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OTECTION MODIFICATIONS TO SUBJECT FACILITY CONCERNING AREAS OF FUNCTIONAL
SPONSIBILITIES, ADMINSTRATIVE CONTROLS AND QUALITY ASSURANCE.

ANT NAME: KEWAUNEE REVIEWER INITIAL: XJM
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WISCONSIN PUBLIC SERVICE CORPORATION

P.O. Box 1200, Green Bay, Wisconsin 54305

May 15, 1978

Green Bay

Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

ATTN: Mr. A. Schwencer, Chief
Operating Reactors Branch #1
Division of Operating Reactors

Gentlemen:

Ref: Docket 50-305
Operating License DPR-43
"Nuclear Plant Fire Protection Functional Responsibilities, Administrative Controls & Quality Assurance"

By letter dated February 14, 1978, you sent us a copy of your fire protection guidelines referenced above. Upon review of that document, we have determined that some modifications to our fire protection organization, procedures and documentation are warranted. Statements made in the attached responses indicate commitments to future actions. Where specifics of the guidelines will not be met, justification and/or alternative methods by which we will achieve a commensurate level of fire protection are outlined.

Enclosed please find twenty (20) copies of the above mentioned responses. We expect to have the aforementioned modifications completed and implemented by August 31, 1978.

Very truly yours,

E. W. James
Senior Vice President
Power Supply & Engineering

EWJ/cmn

Enc.

cc - Mr. Don Knuth, KMC, Inc.

A007 S 1/20 copies

FIRE PROTECTION ORGANIZATION

1.0 The organizational responsibilities and lines of communication pertaining to fire protection should be defined between the various positions through the use of organizational charts and functional descriptions of each position's responsibilities. As a minimum the positions/ organizations responsible for the following should be designated:

a. The upper level offsite management position which has management responsibility for the formulation, implementation, and assessment of the effectiveness of the nuclear plant fire protection program.

b. The offsite management position(s) direclty responsible for

(1) formulating, implementing, and periodically assessing the effectiveness of the fire protection program for the licensee's nuclear power plant including fire drills and training conducted by the fire brigade and plant personnel. The results of these assessments should be reported to the upper level management position responsible for fire protection with recommendations for improvements or corrective actions as deemed necessary.

(2) Using the following NFPA Publications for guidance to develop the fire protection program:

No. 4 - "Organization for Fire Services"
No. 4A - "Organization of a Fire Department"
No. 6 - "Industrial Fire Loss Prevention"
No. 7 - "Management of Fire Emergencies"
No. 8 - "Management Responsibilities for Effects of Fire on Operations"
No. 27 - "Private Fire Brigades"

RESPONSE: *As with all matters concerning the Kewaunee Nuclear Power Plant, the Senior Vice President Power Supply and Engineering Department has the ultimate responsibility for administration of the Fire Protection Program. The off-site management fire protection organization is shown on attached figure 1.1. The Fire Protection Supervisor has been delegated the responsibility for 1.0 b. above.*

1.0 (Cont.)

c. The onsite management position responsible for the overall administration of the plant operations and emergency plans which include the fire protection and prevention program and which provides a single point of control and contact for all contingencies.

RESPONSE: *The Kewaunee Plant Superintendent is responsible for the overall administration of the on-site Fire Protection Program. See Figure 1.2.*

d. The onsite position(s) which:

(1) implements periodic inspections to: (a) minimize the amount of combustibles in safety related areas; (b) determine the effectiveness of housekeeping practices; (c) assure the availability and acceptable condition of all fire protection systems/equipment; (d) emergency breathing apparatus; (e) emergency lighting; (f) communication equipment; (g) fire stops; (h) penetration seals and fire retardant coatings; and assures prompt and effective corrective actions are taken to correct conditions adverse to fire protection and preclude their recurrence.

RESPONSE: (a) *Formal inspections are not performed by on-site staff, however, periodic inspections are performed by Plant Group Supervisors, Plant Fire Marshall and Shift Supervisors.*

(b) *Plant Superintendent*

(c) *Preventative Maintenance Program*

(d) *Health Physics Group*

(e) *Operations Department*

(f) *Operations Department*

(g) *Maintenance Department*

(h) *Maintenance Department*

(2) is responsible for the fire fighting training for operating plant personnel and the plant's fire brigade; design and selection of equipment; periodic inspection and testing of fire protection systems and equipment in accordance with established procedures and evaluate test results and determine the acceptability of the systems under test.

1.0 (Cont.)

(2) RESPONSE: *The Training Supervisor is responsible for plant fire brigade training. Design and selection of equipment is performed under the corporate Design Change Program in conjunction with the plant Fire Marshall. The plant Fire Marshall is responsible for testing procedures and evaluation of test results.*

(3) assists in the critique of all fire drills to determine how well the training objectives have been met.

RESPONSE: *Plant Fire Marshall.*

(4) reviews and evaluates proposed work activities to identify potential transient fire loads.

RESPONSE: *All company personnel are responsible to review, evaluate and take the necessary precautions as delineated by the company "Safety Rules Book", and are trained through periodic safety meetings to recognize potential fire situations. Before a work activity is assigned, it is reviewed by the Maintenance Supervisor and Lead Man and before a work activity starts, it is reviewed by the Shift Supervisor.*

(5) implements a program for indoctrination of all plant contractor personnel in appropriate administrative procedures which implement the fire protection program, and the emergency procedures relative to fire protection.

RESPONSE: *Done by video tapes provided by Training Group.*

(6) implements a program for instruction of personnel on the proper handling of accidental events such as leaks or spills of flammable materials that are related to fire protection.

RESPONSE: *Plant Fire Marshall.*

1.0 (Cont.)

e. The onsite position responsible for fire protection quality assurance.

This position should be responsible for assuring the effective implementation of the fire protection program by planned inspections and scheduled audits. He should assure and verify that results of these inspections or audits are promptly reported to cognizant management personnel.

RESPONSE: *Plant Performance Engineer with the exception that all audits are conducted by the Corporate Quality Assurance Organization under the cognizance of the Quality Assurance Supervisor.*

f. The positions which are part of the plant fire brigade

(1) The plant fire brigade positions should be responsible for fighting fires. The authority and responsibility of each fire brigade position relative to fire protection should be clearly defined.

RESPONSE: *Currently, Fire Brigade Leaders are assigned to each team and responsibilities will be assigned to brigade members as applicable.*

(2) The responsibilities of each fire brigade position should correspond with the actions required by the fire fighting procedures.

(3) The responsibilities of the fire brigade members under normal plant conditions, should not conflict with their responsibilities during a fire emergency.

(4) The minimum number of ~~tr~~ained fire brigade members available onsite for each operating shift should be consistent with the activities required to combat the most significant fire. The size of the fire brigade should be based upon the functions required to fight fires with adequate allowance for injuries.

(5) The recommendations for organization, training, and equipment of "PRIVATE FIRE BRIGADES" as specified in NFPA No. 27-1975, including the applicable NFPA publications listed in the Appendix to NFPA No. 27, are considered appropriate criteria for organizing, training, and operating a plant fire brigade.

1.0 (Cont.)

f. (2), (3), (4), (5)

RESPONSE: *We agree with these positions. From the results of our evaluations, we have determined that an on-site fire brigade of three members is adequate to combat a fire, fighting a delaying action in the case of a most significant fire until such time as assistance arrives.*

We plan to continue our existing practice of maintaining additional fire brigade members on-call.

2.0 Qualifications

a. The position responsible for formulation and implementation of the Fire Protection Program should have, within his organization, or as a consultant, a Fire Protection Engineer who is a graduate of an engineering curriculum of accepted standing and who shall have completed not less than six years of engineering attainment indicative of growth in engineering competency and achievement, three of which shall have been in responsible charge of fire protection engineering work. These requirements are the eligibility requirements as a Member in the Society of Fire Protection Engineers.

RESPONSE: *The corporate Fire Protection Supervisor who is responsible for the formulation and implementation of the Fire Protection Program shall meet the requirements above or shall have the equivalent of six years of engineering type work of which three years shall have been in the fire protection field. For detailed evaluations or designs which are beyond the scope of the corporate engineering staff, an approved consultant will be contracted.*

b. The fire brigade members qualifications should include satisfactory completion of a physical examination for performing strenuous activity, and of the fire brigade training described in Attachment No. 2.

RESPONSE: *Currently, these requirements are met by an annual respiratory physical.*

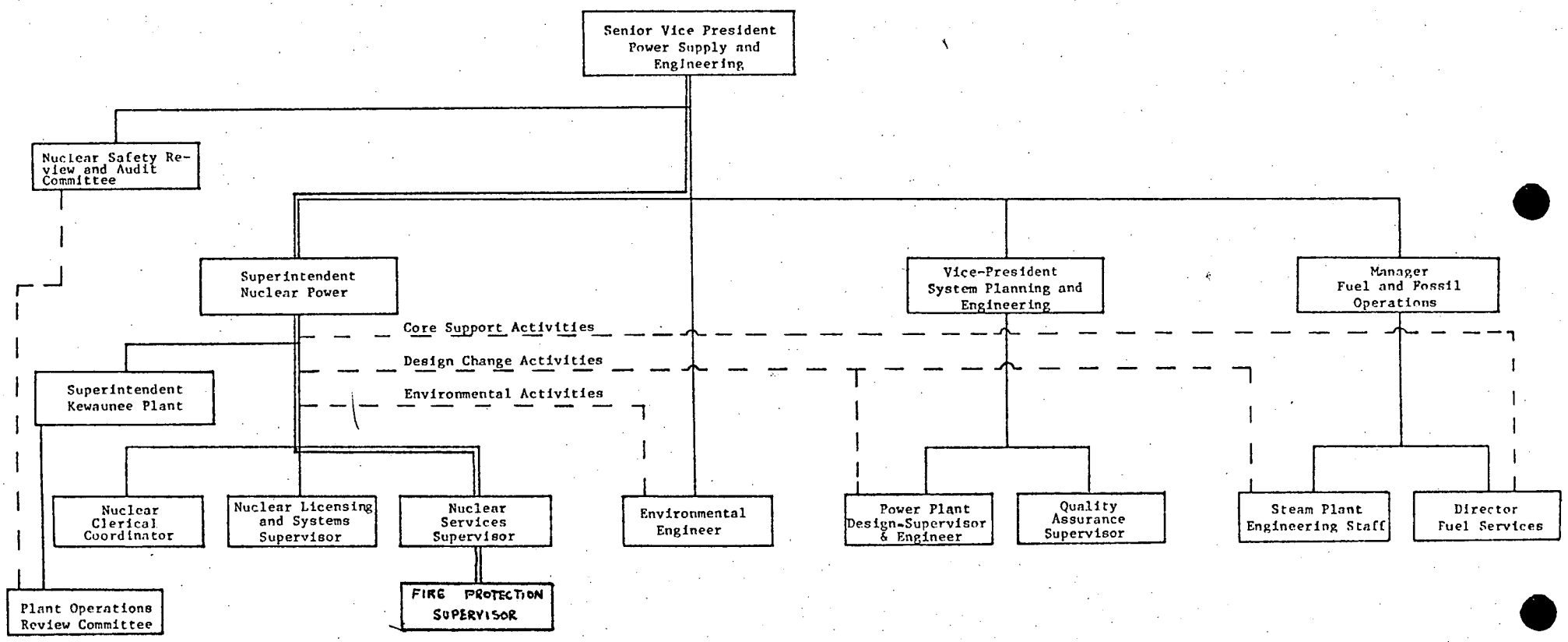
2.0 (Cont.)

c. The personnel responsible for the maintenance and testing of the Fire Protection Systems should be qualified by training and experience for such work.

RESPONSE: *The maintenance and testing of the Fire Protection Systems are performed by the same personnel who are qualified to work on reactor protection and safeguard equipment.*

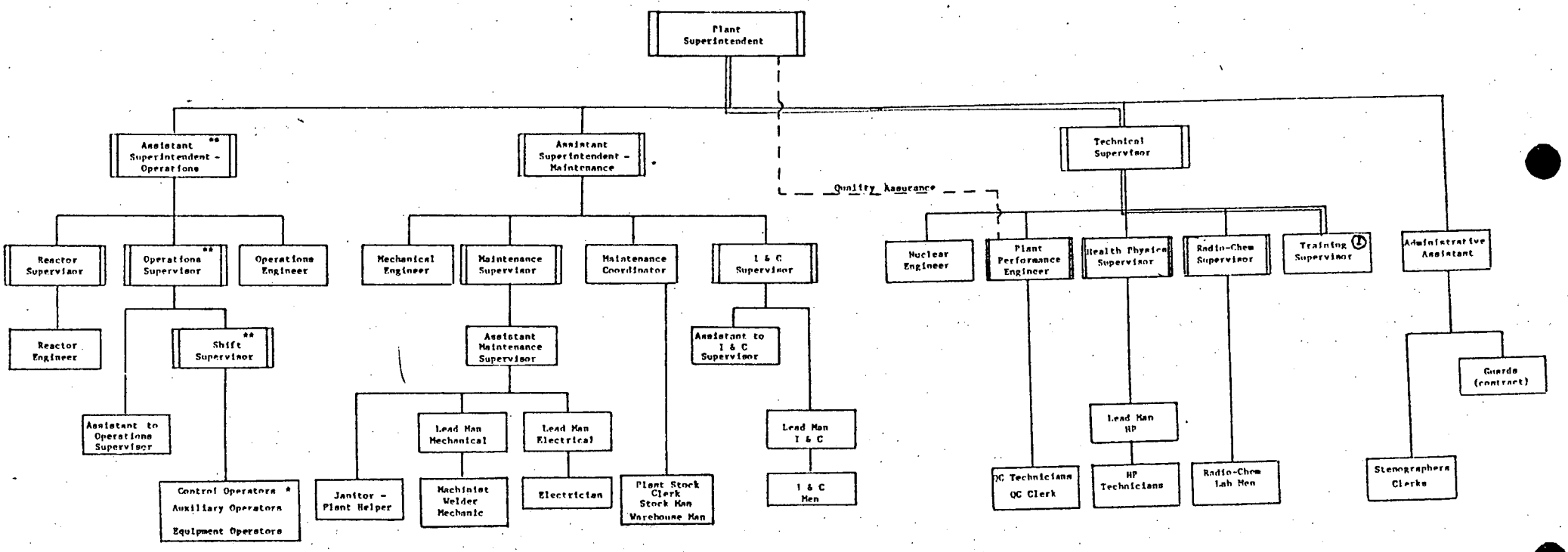
d. The personnel responsible for the training of the fire brigade should be qualified by training and experience for such work.

RESPONSE: *This is and always has been a policy of Wisconsin Public Service Corporation.*



FUNCTIONAL ORGANIZATION
POWER SUPPLY AND ENGINEERING DEPARTMENT
WISCONSIN PUBLIC SERVICE CORPORATION

FIGURE 1.1



KEWAUNEE NUCLEAR POWER PLANT
ORGANIZATION CHART UNIT NO. 1
WISCONSIN PUBLIC SERVICE CORPORATION

Operating Shift Complement (5)

1 Shift Supervisor
1 A Control Operator
1 B Control Operator
1 Auxiliary Operator
1 Equipment Operator

Key or Technical Personnel

*Reactor Operator License
**Senior Reactor Operator License

① Plant Fire Marshall

FIGURE 1.2

FIRE BRIGADE TRAINING

The training program should assure that the capability to fight potential fires is established and maintained. The program should consist of an initial classroom instruction program followed by periodic classroom retraining, practice in fire fighting and fire drills:

1.0 Classroom Instruction

a. The initial classroom instruction should include:

(1) Identification of the fire hazards and associated types of fires that could occur in the plant, and an identification of the location of such hazards.

(2) Identification of the location of fire fighting equipment for each fire area, and familiarization with layout of the plant including access and egress routes to each area.

(3) The proper use of available fire fighting 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 liquid, waste/debris fires, and record file fires.

(4) Indoctrination of the plant fire fighting plan with specific coverage of each individual's responsibilities.

(5) The proper use of communication, lighting, ventilation and emergency breathing equipment.

(6) The direction and coordination of the fire fighting activities (fire brigade leaders only).

(7) The toxic characteristics of expected products of combustion.

(8) The proper method for fighting fires inside buildings and tunnels.

(9) Detailed review of fire fighting procedures and procedure changes.

(10) Review of latest plant modifications and changes in fire fighting plans.

RESPONSE: *The Kewaunee Nuclear Power Plant training program includes these items.*

1.0 (Cont.)

b. The instruction should be provided by qualified individuals knowledgeable, experienced, and suitably trained in fighting the types of fires that could occur in the plant and in using the types of equipment available in the nuclear power plant.

Members of the "Fire Protection Staff" and Fire Brigade Leaders may conduct this training.

RESPONSE: *We concur with this position and our current training program includes these provisions.*

c. Instruction should be provided to all fire brigade members and fire brigade leaders.

RESPONSE: *We concur with this position and our current training program includes these provisions.*

d. Regular planned meetings held every 3 months should repeat the classroom instruction program over a two year period.

RESPONSE: *Our current training program complies with these provisions. However, due to shift work and other possible conflicts it should not be expected that all fire brigade members will make every planned meeting.*

2.0 Practice

Practice sessions should be held for fire brigade members on the proper method of fighting various types of fires of similar magnitude, complexity, and difficulty as those which could occur in a nuclear power plant. These sessions should provide brigade members with experience in actual fire extinguishment and the use of emergency breathing apparatus under strenuous conditions. These practice sessions should be provided at regular intervals but not to exceed 1 year for each fire brigade member.

RESPONSE: *Our current training program meets the intent of this section and will continue to do so. Annual practice sessions include training in the use of various types of fire extinguishment equipment and emergency breathing apparatus. Together with*

2.0 (Cont.)

RESPONSE: *video tapes and walk through discussions of different types of fires in different areas, experience is gained in the proper method of fighting the various types of fires similar in magnitude, complexity and difficulty as those which could occur in the Kewaunee Nuclear Power Plant.*

3.0 Drills

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

a. Assessment of fire alarm effectiveness, time required to notify and assemble fire brigade, and selection, placement and use of equipment.

RESPONSE: *The Kewaunee Nuclear Power Plant training program includes these items.*

b. Assess each brigade member's knowledge of his role in the fire fighting strategy for the area assumed to contain the fire. Assess the brigade members conformance with established plant fire fighting procedures and use of fire fighting equipment, including self-contained emergency breathing apparatus, communication equipment, and ventilation equipment, to the extent practicable.

RESPONSE: *The Kewaunee Nuclear Power Plant training program includes these items.*

c. The simulated use of fire fighting equipment required to cope with the situation and type of fire selected for the drill. The area and type of fire chosen for the drill should be varied such that brigade members are trained in fighting fires in all safety related areas containing significant fire hazards. The situation selected should simulate the size and arrangement of a fire which could reasonably occur in the area selected, allowing for fire development due to the time required to respond, to obtain equipment, and organize for the fire, assuming loss of automatic suppression capability.

d. Assessment of brigade leader's direction of the fire fighting effort, as to thoroughness, accuracy, and effectiveness.

3.0 (Cont.)

e. The drills should be performed at regular intervals but not to exceed 3 months for each fire brigade. At least one drill per year should be performed on a "back shift" for each fire brigade. A sufficient number of these drills, not less than one for each fire brigade per year, shall be unannounced, to determine the fire readiness of the plant fire brigade leader, brigade, fire protection systems and equipment.

f. The drills should be pre-planned to establish the training objectives of the drill. The drills should be critiqued to determine how well the training objectives have been met. Unannounced drills should have their critiques performed by members of the management staff responsible for plant safety and security. At three year intervals, drills should be critiqued by qualified individuals independent of the utility's staff.

RESPONSE: *The Kewaunee Nuclear Power Plant training program includes or will be updated to include these items, except that drills for each fire brigade will be held once every 3 months (± 25%), to allow flexibility for possible scheduling conflicts.*

4.0 Records

Records of training provided to each fire brigade member including drill critiques should be maintained to assure that each member receives training in all parts of the training program. These records of training should be available for review.

RESPONSE: *Records of Fire Protection training sessions, drills and practices will be kept.*

CONTROL OF COMBUSTIBLES

Administrative controls should be established to minimize the amount of combustibles that a safety related area may be exposed to. These controls should be established to govern:

a. the handling of and limitation on the use of combustibles, flammable and explosive hazards such as flammable gases and liquids, HEPA and charcoal filters, dry unused ion exchange resins or other combustible supplies in safety related areas, and to assure that these items are not stored in safety related areas.

RESPONSE: *Specific storage areas have been assigned to the items listed and regular plant tours by the Plant Superintendent, Department Heads, Group Supervisors, Shift Supervisor, Fire Marshall and the Operations Staff ensure that combustibles are stored in the proper locations. The handling and storage of combustibles is an item addressed in the company "Safety Rules Book", and all company employees have a responsibility to abide by these rules and report all hazards to his supervisor to make working conditions as safe as possible. All plant personnel are instructed regularly through safety meetings and are taught to recognize such hazards as described above.*

b. the transient fire loads during maintenance and modifications such as combustible and flammable liquids, wood and plastic products, spilled oil, oil drums, and other combustible materials in buildings containing safety related systems or equipment. This control should require an in-plant review of proposed work activities to identify potential transient fire loads. The onsite staff member designated the responsibility for reviewing work activities for potential transient fire loads should specify the required additional fire protection in the work activity procedure.

When the transient fire load causes the total fire load to exceed the capabilities of existing suppression systems and equipment, additional portable suppression equipment should be brought into the area.

RESPONSE: *All major modifications are reviewed by the corporate engineering staff. Fire hazards associated with the proposed modification are an item of this review. All work requests are reviewed by the group supervisors along with the lead men. Specific*

b. (Cont.)

RESPONSE: *review for additional fire protection will be carried on at this level. Also, these items are addressed in the company "Safety Rules Book" of which all company employees are made aware through regular safety meetings. Safety and fire protection is the responsibility of all company personnel.*

Work being performed by outside contractors is followed by company personnel who are responsible to see that our company safety rules and procedures are followed.

c. the removal of all waste, debris, scrap, rags, oil spills, or other combustibles resulting from the work activity, in the area following completion of the activity, or at the end of each work shift, whichever is sooner.

RESPONSE: *The company "Safety Rules Book" specifically addresses this item. Good housekeeping has always been a policy of Wisconsin Public Service Corporation and our current practice satisfies the intent of this position.*

d. periodic inspection for accumulation of combustibles.

RESPONSE: *The routine inspections addressed in item a. fulfill this requirement.*

e. all wood used in safety related areas to assure that it is treated with flame retardant.

RESPONSE: *We do not believe this is a necessary requirement across the board. Our current policy is to review each situation in which wood is used and evaluate the circumstances. Special treated wood is not considered necessary for temporary scaffolding or structures when the plant is shutdown for refueling or a major maintenance outage. It would be considered necessary for long term scaffolding or structures in safety related areas that may be left unattended during power operations. We are further attempting to convert*

e. (Cont.)

RESPONSE: our stockpile of wood to that treated with a flame retardant and may eventually reach a point where we will have only flame retardant wood onsite. However, at this time we feel it would be an unnecessary expenditure to completely replace our wood supply.

CONTROL OF IGNITION SOURCES

1.0 Administrative Controls

Administrative controls should be instituted to protect safety-related equipment from fire damage or loss resulting from work involving ignition sources, such as welding, cutting, grinding, or open flame work; administrative controls should prohibit the use of open flame or combustion smoke for leak testing and controls should prohibit smoking and other ignition sources in certain areas.

RESPONSE: *Current administrative controls are in effect which require certain procedures to be followed for welding, cutting or grinding. Work performed on safety-related equipment or in safety related areas is processed through the work request program, which is reviewed by the work related activity supervisor and lead man for potential problems including fire sources and hazards associated with open flame work, etc. The use of open flame or combustion smoke is prohibited except for situations which are procedurally controlled and have been specifically reviewed, e.g., condenser in-leakage testing. All company personnel are required to follow the company "Safety Rules" book which covers safety practices which must be followed for welding, cutting, grinding and open flame work.*

2.0 Control of Welding, Cutting, Grinding, and Open Flame Work

a. All cutting, welding, grinding ~~or~~ open-flame work should be authorized by the responsible foreman or supervisor through a work permit. The responsible foreman or supervisor should have received a basic industrial fire fighting and fire prevention course covering anticipated fires, such as electrical fires, fires in cables and cable trays, hydrogen fires, hydrocarbon fires, solvent fires, waste/debris fires, and record file fires.

2.0 (Cont.)

a.

RESPONSE: *Although no specific authorization for cutting, welding or grinding is currently required by existing procedures, the work related activity supervisor and the shift supervisor review and approve all work requests before work can begin. The work request program is covered and controlled by plant directives and procedures.*

All Kewaunee Plant personnel including the work related activity supervisor are responsible for following the company "Safety Rules" which cover the items of concern listed above. Monthly plant safety meetings are held to keep plant personnel up to date and familiar with the company "Safety Rules".

b. Before issuing the permit, the responsible foreman or supervisor should physically survey the area where the work is to be performed and establish that the following precautions have been accomplished:

(1) All moveable combustible material below and within a 35 foot radius of the cutting, welding, grinding, or open flame work has been removed. (See NFPA 51B).

(2) All immovable combustible material below and within a 35 foot radius has been thoroughly protected by asbestos curtains, metal guards, or flameproof covers, and fire extinguishers, hose, or other firefighting equipment are provided at the work site. (See NFPA 51B).

RESPONSE: *These are not currently required items in our administrative controls. If the plant is not in an outage situation, the type of work described above would be performed by or supervised by members of the plant maintenance staff who currently make up the existing fire brigades. They are well trained in fire protection and are under the requirements of the company "Safety Rules" to ensure job site safety.*

2.0 (Cont.)

b.

RESPONSE: (Cont.)

If the plant is in an outage and outside contract labor is performing the task, the modification package would have been reviewed prior to work initiation. Since the plant is in a shutdown situation loss of shutdown capability is precluded. Based on our review of administrative controls, no further requirements are deemed necessary.

(3) A fire watch trained and equipped to prevent and combat fires is present throughout any operations in which there is potential for fire that might damage safety-related equipment. A fire watch should be provided where cutting, welding, grinding or open flame is performed above or within a radius of 35 feet of any open cables, flammable liquids, scaffold boards, paper, rags, or other objects on the same elevation of the work or if combustible materials are below the work area where openings exist. A fire watch should be provided for all cutting, welding, grinding, and open flame work in the Control Room, Cable Spreading Room, Diesel Generator Rooms, and other safety-related areas that contain significant amount of cable or flammable liquids. (See NFPA 51B).

The fire watch should remain on the work site while work is performed and remain in the area for at least 30 minutes after the work is completed to check for smoldering fires.

RESPONSE: *As stated above, if the work is being performed while the plant is operating, it is performed or supervised by members of the fire brigade. These people would be most adept at providing a fire watch, therefore, assigning other personnel to do nothing but watch for fires would be non-productive and is considered unnecessary.*

2.0 (Cont.)

(3)

RESPONSE: (Cont.)

Work performed at shutdown precludes the loss of shutdown capability, and a firewatch would be non-productive if not impossible due to man power limitations and is, therefore, considered unnecessary.

(4) All equipment to be used is in a safe, working condition. Oxyacetylene equipment is checked for leaks before being moved to the work area.

RESPONSE: *This item is the responsibility of all company personnel and is directed by the company "Safety Rules".*

c. The signature concurrence of a member of the plant's management or a quality control inspector certified to make this concurrence should be obtained whenever the supervisor or foreman determines that a fire watch is not required.

RESPONSE: *This item is considered unnecessary and will not be implemented at the Kewaunee Nuclear Power Plant.*

3.0 Leak Testing

Administrative procedures should be established to prohibit the use of open flame or combustion smoke for leak testing. Work orders for leak testing should require the concurrence of the shift engineer to verify that the leak test method is acceptable and would not present a potential ignition source.

RESPONSE: *Leak testing is administratively controlled and procedures established for leak testing at the Kewaunee Plant. See also the response to item 1.0 of this section.*

4.0 Smoking and Ignition Source Restriction

Smoking should be prohibited in safety related areas, except where "smoking permitted" areas have been specifically designated by a responsible member of plant management and in areas containing flammable or potentially explosive materials or atmospheres that present a hazard to safety related equipment. These areas should be identified with "No Smoking" signs.

RESPONSE: *These controls have been established at the Kewaunee Plant.*

FIRE FIGHTING PROCEDURES

Fire fighting procedures should be established to cover such items as notification of a fire, fire emergency procedures, and coordination of fire fighting activities with offsite fire departments. The fire fighting procedures should identify:

a. Actions to be taken by individual discovering the fire, such as, notification of control room, attempt to extinguish fire, and actuation of local fire suppression systems.

RESPONSE: *The Kewaunee Nuclear Power Plant Emergency Plan and implementing Administrative Control Directives currently address these items.*

b. Actions to be taken by the control room operator and the need for brigade assistance upon report of a fire or receipt of alarm on control room annunciator panel, such as: announcing location of fire over PA system, sounding fire alarms and notifying the shift supervisor and the fire brigade leader of the type, size, and location of the fire.

RESPONSE: *The Kewaunee Nuclear Power Plant Emergency Plan and implementing Administrative Control Directives currently address these items.*

c. Actions to be taken by the fire brigade after notification by the control room operator of a fire, including: location to assemble; directions given by fire brigade leader; and responsibilities of brigade members such as selection of fire fighting equipment and transportation to fire location, selection of protective equipment, use of fire suppression systems operating instructions, and use of preplanned strategies for fighting fires in specific areas.

RESPONSE: *The Plant Administrative Control Directives and Operating Procedures cover these items.*

d. The strategies established for fighting fires in all safety-related areas and areas presenting a hazard to safety-related equipment. As a minimum the following subjects should be covered:

(1) Identification of combustibles in each plant zone covered by the specific fire fighting procedures.

RESPONSE: *We do not have nor do we intend to develop specific fire fighting procedures for each safety-related area. Our philosophy is to train fire brigade personnel in basic fire fighting principles, techniques for fighting various types of fires, and use of equipment available so that they will be best suited to use good judgement based on the conditions encountered.*

Identification of combustibles in each plant zone is found in the Kewaunee Fire Protection Analysis. Each fire brigade leader will be familiar with this analysis and all fire brigade members will attend drills which will cover these items.

(2) Fire extinguishants best suited for controlling the fires associated with the combustible loadings in that zone and the nearest location of these extinguishants.

RESPONSE: *This is covered in our training program and locations of extinguishers and fire fighting equipment is addressed in the Kewaunee Fire Protection Analysis.*

(3) Most favorable direction from which to attack a fire in each area, in view of the ventilation direction, access hallways, stairs and doors which are most likely to be fire-free, and the best station or elevation for fighting the fire. A specific identification system shall designate the hallways, stairs, doors, fire equipment and system control locations, and other items described in the fire fighting procedures. This identification should be used in the procedures and the

(3) (Cont.)

corresponding plant items should be prominently marked so that they can be recognized in dim light. All access and egress routes that involve locked doors should be specifically identified in the procedure with the appropriate precautions and methods for access specified.

RESPONSE: *These items are addressed in training and drills held with the fire brigades. Area identification is covered in the Kewaunee Fire Protection Analysis.*

(4) Designation of plant systems that should be managed to reduce the damage potential during a local fire; location of local and remote controls for such management (e.g., any hydraulic or electrical systems in the zone covered by the specific fire fighting procedure that could increase the hazards in the area because of overpressurization or electrical hazards).

(5) Designation of vital heat-sensitive system components that should be kept cool while fighting a local fire. Critical equipment which are particularly hazardous combustible sources should be designated to receive cooling.

(6) Organization of fire fighting brigades and the assignment of special duties according to job title so that all fire fighting functions are covered by any complete shift personnel complement. These duties should include command control of the brigade, fire hose laying, applying the extinguishant to the fire, advancing support supplies to the fire scene, communication with the control room, coordination with outside fire departments.

(7) Identification radiological and toxic hazards in fire zones.

(8) Ventilation system operation that assures desired plant pressure distribution when the ventilation flow is modified for fire containment or smoke clearing operations.

(9) Operations requiring control room and shift engineer coordination or authorization.

(10) Instructions for plant operators and general plant personnel during fire.

RESPONSE: *These items are addressed in the Kewaunee Nuclear Power Plant Emergency Plan, Administrative Control Directives, or in the training, drills and practice sessions held on routine intervals.*

e. The validity of the preplanning strategies should be tested by appropriate full-dress drills to check the logic of the strategy, the adequacy of the equipment, personnel understanding, and to uncover unforeseen problems.

RESPONSE: *The Kewaunee Nuclear Power Plant Fire Protection Program will be tested to verify the above concerns at the interval specified in Technical Specifications.*

f. Actions to be taken by Plant Superintendent and his staff, and Security Guards after notification of a fire.

RESPONSE: *These items are addressed in the Emergency Plan and Administrative Control Directives.*

g. Actions to be taken that will coordinate fire fighting activities with offsite fire departments, including: identification of individual responsible for assessing situation and calling in outside fire department assistance when needed; identification of individual who will direct fire fighting activities when aided by offsite fire fighting assistance; provisions for including offsite fire fighting organizations in fire brigade drills at least once per year; and provisions for training offsite fire department personnel in basic radiation principles, typical radiation hazards, and precautions to be taken in a fire involving radioactive materials in the plant. The procedures should also describe the offsite fire department's resources and estimated response time by the offsite fire department to provide assistance to the station.

g. (Cont.)

RESPONSE: These items are addressed in the Emergency Plan. We do not provide basic training in radiation principles to off-site fire department personnel. We will provide a fully trained and qualified escort if off-site fire department personnel are allowed within the plant premises to fight a fire. The Kewaunee Plant fire brigade and on-call fire brigade are designed to be fully self-sufficient within the plant proper, therefore, this training is unnecessary and considered impractical to provide for a large volunteer civilian fire department.

QUALITY ASSURANCE

The quality assurance (QA) program should assure that the requirements for design, procurement, installation, testing, and administrative controls for the fire protection program for safety related areas approved by NRC are satisfied. The Quality Assurance provisions for fire protection should apply to activities performed after the effective date of the adoption of said provisions. The QA program should be under the management control of the QA organization. This control consists of (1) formulating and/or verifying that the fire protection QA program incorporates suitable requirements and is acceptable to the management responsible for fire protection and (2) verifying the effectiveness of the QA program for fire protection through review, surveillance, and audits. Performance of other QA program functions for meeting the fire protection program requirements may be performed by personnel outside of the QA organization. The QA program for fire protection should be part of the overall plant QA program. These QA criteria apply to those items within the scope of the fire protection program, such as fire protection systems, emergency lighting, communication and emergency breathing apparatus as well as the fire protection requirements of applicable safety related equipment.

Applicants/licensees can meet the fire protection quality assurance (QA) program criteria of Appendix A to BTP 9.5-1 or Regulatory Guide 1.120 by either:

1) implementing those fire protection QA criteria as part of their QA program under 10 CFR Part 50 Appendix B, where such a commitment is made, it is not necessary to submit a detailed description of the fire protection QA program or its implementation for NRC review; or

2) providing for NRC review a description of the fire protection QA program and the measures for implementing the program. Supplemental guidance is provided below on acceptable measures for implementing each of the fire protection QA program criteria of Appendix A to BTP 9.5-1 or Regulatory Guide 1.120.

RESPONSE: *Wisconsin Public Service Corporation chooses to implement fire protection QA criteria under our existing corporate QA program, a description of which has been docketed with NRC.*