

Industry/TSTF Standard Technical Specification Change Traveler

Add example of SFDP to the 3.0.6 Bases

Priority/Classification: 3) Improve Specifications

NUREGs Affected: 1430 1431 1432 1433 1434

Description:

A brief optional example of the application of the Safety Function Determination Program is added in the Bases for LCO 3.0.6.

Justification:

The application of LCO 3.0.6 is the cause of a great deal of confusion. The application can be explained using examples similar to those attached. This change to the Bases does not alter the technical content of LCO 3.0.6 and it, therefore, optional. The example is similar to one previously included in the Safety Function Determination Program.

Revision History

OG Revision 0

Revision Status: Closed

Revision Proposed by Palo Verde

Revision Description:
Original Issue

Owners Group Review Information

Date Originated by OG: 14-Mar-96

Owners Group Comments
(No Comments)

Owners Group Resolution: Approved Date: 14-Mar-96

TSTF Review Information

TSTF Received Date: 12-Apr-96 Date Distributed for Review 12-Apr-96

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:

Other OGs requested that example be bracketed. CEOG agreed.

TSTF Resolution: Approved Date: 12-May-96

NRC Review Information

NRC Received Date: 17-Jul-96 NRC Reviewer: N. Gilles

NRC Comments:

9/18/96 - Review pending.

3/18/97 - NRC requested editorial revisions to the package. TSTF agreed to provide.

Final Resolution: Superseded by Revision

Final Resolution Date: 24-Jun-97

TSTF Revision 1

Revision Status: Closed

9/22/98

TSTF Revision 1**Revision Status: Closed**

Revision Proposed by NRC

Revision Description:

Editorial revision to insert requested by NRC for clarify.

TSTF Review Information

TSTF Received Date: 11-Apr-97 Date Distributed for Review 17-Apr-97

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:

(No Comments)

TSTF Resolution: Approved Date: 13-May-97

NRC Review Information

NRC Received Date: 24-Jun-97 NRC Reviewer: N. Gilles

NRC Comments:

(No Comments)

Final Resolution: NRC Approves

Final Resolution Date: 02-Oct-97

TSTF Revision 2**Revision Status: Active****Next Action: BWOG**

Revision Proposed by NRC

Revision Description:

Editorial revision to include the following in Insert 1: "A loss of safety function may exist when a support system is inoperable, and:" This statement was inadvertently left out of Revision 1.

In addition, the change was bracketed to make it's adoption optional.

TSTF Review Information

TSTF Received Date: 26-May-98 Date Distributed for Review 28-May-98

OG Review Completed: BWOG WOG CEOG BWROG

TSTF Comments:

Bracket the change and change the justification to reflect this.

TSTF Resolution: Approved Date: 10-Jul-98

Incorporation Into the NUREGs

File to BBS/LAN Date:

TSTF Informed Date:

TSTF Approved Date:

NUREG Rev Incorporated:

Affected Technical Specifications

LCO 3.0.6 Bases

LCO Applicability

9/22/98

INSERT 1

A loss of safety function may exist when a support system is inoperable, and:

- a. A required system redundant to system(s) supported by the inoperable support system is also inoperable; or (EXAMPLE B3.0.6-1)
- b. A required system redundant to system(s) in turn supported by the inoperable supported system is also inoperable; or (EXAMPLE B3.0.6-2)
- c. A required system redundant to support system(s) for the supported systems (a) and (b) above is also inoperable. (EXAMPLE B3.0.6-3)

EXAMPLE B3.0.6-1

If System 2 of Train A is inoperable, and System 5 of Train B is inoperable, a loss of safety function exists in supported System 5.

EXAMPLE B3.0.6-2

If System 2 of Train A is inoperable, and System 11 of Train B is inoperable, a loss of safety function exists in System 11 which is in turn supported by System 5.

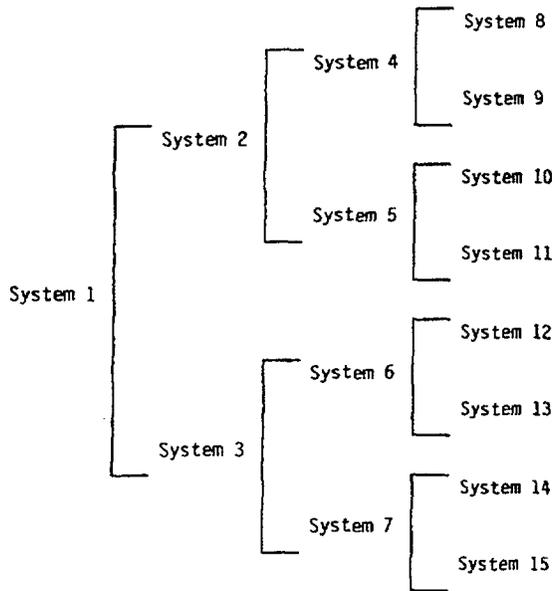
EXAMPLE B3.0.6-3

If System 2 of Train A is inoperable, and System 1 of Train B is inoperable, a loss of safety function exists in Systems 2, 4, 5, 8, 9, 10 and 11.

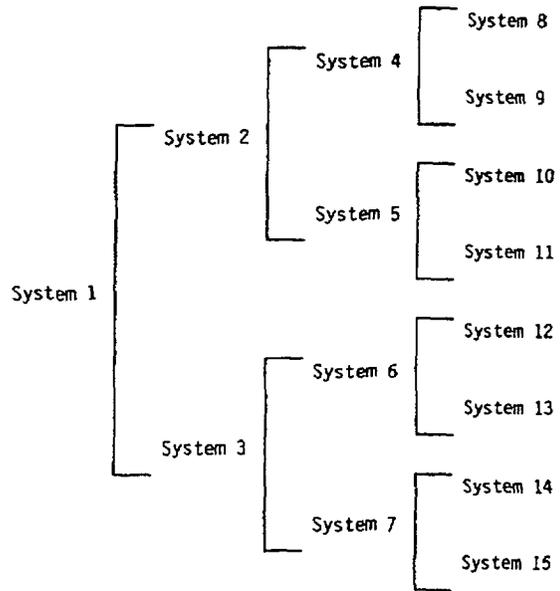
INSERT 2

EXAMPLES

TRAIN A



TRAIN B



BASES

LCO 3.0.6
(continued)

When a support system is inoperable and there is an LCO specified for it in the TS, the supported system(s) are required to be declared inoperable if determined to be inoperable as a result of the support system inoperability. However, it is not necessary to enter into the supported systems' Conditions and Required Actions unless directed to do so by the support system's Required Actions. The potential confusion and inconsistency of requirements related to the entry into multiple support and supported systems' LCOs' Conditions and Required Actions are eliminated by providing all the actions that are necessary to ensure the unit is maintained in a safe condition in the support system's Required Actions.

However, there are instances where a support system's Required Action may either direct a supported system to be declared inoperable or direct entry into Conditions and Required Actions for the supported system. This may occur immediately or after some specified delay to perform some other Required Action. Regardless of whether it is immediate or after some delay, when a support system's Required Action directs a supported system to be declared inoperable or directs entry in Conditions and Required Actions for a supported system, the applicable Conditions and Required Actions shall be entered in accordance with LCO 3.0.2.

Specification 5.5.15, "Safety Function Determination Program (SFDP)," ensures loss of safety function is detected and appropriate actions are taken. Upon entry into LCO 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other limitations, remedial actions, or compensatory actions may be identified as a result of the support system inoperability and corresponding exception to entering supported system Conditions and Required Actions. The SFDP implements the requirements of LCO 3.0.6.

Cross train checks to identify a loss of safety function for those support systems that support multiple and redundant safety systems are required. The cross train check verifies that the supported systems of the remaining OPERABLE support systems are OPERABLE, thereby ensuring safety function is retained. If this evaluation determines that a loss of safety function exists, the appropriate Conditions and

Insert 1

(continued)

BASES

LCO 3.0.6 Required Actions of the LCO in which the loss of safety
(continued) function exists are required to be entered.

Insert 2 →

LCO 3.0.7 There are certain special tests and operations required to be performed at various times over the life of the unit. These special tests and operations are necessary to demonstrate select unit performance characteristics, to perform special maintenance activities, and to perform special evolutions. Test Exception LCOs [3.1.9, 3.1.10, 3.1.11, and 3.4.19] allow specified Technical Specification (TS) requirements to be changed to permit performances of these special tests and operations, which otherwise could not be performed if required to comply with the requirements of these TS. Unless otherwise specified, all the other TS requirements remain unchanged. This will ensure all appropriate requirements of the MODE or other specified condition not directly associated with or required to be changed to perform the special test or operation will remain in effect.

The Applicability of a Test Exception LCO represents a condition not necessarily in compliance with the normal requirements of the TS. Compliance with Test Exception LCOs is optional. A special operation may be performed either under the provisions of the appropriate Test Exception LCO or under the other applicable TS requirements. If it is desired to perform the special operation under the provisions of the Test Exception LCO, the requirements of the Test Exception LCO shall be followed.

BASES

Insert 1

LCO 3.0.6
(continued)

system are OPERABLE, thereby ensuring safety function is retained. If this evaluation determines that a loss of safety function exists, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.

Insert 2

LCO 3.0.7

There are certain special tests and operations required to be performed at various times over the life of the unit. These special tests and operations are necessary to demonstrate select unit performance characteristics, to perform special maintenance activities, and to perform special evolutions. Test Exception LCOs [3.1.9, 3.1.10, 3.1.11, and 3.4.19] allow specified Technical Specification (TS) requirements to be changed to permit performances of these special tests and operations, which otherwise could not be performed if required to comply with the requirements of these TS. Unless otherwise specified, all the other TS requirements remain unchanged. This will ensure all appropriate requirements of the MODE or other specified condition not directly associated with or required to be changed to perform the special test or operation will remain in effect.

The Applicability of a Test Exception LCO represents a condition not necessarily in compliance with the normal requirements of the TS. Compliance with Test Exception LCOs is optional. A special operation may be performed either under the provisions of the appropriate Test Exception LCO or under the other applicable TS requirements. If it is desired to perform the special operation under the provisions of the Test Exception LCO, the requirements of the Test Exception LCO shall be followed.

BASES

insert 1

LCO 3.0.6
(continued)

retained. If this evaluation determines that a loss of safety function exists, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.

insert 2

LCO 3.0.7

Special tests and operations are required at various times over the unit's life to demonstrate performance characteristics, to perform maintenance activities, and to perform special evaluations. Because TS normally preclude these tests and operations, special test exceptions (STEs) allow specified requirements to be changed or-suspended under controlled conditions. STEs are included in applicable sections of the Specifications. Unless otherwise specified, all other TS requirements remain unchanged and in effect as applicable. This will ensure that all appropriate requirements of the MODE or other specified condition not directly associated with or required to be changed or suspended to perform the special test or operation will remain in effect.

The Applicability of an STE LCO represents a condition not necessarily in compliance with the normal requirements of the TS. Compliance with STE LCOs is optional.

A special test may be performed under either the provisions of the appropriate STE LCO or the other applicable TS requirements. If it is desired to perform the special test under the provisions of the STE LCO, the requirements of the STE LCO shall be followed. This includes the SRs specified in the STE LCO.

Some of the STE LCOs require that one or more of the LCOs for normal operation be met (i.e., meeting the STE LCO requires meeting the specified normal LCOs). The Applicability, ACTIONS, and SRs of the specified normal LCOs, however, are not required to be met in order to meet the STE LCO when it is in effect. This means that, upon failure to meet a specified normal LCO, the associated ACTIONS of the STE LCO apply, in lieu of the ACTIONS of the normal LCO. Exceptions to the above do exist. There are instances when the Applicability of the specified normal LCO must be met, where its ACTIONS must be taken, where certain of its Surveillances must be performed, or where all of

(continued)

TSTF-71,
Rev. 2

BASES

(continued)

specified for it in the TS, the supported system(s) are required to be declared inoperable if determined to be inoperable as a result of the support system inoperability. However, it is not necessary to enter into the supported systems' Conditions and Required Actions unless directed to do so by the support system's Required Actions. The potential confusion and inconsistency of requirements related to the entry into multiple support and supported systems' LCOs' Conditions and Required Actions are eliminated by providing all the actions that are necessary to ensure the plant is maintained in a safe condition in the support system's Required Actions.

However, there are instances where a support system's Required Action may either direct a supported system to be declared inoperable or direct entry into Conditions and Required Actions for the supported system. This may occur immediately or after some specified delay to perform some other Required Action. Regardless of whether it is immediate or after some delay, when a support system's Required Action directs a supported system to be declared inoperable or directs entry into Conditions and Required Actions for a supported system, the applicable Conditions and Required Actions shall be entered in accordance with LCO 3.0.2.

Specification 5.5.12, "Safety Function Determination Program (SFDP)," ensures loss of safety function is detected and appropriate actions are taken. Upon entry into LCO 3.0.6, an evaluation shall be made to determine if loss of safety function exists. Additionally, other limitations, remedial actions, or compensatory actions may be identified as a result of the support system inoperability and corresponding exception to entering supported system Conditions and Required Actions. The SFDP implements the requirements of LCO 3.0.6.

Cross division checks to identify a loss of safety function for those support systems that support safety systems are required. The cross division check verifies that the supported systems of the redundant OPERABLE support system are OPERABLE, thereby ensuring safety function is retained. If this evaluation determines that a loss of safety function exists, the appropriate Conditions and Required Actions of

Insert 1 →

(continued)

TSTF-71,
Rev. 2

BASES

LCO 3.0.6 the LCO in which the loss of safety function exists are
(continued) required to be entered.

Insert 2 →

LCO 3.0.7 There are certain special tests and operations required to
be performed at various times over the life of the unit.
These special tests and operations are necessary to
demonstrate select unit performance characteristics, to
perform special maintenance activities, and to perform
special evolutions. Special Operations LCOs in Section 3.10
allow specified TS requirements to be changed to permit
performances of these special tests and operations, which
otherwise could not be performed if required to comply with
the requirements of these TS. Unless otherwise specified,
all the other TS requirements remain unchanged. This will
ensure all appropriate requirements of the MODE or other
specified condition not directly associated with or required
to be changed to perform the special test or operation will
remain in effect.

The Applicability of a Special Operations LCO represents a
condition not necessarily in compliance with the normal
requirements of the TS. Compliance with Special Operations
LCOs is optional. A special operation may be performed
either under the provisions of the appropriate Special
Operations LCO or under the other applicable TS
requirements. If it is desired to perform the special
operation under the provisions of the Special Operations
LCO, the requirements of the Special Operations LCO shall be
followed. When a Special Operations LCO requires another
LCO to be met, only the requirements of the LCO statement
are required to be met regardless of that LCO's
Applicability (i.e., should the requirements of this other
LCO not be met, the ACTIONS of the Special Operations LCO
apply, not the ACTIONS of the other LCO). However, there
are instances where the Special Operations LCO ACTIONS may
direct the other LCOs' ACTIONS be met. The Surveillances of
the other LCO are not required to be met, unless specified
in the Special Operations LCO. If conditions exist such
that the Applicability of any other LCO is met, all the
other LCO's requirements (ACTIONS and SRs) are required to
be met concurrent with the requirements of the Special
Operations LCO.

BASES

LCO 3.0.6
(continued)

Cross division checks to identify a loss of safety function for those support systems that support safety systems are required. The cross division check verifies that the supported systems of the redundant OPERABLE support system are OPERABLE, thereby ensuring safety function is retained. If this evaluation determines that a loss of safety function exists, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.

Insert 1 →

Insert 2 →

LCO 3.0.7

There are certain special tests and operations required to be performed at various times over the life of the unit. These special tests and operations are necessary to demonstrate select unit performance characteristics, to perform special maintenance activities, and to perform special evolutions. Special Operations LCOs in Section 3.10 allow specified TS requirements to be changed to permit performances of these special tests and operations, which otherwise could not be performed if required to comply with the requirements of these TS. Unless otherwise specified, all the other TS requirements remain unchanged. This will ensure all appropriate requirements of the MODE or other specified condition not directly associated with or required to be changed to perform the special test or operation will remain in effect.

The Applicability of a Special Operations LCO represents a condition not necessarily in compliance with the normal requirements of the TS. Compliance with Special Operations LCOs is optional. A special operation may be performed either under the provisions of the appropriate Special Operations LCO or under the other applicable TS requirements. If it is desired to perform the special operation under the provisions of the Special Operations LCO, the requirements of the Special Operations LCO shall be followed. When a Special Operations LCO requires another LCO to be met, only the requirements of the LCO statement are required to be met regardless of that LCO's Applicability (i.e., should the requirements of this other LCO not be met, the ACTIONS of the Special Operations LCO apply, not the ACTIONS of the other LCO). However, there are instances where the Special Operations LCO ACTIONS may direct the other LCOs' ACTIONS be met. The Surveillances of

(continued)