

# **The Safety Basis Supplement as a Forward Looking JCO**

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May 2007



# Regulatory Basis

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- ◆ 10 CFR 830
- ◆ DOE-G 421.1-2

# Overview of Process

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- ◆ **The use of a Safety Basis Supplement (SBS) must be planned**
- ◆ **The proposed change is temporary and limited to specific conditions**
- ◆ **The safety analysis and supporting documentation is consistent in level of information/rigor as the approved safety basis**
- ◆ **This level of rigor may be achieved by substituting conservative controls for otherwise difficult to perform safety analyses**
- ◆ **Requires specific approval by DOE prior to entry into alternate configuration**

# Current Approach at ICP

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- ◆ Prepare SBS in accordance with approved procedure
- ◆ Submit to DOE for approval
- ◆ DOE approves for a specified time period
- ◆ Implement as a change to the safety basis
- ◆ Verify implementation prior to use as safety basis (typically done with a Management Self Assessment, may require readiness review for more complex applications)
- ◆ Terminate SBS and restore original safety basis at completion of activity

# Attributes of SBS

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- ◆ **It is appropriate to use an SBS if the change is temporary in nature, cannot be performed in compliance with the approved safety basis, and can be made safe by applying conservative controls**
  - As an example, ventilation is required for normal operations
  - The safety basis requires suspension of operations if dP cannot be maintained
  - Planned evolution requires removal of roof plug that will not support required dP
  - Temporary control used to suspend all operations with the exception of removal of specified equipment through roof hatch
  - Sufficient evaluation performed to demonstrate that ventilation (sp) is not required for planned removal
  - Configuration restored after completion of evolution

# Attributes of SBS (cont.)

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- ◆ **The activity is limited in scope and duration**
  - As illustrated by the example, the evolution allowed by the SBS is short in duration
  - The activity is well defined, is demonstrated to be safe with the controls established, and ends with the normal safety basis restored
  - The activity is performed once and therefore does not warrant a permanent revision to the safety basis which would need to be undone afterwards

# Attributes of SBS (cont.)

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- ◆ **The SBS is a recognized form of safety basis documentation**
  - Prepared using approved site procedures
  - Meets requirements of other safety basis documents in that it must include:
    - Description of authorized activities and affected equipment/facilities
    - Evaluation of hazard
    - Identification of appropriate controls
    - Evaluation of the safety significance of the situation

# Advantages of SBS

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- ◆ **Significantly reduces time and cost to develop, approve, and implement DSA for a limited activity where conservative controls can obviate the need for rigorous analyses of conditions that might otherwise exist**
- ◆ **Uses a standard set of expectations for the evaluation and authorization of hazardous work activities**
- ◆ **Limits the time “non-compliant condition” is allowed**
- ◆ **Ensures unique activities are properly controlled**

# Limitations of SBS

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- ◆ **May never be used to authorize long term activities or “permanent” modifications**
- ◆ **May never be used to address recurring conditions in lieu of a permanent document change**
- ◆ **Can not allow an uncontrolled activity**
- ◆ **Expiration date is specified**

# Conclusion

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- ◆ **Appropriately applied the SBS provides a valuable tool that can be used to address planned, non-compliant conditions in a sensible manner**
- ◆ **Allows DOE approval of limited increase in risk bounded by controls for a truly temporary condition**
- ◆ **Ensure temporary actions are authorized appropriately and performed safely**