

NRC INSPECTION MANUAL

IRCB

INSPECTION PROCEDURE 42051

FIRE PREVENTION AND PROTECTION

PROGRAM APPLICABILITY: 2512

SALP FUNCTIONAL AREA: AUXILIARY SYSTEMS (SCAUX)

42051-01 OBJECTIVE

To observe fire prevention and protection activities to determine whether they meet the applicable specifications, codes and standards.

42051-02 INSPECTION REQUIREMENTS

02.01 Each quarter, observe fire prevention and protection activities in areas containing combustible materials in quantities where the ignition of these materials could damage safety related structures, systems or components-such that these items would not perform satisfactorily in service. Determine whether the requirements of applicable specifications, codes, standards, and fire prevention/protection procedures are being met as follows:

- a. In work areas containing safety related items, verify that combustible construction consumable materials are controlled in accordance with applicable requirements including:
 1. Protective coverings are non-flammable or are treated for fire retardancy.
 2. Wood scaffolding, form work, and shoring are flame retardant treated or non-flammable materials are used.
 3. Flammable packaging materials stored in proper containers and in properly designated areas.
 4. No unnecessary accumulations of combustible forms, form lumber, shoring or scaffolding.
5. Flammable Liquids.
 - (a) Stored in appropriate containers and metal sheds in a location away from flammables.
 - (b) Adequate ventilation when in use to prevent accumulation of fumes.
 - (c) Grounding straps to provide neutralization of static charge where applicable.

- b. In areas containing safety related items where construction processes are utilized involving potential sources of ignition of combustible materials, verify that these procedures are controlled in accordance with applicable requirements. These observations should include the following processes and considerations:
1. Cutting and Welding Processes. Cutting and welding operations in progress have been authorized by an appropriate permit, combustibles have been moved away or safety covered, and a fire watchman with extinguisher is posted for the duration of the work (and for 30 minutes thereafter) to see that sparks or drops of hot metal do not start fires. Additional fire watchmen should be provided during cutting and welding operations where sparks or molten metal may drop several floors to areas containing significant quantities of combustible materials.
 2. Temporary Heat Processes
 - (a) Heating devices are placed so as to avoid overturning and are otherwise installed in accordance with their listing, including clearance to combustible material, equipment, or construction.
 - (b) Temporary heating equipment (boiler), when utilized, are attended and maintained by competent (licensed in most states) personnel.
 3. Coating and Roofing Processes. Asphalt and tar kettles are located in a safe place or on a noncombustible roof at a point where they avoid ignition of combustible material below. Continuous supervision maintained while kettles are in operation, metal kettle covers and fire extinguishers available.
- c. Verify that smoking is prohibited at or in the vicinity of hazardous operations or materials.
- d. Verify that combustible waste material and rubbish is removed from the work areas as rapidly as practicable to avoid unnecessary accumulation of combustibles and that trash containers appropriate for contents (e.g. closed metal containers for oily rags) are provided.
- e. In areas containing fire protection/suppression equipment, verify that this equipment is provided and controlled in accordance with applicable requirements. This should include observations of the following:
1. Hydrants, water storage tanks, and indicator valves are adequately protected by barriers.
 2. Yard indicator valves are maintained in OPEN position.
 3. Fire extinguishers are located at designated places at each elevation.
 4. Fire suppression equipment is commensurate with construction status i.e., stand pipes and extinguishers placed at each new elevation, special protection such as sprinkler or C°2 provided in specialized storage areas.
 5. Access to suppression devices is not restricted by construction materials or equipment.
 6. Protection of suppression equipment from freezing (if applicable).

7. Suppression devices have indication of current inspection.
8. General condition of devices: pressure gauges read in "Green" or acceptable range, water extinguishers filled, nozzles free as indicated by visual inspection.

02.02. Annually, observe fire drill and training activities. Verify that a qualified observer is provided during drill to define problem areas, corrective actions are promptly taken on problems, and that training is conducted by a qualified individual.

42051.03 INSPECTION GUIDANCE

General Guidance

Applicable portions of the SAR should be reviewed during inspection preparation to determine licensee commitments in this area.

Where the phrase "applicable requirements" is used in Section II of this procedure, it means those specifications, codes, standards and licensee procedures that meet NRC requirements and SAR commitments, and that the procedures and specifications have been reviewed and approved by responsible personnel.

The Resident Inspector can accomplish most of the requirements of this procedure supplement in conjunction with performance of plant tours and/or accomplishments of other inspection procedures. For example, on any given plant tour, there is a high probability that fire suppression devices such as extinguishers, stand pipes and hoses can be observed. The inspector can, in a matter of minutes, observe such items as currency of inspection, general accessibility and general condition of the devices. Likewise, when observing welding/cutting operations the inspector can, as part of the observation, verify location of extinguishers, protective measures taken such as use of asbestos blankets. and removal of flammables.

Specific Guidance

No specific guidance is provided.

42051-04 REFERENCES

SAR, Chapters 3, 9 and 17.

Regulatory Guide 1.39, Housekeeping Requirements for Water-Cooled Nuclear Power Plants.

Regulatory Guide 1.120, Fire Protection Guidelines for Nuclear Power Plants.

Regulatory Guide 1.39, Housekeeping Requirements for Water-Cooled Nuclear Power Plants.

(ANSI N45.2.3, Housekeeping During the Construction Phase of Nuclear Power Plants).

NFPA Standard No. 241-1975, Standard for Safeguarding Building Construction and Demolition Operations.

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