

CONTAINMENT SYSTEMS

CONTAINMENT HYDROGEN DILUTION SYSTEM

LIMITING CONDITION FOR OPERATION

3.6.4.3 Two independent containment hydrogen dilution systems shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

- a. With one containment hydrogen dilution system inoperable, restore the inoperable system to OPERABLE status within 30 days or be in at least HOT STANDBY within the next 6 hours.
- b. With both containment hydrogen dilution systems inoperable, restore at least one dilution system to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.6.4.3 Each containment hydrogen dilution system shall be demonstrated OPERABLE at least once per 92 days on a STAGGERED TEST BASIS by: .

- a. Verifying that the system can be started on operator action in the control room, and
- b. Verifying that the system operates for at least 15 minutes and the blower develops a discharge pressure of 15 psig.

CONTAINMENT SYSTEMS

BASES

3/4.6.4 COMBUSTIBLE GAS CONTROL

The OPERABILITY of the Hydrogen Analyzers, Containment Hydrogen Dilution System, and Hydrogen Purge System ensures that this equipment will be available to maintain the maximum hydrogen concentration within the containment vessel at or below three volume percent following a LOCA.

The two redundant Hydrogen Analyzers determine the content of hydrogen within the containment vessel. The Hydrogen Analyzers, although they have their OPERABILITY requirements in this Specification, are considered part of the post-accident monitoring instrumentation of Specification 3/4.3.3.6, Post-Accident Monitoring Instrumentation.

The Containment Hydrogen Dilution (CHD) System consists of two full capacity, redundant, rotary, positive displacement type blowers to supply air to the containment. The CHD System controls the hydrogen concentration by the addition of air to the containment vessel, resulting in a pressurization of the containment and suppression of the hydrogen volume fraction.

in conjunction with
The Containment Hydrogen Purge System Filter Unit functions ~~as a backup to the CHD System~~ and is designed to release air from the containment atmosphere through a HEPA filter and charcoal filter prior to discharge to the station vent.

3/4.6.5 SHIELD BUILDING

3/4.6.5.1 EMERGENCY VENTILATION SYSTEM

The OPERABILITY of the emergency ventilation systems ensures that containment vessel leakage occurring during LOCA conditions into the annulus will be filtered through the HEPA filters and charcoal adsorber trains prior to discharge to the atmosphere. This requirement is necessary to meet the assumptions used in the safety analyses and limit the site boundary radiation doses to within the limits of 10 CFR 100 during LOCA conditions.

As a backup to the CHD System and the Containment Hydrogen Purge System, the capability to install an external hydrogen recombinator system has been provided.