

May 8, 2007

U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852-2738

Attn: Document Control Desk

Subject: Correction of Administrative Errors in Appendix A of Amendment 4 of Certificate of Compliance (CoC) No. 1015 for the NAC-UMS[®] Universal Storage System (TAC No. L24032)
Docket No. 72-1015

- References:
1. Certificate of Compliance No. 1015 for the NAC International, Inc. Universal Storage System (NAC-UMS[®]), U.S. Nuclear Regulatory Commission (NRC), Amendment 4, October 11, 2005
 2. Final Safety Analysis Report (FSAR) for the UMS[®] Universal Storage System, Revision 6, NAC International, November 2006
 3. Request for an Amendment of Certificate of Compliance (CoC) No. 1015 for the NAC-UMS[®] Universal Storage System to Incorporate High Burnup PWR Fuel as Approved Contents and Implement Changes to the Technical Specifications, NAC International, September 22, 2006

NAC-UMS[®] Certificate of Compliance No. 1015 (Reference 1), Appendix A, Administrative Controls and Programs, Section A 5.6 NAC-UMS[®] SYSTEM Transport Evaluation Program, Item (a) states "The lift height above the transport surface prescribed in Section B3.4.1(6) of Appendix B to Certificate of Compliance (CoC) No. 1015 shall not exceed the limits in Table A5-1. Also, the program shall ensure that the transport route conditions (i.e., surface hardness and pad thickness) are equivalent to or less limiting than those prescribed for the reference pad surface which forms the basis for the values cited in Sections 11.2.12.3 and 11.2.15.1.1 of the NAC-UMS[®] Final Safety Analysis Report." Item A 5.6(b) also references Section B 3.4.1(6).

In Amendment 4, Section B 3.4.1(6) of Appendix B of CoC 1015 addresses the use of engineered features (i.e., berms, shield walls) and not the transport surface. This disconnect is due to an NAC editorial error in Amendment 4 of the CoC. Amendment 4 deleted Section B3.4.1(6) of Amendment 3 and renumbered the remaining items.

To correct the above, Section A 5.6 (a) needs to be changed to read: "The lift height above the transport surface shall not exceed the limits in Table A5-1." The second sentence in Section A 5.6(a) should be deleted since the 24-inch drop analysis provided in Section 11.2.4 of the NAC-UMS[®] Final Safety Analysis Report bounds all possible surface conditions along the transport route. In addition, in Section A 5.6(b), the first sentence should be changed to read: "For site-specific transport conditions that are not bounded by Section 11.2.4 of the NAC-UMS[®] Final Safety



U.S. Nuclear Regulatory Commission
May 8, 2007
Page 2

Analysis Report, the program may evaluate the site-specific conditions to ensure that the impact loading due to site-specific drop events does not exceed 60 g.” In the next sentence, “Safety Analysis Report” shall be replaced by “Final Safety Analysis Report.”

Attachment 1 to this letter contains the updated List of Proposed Changes for the UMS[®] Universal Storage System, Revision UMSS-06A, originally submitted to the NRC in September 2006. The proposed changes to Sections A 5.6(a) and A 5.6(b) are identified by a revision bar in Attachment 1. Revised pages A5-3 and A5-4 for Appendix A of the NAC-UMS[®] Technical Specifications, Amendment 5, are also enclosed for your review and use.

To support ongoing cask loading and transfer operations at three NAC-UMS[®] cask licensee facilities, the NRC is requested to make the requested change in the draft CoC and Technical Specifications being prepared in response to the ongoing license amendment effort (Reference 3).

If you have any comments or questions, please contact me on my direct line at (678) 328-1274.

Sincerely,

A handwritten signature in black ink that reads 'Anthony L. Patko'.

Anthony L. Patko
Director, Licensing
Engineering

Attachment 1 – List of Proposed Changes for the UMS[®] Universal Storage System Revision UMSS-06A (updated May 8, 2007)

Enclosures

cc: Glenn Michael (APS)
Keith Waldrop (Duke)
Jim Connell (MY)

Attachment 1

**List of Proposed Changes for the
UMS[®] Universal Storage System
Revision UMSS-06A**

NAC International

September 2006

(updated May 8, 2007)

List of Proposed Changes to the NAC-UMS[®] CoC, Technical Specifications and FSAR

Proposed CoC Change

1. Page 2, 1st full paragraph, 9th sentence – Deleted “and has tamper-indicating seals on two of the bolts”

Proposed Technical Specifications Changes – General

1. General – Revised “Amendment 4” to “Amendment 5” on the pages with proposed changes

Proposed Changes in Appendix A, Technical Specifications for the NAC-UMS[®] System

1. Page A-1 – Cover sheet for Appendix A revised to Amendment 5
2. Page A-2 – List of Effective Pages revised to show proposed Amendment 5 pages
3. Page A-3 – Table of Contents was revised to show that LCO A 3.1.5 was deleted
4. Page A1-1 – Added the term “Burnup” and its definition
5. Page A1-2 – Revised the definition of the term “High Burnup Fuel”
6. Page A3-12 – Deleted LCO 3.1.5, CANISTER Helium Leak Rate
7. Page A5-3, Section A 5.6(a), changed paragraph to read as follows: “The lift height above the transport surface shall not exceed the limits of Table A5-1.”
8. Page A5-4, Section A 5.6(b), 1st sentence changed to read as follows: “For site-specific transport conditions that are not bounded by Section 11.2.4 of the NAC-UMS[®] Final Safety Analysis Report, the program may evaluate the site-specific conditions to ensure that the impact loading due to site-specific drop events does not exceed 60 g.” In the next sentence, replaced “Safety Analysis Report” with “Final Safety Analysis Report.”

Proposed Changes in Appendix B, Technical Specifications for the NAC-UMS[®] System

1. Page B-1 – Cover sheet for Appendix B revised to Amendment 5
2. Page B-2 – List of Effective Pages revised to show proposed Amendment 5 pages
3. Page B2-1 – Section B 2.1, Fuel Specifications and Loading Conditions
 - 3rd paragraph, 2nd sentence – deleted “fuel configurations that may have higher burnup, additional hardware material or”
 - Last paragraph, 3rd bullet – changed “30 days” to “60 days”

List of Proposed Changes to the NAC-UMS[®] CoC, Technical Specifications and FSAR (cont'd)

4. Page B2-2 – Section B 2.1.2, Maine Yankee SITE-SPECIFIC FUEL Preferential Loading
 - 3rd paragraph – added new last sentence
5. Page B2-5, Section 1.A., Allowable Contents
 - Added new item “c” (Assembly Average Burnup) and new item “d” (Peak Average Rod Burnup); relettered subsequent items
6. Page B2-10, Table B2-4, Minimum Cooling Time Versus Burnup/Initial Enrichment for PWR Fuel – changed “Burnup” to “Assembly Average Burnup” throughout
7. Page B2-11, Table B2-4 (continued) – added additional information for 45 through 60 GWd/MTU burnup
8. Page B2-12, Table B2-5, Minimum Cooling Time Versus Burnup/Initial Enrichment for BWR Fuel – changed “Burnup” to “Assembly Average Burnup” throughout
9. Page B3-3, Table B3-1, List of ASME Code Exceptions for the NAC-UMS SYSTEM, 2nd row under heading, 3rd column – changed “Requirements to be supplied ...” to “Requirements for materials to be supplied ...”; 4th row under heading, last column – deleted last sentence
10. Page B3-5, Table B3-1 (continued) – 1st row under heading, last column – deleted 4th sentence; changed new 4th sentence from “...PT examination” to “...PT examination and leakage tested”; added new 5th & 6th sentences; changed last sentence from “enclosure weld” to “closure weld”

Proposed NAC-UMS[®] FSAR Changes

1. General – The List of Effective pages; the Table of Contents, List of Figures and List of Tables for Chapter 5; the Table of Contents for Chapter 11; and the Table of Contents for Appendix 12C were revised to reflect the proposed changes. Note: The List of Effective Pages contains pages previously changed by the 10 CFR 72.48 process.
2. General – Numerous pages were changed due to text flow created by proposed changes. There are no changes or modifications to the text or information contained on those pages, so there are no vertical revision bars showing revised areas.
3. Page 1-4, Table 1-1 – revised the definition of High Burnup Fuel
4. Page 1.2-7, 1st full paragraph, 3rd sentence – added “and bolted in place”; 5th sentence – revised throughout
5. Page 1.2-10, Section 1.2.1.5.8 – changed “integrity of the welds” to “integrity of the port cover welds”

List of Proposed Changes to the NAC-UMS® CoC, Technical Specifications and FSAR (cont'd)

6. Page 1.2-13, 4th bullet – deleted 2nd & 3rd sentences; 5th bullet, 2nd sentence – deleted “the shield lid to canister shell weld and”
7. Page 1.5-38, Table 1.5-1, Item 3, sub-item “Confinement System” – under Regulatory Requirement, deleted reference to ANSI N14.5-1987; under Description of Compliance, 3rd sentence revised throughout; added new 4th & 5th sentences
8. Page 1.6-1, Section 1.6 – revised throughout
9. Page 1.8-1, Section 1.8.1 – updated license drawing number 790-573 to revision 8 and included revised drawing; updated license drawing number 790-585 to revision 20 and included revised drawing; updated license drawing number 790-590 to revision 6 and included revised drawing
10. Page 2.1.1-2, Table 2.1.1-1 – changed Max Assembly Average Burnup (MWd/MTU) from “45,000” to “60,000” & added footnote number 8
11. Page 2.1.1-3, Table 2.1.1-2 – changed table title; changed “Burnup” to “Assembly Average Burnup” throughout
12. Page 2.1.1-4, Table 2.1.1-2 (continued) – changed table title; added additional information for 45 through 60 GWd/MTU burnup
13. Page 2.1.2-3, Table 2.1.2.-2 – changed table title; changed “Burnup” to “Assembly Average Burnup” throughout
14. Page 3.3-16, Section 3.3.2, last paragraph – revised throughout
15. Page 3.4.2-1, Section 3.4.2, 2nd paragraph – deleted last sentence
16. Page 3.7-3 – added new reference number 42
17. Page 4.4.5-1, Section 4.4.5.1, 2nd paragraph – deleted the 4th sentence
18. Page 5.2-1, Section 5.2 – added new 3rd paragraph
19. Page 5.5-1, Section 5.5, 2nd paragraph, 1st sentence – revised throughout
20. Page 5.5-8, Table 5.5-7 – changed table title; changed “Burnup” to “Assembly Average Burnup” throughout
21. Page 5.5-9, Table 5.5-7 (continued) – changed table title; added additional information for 45 through 60 GWd/MTU burnup
22. Page 5.5-10, Table 5.5-8 – changed table title; changed “Burnup” to “Assembly Average Burnup” throughout

List of Proposed Changes to the NAC-UMS[®] CoC, Technical Specifications and FSAR (cont'd)

23. Page 5.7-3 – added new reference numbers 24, 25, 26, 27, 28 and 29.
24. Page 7.1-1, Section 7.0, 1st paragraph, last sentence – changed “containment” to “confinement”
25. Page 7.1-2, 2nd full paragraph, 5th sentence – deleted “and leak tested to ensure leak tightness”; added new 7th sentence
26. Page 7.1-4, Section 7.1.1.3, 2nd & 3rd paragraphs – revised throughout; Section 7.1.2, 1st paragraph – combined previous 4th & 5th sentences into one new sentence.
27. Page 7.1-5, 1st paragraph, 1st sentence – changed “either penetration” to “both penetrations”; 2nd sentence – changed “both penetrations” to “the penetrations”; added new 3rd sentence; 4th sentence – changed “When the port covers are in place” to “With the port covers welded in place
28. Page 7.1-6, 2nd paragraph, 1st sentence – changed “(air/nitrogen/helium over water)” to “(gas over water)”; added new 6th sentence
29. Page 7.2-2, 1st partial paragraph, 1st partial sentence, 1st word – changed “enclosed” to “retained”
30. Page 7.4-1, Section 7.4, 2nd paragraph, 1st sentence – deleted “and as defined by ANSI N14.5”
31. Page 7.5-1, Section 7.5 – added new reference numbers 7 and 8
32. Page 8.1-1, Section 8.1, 4th paragraph, 2nd sentence – changed “specific characteristics” to “site-specific characteristics”; last sentence – added “for site-specific fuel”
33. Page 8.1.1-1, Section 8.1.1, item 9 Note – 1st sentence, changed “characteristics” to “site specific characteristics”; 2nd sentence, added “for site-specific fuel”
34. Page 8.1.1-5 – deleted previous items 33 and 34; moved notes to follow item 32; renumbered following items accordingly. New item 35 Note – changed “Step 40” to “Step 38”
35. Page 8.1.1-6 – new item 39 Note – changed “drain port cover weld” to “vent port cover weld” & changed “Step 44” to “Step 42”; new item 42 – changed “weld final surface” to “vent port cover weld final pass”; new item 44 – revised throughout and added Note; new item 45 – changed “leak test fixture fitting” to “leak test cover(s)”; new item 46 – changed “leak test fixture” to “leak test cover(s)”; new item 47 – revised throughout; new item 49 – changed “leak test fixture” to “leak test equipment”

List of Proposed Changes to the NAC-UMS[®] CoC, Technical Specifications and FSAR (cont'd)

36. Page 8.1.2-1, Section 8.1.2, Item 7 Note – changed “Section B 3.4.1(8) of Appendix B” to “Section B 3.4.1(7) of Appendix B”
37. Page 8.1.2-2, item 19 – revised throughout; item 24, 2nd sentence – revised throughout
38. Page 8.1.3-1, Section 8.1.3, 3rd paragraph, Item 2 Caution – changed “Administrative Control A5.6(c)” to “Administrative Control A5.6(a)”
39. Page 8.1.3-2, Item 7 Caution – changed “Administrative Control A5.6(c)” to “Administrative Control A5.6(a)”
40. Page 9.1-6, Section 9.1.3 – revised throughout
41. Page 9.1-7, Section 9.1.3 (cont'd) – revised throughout
42. Page 9.3-1, Section 9.3 – deleted reference number 9
43. Pages 11.2.16-1 through 11.2.16-7 – added new Section 11.2.16 titled “Fuel Rods Structural Evaluation for Burnup to 60,000 MWd/MTU”
44. Page 11.3-5 – Added new reference number 61.
45. Page 12-2, 1st full paragraph, last sentence – revised throughout
46. Page 12C3-9, LCO C 3.1.1, BACKGROUND, 1st paragraph, 4th sentence – changed “examined, pressure tested, and leak tested” to “examined and pressure tested”; 7th sentence – changed “are installed and welded” to “are installed, welded and leak tested”; added new 8th sentence
47. Page 12C3-13, LCO C 3.1.2, BACKGROUND, 1st paragraph, 4th sentence – changed “examined, pressure tested, and leak tested” to “examined and pressure tested”; 7th sentence – changed “are installed and welded” to “are installed, welded and leak tested”; added new 8th sentence
48. Page 12C3-16, LCO C 3.1.3, BACKGROUND, 1st paragraph, 4th sentence – changed “examined, pressure tested, and leak tested” to “examined and pressure tested”; 7th sentence – changed “are installed and welded” to “are installed, welded and leak tested”; added new 8th sentence
49. Page 12C3-19, LCO C 3.1.4, BACKGROUND, 1st paragraph, 4th sentence – changed “examined, pressure tested, and leak tested” to “examined and pressure tested”; 7th sentence – changed “are installed and welded” to “are installed, welded and leak tested”; added new 8th sentence
50. Page 12C3-24, LCO C 3.1.5 – deleted

A 5.5 Radioactive Effluent Control Program

The program implements the requirements of 10 CFR 72.126.

- a. The NAC-UMS[®] SYSTEM does not create any radioactive materials or have any radioactive waste treatment systems. Therefore, specific operating procedures for the control of radioactive effluents are not required. LCO 3.1.5, CANISTER Helium Leak Rate, provides assurance that there are no radioactive effluents from the NAC-UMS[®] SYSTEM.
- b. This program includes an environmental monitoring program. Each general license user may incorporate NAC-UMS[®] SYSTEM operations into their environmental monitoring program for 10 CFR Part 50 operations.

A 5.6 NAC-UMS[®] SYSTEM Transport Evaluation Program

This program provides a means for evaluating various transport configurations and transport route conditions to ensure that the design basis drop limits are met. For lifting of the loaded TRANSFER CASK or CONCRETE CASK using devices that are integral to a structure governed by 10 CFR Part 50 regulations, 10 CFR 50 requirements apply. This program is not applicable when the TRANSFER CASK or CONCRETE CASK is in the fuel building or is being handled by a device providing support from underneath (i.e., on a rail car, heavy haul trailer, air pads, etc.).

Pursuant to 10 CFR 72.212, this program shall evaluate the site specific transport route conditions.

- a. The lift height above the transport surface shall not exceed the limits in Table A 5-1.

(continued)

A 5.6 NAC-UMS® SYSTEM Transport Evaluation Program (continued)

- b. For site-specific transport conditions that are not bounded by Section 11.2.4 of the NAC-UMS® Final Safety Analysis Report, the program may evaluate the site-specific conditions to ensure that the impact loading due to site-specific drop events does not exceed 60g. This alternative analysis shall be commensurate with the drop analyses described in the Final Safety Analysis Report for the NAC-UMS® SYSTEM. The program shall ensure that these alternative analyses are documented and controlled.
- c. The TRANSFER CASK and CONCRETE CASK may be lifted to those heights necessary to perform cask handling operations, including CANISTER transfer, provided the lifts are made with structures and components designed in accordance with the criteria specified in Section B3.5 of Appendix B to CoC No. 1015, as applicable.

A 5.7 [Deleted]
