions to the NRC plant Project Manager, and to Bruce Dionne (516-282-7132) or John Baum (516-282-4214), Safety and Environmental Protection Division, Building 535A, Brookhaven National Laboratory, Upton, New York 11973.

The reporting requirements associated with this information collection affect fewer than ten (10) respondents; therefore, OMB clearance is not required under P.L. 96-511.

Sincerely,

Original signed by
Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

Enclosures:
As stated

cc w/enclosures:
See next page

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cc
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David R. Pigott
Orrick, Herrington & Sutcliffe
600 Montogmery Street
San Francisco, California 94111

Harry B. Stoehr
San Diego Gas & Electric Company
P. O. Box 1831
San Diego, California 92112

Resident Inspector/San Onofre NPS
c/o U.S. NRC
P. O. Box 4329
San Clemente, California 92672

Mayor
City of San Clemente
San Clemente, California 92672

Chairman
Board of Supervisors
County of San Diego
San Diego, California 92101

California Department of Health
ATTN: Joseph O. Ward, Chief
Radiation Control Unit
Radiological Health Section
714 P Street, Room 498
Sacramento, California 95814

U.S. Environmental Protection Agency
Region IX Office
ATTN: Regional Radiation Representative
215 Freemont Street
San Francisco, California 94111

John B. Martin, Regional Administrator
Nuclear Regulatory Commission, Region V
1450 Maria Lane
Walnut Creek, California 94596

BROOKHAVEN NATIONAL LABORATORY

ALARA Projects

I. Occupational Dose Reduction at Nuclear Power Plants

- Identify high exposure jobs, their collective dose range, and their respective dose reduction techniques.
- Investigate methods of selecting high reliability and low maintenance equipment.
- Recommend improved radioactive waste handling equipment and procedures.
- Examine current ALARA incentives and recommend new positive steps to provide additional dose reduction incentives.
- Compile an "Occupational Dose Reduction at Nuclear Power Plants" manual containing information on: data and techniques on high exposure jobs, cost-benefit calculations, ALARA procedures, ALARA equipment, and case histories of innovative ALARA techniques.

II. Evaluation of Occupational Dose Reduction Actions

- Identify cost effective dose reduction techniques.
- Collect actual and estimated cost associated with: implementation of technique, dose to install, dose savings, labor savings and time savings.
- Perform cost-benefit evaluations and rank dose reduction techniques.

III. A Comparative Review of Occupational Dose Experience at U.S. and Foreign Nuclear Power Plants

- Compile data on nuclear power plants occupational doses, i.e., collective dose, number of workers, average dose equivalent per plant, average worker dose equivalent, and power history.
- Identify factors contributing to dose differences.
- Host international workshop on dose experiences.
- Prepare value-impact analysis on the foreign dose reduction actions identified.

Principal Investigators:

Dr. John W. Baum
Research Section Head
516/282-4214

Mr. Bruce J. Dionne
Health Physicist
516/282-7132

Enclosure B

Brookhaven National Laboratory Dose Reduction Project Interview and Data Gathering Outline, and Estimated Station Personnel Involvement

1. Superintendent: (15-30 min) Opinion on NRC and INPO role in ALARA; Station, Department and Job MANREM Goals; Worker ALARA Incentives; and Management ALARA Incentives.

2. Engineering Supervisor: (40-60 min) NPRD Data and Job/Component Exposure Data Usage; Dose Considerations in Equipment Selection or Removal; Worker ALARA Incentives; Management ALARA Incentives; ALARA Design Audit Responsibilities; which Engineers are Responsible for Selected High Exposure Jobs and Dose Reduction Modifications?

3. Engineers: (1-4 hours) Descriptions of High Exposure Jobs and their associated Dose Reduction Techniques; and Dose Reduction Modification Packages.

4. Maintenance Supervisor: (30-45 min) NPRD Data and Job/Component Exposure Data Usage; Dose considerations in Equipment Selection or Removal; Preventative Maintenance Frequency; Worker ALARA Incentives; Management ALARA; ALARA Hardware Installation Responsibilities; ALARA Job Planning Responsibilities; and which Maintenance Foreman is Responsible for Selected High Exposure Jobs?

5. Maintenance Foreman: (2-3 hours) Description of High Exposure Jobs and their Associated Dose Reduction Techniques.

6. NPRD Technician: (15-20 min) NPR Data Dissimination and NPRD Usage.

7. Radiation Protection Manager: (1-2 hours) Opinion on NRC and INPO's Role in ALARA; Station, Department and Job MANREM Goals; Worker ALARA Incentives; Management ALARA Incentives; Job Dose Tracking Usage and Benefits; ALARA Program Components; and H.P. Technician ALARA Responsibilities.

8. ALARA Coordinator: (4-6 hours) Job/Component Exposure Data Dissimination; Job Dose Tracking Uses and Benefits; ALARA Program Components; Station, Department and Job MANREM Goals; ALARA Equipment; ALARA Outage and Annual Reports; Job Dose Tracking System Description; High Exposure Job Description and RWP Coding; High Exposure Job Dose Reduction Techniques; Dose Reduction Modification Cost Benefits; and Dose Reduction Modification Installation Dose and Dose Savings.

9. Radwaste Supervisor: (1-2 hours) Radwaste Annual Reports; Radwaste Packaging, Storage and Loading Improvements; Radwaste Procedures, Equipment and Training; and Radwaste Problems and Fixes.