Activity: **Fire Prevention**

1.0 Purpose:: This guideline provides a method to evaluate site fire prevention activities.

2.0 Scope: This guideline has been developed to address fire prevention activities in the following areas:

- Area Inspection
- Transient Fire Loads
- Control of Ignition Sources
- Halon Fire Protection Systems
- Smoking Restrictions
- Fire Watch Control
- Pre-fire Plans
- Proposed Work Activities

3.0 Specific Fire Protection Plan (FSAR)

3.1 Site Specific Technical Specifications

3.2 10CFR50, Appendix R, "Fire Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1979"

3.3 NRC Inspection and Enforcement Manual, Chapter 64704, "Fire Protection/Prevention Program"

4.0 Guidelines

4.1 In preparation for and during the conduct of this surveillance:

- Obtain and review implementing procedures, instructions and drawings governing this activity.

- Prepare a guide or checklist using the selected items from this guideline.
- Review past surveys, audits, surveillances and other evaluations/ assessments.
- Ensure that checklists include, where applicable, actual observations of performance, general plant conditions, radiological work practices, housekeeping, work document controls and use, and safety practices.

NOTE: Refer to Guideline A.1, "General Quality Surveillance Guidance," for specific details on the attributes listed above.

4.2 Obtain and review the procedures which implement the Fire Prevention Program.

4.3 Identify the relevant requirements to be examined using controlled plant procedures to evaluate program implementation. As a minimum, the requirements should take into account:

A. Area Inspections

1) Verify that periodic inspections are conducted to determine adherence to fire loading requirements. Determine if the inspections are adequate.

B. Transient Fire Loading

NOTE: A transient fire load is any combustible material that is not permanently installed which is to be placed in a safety-related (critical) area.

1) Observe trash receptacles are provided for trash disposal. Are they emptied regularly?
2) Observe rags are removed from critical areas at the completion of work and taken to a suitable location for disposal.
3) Observe rags which are required to be left in critical areas are stored in approved metal containers.
4) Observe safety cans are used to store and dispense flammable and combustible liquids inside buildings or structures.
5) Observe that adequate ventilation is provided when using flammable and combustible liquids.
6) Observe that flammable and combustible liquids inside of the structures

are limited in quantity to the minimum amounts necessary to meet requirements of one shift's operations.

7) Observe that lumber used for scaffolding, shoring, etc., is treated with an approved fire retardant.

8) Observe that anti-C clothing is controlled for fire loading purposes as required by the site-specific fire protection plan.

C. Control of Ignition Sources

1) Verify that all spark- or heat-producing work performed outside designated shop areas is authorized through issuance of an ignition source permit (torch cutting, welding, open flame, grinding, and spark production).

2) Verify that the ignition source permit has been completed correctly and approved by the appropriate levels of supervision.

3) Verify that the ignition source permit is displayed at the work station.

4) Observe during spark-producing activities that all combustible material has been removed from the area. If the material cannot be removed, ensure that it has been covered with flameproof covers.

5) Verify that adequate precautions have been taken to ensure that sparks and debris that would result from spark-producing activities are contained by covering openings, equipment, or grating as necessary.

6) Verify that additional portable fire fighting equipment has been made available at the job site.

7) Verify that a fire watch, if applicable has been posted throughout any operations in which there is high potential for fire and vulnerability of property and equipment.

8) Observe the work being performed is confined to the area of the ignition source permit.

9) Verify that the ignition source permit is valid only for one job at one

location.

10) Verify that special approvals and hazard controls have been established when welding, or grinding on any pressurized system or any tank, vessel or piping that has contained chemicals, solvents, gases, etc.

D. Smoking Restrictions

1) Observe that "no smoking" areas have been designated and placarded, these areas should include but are not limited to:

a. All radiologically regulated areas.

b. Battery rooms.

c. Cable spreading rooms.

d. Lubricating oil storage tanks and rooms.

e. Spray paint rooms.

f. Flammable or combustible liquid storage vaults.

g. Cable tunnels.

h. Record storage vaults.

i. Insulating oil tanks.

j. Fuel oil tanks.

k. Compressed gas storage areas.

l. Oil purification rooms.

m. Oil filled transformer rooms.

n. Main storeroom (smoking in designated areas only).

o. Safety-related areas.

E. Fire Watch Control

1. Are fire watches knowledgeable in fire reporting requirements?
2. Observe that fire watches are trained in the use of portable fire fighting equipment.
3. Observe that routine inspections of fire watches are performed to ensure that none are sleeping.

4. Verify that when a sleeping fire watch is discovered that NRC/ANI reportability is determined.

F. Prefire Plans

1. Verify that specific pre-fire plans are developed for safety-related and balance- of-plant areas.
2. Observe that specific pre-fire plans address, as a minimum, the following items:
    a. Postulated fire emergency.
    b. Location of postulated fire.
    c. Method of access.
    d. Fire protection available.
    e. Manpower required.
    f. Communications facilities available.
    g. Fire brigade action and strategies.
    h. Actions for plant operators and general plant personnel.
    i. Potential hazards associated with the area.
    j. Vital systems, structures, and components to be considered.

5.0 Other Guidelines for Consideration:

5.1 A.1, "General Quality Surveillance Guidance"