SAFETY EVALUATION REPORT

Docket No. 71-9255
Model No. NUHOMS® MP187 Transportation Package
Certificate of Compliance No. 9255
Revision No. 4

## SUMMARY

By application dated March 17, 2000, Transnuclear West Inc., requested a revision of Certificate of Compliance No. 9255, to incorporate several changes to the drawings. Specifically, the revised drawings will provide flexibility for fabrication of the design, clarify dimensional tolerances, and improve ease of handing the shield inserts. No analysis presented in the Safety Analysis Report is affected by these changes.

## References

Transnuclear West Inc. application dated March 17, 2000.

## ANALYSIS

Transnuclear West Inc., provided a description of the changes and technical justifications for each change. All changes were found to be bounded by Certificate of Compliance No. 9255 Safety Analysis Report (SAR). Structural, thermal, shielding, criticality, and containment analyses are unaffected by these changes. The NRC staff concurs that the MP187 with the changes listed below could be safely transported. The changes are as follows:

1. Add a general note to the following drawings to state: "Alternate Weld Joint Preparations (U, V or J Grooves) May Be Used Provided All ASME Code Criteria Are Met. The Specified Minimum Effective Throat Must Be Maintained."

   - ❑ As note 8 on Drawing Nos. NUH-05-4003, and NUH-05-4003NP, Sheet 1.
   - ❑ As note 29 on Drawing Nos. NUH-05-4005, and NUH-05-4005NP, Sheet 1.
   - ❑ As a replacement for note 6 on Drawing Nos. NUH-05-4004 and NUH-05-4004NP, Sheet 1.

   The change will provide flexibility for fabrication of the transportation packaging and does not affect the strength, quality or acceptance criteria for any weld nor any analysis in the SAR. Therefore, this change is acceptable to the Nuclear Regulatory Commission (NRC) staff.

2. Add an additional tapped hole to the ram closure plate. View on Drawing Nos. NUH-05-4001 and NUH-05-4001NP, Sheet 2 was modified to show two holes.

   The change will provide an additional tapped hole to attach the lifting beam to the

closure plate to make it easier to remove the plate during fuel loading operations. The additional hole does not affect the structural or shielding analysis presented in the SAR. Therefore, this change is acceptable to the NRC staff.

3. Add flag note 53 to Sheets 1 and 3 of Drawing No. NUH-05-4001 to allow replacement of specific dimensions for the alignment targets with a performance based requirement.

   The change will provide maximum flexibility for locating the targets used to align the cask with the horizontal storage module (HSM) during insertion and extraction of the dry shielded canister from the HSM. The location of the holes to attach alignment targets does not affect any analysis presented in the SAR. Therefore, this change is acceptable to the NRC staff.

4. Add flag note 30 to Sheet 1 and to Section E on Sheet 2 of Drawing No. NUH-05-4005. Add flag note 31 to Sheet 1 and to Section L on Sheet 2 of Drawing No. NUH-05-4004. Both flags contain the following wording: "Dimensions Not Specifically Toleranced Are For Information Only. Block Tolerances Do Not Apply."

   The changes will provide flexibility during fabrication of the transportation packaging. The dimensional tolerances do not affect the safety or functionality of the vent and siphon port block and do not affect any analysis in the SAR. Therefore, these changes are acceptable to the NRC staff.

5. Revise the stop tab weld callout from a continuous weld to a tack type weld in Zone F-1 on Sheet 2 of Drawing No. NUH-05-4004.

   The change will make it easier to fabricate the guide sleeve assembly. The stop tabs serve no purpose under 10 CFR Part 71. The tabs are not important-to-safety and prevent the guide sleeve from being withdrawn with the fuel assembly should it be necessary to remove the fuel from the dry shielded canister. This revision does not affect any analysis presented in the SAR. Therefore, this change is acceptable to the NRC staff.

6. Specify a larger tolerance for locating the upper and lower trunnion filler plates. This change affects Section C on Sheet 4 and Section R on Sheet 4 for Drawing Nos. NUH-05-4001 and NUH-05-4001NP. Specifically, the tolerances are changing from 6.50 ± .13 inches to 6.50 +0.06/-0.15 inches in Section C on both drawings and changing from 2.75 ± 0.06 inches to 2.75 +0.06/-0.15 inches in Section R on both drawings.

   The change will make it easier to fabricate and assemble the trunnion filler plates. The filler plates provide a closure for the lead cavity during lead pour. The change in tolerance does not affect the structural or shielding analysis in the SAR. Therefore, this change is acceptable to the NRC staff.

7. Add flag note 54 to Drawing No. NUH-05-4001, Sheet 3, and to Section C on Sheet 4 to state: "Additional plug or tack welds may be used to attach Item 52 to Item 7."

   These changes will make it easier to fabricate the upper trunnion plug assembly. The

changes do not affect any analysis presented in the SAR. Therefore, this change is acceptable to the NRC staff.

8. Add a general note to the following drawings to state: "Threaded Holes and/or Lifting Lugs May Be Added To Each Part As Required To Facilitate Handling Of These Finished Components. Threaded inserts, such as screws, bolts, etc. shall be installed prior to Shipping The Cask."

   - ❑ Add Note 55 to Sheet 4 of Drawing Nos. NUH-05-4001, and NUH-05-4001NP.
   - ❑ Show Note 55 on Section C and R on Sheet 4 of Drawing Nos. NUH-05-4001, and NUH-05-4001NP.

   A similar note 9 will be added to Sheet 1 of Drawing Nos. NUH-05-4003 and NUH-05-4003NP that reads as follows: "Threaded Holes and/or Lifting Lugs May Be Added To Each Part as Required To Facilitate Handling of These Finished Components".

   These changes will improve the ease of handling the shielded inserts. The time saved during handling, as a result of these changes, will likely reduce radiation worker exposure. The addition of tapped holes to facilitate handling operations does not affect the structural, shielding or thermal analyses as described in the SAR. Since the holes in the trunnion plugs will be filled with threaded inserts before shipment; there is no increase in the dose rates. Therefore, these changes are acceptable to the NRC staff.

9. Correct the revision number for NUH-05-4000NP to correct a typographical error in Certificate of Compliance, Revision No. 3.

**CONCLUSION**

The staff concludes that the requested changes will not affect the package's ability to meet the requirements of 10 CFR Part 71. Pursuant to 10 CFR Part 71, Certificate of Compliance No. 9255 for the NUHOMS® MP187 transportation package is revised. All other conditions of Certificate of Compliance No. 9255 shall remain the same.

Issued with Certificate of Compliance No. 9255, Revision No. 4,
on March 30, 2000.

ADAMS Package No. ADAMS Accession No.