

Operability Determinations & Resolution of Nonconformances of SSC's



**Assistance Navigator
Operability Determinations
&
Resolution of Nonconformance of
SSC's**

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Presentation Objectives

- Provide introduction to the operability determination inspection process via an overview of the Assistance Navigator
- Discuss some of the clarifications that were promulgated as part of this revision
- Answer questions related to the process

Where are we going?

- Introduction to the Assistance Navigator
- Interactive Examples & Questions
 - ▶ System in Technical Specifications
 - ▶ System Not in Technical Specifications
- Your Questions

Why A Navigator

- During the last public meeting, one of the most common requests was for a flow chart
- Due to the importance of operability and functionality in the Reactor Oversight Process, an inspector aid would be a useful tool
- It provides an aid to the inspector now that the inspection guidance documents for Operability and for Degraded & Nonconforming Conditions have been combined

Why A Navigator

- The ROP Base-Line Inspection Procedure (IP 71111) has 19 active attachments, each a separate inspection procedure
- The basis for the majority of these 19 inspections is rooted, in part, in operability/functionality

Why A Navigator

IP 71111 Procedures Relating to Operability

- Below is the complete list of procedures
- Blue indicates little application to operability
 - ▶ Adverse Weather; Evaluation of Changes, Tests, of Experiments; Equipment Alignment; Fire Protection; Flood Protection Measures; Heat Sink Performance; Inservice Inspection Activities; Licensed Operator Requalification; Maintenance Rule Implementation; Maintenance Risk Assessment and Emergent Work; Personnel Performance During Nonroutine Plant Evolutions; Operability Evaluations; Operator Workarounds; Permanent Plant Modifications; Post Maintenance Testing; Refueling Outage Activities; Safety System Design and Performance Capability; Surveillance Testing; and Temporary Plant Modifications

What the Navigator is:

- It is an inspection aid for inspectors
- It communicates the general thought process for evaluating a condition contrary to the CLB
- It directs the inspector to evaluate the need to perform additional inspections for issues that overlap the operability process
- It suggests questions that can aid in the assessment of a condition contrary to the CLB

What the Navigator is not:

- It is not a procedure
- It is not intended to cover all situations
- It is not a substitute for the guidance contained in the body of the RIS
- It is not intended to imply requirements
- It does not limit the inspector to using only the assessment questions listed in the Navigator
- It is not required to be followed in the order written

How is the Navigator organized?

- Entry
 - ▶ Provides guidance on possible inspection areas when the operability of an SSC is questioned
- The inspector is directed to assess:
 - ▶ SSC Evaluation
 - ▶ Maintenance Rule
 - ▶ Performance Indicator
 - ▶ Plant Change
- Questions are established that guide the inspector in the review of an observation
- Process connections are provided to route the inspector to other elements of the Navigator

Navigator Organization Continued

- Exit blocks are located to provide the inspector with guidance for exiting the process
- Management discussion blocks indicate areas where potential concerns related to an observation may warrant NRC management review
 - ▶ These blocks return the inspector to the flow chart to continue their assessment

Navigator Organization Continued

- The Navigator contains “Do Loops”
 - ▶ Do loops are intended to keep the inspector in the Navigator until resolution of a question or concern
- The Navigator is designed to aid a prepared and knowledgeable inspector’s review of the licensee’s processes

Maintenance Rule

- Maintenance Rule directs the inspector to:
 - ▶ Assess the need to perform a Maintenance Rule/Maintenance Effectiveness inspection
 - ▶ Assess the functionality, if necessary

Performance Indicator

- Performance Indicator directs the inspector to:
 - ▶ Review the related NEI 99-02 guidance
 - ▶ Inspect the performance indicator, if necessary

Plant Change

- Plant Change directs the inspector to:
 - ▶ Evaluate compensatory measures
 - ▶ Evaluate the length a temporary change to the facility will be active
- The tool to evaluate these issues, if they exist, will be the review of the corrective action process

SSC Evaluations

- **SSC Evaluations Will Assess:**
 - ▶ Plant and Public Health and Safety
 - ▶ Operability
 - ▶ Reportability
 - ▶ Corrective Actions
 - ▶ Timeliness
 - ▶ Immediate and Prompt Operability Evaluations
 - ▶ Functionality
 - ▶ Plant Changes

System in Technical Specifications

How the Inspector Evaluates this Using the Navigator
SSC Evaluation Section

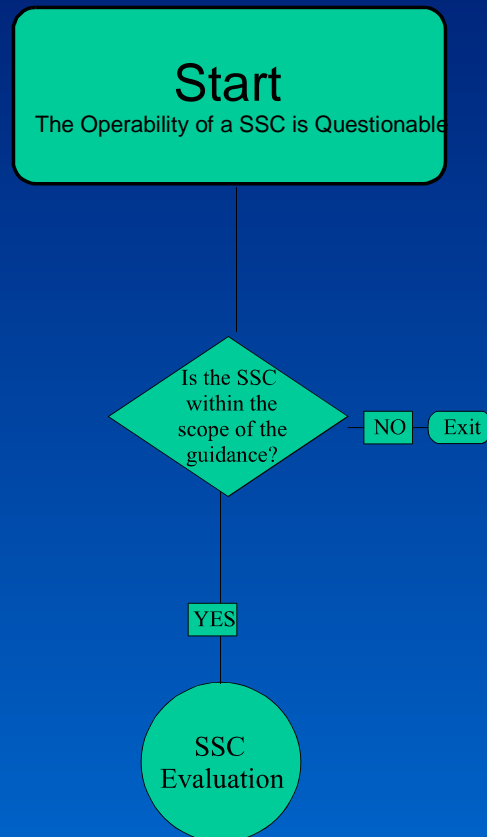
- A simple example of an SSC in TS
- Interactive participation and questions are encouraged
- Discuss progression through the Navigator
- Discuss “what-if’s” and activities related to alternate decisions by the licensee
- Not intended to discuss every nuance or enhancement

System in Technical Specifications

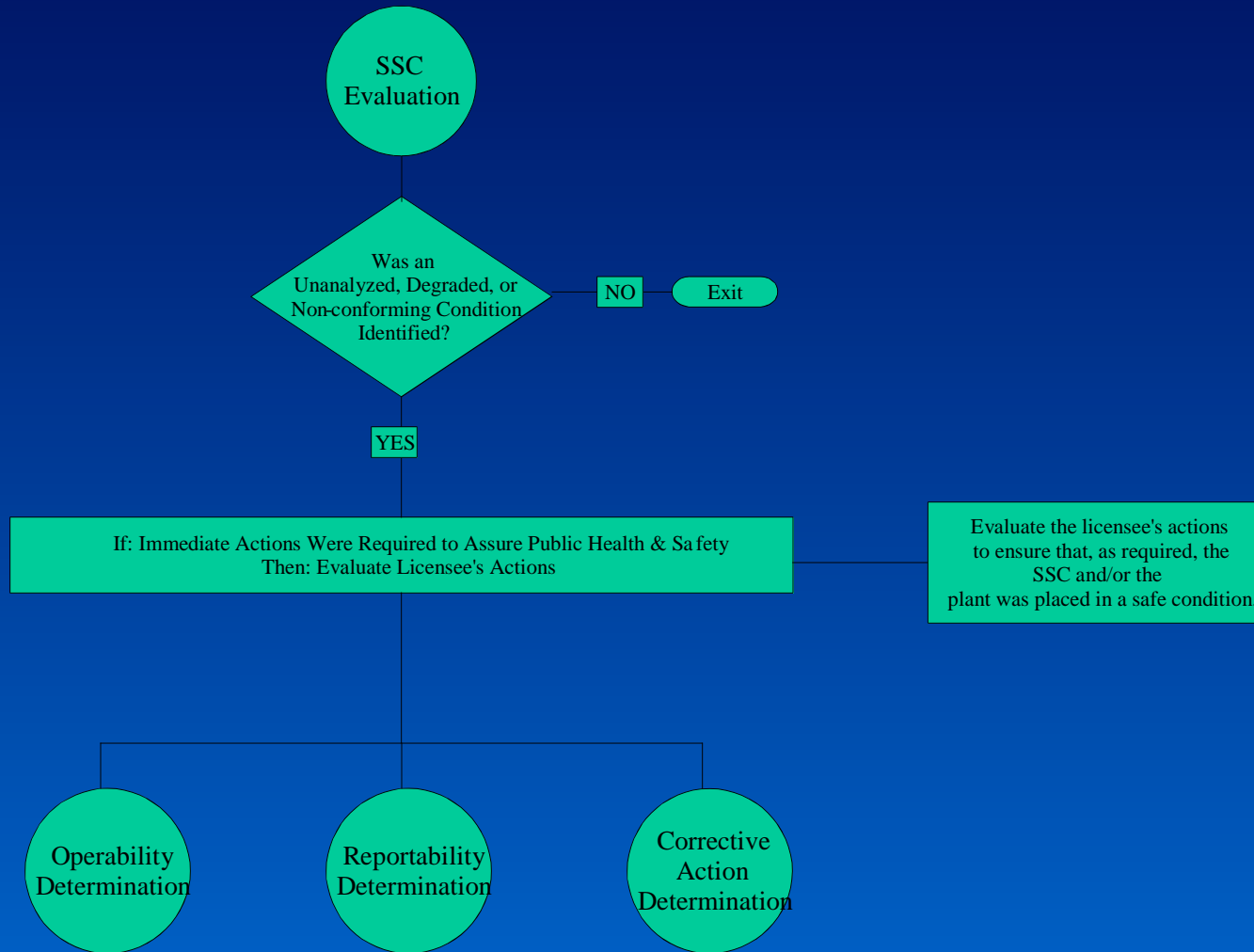
- A construction laborer contacts the SRO on shift and states:
 - ▶ He is erecting scaffolding in Safety Injection pump room
 - ▶ He notes that a device was found with all the bolts on the face plate pulled away from the wall
 - ▶ The device, when described to the SRI, appears to be a snubber
- The SRO investigates the observation and:
 - ▶ Confirms that a seismic snubber is pulled away from the wall
 - ▶ Declares SI inoperable and enters the applicable LCO

System in Technical Specifications

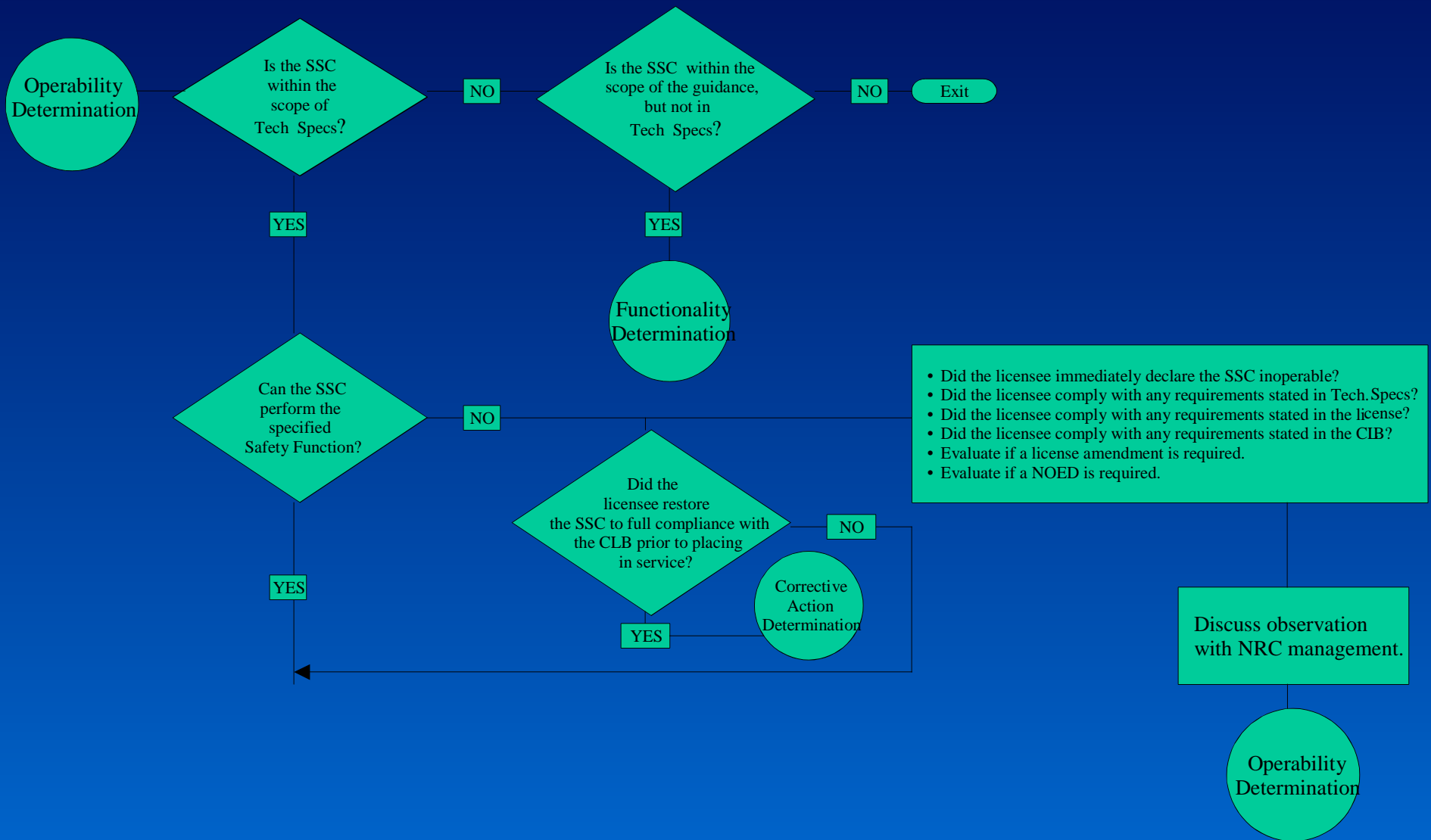
How the Inspector Evaluates this Using the Navigator
SSC Evaluation Section



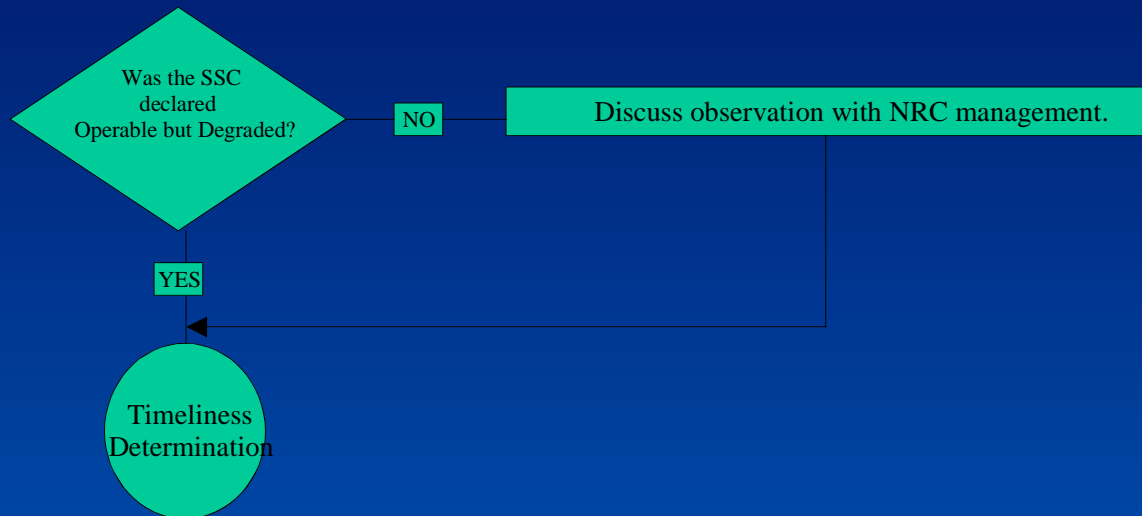
System in Technical Specifications



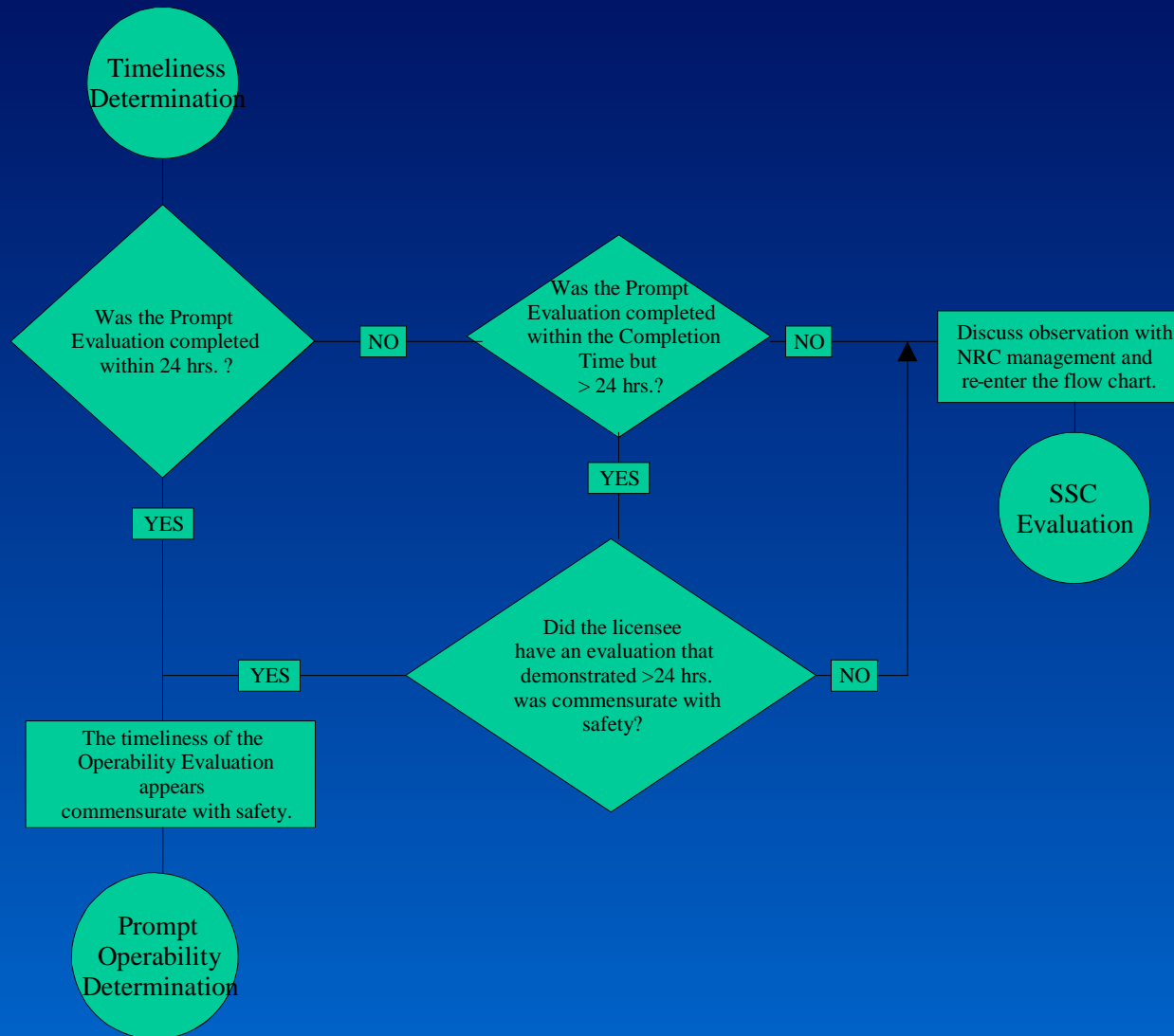
System in Technical Specifications



System in Technical Specifications



System in Technical Specifications



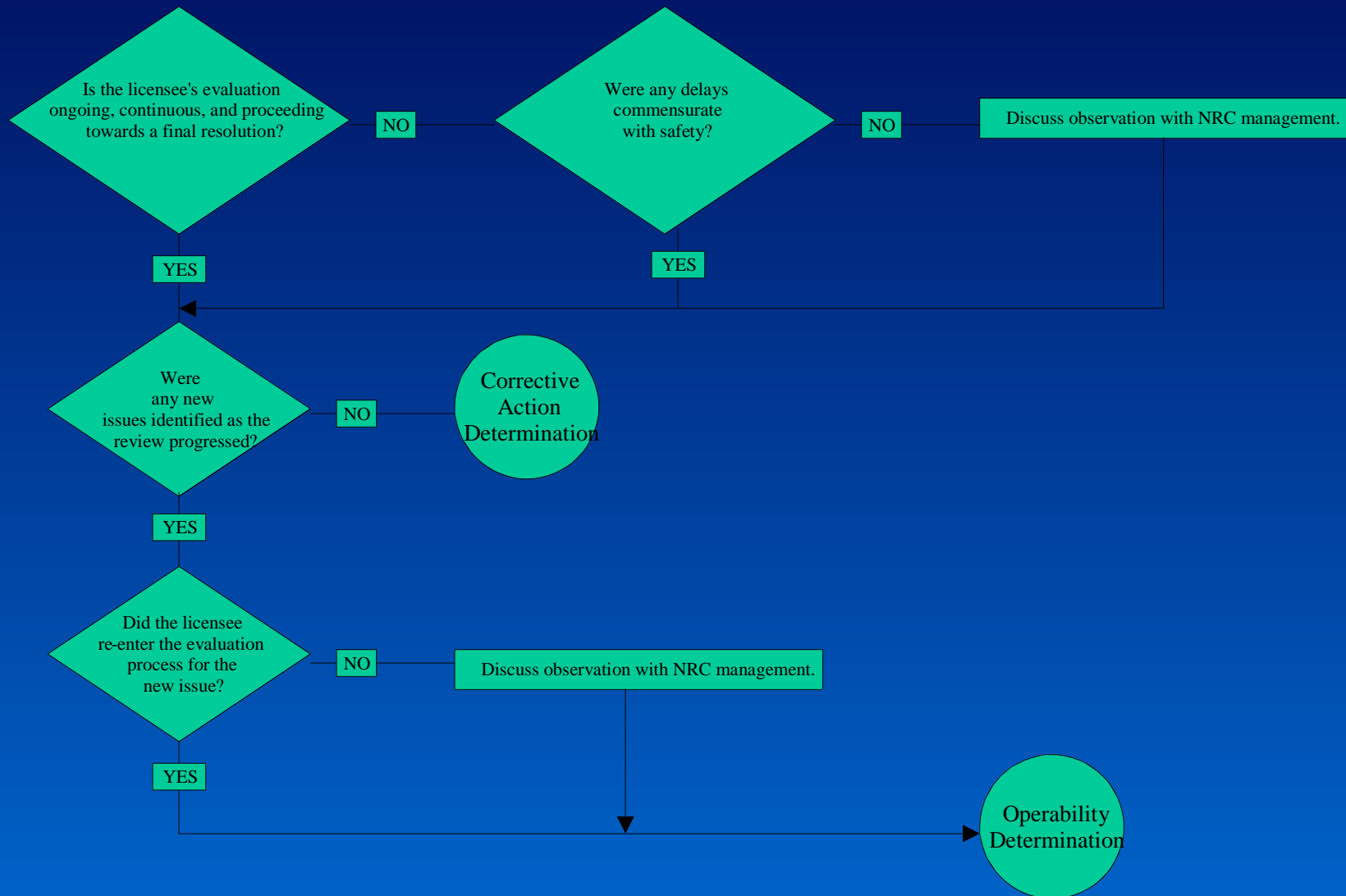
System in Technical Specifications

- Did the scope, as a minimum:
 - Determine what equipment is degraded or potentially nonconforming?
 - Determine the safety functions of the equipment?
 - Determine the circumstances of the potential nonconformance, including the possible failure mechanism?
 - Determine the requirement or commitment established for the equipment, and why the requirement or commitment may not be met?
 - Determine by what means and when the potentially non-conforming equipment was first discovered?
 - Determine the safest plant configuration, including the effect of transitional action?
 - Determine the basis for declaring the affected system operable through: Analysis, test or partial analysis, operating experience, or engineering judgment?
- Does any item in the CLB impact the operability evaluation?
- Does the prompt evaluation appear to validate operability vs verify conformance to the CLB (Justify operation vs verify design basis or other CLB)?
- Does the prompt evaluation consider mission time for related safety functions?
- Does the prompt evaluation rely on testing to support continued operation?
- Does the prompt evaluation rely on compensatory measures for continued operation and, if so, was the need for a 10 CFR Part 50.59 review evaluated?
- Does the prompt evaluation consider obvious extent-of-condition issues?
- Did the evaluation consider the relationship between commitments, code requirements, and Tech Spec operability; and consider the most restrictive requirement?
- Evaluate any use of test, partial test, or analysis using methods other than initial design.

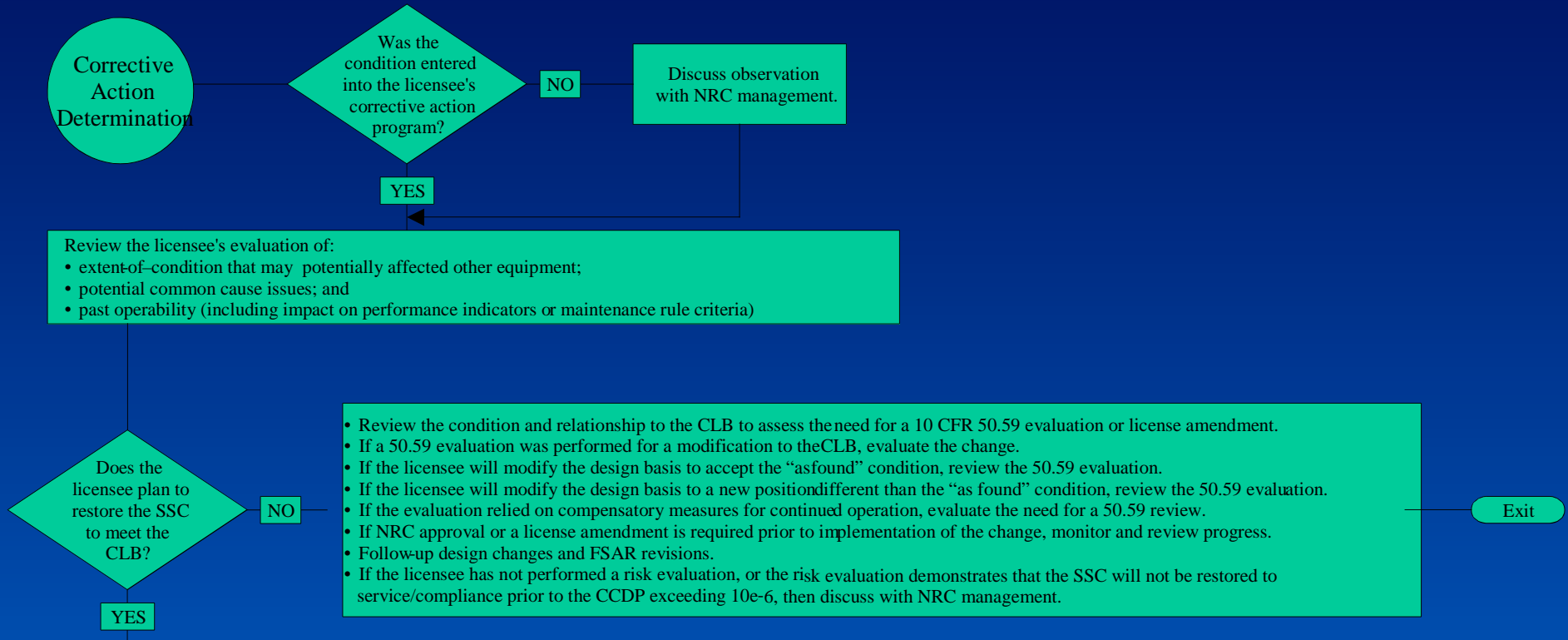
If engineering judgment was used to support the determination of operable-but-degraded:

- Were sound engineering principals used and documented to support the evaluation?
- If expert testimony was used, were the credentials adequate to justify expertise, and was the basis for the conclusion documented?

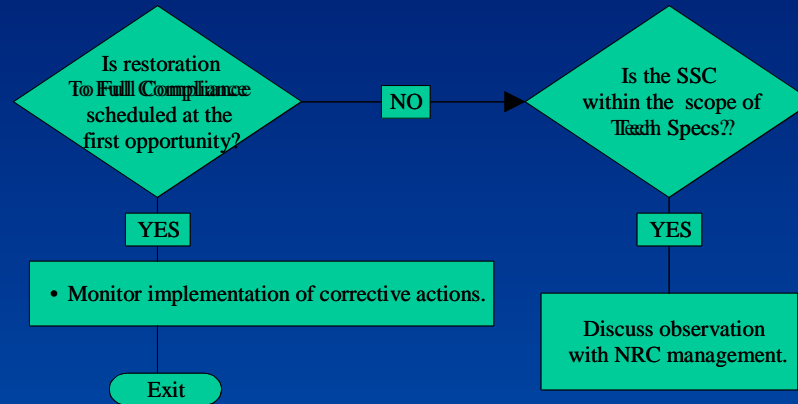
System in Technical Specifications



Corrective Actions



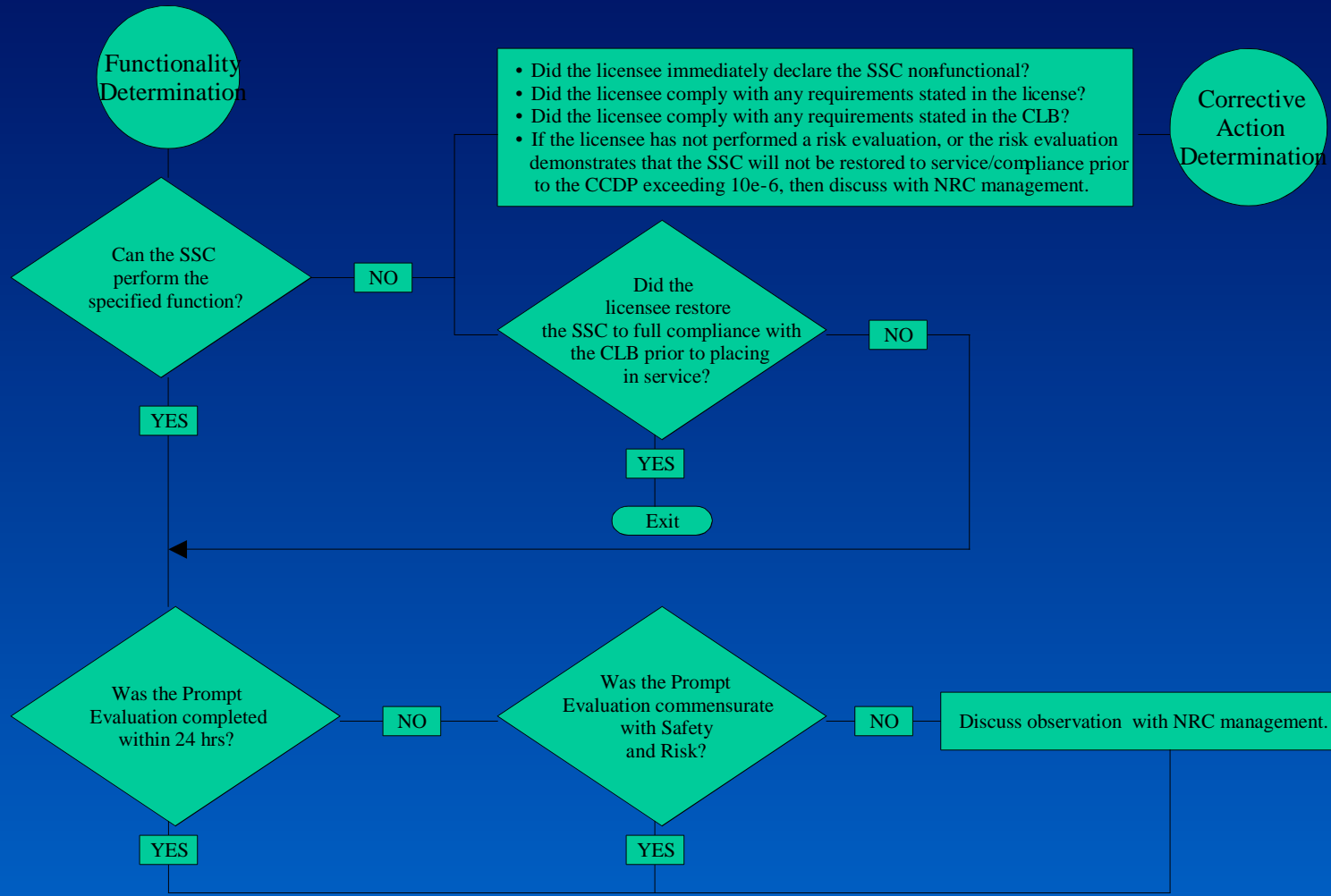
Corrective Actions



Functionality Determination (System Not in TS)

- The licensee has discovered solenoid in the governor circuit for the station blackout diesel generator, which was replaced in 1993, is of the incorrect design. Additionally, the manufacturer has assigned a 5-year operating life for the solenoid.
- Reviews also show that this system is not subject to the requirements of Technical Specification or Appendix B of 10 CFR 50.
- The licensee will evaluate functionality to ensure that the requirements of 10 CFR 50.63 to recover from a station blackout are met.

Functionality Determination



Summary

- **The Navigator:**

- ▶ Is an inspection aid for inspectors
- ▶ Communicates the general thought process for evaluating a condition contrary to the CLB
- ▶ Directs the inspector to evaluate the need to perform additional inspections for issues that overlap the operability process
- ▶ Suggests questions that can aid in the assessment of a condition contrary to the CLB

Questions

