



# STATUS OF NRC STAFF REVIEW

OF FENOC'S BULLETIN 2001-01 RESPONSE FOR  
DAVIS-BESSE

- Brief for the Commissioners' TAs
- November 30, 2001

- Conducted later
- Supplement Bulletin Response
- no discussion on Required Activities, CAL?
- call Davis Besse this afternoon

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L-10



# AGENDA FOR DISCUSSION

## ■ Purpose

- ▶ To discuss the results of the staff's ongoing assessment of FENOC's responses to Bulletin 2001-01 for Davis-Besse
- ▶ To discuss the change in the staff's decision regarding issuance of an Order

## ■ Success

- ▶ Commissioners' TAs understand the basis for the staff's decisions regarding responses to Bulletin 2001-01 for Davis-Besse

## ■ Introduction and discussion of changes - Larry Burkhardt (5 minutes)

## ■ Discussion of status of staff's review - Jack Strosnider and Rich Barrett (15 minutes)



## **CHANGE IN LICENSEE'S PLANS/COMMITMENTS**

- The Licensee proposed changing its commitments to include
  - ▶ Commencing its refueling outage on February 16, 2002, vice March 31, 2002,
  - ▶ Perform a qualified visual inspection of 100% of the VHP nozzles and undertaking NDE of those nozzles that have indications of cracking,
  - ▶ Characterizing any cracks that are identified in VHP nozzles,
  - Operating at a lower RCS hot leg temperature to reduce the head temperature effects on crack initiation and growth,
  - ▶ Maximizing the availability of the plant's redundant critical safety systems until shutdown, and
  - ▶ Providing increased human factors reliability through additional training, personnel, etc.



# RISK ASSESSMENTS\*

	Base Scenario	Alternate Scenario**
IE Freq. (/ry)	4.0E-02	2.0E-02
CCDP (/ry)	2.7E-03	2.0E-03
Delta CDF (/ry)	1E-04	4E-05
LERF (/ry)	1E-06	4E-07
Delta CDF (12/31/01)(/ry) [4 picture not of the blue but convenient that it ends up at 1]	1E-05	3E-06
Delta CDF (3/31/02)(/ry)	4E-05	
Delta CDF (2/16/02)(/ry)		8E-06

\*Risk numbers are approximate due to the various uncertainties associated with this issue.

\*\*Includes some credit for past inspections, compensatory actions to reduce CCDP, and shortened duration of operation



# RISK-INFORMED DECISIONMAKING GUIDELINES

- **RG 1.174**
  - ▶ Intended for licensing basis changes (permanent changes)
    - $\Delta CDF$  less than  $1E-06/ry$ : very small changes are allowed with tracking of cumulative impacts on CDF
    - $\Delta CDF$  between  $1E-06/ry$  and  $1E-05/ry$ : small changes are allowed with tracking of cumulative impacts on CDF
    - $\Delta CDF > 1E-05/ry$  are not normally allowed
- **RG 1.182**
  - ▶ Intended for managing risk associated with maintenance activities (short-duration)
    - $ICDP < 1E-06$  and  $ILERP < 1E-07$ : normal work controls apply
    - $ICDP$  between  $1E-06$  and  $1E-05$  or  $ILERP$  between  $1E-07$  and  $1E-06$ 
      - Assess non-quantifiable factors
      - Establish risk management actions
    - $ICDP > 1E-05$  or  $ILERP > 1E-06$ 
      - Configuration should not normally be entered voluntarily



# RG 1.174 SAFETY PRINCIPLES

- Current Regulations are met
  - ▶ It is likely that, if inspections were performed today, the current regulations would not be met (TS requirements and GDC)
- Defense-in-depth philosophy is maintained
  - ▶ It is likely that one of 3 barriers is degraded
  - ▶ However, Davis-Besse has a large, dry containment (licensee states that conditional containment failure probability is  $1.5E-03$ )
- Sufficient safety margins are maintained
  - ▶ It is likely that safety margins are reduced
- Only a small increase in CDF results
  - ▶  $\Delta$ CDF (assuming operation until 2/16/02 and crediting comp. actions) is approximately  $8E-06/ry$
  - ▶ Baseline CDF is  $6.6E-05/ry$  (IPE) *- say now  $2 \times 10^{-5}$  - be more than doubling baseline*
- The basis of risk measurement is monitored using performance measurement strategies
  - ▶ Will not occur until inspection is performed