



**Dominion<sup>®</sup>**

**North Anna 3  
Final Safety  
Analysis Report  
Draft**

*February 2, 2007*

*Chapter 11*

11.0 RADIOACTIVE WASTE MANAGEMENT

11.1 SOURCE TERMS

This section of the referenced DCD is incorporated by reference with no departures or supplements.

11.2 LIQUID WASTE MANAGEMENT SYSTEM

This section of the referenced DCD is incorporated by reference with the following departures and/or supplements.

11.2.1 Design Basis

Replace the next to last paragraph, which states:

“The COL holder is responsible for evaluating the initial, and then subsequently updated future, mobile systems per the guidance and information in IE Bulletin 80-10, May 6, 1980 for the express purpose of identifying and rectifying connections that are considered as non-radioactive, but could become radioactive through interfaces with radioactive systems, i.e., a non-radioactive system that could become contaminated due to leakage, valving errors or other operating conditions in radioactive systems.”

with the following paragraph:

STD COL 11.2.6-2

“The licensee will evaluate the initial and then subsequently updated future, mobile systems per the guidance and information in IE Bulletin 80-10, May 6, 1980, for the express purpose of identifying and rectifying connections that are considered as non-radioactive, but could become radioactive through interfaces with radioactive systems, i.e., a non-radioactive system that could become contaminated due to leakage, valving errors, or other operating conditions in radioactive systems.”

Replace the last paragraph, which states:

“The COL holder is responsible to include site-specific information in Section 11.2.1 describing how the implementation of operating procedures and design features for installation and operation of the mobile/portable LWMS will address the requirements of Part 20.1406. Specifically the operational procedures and design of the mobile/portable LWMS should minimize, to the extent practicable, contamination of the facility and the environment, facilitate decommissioning, and minimize the generation of radioactive wastes. This information may be placed into Section 12.6 provided applicable referencing is included in Subsection 11.2.1.”

with the following paragraph:

STD COL 11.2.6-3

“The licensee will include site-specific information that describes how the implementation of operating procedures and design features for installation and operation of the mobile/portable LWMS will address the requirements of Part 20.1406. Specifically the operational procedures and design of the mobile/portable LWMS should minimize, to the extent practicable, contamination of the facility and the environment, facilitate decommissioning, and minimize the

generation of radioactive wastes. This information may be placed into Section 12.6 provided applicable referencing is included in Subsection 11.2.1.”

**11.2.2 System Description**

**11.2.2.1 Summary Description**

Replace the fifth paragraph, which states:

“The COL holder is responsible for developing, and updating, as necessary, for the initial, and subsequently updated future, mobile systems, a Process Control Program as described in Generic Letter 89-01, January 31, 1989, specifically, Enclosure 3, Section 6.13 Process Control Program, PCP.”

with the following paragraph:

**STD COL  
11.2.6-1**

“The licensee will develop and update, as necessary, for the initial and subsequently updated future, mobile systems a Process Control Program as described in Generic Letter 89-01, January 31, 1989, specifically, Enclosure 3, Section 6.13 Process Control Program, PCP.”

**11.2.6 COL Information**

**STD COL  
11.2.6-1**

Replace the existing paragraph with the following new statement:

This COL item is addressed in **Section 11.2.2.1**.

**STD COL  
11.2.6-2**

Replace the existing paragraph with the following new statement:

This COL item is addressed in **Section 11.2.1**.

**STD COL  
11.2.6-3**

Replace the existing paragraph with the following new statement:

This COL item is addressed in **Section 11.2.1**.

**11.3 GASEOUS WASTE MANAGEMENT SYSTEM**

**This section of the referenced DCD** is incorporated by reference with no departures or supplements.

**11.4 SOLID WASTE MANAGEMENT SYSTEM**

**This section of the referenced DCD** is incorporated by reference with the following departures and/or supplements.

**11.4.1 Design Basis**

***Power Generation Design Bases***

Replace the last sentence in the seventh bullet of the first paragraph, which states:

“The inclusion of a temporary storage facility and an overall site management plan per NUREG-0800 Standard Review Plan 11.4, Draft Rev 3-April 1996, Appendix 11.4-A may be required.”

with the following sentence:

**COL 11.4.6-6** "The licensee may include a temporary storage facility and an overall site management plan per NUREG-0800 Standard Review Plan 11.4, Draft Rev. 3-April 1996, Appendix 11.4-A, if required."

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In the third from the last paragraph, replace the following sentence:

"The COL holder is responsible to include site-specific information in Section 11.4.1 describing how the implementation of operating procedures and design features for installation and operation of the mobile/portable SWMS will address the requirements of Part 20.1406."

with the following sentence:

**STD COL 11.4.6-7** "The licensee will include site-specific information describing how the implementation of operating procedures and design features for installation and operation of the mobile/portable SWMS will address the requirements of Part 20.1406."

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**11.4.2 System Description**

**11.4.2.2 System Operation**

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Replace the first paragraph, which states:

"The COL holder is responsible for developing and maintaining programs identified in the administrative controls section of the Technical Specifications per the requirements of Title 10 Code of Federal Regulations Part 50.36a, as described in the Standard Review Plan 11.4, Draft Rev 3 – April 1996, Section III.9."

with the following paragraph:

**STD COL 11.4.6-4** "The licensee will develop and maintain programs identified in the administrative controls section of the Technical Specifications per the requirements of Title 10 Code of Federal Regulations Part 50.36a, as described in the Standard Review Plan 11.4, Draft Rev 3 – April 1996, Section III.9."

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Replace the second paragraph, which states:

"Waste will be classified as A, B, or C and meet the requirements of the waste treatment facility or repository per 10 CFR 61.55 and 61.56."

with the following paragraph:

**STD COL 11.4.6-9** "The licensee will classify waste as A, B, or C and meet the requirements of the waste treatment facility or repository per 10 CFR 61.55 and 61.56."

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Replace the third paragraph, which states:

"The COL holder is responsible for the mobile transport of radwaste, including compliance with 10 CFR 20 Appendix G and 40 CFR 190."

with the following paragraph:

**STD COL  
11.4.6-11**

“The licensee will transport radwaste in compliance with 10 CFR 20, Appendix G and 40 CFR 190.”

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Replace the last sentence of the fourth paragraph, which states:

“The COL holder is responsible to ensure that mobile systems comply with the guidance of Regulatory Guide 1.143 Revision 2, November 2001.”

with the following sentence:

**STD COL  
11.4.6-10**

“The licensee will ensure that mobile systems comply with the guidance of Regulatory Guide 1.143, Revision 2, November 2001.”

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**11.4.2.3 Detailed System Component Description**

**Mobile Systems**

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Replace the third from the last sentence in the second paragraph, which states:

“The COL holder is responsible for reviewing that the systems, structures, components and operation of the initial, and then subsequently updated future, mobile systems comply with the requirements of NUREG-0800, Section 11.4 Solid Waste Management Systems, Draft Rev. 3 – April 1996, including Branch Technical Position – ETSB 11-3, Regulatory Guide 1.143, Regulatory Guide 8.8 and Regulatory Guide 8.10.”

with the following sentence:

**STD COL  
11.4.6-1**

“The licensee will review the systems, structures, components, and operation of the initial, and then subsequently updated future, mobile systems for compliance with the requirements of NUREG-0800, Section 11.4, Solid Waste Management Systems, Draft Rev. 3 – April 1996, including Branch Technical Position – ETSB 11-3, Regulatory Guide 1.143, Regulatory Guide 8.8 and Regulatory Guide 8.10.”

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Replace the second from the last sentence of the second paragraph, which states:

“The COL holder is responsible for evaluating the initial, and then subsequently updated future, mobile systems per the guidance and information in IE Bulletin 80-10, May 6, 1980 for the express purpose of identifying and rectifying connections that are considered as non-radioactive, but could become radioactive through interfaces with radioactive systems, i.e., a non-radioactive system that could become contaminated due to leakage, valving errors or other operating conditions in radioactive systems.”

with the following sentence:

**STD COL  
11.4.6-2**

“The licensee will evaluate the initial and then subsequently updated, future, mobile systems per the guidance and information in IE Bulletin 80-10, May 6, 1980 for the express purpose of identifying and rectifying connections that are considered as nonradioactive, but could become radioactive through interfaces with radioactive systems, i.e., a non-radioactive system that could become

contaminated due to leakage, valving errors or other operating conditions in radioactive systems.”

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Replace the last sentence in the second paragraph, which states:

“The COL holder is responsible for developing and updating, as necessary, for the initial, and subsequently updated future, mobile systems, a Process Control Program as described in Generic Letter 89-01, January 31, 1989, specifically, Enclosure 3, Section 6.13 Process Control Program, PCP.”

with the following sentence:

**STD COL  
11.4.6-3**

“The licensee will develop and update, as necessary, for the initial and subsequently updated future, mobile systems, a Process Control Program as described in Generic Letter 89-01, January 31, 1989, specifically, Enclosure 3, Section 6.13, Process Control Program, PCP.”

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### **11.4.3 Safety Evaluation**

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Replace the second paragraph, which states:

“As mobile waste processes are selected for use, during the design stage before installation of final hook-up and connection with the permanent plant SWMS systems, the issues of IE Bulletin No. 80-10, dated May 6, 1980, will be evaluated by the COL holder for the express purpose of ensuring that systems considered as non-radioactive, but could become radioactive through interfaces with radioactive systems, remain non-radioactive.”

with the following paragraph:

**STD COL  
11.4.6-12**

“As mobile waste processes are selected for use, during the design stage before installation of final hook-up and connection with the permanent plant SWMS systems, the issues of IE Bulletin No. 80-10, dated May 6, 1980, will be evaluated by the licensee for the express purpose of ensuring that systems considered as non-radioactive, but could become radioactive through interfaces with radioactive systems, remain non-radioactive.”

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### **11.4.4 Testing and Inspection Requirements**

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Replace the first sentence of the second paragraph, which states:

“The COL holder is responsible for testing new and subsequent mobile systems.”

with the following sentence:

**STD COL  
11.4.6-5**

“The licensee will test new and subsequent mobile systems.”

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**Table 11.4-2 Annual Shipped Waste Volumes**

Replace the first footnote, which states:

“It is assumed the COL holder will compact waste using a third party service. The waste volume reduction will be considered and determined by the COL holder depending on the type and level of waste and the waste compacting equipment and resulting compaction performance.”

with the following:

**STD COL  
11.4.6-8**

“This assumes that the licensee compacts the waste using a third party service. The waste volume reduction will be considered and determined by the licensee depending on the type and level of waste and the waste compacting equipment and resulting compaction performance.”

**11.4.6 COL Information**

***Mobile Systems***

Delete the first two paragraphs.

**STD COL  
11.4.6-1**

Replace the existing paragraph with the following new statement:  
This COL item is addressed in **Section 11.4.2.3**.

**STD COL  
11.4.6-2**

Replace the existing paragraph with the following new statement:  
This COL item is addressed in **Section 11.4.2.3**.

**STD COL  
11.4.6-3**

Replace the existing paragraph with the following new statement:  
This COL item is addressed in **Section 11.4.2.3**.

**STD COL  
11.4.6-4**

Replace the existing paragraph with the following new statement:  
This COL item is addressed in **Section 11.4.2.2**.

**STD COL  
11.4.6-5**

Replace the existing paragraph with the following new statement:  
This COL item is addressed in **Section 11.4.4**.

**STD COL  
11.4.6-6**

Replace the existing paragraph with the following new statement:  
This COL item is addressed in **Section 11.4.1**.

**STD COL  
11.4.6-7**

Replace the existing paragraph with the following new statement:  
This COL item is addressed in **Section 11.4.1**.

**STD COL  
11.4.6-8**

Replace the existing paragraph with the following new statement:  
This COL item is addressed in **Table 11.4-2**.

**STD COL  
11.4.6-9**

Replace the existing paragraph with the following new statement:  
This COL item is addressed in **Section 11.4.2.2**.

**STD COL  
11.4.6-10**

Replace the existing paragraph with the following new statement:  
This COL item is addressed in **Section 11.4.2.2**.

**STD COL  
11.4.6-11**

Replace the existing paragraph with the following new statement:  
This COL item is addressed in **Section 11.4.2.2**.

**STD COL  
11.4.6-12**

Replace the existing paragraph with the following new statement:  
This COL item is addressed in [Section 11.4.3](#).

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**11.5 PROCESS RADIATION MONITORING SYSTEM**

[This section of the referenced DCD](#) is incorporated by reference with the following departures and/or supplements.

**11.5.4 Regulatory Evaluation**

***11.5.4.5 Offsite Dose Calculation Manual***

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Replace the paragraph, which states:

“The COL Holder will also develop an offsite dose calculation manual (ODCM) that contains the methodology and parameters used for calculation of offsite doses resulting from gaseous and liquid effluents. The COL Holder will address operational setpoints for the radiation monitors and address programs for monitoring and controlling the release of radioactive material to the environment, which eliminates the potential for unmonitored and uncontrolled release. The ODCM will include planned discharge flow rates.”

with the following paragraph:

**STD COL  
11.5.7-2**

“The licensee will also develop an offsite does calculation manual (ODCM) that contains the methodology and parameters used for calculation of offsite doses resulting from gaseous and liquid effluents. The licensee will address operational setpoints for the radiation monitors and address programs for monitoring and controlling the release of radioactive material to the environment, which eliminates the potential for unmonitored and uncontrolled release. The ODCM will include planned discharge flow rates.”

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***11.5.4.6 Process and Effluent Monitoring Program***

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Replace the paragraph, which states:

“In addition, the COL Holder is responsible for the site-specific program aspects of the process and effluent monitoring and sampling per ANSI N13.1 and Regulatory Guides 1.21 and 4.15.”

with the following paragraph:

**STD COL  
11.5.7-3**

“In addition, the licensee is responsible for the site-specific program aspects of the process and effluent monitoring and sampling per ANSI N13.1 and Regulatory Guides 1.21 and 4.15.”

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**11.5.4.7 Site Specific Offsite Dose Calculation**

Replace the paragraph, which states:

“The COL Holder is responsible for addressing 10 CFR 50, Appendix I guidelines for maximally exposed offsite individual doses and population doses via liquid and gaseous effluents.”

with the following paragraph:

**STD COL  
11.5.7-4**

“The 10 CFR 50, Appendix I guidelines for maximally exposed offsite individual doses and population doses via liquid and gaseous effluents are addressed in Subsection 12.2.2.”

**11.5.4.8 Instrument Sensitivities**

Replace the paragraph, which states:

“The COL Holder is responsible for the sensitivities, frequencies and basis for each gaseous and liquid samples.”

with the following paragraph:

**STD COL  
11.5.7-5**

“The licensee is responsible for the sensitivities, frequencies and basis for each gaseous and liquid sample.”

**Table 11.5-2 Process Radiation Monitoring System (Gaseous and Airborne Monitors)**

Replace the second sentence of the second footnote, which states:

“The derivation of each LLD is to be determined by the COL Holder based on site-specific conditions and operating characteristics of each installed effluent radiation monitoring subsystem.”

with the following sentence:

**STD COL  
11.5.7-1**

“The derivation of each LLD will be determined by the licensee based on site specific conditions and operating characteristics of each installed effluent radiation monitoring subsystem.”

**11.5.7 COL Information**

**STD COL  
11.5.7-1**

Replace the existing paragraph with the following new statement:

This COL item is addressed in **Table 11.5-2**.

**STD COL  
11.5.7-2**

Replace the existing paragraph with the following new statement:

This COL item is addressed in **Section 11.5.4.5**.

**STD COL  
11.5.7-3**

Replace the existing paragraph with the following new statement:

This COL item is addressed in **Section 11.5.4.6**.

**STD COL  
11.5.7-4**

Replace the existing paragraph with the following new statement:

This COL item is addressed in **Section 11.5.4.7**.

**STD COL**  
**11.5.7-5**

Replace the existing paragraph with the following new statement:  
This COL item is addressed in **Section 11.5.4.8**.