

TABLE 4.15.2

RADIOACTIVE LIQUID EFFLUENT MONITORING
INSTRUMENTATION SURVEILLANCE REQUIREMENTS

| INSTRUMENT | CHANNEL CHECK | SOURCE CHECK | CHANNEL CALIBRATION | CHANNEL FUNCTIONAL TEST | SURVEILLANCE REQUIRED ^a |
|---|------------------|-----------------|------------------------|-------------------------------|---------------------------------------|
| 1. Main Condenser Offgas Treatment System Hydrogen Monitor | D | N/A | Q ^g | M | c |
| 2. Main Stack Monitoring System | | | | | |
| a. Radioactive Noble Gas Monitor (Low Range) | D | M | 1/24 ^f | Q ^h | b |
| b. Iodine Sampler | W | N/A | N/A | N/A | b |
| c. Particulate Sampler | W | N/A | N/A | N/A | b |
| d. Effluent Flow Measuring Device | D | N/A | 1/24 | Q | b |
| e. Sample Flow Measuring Device | D | N/A | R | Q | b |
| 3. Turbine Building Ventilation Monitoring System | | | | | |
| a. Radioactive Noble Gas Monitor (Low Range) | D | M | 1/24 ^f | Q ⁱ | b |
| b. Iodine Sampler | W | N/A | N/A | N/A | b |
| c. Particulate Sampler | W | N/A | N/A | N/A | b |
| d. Effluent Flow Measuring Device | D | N/A | 1/24 | Q | b |
| e. Sample Flow Measuring Device | D | N/A | R | Q | b |
| 4. Offgas Building Exhaust Ventilation Monitoring System | | | | | |
| a. Radioactive Noble Gas Monitor | D | M | R ^f | Q ^e | b |
| b. Iodine Sampler Cartridge | W | N/A | N/A | N/A | b |
| c. Particulate Sampler | W | N/A | N/A | N/A | b |
| d. Sample Flow Measuring Device | D | N/A | R | N/A | b |

Legend: S = once per 12 hrs; D = once per 24 hrs; W = once per 7 days;
M = once per 31 days; Q = once per 92 days; SA = once per 184 days;
R = once per 18 mos; S/U = before each reactor startup;
P = completed before each release; N/A = Not Applicable.
1/24 = once per 24 months

TABLE 4.15.2 NOTATIONS

- a. Instrumentation shall be OPERABLE and in service except that a channel may be taken out of service for the purpose of a check, calibration, test or maintenance without declaring it to be inoperable.
- b. During releases via this pathway.
- c. During main condenser offgas treatment system operation.
- d. During operation of the condenser air ejector.
- e. The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists:
 - 1. Instrument indicates measured levels above the alarm setpoint.
 - 2. Instrument indicates a downscale failure.
 - 3. Instrument controls not set in operate mode.
 - 4. Instrument electrical power loss.
- f. The CHANNEL CALIBRATION shall be performed according to established station calibration procedures.
- g. A CHANNEL CALIBRATION shall include the use of at least two standard gas samples, each containing a known volume percent hydrogen in the range of the instrument, balance nitrogen.
- h. The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists:
 - 1. Instrument indicates measured levels above the alarm setpoint.
 - 2. Instrument indicates a low countrate/monitor failure.
 - 3. Switch Cover alarm shall be verified to alarm when the cover is opened; and clear when the cover is closed after the faceplate switches are verified in their correct positions.
- i. The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists:
 - 1. Instrument indicates measured levels above the alarm setpoint.
 - 2. Instrument indicates a low countrate/monitor failure.