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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

FEB 1 2 1979

Docket Nos. 50-454/455/456/457

MEMORANDUM FOR: S. A. Varga, LWR Branch, #4, DPM

FROM: P. F. Collins, Chief, Operator Licensing Branch, DPM

SUBJECT: RESPONSE TO REVIEW PLAN ASSIGNMENT
BYRON/BRAIDWOOD STATIONS, UNITS 1 AND 2

PLANT NAME: BYRON/BRAIDWOOD STATIONS

DOCKET NOS: 50-454/455/456/457

LICENSING STAGE: OL

BRANCH AND LPM REQUESTING ASSISTANCE: LWR-4, C. Moon

REVIEW BRANCH INVOLVED: OLB:DPM

REQUESTED COMPLETION DATE: March 21, 1979

REVIEW STATUS: First Round Questions

We have reviewed Sections 13.2 and 13.5, Training Programs and Procedures of the FSAR for the subject facility. Based on our review, we have determined that the additional information indicated in Attachment A, is necessary for us to complete our review. We will be available to discuss these items, should the applicant desire.

Paul F. Collins, Chief
Operator Licensing Branch
Division of Project Management

cc: D. Skovholt
R. Hartfield
W. Haass
D. Vassallo
C. Moon

Enclosure:
Attachment A

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ATTACHMENT A

440.0 OPERATOR LICENSING BRANCH

441.1 (13.2.1) For each course in your training programs provide the organization teaching the course or supervising the instruction.

441.2 (13.2.1.1) Specify the "qualifying nuclear experience" an individual must have to enter training program 13.2.1.1.3.

441.3 (13.2.1.14) Figures 13.2-1 and 13.2-2 do not show the number of people who will be licensed prior to fuel loading. Provide the number of people who will be trained in your licensed operator training program. This number should not only meet Technical Specification requirements but should also allow for examination contingencies and avoidance of planned overtime during the startup phase. We recommend the training of at least 25 people.

441.4 (13.2.1.14) Your plans for additional training in the event that fuel loading is substantially delayed are unacceptable. An acceptable method for maintaining the required level of training is to initiate the requalification program.

441.5 (13.2.1.14) Indicate on Figures 13.2-1 and 13.2-2 the extent to which the training program has been accomplished at the approximate time of submittal of the FSAR.

441.6 (13.2.2.1) Provide a licensed operator requalification training program which adequately implements the requirements of 10 CFR Part 55, Appendix A. A topical report submittal is unacceptable.

441.7 (13.2.2.2) Refresher training for station personnel should be biennial. Training on administrative, emergency, and security procedures should be provided to all non-licensed personnel.

441.8 (13.2) Revision I to Section 13.2 of the Standard Review Plan requires the inclusion of a Fire Protection Training Program. Provide a detailed description of the fire protection training and retraining for the critical plant staff and replacement personnel which meets the following acceptance criteria:

A. Fire Brigade Training

1. Instruction

a. Instruction in all the topics listed in d below should be administered to individuals prior to assignment as a fire brigade member.

b. Refresher instruction should be provided to all the brigade members on a regularly scheduled basis of not less than four sessions a year. The sessions shall be repeated at a frequency of not more than 2 years.

c. The instruction shall be provided by qualified individuals, knowledgeable and experienced in fighting the types of fires that could occur in the plant and in using the types of equipment available in a nuclear power plant. Members of the Fire Protection Staff and fire brigade leaders may conduct this training.

d. The scope of the instruction should include the following items:

(i) An identification of the fire hazards and associated types of fires that could occur in the plant, and an identification of the location of the hazards, including areas where breathing apparatus is required, regardless of the size of the fire.

(ii) Identification of the location of installed and portable fire fighting equipment in each area, and familiarization with layout of the plant including access and egress routes to each area.

(iii) The proper use of available equipment, and the correct method of fighting each type of fire. The types of fires covered should include electrical fires, fires in cables and cable trays, hydrogen fires, flammable liquids, waste/debris fires, and record file fires.

(iv) Indoctrination in the plant fire fighting plan, with coverage of each individual's responsibilities, including changes thereto.

(v) The proper use of breathing equipment, communication, lighting and portable ventilation equipment.

(vi) A detailed review of the procedures, with particular emphasis on what equipment must be used in particular areas.

(vii) A review of latest modifications, additions or changes to the facility, procedures, fire fighting equipment or fire fighting plan.

(viii) The proper method of fighting fires inside buildings and tunnels.

e. In addition, special instruction should be provided for fire brigade leaders in directing and coordinating fire fighting activities.

2. Practice

Practice sessions should be held for fire brigade members on the proper method of fighting various types of fires. These sessions should provide brigade members with practice in extinguishing actual fires, except in the case of energized cables. Practice sessions should be conducted at facilities sufficiently remote from the nuclear power plant so as not to endanger safety-related equipment. These practice sessions should be provided at regular intervals, but not to exceed one (1) year.

Practice sessions should also be conducted that require fire brigade members to don protective equipment, including emergency breathing apparatus. These practice sessions need not include fire fighting. These practice sessions should be provided at regular intervals, but not to exceed one (1) year.

3. Drills

Fire brigade drills should be performed in the plant so that a fire brigade can practice as a team. Drills should include the following.

a. The simulated use of equipment for the various situations and types of fires which could reasonably occur in each safety-related area.

b. Conformance, where possible, to the established plant fire fighting plans.

c. Operating fire fighting equipment where practical. This would also include self-contained breathing apparatus, communication equipment and portable and/or installed ventilation equipment.

d. The drills should be performed at regular intervals, but not to exceed three months for each fire brigade. The minimum number of fire brigade drills conducted within a period of three months shall be equal to the number of operating shifts at the station. Each individual member of the fire brigades shall participate in at least [illegible] drills per year. At least one drill per year for each fire brigade shall be unannounced.

e. Periodically (at least annually), these drills should include off-site fire department personnel. These drills should also conform with the facility plan for coordination with off-site fire departments.

f. The drills should be preplanned to establish the training objectives of the drills. The drills should be critiqued to determine how well the training objectives have been met. At a minimum, the critique should assess:

(i) Fire alarm effectiveness, response time, selection, placement and use of equipment.

(ii) The leader's direction of the effort and each member's response.

B. Other Station Employees

1. Instruction

a. Instruction shall be provided for all employees once a year. It shall be repeated on an annual basis. The instruction shall be given, as appropriate, on (a) the fire protection plan (b) evacuation routes and (c) procedure for reporting a fire.

b. Instruction shall be provided for security personnel that addresses (a) entry procedures for outside fire departments (b) crowd control for people exiting the station, and (c) procedures for reporting potential fire hazards observed when touring the facility.

c. Instruction should be provided to all shift personnel that complements that provided members of the fire brigade.

d. Instruction shall be provided to temporary employees so that they are familiar with (a) evacuation signals, (b) evacuation routes and (c) procedures for reporting fires.

2. Drills

All employees should participate in an annual evacuation drill.

C. Fire Protection Staff

Training for the fire protection staff members include courses in:

1. design and maintenance of fire detection, suppression and extinguishing systems,

2. fire prevention techniques and procedures,

3. training and manual firefighting techniques and procedures for plant personnel and the fire brigade.

D. Off-Site Fire Departments

Training for the off-site fire departments include courses in basic radiation principles and practices, typical radiation hazards that may be encountered when fighting fires and related procedures.

E. Construction Personnel

Training for construction personnel should include instruction in reporting fires, alarm responses and evacuation routes.

442.1 (13.5)	Provide a commitment to conduct all safety-related operations by detailed written and approved procedures which are in conformance with ANSI N18.7-1976/ANS 3.2.
442.2 (13.5.1.2)	Specify that all administrative and operating procedures are to be completed six months prior to fuel loading.
442.3 (13.5.1.3.1)	Provide a diagram of the Control Room which indicates the area designated as "at the controls".
442.4 (13.5.1.3)	The description of Administrative Procedures should also include Fire Protection Procedures.