PROPOSED TECHNICAL SPECIFICATION CHANGE

Proposed Change

Reference is made to Pilgrim Station Operating License No. DPR-35, pages 158, 158A, 158B, 158C, 172, 174 and 174A. These pages contain surveillances and limiting conditions concerning the Standby Gas Treatment System (SBGTS) and the Control Room High Efficiency Air Filtration System (CRHEAFS).

The specific sections to be changed are:

SBGTS (158, 158A)	CRHEAF (158B, 158C)
3.7.B.1.a	3.7.B.2.a
3.7.B.1.b.(2)	3.7.B.2.b.(2)
3.7.B.1.c	3.7.B.2.c
3.7.B.1.e	4.7.B.2.c
4.7.B.1.a.(3.)	Bases (page 174)
Bases (page 172)	Bases (page 174A)

Currently, Sections 3.7.B.1.a and 3.7.B.1.c are superscripted with an asterisk which refers to a footnote which states, "Conditional Relief granted from this LCO for the period February 5, 1982 to startup for Cycle 6."

The desired revision deletes both asterisks and the footnote they reference on Page 158A.

Reference is made to Section 3.7.B.1.b.(2), which deals with the laboratory carbon sample analysis. No time frame is currently provided for ascertaining that the test results demonstrate the charcoal filter's ability to retain methyl iodine consistent with this section.

A revision is proposed which shall add the following to 3.7.B.1.b.(2):

The analysis results are to be verified as acceptable within 31 days after sample removal, or declare the train inoperable and take the actions specified in 3.7.B.1.c.

The Bases on Page 172 are changed to reflect this by the addition of the following:

The 31 day requirement for the ascertaining of test results ensures that the ability of the charcoal to perform its designed function is demonstrated and known in a timely manner.

Reference is made to Section 4.7.B.1.a.(3) which provides surveillance requirements concerning the Standby Gas Treatment System.

Currently this Section references Section 3.7.B.1.b.(2). The proposed change will delete (2), thereby referencing 3.7.B.1.b, both subsections (1) and (2). This change is to incorporate the appropriate subsection, (1), to address the DOP testing of HEPA filters and the halogenated hydrocarbon testing of the charcoal adsorber banks. As now written, Section 4.7.B.1.a.(3) only references the subsection which deals with the methyl iodine retention ability of the charcoal adsorber material.

Currently, Section 3.7.B.1.c states:

> From and after the date that one train of the Standby Gas Treatment System is made or found to be inoperable for any reason, continued reactor operation or fuel handling is permissible only during the succeeding seven days providing that within 2 hours and daily thereafter, all active components of the other standby gas treatment train shall be demonstrated to be operable.

The desired revision shall state:

> From and after the date that one train of the Standby Gas Treatment System is found to be inoperable for any reason, continued reactor operation, irradiated fuel handling, or new fuel handling over the spent fuel pool or core is permissible only during the succeeding seven days providing that within two hours, and daily thereafter, all active components of the other standby gas treatment train shall be demonstrated to be operable.

Section 3.7.B.1.e now states:

> Except as specified in 3.7.B.1.c, both trains of the standby gas treatment system shall be operable during fuel handling operations. If the system is not operable fuel movement shall not be started (any fuel assembly movement in progress may be completed).

The desired revision shall state:

> Except as specified in 3.7.B.1.c, both trains of the Standby Gas Treatment System shall be operable during irradiated fuel handling, or new fuel handling over the spent fuel pool or core. If the system is not operable, fuel movement may not be started. Any fuel assembly movement in progress may be completed.

These revisions precede the word "fuel" with "irradiated" to clarify the intention of the limiting condition, and to bring PNPS Technical Specifications into closer correspondence with Standard Technical Specifications for BWR's. (STS 3.6.5.3.a.2).

Additionally, this change allows the movement of new fuel in areas where damage to irradiated fuel cannot take place.

Reference is made to Sections 3.7.B.2.a and 3.7.B.2.c. The purpose of these sections is to describe the limiting conditions concerning the inoperability of one of the two trains of the Control Room High Efficiency Air Filtration System.

Currently, Sections 3.7.B.2.a and 3.7.B.2.c are superscripted with an asterisk which refers to a footnote which provides the same conditional relief described earlier regarding the SBGTS.

The proposed revision deletes both asterisks and the footnote they reference on Page 158B.

There is currently no time frame provided for ascertaining that the test results concerning the charcoal adsorbers associated with the Control Room High Efficiency Air Filtration System are in accordance with Section 3.7.B.2.b.(2.).

The following shall be added to Section 3.7.B.2.b.(2):

> The analysis results are to be verified as acceptable within 31 days after sample removal, or declare that train inoperable and take the actions described in 3.7.B.2.(c).

The Bases on Page 174 are changed to reflect this additional constraint.

Currently 4.7.B.2.c states:

> At least once every 18 months the following shall be demonstrated:
>
> 1) Operability of heaters at rated power.

The proposed change will state:

> At least once every 18 months demonstrate the operability of the heaters at rated power.

This change is pro forma to simplify 4.7.B.2.c, and make its format consistent with other Technical Specifications. The meaning is unchanged.

Currently, 4.7.B.3 does not contain a surveillance period for testing the humidistat which controls the heaters. This amendment provides such a surveillance period by adding "... once per 18 months" to the existing statement.

The Bases on Page 174 and 174A currently state:

> If both trains of the system are found to be inoperable, there is no immediate threat to the control room and reactor operation or fuel handling may continue for a limited period of time while repairs are being made. If at least one train of the system cannot be repaired within seven days, the reactor will be brought to a condition where the Control Room High Efficiency Air Filtration System is not required.

This will be deleted, and the following will be added:

> In the event that one CRHEAFS is inoperable, the redundant system will be tested daily. This substantiates the availability of the operable system and justifies continued reactor or refuel operations.
>
> If both trains of CRHEAF are inoperable, the plant is brought to a condition where CRHEAF is not required.

Reason for Change

The time period for which the existing footnotes in 3.7.B.1.a and 3.7.B.1.c were applicable has expired, and deletion of the footnote and its associated asterisks is proposed to reduce confusion.

A review of STS (3.6.5.3.a.2), and the appropriate PNPS T.S. bases (p. 173) indicates that "irradiated fuel handling" was intended where "fuel handling" now appears. This change serves to make this point clearer and reduces the possibility of misinterpretation. It also serves to clarify that new fuel may be moved providing such movement does not present the possibility of damaging irradiated fuel.

The designation of a 31 day time limit for test results is proposed to ensure that the surveillance is completed in a timely fashion. Further, it addresses Generic Letter 83-13, dated March 2, 1983, wherein the NRC requested such a time limit to reflect STS 4.6.5.3.b.2.

Changes are proposed to Sections 3.7.B.2.a and 3.7.B.2.c to remove the super-scripted asterisk and the footnote they reference on Page 158B because the footnote no longe applies.

The deletion of the (2) from the reference in 4.7.B.1.a.(3) is to broaden the requirements as described in 3.7.B.1.b.

The change to 4.7.B.2.c is made to make its format clearer and consistent with other Technical Specifications.

Changes to the Bases concerning CRHEAF are proposed to reflect the 31 day time limit for ascertaining test results, and to make the Bases reflect the LCO regarding the number of inoperable trains of CRHEAF that are permitted.

Safety Considerations

The proposed changes to 3.7.B.1.c and 3.7.B.1.e do not compromise safety because the purpose of the Stand by Gas Treatment System is to mitigate the consequences of fission product releases. New fuel cannot cause fission product releases unless it is dropped onto irradiated fuel and consequently damages it. Since this Technical Specification will not allow movement of new fuel in areas where such evolutions are possible, there is no reason to restrain the movement of new fuel because of SBGTS inoperability.

The proposed time limits aid in the assurance that SBGTS and CRHEAF filters can retain methyl iodine, and does not compromise safety.

The proposed change has been reviewed and approved by the Operations Review Committee and the Nuclear Safety Review and Audit Committee.

Significant Hazards Considerations

The Commission has provided guidance for the application of the standards for determining whether a significant hazards consideration exists by providing examples of amendments not likely to involve significant hazards considerations (48CFR14870). One such amendment involves a change that constitutes an additional limitation, restriction, or control not presently included in the technical specifications: for example, a more stringent surveillance requirement. This proposed change places an additional restriction in that it places a time limit on the verification of the carbon sample associated with Standby Gas Treatment System and the Control Room High Efficiency Air Filtration System. It further adds a restriction by changing the reference in 4.7.B.1.a.(3.), thereby expanding the requirements to be met during surveillance. This change is also consistent with STS and the instructions provided by NRC in Generic Letter 83-13. In changing the Bases on pages 174 and 174A, no significant hazards consideration exists because by removing the incorrect implication that two trains of the CRHEAF can simultaneously be out-of-service the Bases become more restrictive.

In the case of removing the footnotes, no significant hazards consideration exists because, as described in paragraph (i) of 48 CFR 14870, this is an administrative change made to remove a conditional relief which has expired. Since it has expired this note has no impact on technical specifications and is a pro forma action to unclutter pages 158 and 158B. The change to 4.7.B.2.c is also pro forma, and merely rewords the same surveillance in a better format.

The changes to Sections 3.7.B.1.c and 3.7.B.1.e concerning the operability requirements of SBGTS involve no significant hazards consideration as exampled by section (vi) of 48 FR 14870 in that the change either may result in some increase to the probability or consequences of a previously-analyzed accident or may reduce in some way a safety margin, but the results of the change are clearly within all acceptable criteria. Further, this change is consistent with STS, which have previously been reviewed and approved by the NRC.

For the reasons discussed above, the changes proposed herein do not require the application of a significant hazard consideration because the operation of Pilgrim Nuclear Power Station in accordance with these proposed changes would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

Schedule of Change

This change will be put into effect 30 days following BECo's receipt of approval by the Commission.

Fee Determination

Pursuant to 10CFR170.12(c), an application fee of $150.00 is included with this proposed amendment.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.7.B Standby Gas Treatment System and Control Room High Efficiency Air Filtration System	4.7.B Standby Gas Treatment System and Control Room High Efficiency Air Filtration System
1. Standby Gas Treatment System	1. Standby Gas Treatment System
a. Except as specified in 3.7.B.1.c below, both trains of the standby gas treatment system and the diesel generators required for operation of such trains shall be operable at all times when secondary containment integrity is required or the reactor shall be shutdown in 36 hours.	a. (1.) At least once every 18 months, it shall be demonstrated that pressure drop across the combined high efficiency filters and charcoal adsorber banks is less than 8 inches of water at 4000 cfm.
b. (1.) The results of the in-place cold DOP tests on HEPA filters shall show ≥99% DOP removal. The results of halogenated hydrocarbon tests on charcoal adsorber banks shall show ≥99% halogenated hydrocarbon removal.	(2.) At least once every 18 months, demonstrate that the inlet heaters on each train are operable and are capable of an output of at least 14 kW. Perform an instrument functional test on the humidistats controlling the heaters.
(2.) The results of the laboratory carbon sample analysis shall show ≥95% methyl iodide removal at a velocity within 10% of system design, 0.5 to 1.5 mg/m³ inlet methyl iodide concentration, ≥70% R.H. and ≥190°F. The analysis results are to be verified as acceptable within 31 days after sample removal, or declare that train inoperable and take the actions specified in 3.7.B.1.c.	(3.) The tests and analysis of Specification 3.7.B.1.b. shall be performed at least once every 18 months or following painting, fire or chemical release in any ventilation zone communicating with the system while the system is operating that could contaminate the HEPA filters or the charcoal adsorbers.
c. From and after the date that one train of the Standby Gas Treatment System is found to be inoperable for any reason, continued reactor operation, irradiated fuel handling, or new fuel handling over the spent fuel pool or core is	(4.) At least once every 18 months, automatic initiation of each branch of the standby gas treatment system shall be demonstrated, with Specification 3.7.B.1.d satisfied.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.7.B (Continued)	4.7.B (Continued)
permissible only during the succeeding seven days providing that within two hours, and daily thereafter, all active components of the other Standby Gas Treatment train shall be demonstrated to be operable.	
d. Fans shall operate within ±10% of 4000 cfm.	(5.) Each train of the standby gas treatment system shall be operated for at least 15 minutes per month.
e. Except as specified in 3.7.B.1.c, both trains of the Standby Gas Treatment System shall be operable during irradiated fuel handling, or new fuel handling over the spent fuel pool or core. If the system is not operable, fuel movement may not be started. Any fuel assembly movement in progress may be completed.	(6.) The tests and analysis of Specification 3.7.B.1.b.(2) shall be performed after every 720 hours of system operation.
	b. (1.) Inplace cold DOP testing shall be performed on the HEPA filters after each completed or partial replacement of the HEPA filter bank and after any structural maintenance on the HEPA filter system housing which could affect the HEPA filter bank bypass leakage.
	(2.) Halogenated hydrocarbon testing shall be performed on the charcoal adsorber bank after each partial or complete replacement of the charcoal adsorber bank or after any structural maintenance on the charcoal adsorber housing which could affect the charcoal adsorber bank bypass leakage.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.7.B (Continued)	4.7.B (Continued)
2. Control Room High Efficiency Air Filtration System	2. Control Room High Efficiency Air Filtration System
a. Except as specified in Specification 3.7.B.2.c below, both trains of the Control Room High Efficiency Air Filtration System used for the processing of inlet air to the control room under accident conditions and the diesel generator(s) required for the operation of each train of the system shall be operable whenever secondary containment integrity is required and during fuel handling operation.	a. At least once very 18 months the pressure drop across each combined filter train shall be demonstrated to be less than 3 inches of water at 1000 cfm.
b. (1.) The results of the in-place cold DOP tests on HEPA filters shall show $\geq$ 99% DOP removal. The results of the halogenated hydrocarbon tests on charcoal adsorber banks shall show $\geq$ 99% halogenated hydrocarbon removal when test results are extrapolated to the initiation of the test.	b. (1.) The tests and analysis of Specification 3.7.B.2.b shall be performed once every 18 months or following painting, fire or chemical release in any ventilation zone communicating with the system while the system is operating
(2.) The results of the laboratory carbon sample analysis shall show $\geq$ 95% methyl iodine removal at a velocity within 10% of system design, 0.05 to 0.15 mg/m3 inlet methyl iodine removal at a $\geq$ 70% R.H., and $\geq$ 125°F. The analysis results are to be verified as acceptable within 31 days after sample removal, or declare that train inoperable and take the actions specified in 3.7.B.2.c.	(2.) Inplace cold DOP testing shall be performed after each complete or partial replacement of the HEPA filter bank or after any structural maintenance on the system housing which could affect the HEPA filter bank bypass leakage.
	(3.) Halogentated hydrocarbon testing shall be performed after each complete or partial replacement of the charcoal adsorber bank or after any structural maintenance on the system housing which could affect the charcoal adsorber bank bypass leakage.

LIMITING CONDITIONS FOR OPERATION	SURVEILLANCE REQUIREMENTS
3.7.B (Continued)	4.7.B (Continued)
c. From and after the date that one train of the Control Room High Efficiency Air Filtration System is made or found to be incapable of supplying filtered air to the control room for any reason, reactor operation or refueling operations are permissible only during the succeeding 7 days. If the system is not made fully operable within 7 days, reactor shutdown shall be initiated and the reactor shall be in cold shutdown within the next 36 hours and irradiated fuel handling operations shall be terminated within 2 hours. (Fuel handling operations in progress may be completed).	(4.) Each train shall be operated with the heaters in automatic for at least 15 minutes every month.
d. Fans shall operate within ± 10% of 1000 cfm.	(5.) The test and analysis of Specification 3.7.B. 2.b.(2) shall be performed after every 720 hours of system operation.
	c. At least once every 18 months demonstrate the operability of the heaters at rated power.
	3. Perform an instrument functional test on the humidistat controlling the heaters once per 18 months.

BASES:
3.7.B.1 and 4.7.B.1 - Standby Gas Treatment

The Standby Gas Treatment System is designed to filter and exhaust the reactor building atmosphere to the stack during secondary containment isolation conditions. Upon containment isolation, both standby gas treatment fans are designed to start to bring the reactor building pressure negative so that all leakage should be in leakage. After a preset time delay, the standby fan automatically shuts down so the reactor building pressure is maintained approximately 1/4 inch of water negative. Should one system fail to start, the redundant system is designed to start automatically. Each of the two trains has 100% capacity.

High Efficiency Particulate Air (HEPA) filters are installed before and after the charcoal adsorbers to minimize potential release of particulates to the environment and to prevent clogging of the iodine adsorbers. The charcoal adsorbers are installed to reduce the potential release of radioiodine to the environment. The in-place test results should indicate a system leak tightness of less than 1 percent bypass leakage for the charcoal adsorbers and a HEPA filter efficiency of at least 99 percent removal of cold DOP particulates. The laboratory carbon sample test results should indicate a methyl iodide removal efficiency of at least 95 percent for expected accident conditions. The specified efficiencies for the charcoal and particulate filters is sufficient to preclude exceeding 10 CFR 100 guidelines for the accidents analyzed. The analysis of the loss of coolant accident assumed a charcoal adsorber efficiency of 95% and TID 14844 fission product source terms, hence, installing two banks of adsorbers and filters in each train provides adequate margin. A 14 kW heater maintains relative humidity below 70% in order to ensure the efficient removal of methyl iodide on the impregnated charcoal adsorbers. Considering the relative simplicity of the heating circuit, the test frequency on once per 18 months is adequate to demonstrate operability.

Air flow through the filters and charcoal adsorbers for 15 minutes each month assures operability of the system. Since the system heaters are automatically controlled, the air flowing through the filters and adsorbers will be $\leq$ 70% relative humidity and will have the desired drying effect.

Tests of impregnated charcoal identical to that used in the filters indicate that shelf life of five years leads to only minor decreases in methyl iodide removal efficiency. Hence, the frequency of laboratory carbon sample analysis is adequate to demonstrate acceptability. Since adsorbers must be removed to perform this analysis, this frequency also minimizes the system out of service time as a result of surveillance testing. In addition, although the halogenated hydrocarbon testing is basically a leak test, the adsorbers have charcoal of known efficiency and holding capacity for elemental iodine and/or methyl iodide, the testing also gives an indication of the relative efficiency of the installed system. The 31 day requirement for the ascertaining of test results ensures that the ability ofthe charcoal to perform its designed function is demonstrated and known in a timely manner.

The required Standby Gas Treatment flow rate is that flow, less than or equal to 4000 CFM which is needed to maintain the Reactor Building at a 0.25 inch of water negative pressure under calm wind conditions. This capability is adequately demonstrated during Secondary Containment Leak Rate Testing performed pursuant to Technical Specification 4.7.C.1.c.

BASES:
3.7.B.2.b and 4.7.B.2.b - Control Room High Efficiency Air Filtration System

The Control Room High Efficiency Air Filtration System is designed to filter intake air for the control room atmosphere during conditions when normal intake air may be contaminated. Following manual initiation, the Control Room High Efficiency Air Filtration System is designed to position dampers and start fans which divert the normal air flow through charcoal adsorbers before it reaches the control room.

High Efficiency Particulate Air (HEPA) filters are installed before the charcoal adsorbers to prevent clogging of the iodine adsorbers. The charcoal adsorbers are installed to reduce the potential intake of radioiodine to the control room. A second bank of HEPA filters is installed downsteam of the charcoal filter.

The in-place test results should indicate a system leak tightness of less than 1 percent bypass leakage for the charcoal adsorbers and a HEPA efficiency of at least 99% removal of cold DOP particulates. The laboratory carbon sample test results should indicate a methyl iodide removal efficiency of at least 90% for expected accident conditions. Tests of impregnated charcoal identical to that used in the filters indicate that shelf life of five years leads to only minor decreases in methyl iodide removal efficiency. Hence, the frequency of laboratory carbon sample analysis is adequate to demonstrate acceptability. Since adsorbers must be removed to perform this analysis, this frequency also minimizes the system out of service time as a result of surveillance testing. In addition, although the halogenated hydrocarbon testing is basically a leak test, the adsorbers have charcoal of known efficiency and holding capacity for elemental iodine and/or methyl iodide, the testing also gives an indication of the relative efficiency of the installed system. The 31 day requirement for the ascertaining of test results ensures that the ability of the charcoal to perform its designed function is demonstrated and known in a timely manner.

Determination of the system pressure drop once per operating cycle provides indication that the HEPA filters and charcoal adsorbers are not clogged by excessive amounts of foreign matter and that no bypass routes through the filters or adsorbers had developed. Considering the relatively short times the systems will be operated for test purposes, plugging is unlikely and the test interval of once per operating cycle is reasonable.

The test frequencies are adequate to detect equipment deterioration prior to significant defects, but the tests are not frequent enough to load the filters or adsorbers, thus reducing their reserve capacity too quickly. The filter testing is performed pursuant to appropriate procedures reviewed and approved by the Operations Review Committee pursuant to Section 6 of these Technical Specifications. The in-place testing of charcoal filters is performed by injecting a halogenated hydrocarbon into the system upsteam of the charcoal adsorbers. Measurements of the concentration upstream and downstream are made. The ratio of the inlet and outlet concentration upstream and downstream are made. The ratio of the inlet and outlet concentration gives an overall indication of the leak tightness of the system. A similar procedure substituting dioctyl phthalate for halogenated hydro-carbon is used to test the HEPA filters.

BASES:
3.7.B.2.b and 4.7.B.2.b (Continued)

Air flow through the filters and charcoal adsorbers for 15 minutes each month assures operability of the system. Since the system heaters are automatically controlled, the air flowing through the filters and adsorbers will be $\leq$ 70% relative humidity and will have the desired drying effect.

In the event that one CRHEAFS is inoperable, the redundant system will be tested daily. This substantiates the availability of the operable system and justifies continued reactor or refueling operations.

If both trains of CRHEAF are inoperable, the plant is brought to a condition where CRHEAF is not required.