



SEABROOK STATION UNIT 1

Facility Operating License NPF-86
Docket No. 50-443

License Amendment Request No. 91-10
Decoupling of the Loss of Offsite Power/Safety Injection Test From the
24 Hour Diesel Generator Surveillance Run

This License Amendment Request is submitted by New Hampshire Yankee pursuant to 10 CFR50.90. The following information is enclosed in support of this License Amendment Request:

- Section I - Introduction and Description of Proposed Changes
- Section II - Markup of Proposed Changes
- Section III - Retype of Proposed Changes
- Section IV - Safety Evaluation of Proposed Changes
- Section V - Determination of Significant Hazards for Proposed Changes
- Section VI - Proposed Schedule for License Amendment Issuance and Effectiveness
- Section VII - Environmental Impact Assessment

Sworn and Subscribed
to before me this

20th day of March, 1992

Nancy A. DeCudde
Notary Public
My Commission Expires October 3, 1995

Ted C. Feigenbaum
Ted C. Feigenbaum
President and Chief Executive Officer

1. Introduction and Description of Proposed Changes

A. Introduction

The purpose of the proposed Technical Specification change is to revise Technical Specification 3/4.8.1 "A.C. Sources" to separate the Loss of Offsite Power/Safety Injection (LOP/SI) test from the 24 hour diesel generator surveillance run. The purpose of the LOP/SI surveillance is to demonstrate that the diesel generator will start, energize the emergency busses, and sequence on safety injection required loads following a loss of offsite power coincident with a safety injection actuation. The hot restart capability of the diesel generator is demonstrated by requiring the diesel generator to be at normal operating temperature prior to the start of the surveillance. The NRC has previously reviewed and approved similar testing changes at other plants (e.g., Grand Gulf Nuclear Station, Unit 1, Amendment No. 52 to License No. NPF-29; River Bend Station, Unit 1, Amendment No. 43 to License No. NPF-47; and Virgil C. Summer Nuclear Station, Unit 1, Amendment No. 99 to License No. NPF-12).

As presently written Technical Specification Surveillance Requirement 4.8.1.1.2f.7 requires the LOP/SI test to be performed within 5 minutes of completing the 24 hour diesel generator surveillance run. This requirement is derived from Regulatory Guide 1.108, Periodic Testing of Diesel Generator Units Used as Onsite Electric Power Systems at Nuclear Power Plants. The current Technical Specification requirement creates significant scheduling demands during an outage by reducing schedule flexibility and unnecessarily constraining outage activities. Due to the current requirements of Surveillance Requirement 4.8.1.1.2f.7, it would not be prudent during an outage to attempt the 24 hour run of the diesel generator until all of the diesel generator design loads are operable and capable of satisfying the requirements of the LOP/SI test. Since all of these loads are not typically operable until near the end of the outage, the performance of Surveillance Requirement 4.8.1.1.2f.7 is forced to occur as a critical path item. If these tests are separated, the 24 hour diesel generator run may be performed earlier in the outage in parallel with critical path activities. New Hampshire Yankee (NHY) believes that the proposed Technical Specification change satisfies the intent of Regulatory Guide 1.108 as discussed below.

Regulatory Guide 1.108 Position C.2.a(5), which is the basis for the requirement to perform the LOP/SI test immediately after the diesel generator 24 hour test states that the purpose of the requirement is to: "demonstrate functional capability at full load temperature conditions". Decoupling the two tests does not invalidate or reduce the effectiveness of either test, provided full load temperature conditions are achieved prior to performing the LOP/SI test.

To ensure that the intent of Regulatory Guide 1.108 Position C.2.a(5) is met, a requirement to operate the diesel generator loaded to greater than or equal to 6083 kW for at least 60 minutes has been included in the proposed Technical Specification change. This requirement will be satisfied prior to performance of the LOP/SI test.

The concept of separating the LOP/SI test from the diesel generator 24 hour run is acknowledged in the existing Seabrook Station Technical Specifications. The note at the bottom of page 3/4 8-7 states: "If Specification 4.8.1.1.2f.6)b) is not satisfactorily completed, it is not necessary to repeat the preceding 24 hour test. Instead the diesel

generator may be operated at 6083 kW for 1 hour or until operating temperature has stabilized". Specification 4.8.1.1.2f.6b) is the LOP/SI test. It is clear from the current Technical Specifications that the actual required prerequisite for the LOP/SI test is that the diesel generator be at its normal operating temperature.

New Hampshire Yankee has substantial experience operating the diesel generators and the operating history confirms that normal operating temperatures will be reached following a 1 hour run when the diesel generator is loaded to at least 6083 kW. This has been verified by NHY through a review of diesel generator monthly Technical Specification surveillance data. The manufacturer of the Seabrook Station diesel generator, Colt Industries, has also documented by letter to NHY that operation of the diesel generator for at least one hour at a load of 6083 kW should establish stable operating temperatures.

B. Description of Changes

The following changes are proposed to Technical Specification 3/4.8.1:

1. SURVEILLANCE REQUIREMENT 4.8.1.1.2f.6b). This Surveillance Requirement is revised to require that the LOP/SI test be conducted within 5 minutes of operating the diesel generator at greater than or equal to 6083 kW for at least 60 minutes. This proposed surveillance requirement ensures that the intent of Regulatory Guide 1.108 is met by verifying the diesel generator is at normal operating temperature prior to the initiation of the LOP/SI test.
2. SURVEILLANCE REQUIREMENT 4.8.1.1.2f.7). The last sentence is deleted since the requirement to perform the LOP/SI test within 5 minutes of completing the diesel generator 24 hour run has been revised. The new requirement is to run the diesel generator at greater than or equal to 6083 kW for at least 60 minutes prior to starting the LOP/SI test and is contained in Surveillance Requirement 4.8.1.1.2f.6b). In addition, the footnote at the bottom of page 3/4 8-7 is applicable to the sentence on this page which is deleted, therefore it is deleted. The requirements contained in the footnote are incorporated into the proposed change to Surveillance Requirement 4.8.1.1.2f.6b). Since the operating history of the diesel generators indicate that normal operating temperatures will be reached following a 60 minute run at greater than or equal to 6083 kW, the statement "or until operating temperature has stabilized" is deleted. Removing this statement will enhance the clarity of the Surveillance Requirement.

II. Markup of Proposed Changes

See attached markup of proposed changes to Technical Specifications.