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August 2, 1993

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U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D. C. 20555

Gentlemen:

Subject: **Docket No. 50-206**
10 CFR 50.120, Systems Approach to Training
San Onofre Nuclear Generating Station, Unit 1

- Reference: 1) Letter from B. K. Grimes and R. L. Bangart, NRC, to Licensees of Plants in the Decommissioning Process, dated June 25, 1993, "Implementation of the Training Rule (10 CFR 50.120)"
- 2) Letter from S. W. Brown, NRC, to H. B. Ray, SCE, dated May 27, 1993, "Issuance of Amendment for the San Onofre Nuclear Generating Station, Unit 1"

This letter provides our evaluation of the need to implement a Systems Approach to Training (SAT) for the personnel categories listed in 10 CFR 50.120, based on site specific conditions at San Onofre Nuclear Generating Station, Unit 1 (SONGS 1).

BACKGROUND

The NRC has issued a regulation, 10 CFR 50.120, requiring that, by October 25, 1993, each holder of a nuclear power plant operating license must establish training programs derived from SAT for the following categories of plant personnel:

Non-Licensed Operator
Shift Supervisor
Shift Technical Advisor
Instrument and Control Technician
Electrical Maintenance personnel
Mechanical Maintenance personnel
Radiological Protection Technician
Chemistry Technician
Engineering Support personnel

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The NRC requested, in Reference 1, that licensees of plants in the decommissioning process provide plant specific information and evaluate the need for SAT for each of these categories based on these conditions. The letter also indicated that the NRC intends to issue appropriate exemptions where adequate justification is provided.

SITE SPECIFIC CONDITIONS

SONGS 1 is a permanently shut down Westinghouse pressurized water reactor plant which was rated at 450 gross mWe. The plant is located at a common site with two operational Combustion Engineering nuclear power plants, SONGS 2 and 3. Initial criticality was achieved in June, 1967, and the plant was permanently shut down on November 30, 1992. The transfer of all fuel from the reactor to the spent fuel pool (SFP) was completed on March 6, 1993. The SONGS 1 license was modified, effective March 9, 1993, to remove authorization to operate the reactor. We plan to keep the fuel in the SFP until the entire site is decommissioned following expiration of the SONGS 2 and 3 licenses in 2013.

Status of Systems, Structures, and Components

The SFP contains 216 irradiated fuel assemblies. The only nuclear related equipment normally operating is that needed to a) provide circulation, purification, cooling, and makeup for the SFP water, b) provide ventilation and lighting, c) indicate radiation in the SFP area, control room, and potential release pathways, d) collect, process, and dispose of radioactive waste, e) provide fire detection and suppression, f) provide normal and backup electric power, and g) provide instrument air. None of the fluid systems involve high temperatures, pressures, or differential temperatures. Pending approval of our proposed defueled Technical Specifications, the only components classified as safety related will be the SFP and piping which forms the SFP pressure boundary, the makeup water tank, and the SFP bridge crane.

Electrical power is not needed to prevent boiling in the SFP. Our analyses indicate that, after August, 1993, active SFP cooling could be eliminated and the SFP temperature would be maintained below 180°F by passive cooling. Additionally, our analysis of recent test results, although not yet formalized, indicates that after August the SFP temperature could be maintained below 140°F by passive cooling. Water to make up for evaporative losses or leakage can be gravity fed to the SFP without electrical power.

Remaining Credible Accidents

The only accidents analyzed in Chapter 15 of the Updated Final Safety Analysis Report which remain credible for SONGS 1 are a fuel handling accident and a loss of offsite electrical power. The likelihood of a fuel handling accident is much less than if the plant were operational, since fuel movement will probably occur only one more time in the next twenty years, as compared to approximately every 18 months when the plant was operating. Also, the potential consequences of a fuel handling accident, which were within

10 CFR 100 guidelines within a week following shutdown, are now significantly less and will continue to diminish as fission products decay. The potential consequences of a loss of offsite power are minimal since electrical power will not be needed to prevent boiling in the SFP.

EVALUATION OF NEED FOR SAT TRAINING

Training based on SAT is not needed for the SONGS 1 personnel to assure the safe storage and handling of irradiated fuel. The SAT process provides standardized training methods which are commensurate with the number and technical sophistication of systems needed for safety, the complexity of operations, the number, type, and potential consequences of credible accidents, and the need for rapid response associated with an operating plant. However, all of these factors are significantly reduced at SONGS 1. The effect of these reductions on the responsibilities of the personnel listed in the regulation, and hence on their training needs, is discussed in the following sections.

Non-Licensed Operator

In accordance with the SONGS 1 Technical Specifications all operators are non-licensed. The minimum shift operating crew, as specified in the Technical Specifications and the Emergency Plan, consists of three types of operators; a Shift Supervisor who is required to be a Certified Fuel Handler (SS/CFH), a Shutdown Control Room Operator (SCRO), and a Non-Certified Equipment Operator (NCEO). Since the SS/CFH has certain unique responsibilities, this position will be addressed separately in a subsequent section.

The SCRO is responsible for operating or directing the operation of plant equipment and control room apparatus. The SCRO is not authorized to direct movement of irradiated fuel. The SCRO is authorized to perform all functions assigned to the NCEO. The NCEO is responsible for the operation of plant equipment. The NCEO is not authorized to operate control room apparatus unless it is under the direction of an SCRO, and is not authorized to direct the movement of irradiated fuel.

The demands placed on SONGS 1 non-licensed operators are much less than those placed on non-licensed operators at an operational plant. The SONGS 1 operators need be cognizant of relatively few systems since few remain functional. Also the few systems which are functional are relatively uncomplicated. The low decay heat rate of the fuel allows much more time for operators to respond to any abnormal condition or to obtain outside assistance.

Shift Supervisor

The SS/CFH is the senior on-shift operating position at SONGS 1. The SS/CFH is responsible for directing the operation of plant equipment and control room apparatus, and is qualified to direct the handling of irradiated fuel. The SS/CFH is qualified to perform all functions assigned to the SCRO and NCEO.

The preceding discussion of the acceptability of non-SAT training for non-licensed operators also applies to the SS/CFH position. Additionally, the SS/CFH has other responsibilities which are unique to the position. These responsibilities include personnel command and coordination, accident analysis, and Emergency Plan functions. The scope of these responsibilities is significantly reduced when a plant is permanently shut down. The number of on-shift personnel is much less than during reactor operation, which simplifies command and coordination tasks. Accident analysis is simplified since there are far fewer accident scenarios for the operators to learn. Also the types of accidents which are credible do not involve the complex system interactions typical of those at an operational plant. The Emergency Plan functions of the SS/CFH will be reduced since the UFSAR Chapter 15 accidents which remain credible are not capable of generating a release which meets NRC or Station criteria for a Site Area Emergency or a General Emergency.

It should also be noted that the training and qualification program for the SONGS 1 SS/CFH was approved by the NRC in the Safety Evaluation Report (SER) which supported the amendment authorizing use of non-licensed operators (Reference 2). The SER states that the program is subject to 10 CFR 50.120. We believe that by granting an exemption from 10 CFR 50.120, the NRC would also be relieving us from the commitment to the regulation as stated in the SER.

Shift Technical Advisor

There are no Shift Technical Advisors for SONGS 1 since none are required by Technical Specifications or the Emergency Plan. Therefore it is appropriate that SONGS 1 be exempt from the 10 CFR 50.120 requirement that a SAT based program for Shift Technical Advisors be established, implemented and maintained.

Instrument and Control Technician, Electrical Maintenance Personnel, Mechanical Maintenance Personnel,

At SONGS 1 Instrument and Control Technicians, and Electrical and Mechanical Maintenance personnel perform the types of functions which are typical of these positions at operational plants, such as calibration, and preventative and corrective maintenance of plant equipment. However, the number of systems and components involved is far less than at an operational plant and the maintenance personnel need not be familiar with as many different types of equipment. The plant equipment which remains functional is not technically sophisticated, and the skills required for maintenance are less complex. Since the decay heat rate is low, and since very few systems and components will be safety related or will be subject to Limiting Conditions for Operation, ample time will be available for most maintenance activities. Also the possibility of inadvertent protection system actuation due to maintenance errors no longer exists.

Radiological Protection Technician

Radiological Protection personnel functions at SONGS 1 are much less likely to involve activities capable of producing substantial personnel exposures than

at an operational plant, since many of these activities have been eliminated. There will be no movement of irradiated fuel into or out of containment. Containment entries at power and the attendant neutron exposures have been eliminated. There are no plans for work in high radiation, contamination, or airborne areas, or in harsh environments such as steam generator primary side entries. The radiation levels of radioactive waste will be lower. Thus the potential for personnel overexposure is much less at SONGS 1 than at an operational plant.

Chemistry Technician

The quantity of samples and types of analyses required of Chemistry Technicians at SONGS 1 are much less than at an operational plant. The only chemistry concerns are the quality of the SFP water and analyses of potential release pathways. Analyses of primary coolant, steam generator, and condensate water are not needed, and water quality is not as critical for the SFP as it was for these other systems and components.

Engineering Support Personnel

A much lower level of engineering support is needed at SONGS 1 than at an operational plant, and the support required is generally less technically sophisticated. There are far fewer systems which must be kept functional, and those which are functional are not technically complex. In particular there are far fewer safety related systems, and the engineering support personnel's knowledge of codes and standards, such as ASME, need not be as extensive. There are no significant modifications or major component overhauls planned which would impose a large complex work load on engineering support personnel.

Conclusion

Based on the large reduction in scope, complexity, and safety significance of their responsibilities, we consider traditional non-SAT training to be adequate for the personnel listed in 10 CFR 50.120 at SONGS 1.

BASIS FOR EXEMPTION

We believe that 10 CFR 50.120 was intended to apply primarily to operational plants. In publishing the regulation (58 FR 21904), the NRC stated that "If permanent changes in the condition of the plant (i.e., decommissioning or POL) make some or all existing training programs unnecessary, the licensee would obtain relief from these requirements by applying for an exemption eliminating or modifying the affected programs."

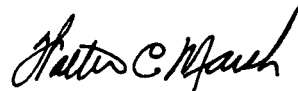
Since the regulation was intended primarily for operational plants, and since SAT based training is not needed for SONGS 1 plant personnel, application of 10 CFR 50.120 to SONGS 1 would not serve the underlying purpose of the regulation.

Currently, personnel other than Operations and Shift Technical Advisors are not unit-specific and are subject to implementation of 10 CFR 50.120 at SONGS

2 and 3. However, we consider that exemptions for personnel other than Operations and Shift Technical Advisors are justified for SONGS 1, and should be granted to provide flexibility for future organizational changes.

If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in cursive script, appearing to read "Walter C. March".

cc: B. H. Faulkenberry, Regional Administrator, NRC Region V
S. W. Brown, NRC Project Manager, San Onofre Unit 1
C. W. Caldwell, NRC Senior Resident Inspector, San Onofre Units 1, 2&3
R. F. Dudley, Jr., Section Chief, Non-Power, Decommissioning, and
Environmental Project, Directorate of Reactor Projects - 3, 4 and 5