

ATTACHMENT I

Marked-up Technical Specification Page

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CONTAINMENT SYSTEMS

3/4.6.4 COMBUSTIBLE GAS CONTROL

HYDROGEN ANALYZERS

LIMITING CONDITION FOR OPERATION

3.6.4.1 Two independent containment hydrogen analyzers shall be OPERABLE.

APPLICABILITY: MODES 1 and 2.

ACTION:

With one hydrogen analyzer inoperable, restore the inoperable analyzer to OPERABLE status within 30 days or, be in at least HOT STANDBY within the next 6 hours.

demonstrate within the next 24 hours that the grab sample system of the inoperable hydrogen analyzer has the capability to draw a sample of the containment atmosphere into the grab sample canister. Verify capability of the grab sample system at least once per 30 days thereafter until the inoperable hydrogen analyzer is returned to OPERABLE status, or

SURVEILLANCE REQUIREMENTS

4.6.4.1 Each hydrogen analyzer shall be demonstrated OPERABLE by the performance of a CHANNEL FUNCTIONAL TEST at least once per 31 days; and at least once per 92 days on a STAGGERED TEST BASIS by performing a CHANNEL CALIBRATION using sample gases containing:

Nominally

a. \wedge One volume percent hydrogen, balance nitrogen and oxygen.

Nominally

b. \wedge Four volume percent hydrogen, balance nitrogen and oxygen.



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ATTACHMENT 2

SAFETY EVALUATION

INTRODUCTION

A change is proposed to revise Technical Specification 3/4.6.4, Combustible Gas Control-Hydrogen Analyzers for St. Lucie Unit 2. The change is needed to allow a second method of hydrogen analysis and clarify the containment hydrogen analyzer system configuration.

DISCUSSION

The current Technical Specification 3/4.6.4 has requirements for two independent containment hydrogen analyzers, however does not directly state how the grab sample system can be used as a method of containment hydrogen sampling.

When the sampling mode is selected, a pump on the hydrogen analyzer draws the containment air through a pre-selected path and into the analyzing unit. A grab sample cylinder is connected to the hydrogen analyzer sample return line. This grab sample system consists of a radiologically shielded cylinder through which the pump on the hydrogen analyzer, using the same piping for the pre-selected flow path, draws the containment air for sampling. After flow is established, the cylinder is isolated by means of manual valves, removed from the analyzer and taken to a laboratory for on site analysis.

The sample is analyzed for hydrogen concentration in the laboratory using a gas chromatograph method which is calibrated prior to each sample analysis as compared to the thermal conductivity method of analysis done in the hydrogen analyzer.

The use of the word nominally is to account for the slight variations in vendor supplied calibration samples.



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ATTACHMENT 3

DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION

The standards used to arrive at a determination that a request for amendment involves no significant hazards consideration are included in the Commission's regulations, 10 CFR 50.92, which states that no significant hazards considerations are involved if the operation of the facility in accordance with the proposed amendment 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. Each standard is discussed as follows:

- (1) Operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated.

The inclusion of the grab sample laboratory analysis being a substitution for the local hydrogen analyzer analysis cannot involve a significant increase in the probability or consequences of an accident previously evaluated because:

- a) the same containment sample flow path is used;
- b) the same sample pump is used with the two systems so that the sample through either is the same; and
- c) the method of grab sample laboratory analysis requires a calibration as part of the analysis. This ensures accuracy during analysis.

- (2) Use of the modified specification would not create the possibility of a new or different kind of accident from any accident previously evaluated.

A new or different kind of accident than any previously evaluated is not created by the specification being modified to allow for the laboratory analysis of the grab sample. This grab sample is an alternative method of monitoring the containment atmosphere after an accident and is not a possible cause of a new or different kind of accident.

- (3) Use of the modified specification would not involve a significant reduction in a margin of safety.

The hydrogen analyzers, while being required by Technical Specifications, do not have an active part in the determination of margin of safety. The inclusion of an alternate method of analysis does not change the function or accuracy of the hydrogen analyzer system.

Based on the above, we have determined that the amendment request does not (1) involve a significant increase in the probability or consequences of an accident previously evaluated, (2) create the probability of a new or different kind of accident from any accident previously evaluated, or (3) involve a significant reduction in a margin of safety; and therefore does not involve a significant hazards consideration.



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