

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

1. With a half-life greater than 30 days (excluding Hydrogen 3), and
 2. In any form other than gas.
- b. Stored sources not in use - Each sealed source and fission detector shall be tested prior to use or transfer to another licensee unless tested within the previous six months. Sealed sources and fission detectors transferred without a certificate indicating the last test date shall be tested prior to being placed into use.
 - c. Startup sources and fission detectors - Each sealed startup source and fission detector shall be tested within 31 days prior to being subjected to core flux or installed in the core and following repair or maintenance to the source or detector.
 - d. Source installed in the Boronometer - This sealed source shall be tested for leakage at least once per 18 months.
- 4.7.9.13 REPORTS - A report shall be prepared and submitted to the Commission on an annual basis if sealed source or fission detector leakage tests reveal the presence of ≥ 0.005 microcuries of removable contamination.

Basis for Change

This change is a revision to a previously approved Technical Specification change. When the previous change which exempted sources installed in plant systems was reviewed by the NRC they had two comments. First, the NRC requested that a maximum time interval between leak testing of sealed sources be provided. Also, they requested that the specific sources being exempted be listed.

Effect on Plant Operation

The listed seal sources shall be leak tested once per 18 months instead of the six month intervals now listed.

NO SIGNIFICANT HAZARDS CONSIDERATION

This proposed amendment to the ANO Technical Specifications does not match any of the examples referenced in the DLOP 228 and Federal Register Notice, page 14870, dated April 6, 1983. Therefore, our evaluation for significant hazards consideration is based solely on 10CFR50.92(c). The following considerations were evaluated:

- a) Increase the probability of a previously evaluated accident - The exemption of sealed radioactive sources installed in radioactive systems from periodic leak testing should in no way enhance the likelihood of an accident due to system failure. The affected systems (area radiation monitors and the boronometers of both units) operation would not be compromised if the sealed sources leaked nor would source leakage result in uncontained spread of contamination since the sources are sealed within these components.
- b) Possibility of a new or different accident not previously evaluated - Exempting sealed sources located in the boronometer and the ARM systems of both units will result in less frequent opening of these systems and handling of the sources than under current surveillance requirements. Leakage of sealed sources in these systems would not cause the failure of the specific detection system itself nor would leakage damage these systems. In the boronometer systems, source leakage would not adversely effect the system operation as the sealed neutron source would still emit neutrons necessary for boronometer function. In the ARM systems, source leakage would not result in monitor failure, but only possible contamination of the interior of the instrument interior without loss of function. The proposed change involves no creation of a new or different accident not previously considered.
- c) Reduction in the margin of safety - In the unlikely event of sealed source leakage, none of the systems considered are likely to fail such that these would compromise plant safety. The neutron sources of the boronometers are double sealed in stainless steel and tantalum casings. Any leakage would have no escape route and would not effect the neutron flux from this source necessary for system function. The Cs-137 sources of the ARM systems are of low activity and are used for detector response checking; these do not affect ARM function.

Personnel safety is of consideration in leak testing the sealed sources in radioactive systems due to increased personnel exposure. The current quarterly surveillance requires personnel entry into radiation areas where radiation hazards may be present. In addition, leak testing the neutron sources of the boronometers involve personnel neutron exposure and accessing a primary system. Exemption of sealed sources installed in radioactive systems from periodic leak test requirements would serve ALARA considerations at ANO.