

EOP-0  
Deviation Document  
DRAFT #1  
04-01-84

EOP-0

REACTOR TRIP OR SAFETY INJECTION

REFERENCE DOCUMENTS

WOG Procedure E-0, LP-Rev. 1  
PBNP Procedure EOP-0, Draft #1, 04-01-84

COVER PAGE

The purpose section was reworded to provide a more explicit description of how the procedure is used.

The symptoms or entry conditions section was reduced in content. This was done because some of the information in the generic procedure is knowledge that we expect our operators to have and doesn't need to be in the procedure. It was also felt that the section in the generic procedure was more wordy than necessary and the plant section was written to alleviate this.

NOTE PRIOR TO STEP 1 - (WOG 1)

The first note was changed to include key words following the step number to be used by the operator as additional verification that the step numbers are correct. This is also explained in the Emergency Operating Procedure Writer's Guide.

NOTE PRIOR TO STEP 1 - (-)

The second note was added to direct the operator to additional instructions if a loss of offsite AC power has occurred. The Westinghouse Owners' Group did not address this concern in the generic procedure due to the plant specific nature.

NOTE PRIOR TO STEP 1 - (WOG 1)

Same

NOTE PRIOR TO STEP 1 - (-)

The fourth note was added to ensure the proper notifications are made.

STEP 1 - (WOG 1)

The plant step does not refer to reactor trip bypass breakers because they are not conveniently located for the operator in the control room. The procedure transfer does not specifically reference Step 1 since it is implicitly understood to go to the start of the procedure if no step number is indicated. This is intended to avoid unnecessary clutter in the procedure and will be emphasized during operator training.

STEP 2 - (WOG 2)

The word "all" was not included since there are only two and the word valves is sufficient.

STEP 3 - (WOG 3)

This step was reworded to include plant specific terminology and reduce the verbiage. The information content is equivalent to the generic step.

STEP 4 - (WOG 4)

Same

STEP 5 - (-)

This step verifies the Diesels have activated. This step was present in previous plant emergency operating procedures and is important enough to be included here.

STEP 6 - (WOG 5)

This step was reworded to include plant specific terminology. The plant does not have feedwater isolation valves or sample valves that go shut upon a safety injection signal and these steps are not included in the plant procedure.

STEP 7 - (WOG 6)

The plant has only one type of containment isolation signal and thus the phrase Phase A is not appropriate. This step was expanded to include some local actions that may need to be performed.

STEP 8 - (WOG 7)

The substeps are unnecessary because the high level step is sufficiently clear.

STEP 9 - (WOG 8)

STEP 10 - (WOG 8)

The generic step was made into two high level steps to make it more consistent with adjacent steps.

STEP 11 - (WOG 10)

The step has expanded to check if nonessential service water isolation has occurred.

STEP 12 - (WOG 11)

Plant specific terminology was used.

STEP 13 - (-)

This step checks for proper Diesel loading. It was present in past versions of the plant emergency operating procedures and is important enough to be included here. This step along with Steps 14, 15 & 16 are plant specific steps allowed for by the note prior to Step 13 of the generic procedure.

STEP 14 - (-)

This step checks that the turbine does not motor and cause damage. It was present in past versions of the plant emergency operating procedures and is important enough to be included here.

STEP 15 - (-)

This step ensures proper continuation of electrical power. It was present in past versions of the plant emergency operating procedures and is important enough to be included here.

STEP 16 - (-)

This step verifies that certain safeguards actuated valves operate properly. It was present in past versions of the plant emergency operating procedures and is important enough to be included here.

STEP 17 - (WOG 13)

The plant step was reworded because it was felt the generic step was ambiguous.

STEP 18 - (WOG 14)

This step was reworded to allow additional plant specific instructions to be included. The reactor coolant pumps are not tripped because there is still component cooling water flow to the motors following a containment isolation contrary to the generic plant design.

NOTE PRIOR TO STEP 19 - (-)

This note prevents the isolation of an unfaulted safety injection flow path. It was present in past versions of the emergency operating procedures and is important enough to be included here.

STEP 19 - (WOG 15)

Plant specific terminology and a simplification of the generic wording was used.

STEP 20 - (-)

This is a plant specific step to ensure water flows to the affected unit. It is needed due to this being a two unit site.

STEP 21 - (WOG 16)

The wording of the generic step was changed slightly.

STEP 22 - (WOG 9)

This step was moved to a later time in the plant procedure than in the generic procedure because it is not as critical as some of the other steps.

STEP 23 - (WOG 19)

Some slight changes were made to make the step fit the plant procedure format and more accurately describe the reactor coolant pump trip criteria.

STEP 24 - (WOG 20)

Some slight changes were made to make the step fit the plant procedure format.

CAUTION PRIOR TO STEP 25 - (WOG 33 & 19)

Same

NOTE PRIOR TO STEP 25 - (-)

This note reminds the operator that he may need to manually activate safety injection equipment. It was present in past versions of the emergency operating procedures and is important enough to be included here.

STEP 25 - (WOG 33)

This step was moved to earlier in the plant procedure than in the generic to allow for reestablishing instrument air to containment. Resetting safety injection does not cause any automatic actions to take place.

CAUTION PRIOR TO STEP 26 - (-)

This caution was added to ensure the Duty Shift Superintendent is made aware of actions the operator may make to defeat containment isolation.

STEP 26 - (WOG 34)

This step was moved up to keep it with the previous step. There is only one type of containment isolation and the words Phase A are not needed.

CAUTION PRIOR TO STEP 27 - (-)

This is additional instructions to prevent loss of instrument air pressure. It was present in past versions of the emergency operating procedures and is necessary due to this being a two unit site.

STEP 27 - (WOG 35)

This step was moved up to allow operation of equipment inside containment earlier in the recovery. Some plant specific instructions are included.

STEP 28 - (WOG 21)

This step was changed to make it more general and also similar to steps in other generic emergency procedures. The information that is checked is the same between the plant and generic procedure.

STEP 29 - (WOG 22)

Same

STEP 30 - (WOG 23)

This step was reworded to avoid using negative statements.

STEP 31 - (WOG 24)

This step was reworded to avoid using the word normal.

STEP 32 - (WOG 25)

This step was reworded to avoid using the word normal.

STEP 33 - (WOG 26)

The wording was changed slightly based upon desires of plant Staff.

STEP 34 - (WOG 27)

Same

STEP 35 - (WOG 28)

Same

CAUTION PRIOR TO STEP 36 - (WOG 29)

The caution was reworded to keep the condition prior to the action. The word will was changed to may to give the operator more freedom to determine the best cause of action as several options are available.

STEP 36 - (WOG 29)

The generic step appeared redundant and overly complicated. The step was reworded to alleviate this.

STEP 37 - (WOG 30)

The high level step was reworded to avoid using the word normal.

STEP 38 - (WOG 31)

The high level step was reworded to avoid using the word normal.

STEP 39 - (WOG 32)

The high level step was reworded to avoid using the word normal.

CAUTION PRIOR TO STEP 40 - (WOG 36)

The caution was shortened to remove a statement from the generic procedure that is not needed due to operator training.

STEP 40 - (WOG 36)

The step was reworded slightly to be more consistent with our plant specific format. All of the information in the generic step is retained in the plant step.

STEP 41 - (-)

This caution was included to control loading on the emergency Diesel generators. It was present in past versions of the emergency operating procedures and is important enough to be included here.

STEP 42 - (WOG 37)

This step was reorganized to be consistent with the plant method of addressing loss of offsite AC power concerns.

NOTE PRIOR TO STEP 43 - (-)

This note was included to alert the operator that he has lost letdown along with the charging pumps. This information was present in past versions of the emergency operating procedures and is important enough to be included here.

STEP 43 - (WOG 38)

This high level step was reworded to show that charging flow has probably not been lost.

STEP 44 - (WOG 39)

Part of the intent of the generic step is included in Step 41 of the plant procedure. The instruction to restore offsite AC is unnecessary because it is an obvious action that operators would do based on their training.

STEP 45 - (WOG 40)

Same

ITEMS OF THE GENERIC PROCEDURE THAT ARE NOT INCLUDED IN THE PLANT PROCEDURE

Step 12 of the generic procedure verifies containment ventilation isolation. These valves are checked in Step 7a of the plant procedure that verifies containment isolation. For this reason the generic step is not needed in the plant procedure.

Step 17 & 18 of the generic procedure verify proper valve alignment for safety injection and auxiliary feedwater. The operator has already verified that these pumps are running and flow indication is present. The steps to verify valve alignment are not necessary due to these previous checks and the general operator training. When an operator checks for flow he would also check for some indication that it is going where he expects.

A caution prior to Step 19 of the generic procedure referring to loss of offsite AC is not needed in the same place in the plant procedure because the plant step does not reset safety injection.

A caution prior to Steps 19 & 33 of the generic procedure referring to safety injection pump suction is not necessary because the automatic pump suction transfer does not depend on a safety injection signal in any way.