Exh. A to Dominion's Motion to
Dismiss BREDL's Contention 1
As Moot (June 1, 2009)

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May 21, 2009

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

NA3-09-015
Docket No. 52-017
COL/MWH

DOMINION VIRGINIA POWER
NORTH ANNA POWER STATION UNIT 3
COMBINED LICENSE APPLICATION – SUBMISSION 4

This letter forwards Submission 4 of the North Anna 3 Combined License Application (COLA). The submission includes changes to Part 2, FSAR, and Part 7, Departures Report of the COLA.

The COLA changes describe Dominion's plan for on-site management of Class B and C low-level radioactive waste in the event an offsite facility is not available to accept such waste. Specifically, this COLA submission includes changes to Part 2, FSAR, Revision Summary, Table 1.9-201 "Conformance with Standard Review Plan," Section 11.4.1 "SWMS Design Basis," Section 11.4.2.2.4 "Container Storage Subsystem," and Part 7, Departures Report.

This letter also includes a revised response to NRC Request for Additional Information (RAI) 11.04-3 that was previously provided in Dominion letter, Serial No. NA3-08-090R, dated September 4, 2008.

Certain changes to Chapters 1, 9, and 12 of the FSAR, principally to figures showing the floor plans for the Radwaste Building, which will illustrate features unassociated with low-level radioactive waste storage, are being prepared. These changes will be included in a future COLA submission.

This COLA submission includes no changes resulting from any other RAI response or any sources other than as described above.

Enclosure 1 is a DVD containing Submission 4, which contains the revised Part 2, FSAR, and Part 7, Departures Report. These parts do not contain any proprietary information.

A table illustrating the contents of Submission 4 is provided as Enclosure 2. The table also compares, for information, the contents of the enclosed DVD with DVDs submitted previously.

Enclosure 3 provides a revised response to RAI 11.04-3 and a mark-up of the COLA showing the resulting FSAR and Departures Report changes.

Dominion has successfully performed the preflight checks and examined the PDF files contained on the DVDs to ensure conformance with NRC guidelines related to electronic submittals, Guidance for Electronic Submissions to the NRC, Revision 4, October 2008. The PDF files meet NRC criteria.

Additional copies of the DVD are available upon request. If you have any questions or require additional information, please contact Gina Borsh at 804-273-2247.

Very truly yours,

Eugene S. Grecheck

COMMONWEALTH OF VIRGINIA

COUNTY OF HENRICO

The foregoing document submitting supplemental information to the COL application was acknowledged before me, in and for the County and Commonwealth aforesaid, today by Eugene S. Grecheck who is Vice President-Nuclear Development of Virginia Electric and Power Company (Dominion Virginia Power). He has affirmed before me that he is duly authorized to execute and file the foregoing document on behalf of the company, and that the supplemental information provided is true to the best of his knowledge and belief.

Acknowledged before me this 21st day of May, 2009.

My Commission expires: August 31, 2012

Notary Public

WANDA K. MARSHALL
Notary Public
Commonwealth of Virginia
7173067
My Commission Expires Aug 31, 2012

Enclosures:

1. North Anna COL Application Submission 4 DVD
2. North Anna 3 COLA Submission 4 Disc Contents
3. Revised Response to NRC RAI Letter No. 020, RAI 11.04-3

Commitments made in this letter: Revise FSAR Chapters 1, 9, and 12 to incorporate changes resulting from the Chapter 11 low-level radioactive waste storage change.

cc with all Enclosures:

U. S. Nuclear Regulatory Commission, Region II
T. A. Kevern, NRC
J. T. Reece, NRC
A. R. Williamson, NRC
J. J. Debiec, ODEC
T. L. Williamson, Entergy
G. Zinke, Entergy
R. Kingston, GEH
P. Smith, DTE
T. Hicks, NuStart

Enclosure 1

One DVD labeled:
North Anna 3 Combined License Application
May 2009; Submission 4

Enclosure 2

North Anna 3 COLA
Submission 4 Disc Contents

NA3 COLA NRC Submission Disc Contents History

	11/2007		12/2008				05/2009
Document	S1 P	S1CC NP	S2 NP	S2CC NP	S3 P	S3CC P	S4 P
01 Gen & Admin Info	SD P (R0)	P (R0)	SD NP (R1)	NP (R1)	SD P (R1)	R1	RD
02 FSAR	SD P (R0)	P (R0)	SD P (R1)	P (R1)	RD	R1	SD P (R2)
03 ER	SD P (R0)	P (R0)	SD NP (R1)	NP (R1)	SD P (R1)	R1	RD
04 TS	SD P (R0)	P (R0)	SD P (R1)	P (R1)	RD	R1	RD
05 EP	SD P (R0)	P (R0)	SD P (R1)	P (R1)	RD	R1	RD
07 Departures/Variances	SD P (R0)	P (R0)	SD P (R1)	P (R1)	RD	R1	SD P (R2)
08 Security	SD P (R0)	P (R0)	RD	P (R0)	RD	R0	RD
10 ITAAC	SD P (R0)	P (R0)	SD P (R1)	P (R1)	RD	R1	RD
ESBWR DCD	RD (R4)	NP (R4)	RD	NP (R5)	RD	R5	RD
NA FSER	RR (09/05)	P (09/05)	RR (09/05)	P (09/05)	RR	09/05	RR
NA EIS	RR (12/06)	P (12/06)	RR	P (12/06)	RR	12/06	RR
NA ESP	—	—	RR	P (11/07)	RR	11/07	RR
NA ESPA	RR (R9)	P (R9)	RR	P (R9)	RR	R9	RR
Packing Slip	X	—	X	—	X	—	X

Sn = Submittal Disc/Submission Number—to be sent to NRC Document Control Desk for processing by NRC Document Processing Center (including loading in ADAMS).
Submittal discs must include a packing slip but (after S1) do not include RDs or RRs.

S_CC = Convenience Copy Disc—to be sent to other recipients (including NRC Project Manager); CCs typically include RDs & RRs.
Convenience copy discs are NOT intended to be processed by the NRC Document Processing Center.

SD = Submission Document (new or revised)—to be loaded into ADAMS.

(R_) = Document Revision Number

RD = Reference Document: A COLA document or DCD already in ADAMS.

RR = Reference Record: A related document already in ADAMS.

NP = Non-Public: SUNSI to be withheld from public disclosure under 10 CFR 2.390 (SUNSI includes proprietary).

P = Public

ENCLOSURE 3

Revised Response to NRC RAI Letter No. 020, RAI 11.04-3

NRC RAI 11.04-3

FSAR Section 11.4.1, STD COL 11.4-4-A states that the proposed plant will not utilize temporary low-level radioactive waste storage facilities to support plant operation. The ESBWR DCD, however, provides the capacity to store the amount of low-level radioactive waste that could be generated in 6 months of operation. Accordingly, the staff requests the applicant to describe the facilities planned for long-term storage of low-level radioactive wastes projected to be generated during the operation of North Anna Unit 3, and the operational program addressing the long-term management and storage of such wastes using the guidance of RG 1.206 and Section 11.4 of the Standard Review Plan (NUREG-0800, Rev. 3).

Dominion Response

The following information completes Dominion's response to NRC Request for Additional Information (RAI) 11.04-3 provided in Dominion letter, Serial No. NA3-08-090R, dated September 4, 2008. In that initial response, Dominion described its intent to develop information responsive to the RAI and to provide that information in a future COLA submission.

The ESBWR Radwaste Building provides storage space sized to hold the total combined volume of packaged Class A, B, and C low-level radioactive waste estimated to be generated during six months of plant operations. Such waste is normally promptly disposed of at licensed offsite processing and disposal facilities. In the event that an offsite facility is not available to accept Class B and C waste, the Radwaste Building has been configured to accommodate at least 10 years of packaged Class B and C waste and approximately three months (up to three shipments) of packaged Class A waste, considering routine operations and anticipated operational occurrences. This Class B and C waste storage capacity is based on a conservative estimate of the annual generation of low-level waste, without credit for potential waste minimization techniques and methods other than dewatering. In the event that an offsite facility is not available to accept Class B and C waste, a waste minimization plan will also be implemented. This plan will consider strategies to reduce generation of Class B and C waste, including reducing the in-service run length of resin beds, as well as resin selection, short-loading, and point of generation segregation techniques. Good fuel performance will also reduce fission products in reactor and spent fuel pool water, and hence the volume of Class B and C waste generated. Implementation of these techniques could substantially extend the capacity of the Class B and C storage area in the Radwaste Building. If additional storage capacity for Class B and C waste is required, further temporary storage would be developed in accordance with NUREG-0800, Standard Review Plan 11.4, Appendix 11.4-A.

The FSAR Table 1.9-201 "Conformance with Standard Review Plan," Section 11.4.1 "SWMS Design Basis," Section 11.4.2.2.4 "Container Storage Subsystem," and the Departures Report will be revised to describe the low-level radioactive waste storage capacity and waste minimization plan.

Proposed COLA Revision

The FSAR and Departures Report will be revised as stated in the above response. These changes are shown on the attached COLA markups.

Markup of North Anna COLA

NAPS COL 1.9-3-A

Table 1.9-201 Conformance with Standard Review Plan

SRP Section	Title	Rev	Date	Specific Acceptance Criteria	Evaluation
11.4	Solid Waste Management System	Rev. 3	Mar-07	II.1, II.2, II.5, II.7, II.8, II.9, II.10, II.14	Conforms.
				II.3, II.4, II.6, II.11. II.12, II.13	Conforms (addressed in DCD Section 11.4 and in Section 11.4; for Acceptance Criterion II.13, this is also addressed in Section 11.5) with the following exception: RG 1.206, Section 13.4 includes the PCP as an operational program, and only requires a program description in the COLA and a milestone for full program implementation. The FSAR provides a description of the PCP, along with the implementation milestone. Procedures for handling waste will be developed once the PCP is implemented.
				~~II.10~~	~~Not applicable. There is no temporary onsite storage facility.~~

exceeds the cost-benefit ratio of $1000/person-thyroid-rem prescribed in 10 CFR 50, Appendix I, and is eliminated from further consideration.

1000 cfm Charcoal/HEPA Filtration System

As discussed above for 15,000 cfm HEPA filtration systems, the Unit 3 building exhaust system flow rates greatly exceed 472 l/sec (1000 cfm). Therefore, this augment is not effective for Unit 3 and is eliminated from further consideration.

Conclusion

None of the gaseous radwaste augments are cost-beneficial in reducing the annual thyroid dose from gaseous effluents for Unit 3.

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 SWMS Design Bases

Replace the seventh bullet of the first paragraph with the following.

NAPS DEP 11.4-1
STD COL 11.4-4-A

- The Radwaste Building provides storage space sized to hold the total combined volume of packaged Class A, B, and C low-level radioactive waste estimated to be generated during six months of plant operations. Such waste is normally promptly disposed of at licensed offsite processing and disposal facilities. In the event that an offsite facility is not available to accept Class B and C waste, the Radwaste Building has been configured to accommodate at least 10 years of packaged Class B and C waste and approximately three months (up to three shipments) of packaged Class A waste, considering routine operations and anticipated operational occurrences. This Class B and C waste storage capacity is based on a conservative estimate of the annual generation of low-level waste, without credit for potential waste minimization techniques and methods other than dewatering. In the event that an offsite facility is not available to accept Class B and C waste, a waste minimization plan will also be implemented. This plan will consider strategies to reduce generation of Class B and C waste, including reducing the in-service run length of resin beds, as well as resin selection, short-loading, and point of generation segregation techniques. Good fuel performance will also reduce fission products in reactor and spent fuel pool water, and hence the volume of Class B and C waste generated. Implementation of these

techniques could substantially extend the capacity of the Class B and C storage area in the Radwaste Building. If additional storage capacity for Class B and C waste is required, further temporary storage would be developed in accordance with NUREG-0800, Standard Review Plan 11.4, Appendix 11.4-A.

Add the following after the second paragraph.

STD SUP 11.4-1

The LWMS offsite dose calculations, which are described in Section 12.2.2.4, include the offsite doses from the SWMS liquid effluents, as they are processed by the LWMS. Similarly, the GWMS offsite dose calculations, which are described in Section 12.2.2.2, include the offsite doses from the SWMS gaseous effluents, as they are inputs processed by the GWMS. The cost-benefit analyses in Section 11.2.1 for the LWMS and in Section 11.3.1 for the GWMS address the liquid and gaseous effluents that are generated from solid waste processing by the SWMS. Because these two cost-benefit analyses include the liquid and gaseous effluents from the SWMS, the augments considered for the LWMS and GWMS apply to the SWMS, which provides inputs to those systems. As described in Sections 11.2.1 and 11.3.1, no augments are needed for the LWMS and GWMS to comply with 10 CFR 50, Appendix I, Section II.D. Therefore, no augments are needed for the SWMS to comply with 10 CFR 50, Appendix I, Section II.D.

~~Add the following to the seventh bullet.~~

~~**STD COL 11.4-4-A**~~

~~The site does not utilize any temporary storage facilities to support plant operation~~

Replace the fourth sentence of the ~~fifth~~ fourth paragraph with the following:

STD COL 11.4-5-A

Section 12.6 discusses how the ESBWR design features and procedures for operation will minimize contamination of the facility and environment, facilitate decommissioning, and minimize the generation of radioactive wastes, in compliance with 10 CFR 20.1406. Section 13.5 describes the requirement for procedures for operation of the radioactive waste processing system. Operating procedures for mobile/portable SWMS required by Sections 12.4, 12.5, and 13.5 address requirements of 10 CFR 20.1406.

11.4.2.2 **System Operation**

11.4.2.2.4 **Container Storage Subsystem**

Replace the first sentence with the following.

NAPS DEP 11.4-1

On-site storage space for packaged waste is provided.

Add the following at the end of this section.

NAPS DEP 11.4-1

On-site storage space for packaged waste is provided in the Radwaste Building. The Radwaste Building waste storage space can accommodate a minimum of ten years of Class B and C waste generated during plant operation, and three months of Class A waste.

The available storage capacity was determined based on anticipated low-level waste volumes generated during plant operation. As a conservative measure, no volume reduction methods or techniques were credited in determination of the volume of Class B and C waste to be stored other than dewatering to meet stabilized waste criteria.

The stored Class B/C HICs are shielded by shield bells surrounding each container and shield wall enclosing the storage area. Shielding analyses, assuming filled HICs and crediting shielding and radioactive decay of the HIC contents over time, have shown that the dose rates in surrounding areas, both within the building and externally, are maintained below the allowable limits in accordance with the radiological area classification as defined in Section 12.3.1.3. Total radioactive material inventory limits are established to ensure shielding analysis assumptions for HIC dose rates are maintained. Inventory records are maintained for waste types, waste contents, radionuclides and radioactive material, dates of storage, shipments, and other relevant data related to storage of Class B and C wastes.

To maintain container integrity for the storage period, and to allow handling during eventual transportation and disposal, the HICs are constructed of corrosion resistant materials that are compatible with the stored waste and the indoor environment of the Radwaste Building. The design life for the HIC is 300 years. HICs are vented to prevent internal pressurization due to gases generated from stored wastes. The vented gases are removed from the storage space by the Radwaste Building heating, ventilating, and air-conditioning system, which is filtered and

monitored prior to discharge to atmosphere. Visual inspection is periodically performed for a sampling of HICs using remote monitoring techniques to ensure container integrity in storage.

Class B and C wastes are stored in HICs that meet transportation and disposal requirements in effect at the time the container is placed in storage. In the event that repackaging is required at the time of disposal due to requirements in effect at that time, the HIC can be relocated to a dewatering station for processing.

Fire protection features for the Radwaste Building waste storage area are provided as described in Section 9.5.1, Fire Protection System, and Section 9A, Fire Hazards Analysis. The floor drains in the waste storage area are sized for the fire suppression water anticipated and are directed to the LWMS for processing.

The Class B/C HICs are remotely placed in the storage area utilizing the Radwaste Building crane. Accurate placement and retrieval of the HIC is accomplished using indexing or locating features of the crane. The crane is equipped with a grapple mechanism and load cell for handling the HIC or shield bell.

11.4.2.3 **Detailed System Component Description**

11.4.2.3.5 **SWMS Processing Subsystem**

Replace the last three sentences of the second paragraph with the following.

STD COL 11.4-1-A

Testing of the SWMS includes testing specified in Table 1 of RG 1.143. Implementation of the programs described in Section 12.1, for maintaining occupational dose ALARA, and Section 12.5, Radiation Protection Program, ensure that operation, maintenance, and testing of the SWMS satisfy the guidance contained in RG 8.8.

STD COL 11.4-2-A

Specific equipment connection configuration and plant sampling procedures are used to implement the guidance in Inspection and Enforcement (IE) Bulletin 80-10 (DCD Reference 11.4-19). The permanent and mobile/portable non-radioactive systems, which are connected to radioactive or potentially radioactive portions of SWMS, are protected from contamination with an arrangement of double check valves in each line. The configuration of each line is also equipped with a tell-tale connection, which permits periodic checks to confirm the integrity

DEPARTURES

~~A *departure* is a plant-specific deviation from design information in a standard design certification rule.~~

~~There are no departures on this COL application from the ESBWR standard design described in the DCD. See COLA Part 2 for additional information regarding the ESBWR DCD.~~

Introduction

A *departure* is a plant-specific deviation from design information in a standard design certification rule. Departures from the reference ESBWR Design Control Document (DCD) are identified and evaluated consistent with regulatory requirements and guidance. Each departure is examined in accordance with 10 CFR 52 requirements. Although the ESBWR Design Certification Application is currently under review with the NRC, departures are evaluated utilizing the guidance provided in Regulatory Guide 1.206, Section C.IV.3.3.

The following departure is evaluated in this report:

NAPS DEP 11.4-1: Long-term, Temporary Storage of Class B and C Low-Level Radioactive Waste

Departure: NAPS DEP 11.4-1 - Long-term, Temporary Storage of Class B and C Low-Level Radioactive Waste

Summary of Departure

The ESBWR DCD identifies that on-site storage space for a six-month volume of packaged waste is provided in the Radwaste Building. The North Anna Unit 3 Radwaste Building is configured to accommodate a minimum of ten years volume of packaged Class B and C waste, while maintaining space for at least three months of packaged Class A waste.

Scope/Extent of Departure

This departure affects Tier 2 information in the ESBWR DCD. This departure is identified in FSAR Sections 11.4.1 and 11.4.2.2.4.

Departure Justification

DCD Sections 11.4.1, SWMS Design Basis, and 11.4.2.2.4, Container Storage Subsystem, discuss on-site storage space for low-level radioactive waste. The design accommodates a six-month volume of packaged waste storage in the Radwaste Building.

Class A, B, and C low-level radioactive waste is normally promptly disposed of at licensed offsite processing and disposal facilities. In the event that an offsite facility is not available to accept Class B and C waste shipments, the North Anna Unit 3 Radwaste Building waste storage space has been configured to accommodate at least ten years of Class B and C waste generated during

plant operation. Shielding analysis results show that the dose rates in surrounding areas, both within the building and externally, are maintained below the allowable limits in accordance with the radiological area classification in FSAR Section 12.3.1.3. Long-term, temporary storage of Class B and C waste HICs, with design lifetimes of 300 years, will not have an adverse effect on the integrity of the waste containers. Periodic inspections will be performed to confirm container integrity during storage.

The increased Class B and C waste storage space is consistent with the regulatory guidance of NUREG-0800, Section 11.4, Appendix 11.4-A. The storage space reserved for Class A waste exceeds that recommended by NUREG-0800, Standard Review Plan, Branch Technical Position 11-3.

Departure Evaluation

This Tier 2 departure does not affect off-site dose rates or the integrity of waste containers in storage. As such, the potential for increased radiation exposure to members of the public is not created. Accordingly, it does not:

1. Result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the plant-specific DCD;
2. Result in more than a minimal increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important to safety previously evaluated in the plant-specific DCD;
3. Result in more than a minimal increase in the consequences of an accident previously evaluated in the plant-specific DCD;
4. Result in more than a minimal increase in the consequences of a malfunction of a SSC important to safety previously evaluated in the plant-specific DCD;
5. Create a possibility for an accident of a different type than any evaluated previously in the plant-specific DCD;
6. Create a possibility for a malfunction of an SSC important to safety with a different result than any evaluated previously in the plant-specific DCD;
7. Result in a design basis limit for a fission product barrier as described in the plant-specific DCD being exceeded or altered; or
8. Result in a departure from a method of evaluation described in the plant-specific DCD used in establishing the design bases or in the safety analyses.

This departure does not affect resolution of an ex-vessel severe accident design feature identified in the ESBWR DCD.

Therefore, this departure has no safety significance.

exceeds the cost-benefit ratio of $1000/person-thyroid-rem prescribed in 10 CFR 50, Appendix I, and is eliminated from further consideration.

1000 cfm Charcoal/HEPA Filtration System

As discussed above for 15,000 cfm HEPA filtration systems, the Unit 3 building exhaust system flow rates greatly exceed 472 l/sec (1000 cfm). Therefore, this augment is not effective for Unit 3 and is eliminated from further consideration.

Conclusion

None of the gaseous radwaste augments are cost-beneficial in reducing the annual thyroid dose from gaseous effluents for Unit 3.

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 SWMS Design Bases

Replace the seventh bullet of the first paragraph with the following.

NAPS DEP 11.4-1
STD COL 11.4-4-A

- The Radwaste Building provides storage space sized to hold the total combined volume of packaged Class A, B, and C low-level radioactive waste estimated to be generated during six months of plant operations. Such waste is normally promptly disposed of at licensed offsite processing and disposal facilities. In the event that an offsite facility is not available to accept Class B and C waste, the Radwaste Building has been configured to accommodate at least 10 years of packaged Class B and C waste and approximately three months (up to three shipments) of packaged Class A waste, considering routine operations and anticipated operational occurrences. This Class B and C waste storage capacity is based on a conservative estimate of the annual generation of low-level waste, without credit for potential waste minimization techniques and methods other than dewatering. In the event that an offsite facility is not available to accept Class B and C waste, a waste minimization plan will also be implemented. This plan will consider strategies to reduce generation of Class B and C waste, including reducing the in-service run length of resin beds, as well as resin selection, short-loading, and point of generation segregation techniques. Good fuel performance will also reduce fission products in reactor and spent fuel pool water, and hence the volume of Class B and C waste generated. Implementation of these

techniques could substantially extend the capacity of the Class B and C storage area in the Radwaste Building. If additional storage capacity for Class B and C waste is required, further temporary storage would be developed in accordance with NUREG-0800, Standard Review Plan 11.4, Appendix 11.4-A.

Add the following after the second paragraph.

STD SUP 11.4-1

The LWMS offsite dose calculations, which are described in Section 12.2.2.4, include the offsite doses from the SWMS liquid effluents, as they are processed by the LWMS. Similarly, the GWMS offsite dose calculations, which are described in Section 12.2.2.2, include the offsite doses from the SWMS gaseous effluents, as they are inputs processed by the GWMS. The cost-benefit analyses in Section 11.2.1 for the LWMS and in Section 11.3.1 for the GWMS address the liquid and gaseous effluents that are generated from solid waste processing by the SWMS. Because these two cost-benefit analyses include the liquid and gaseous effluents from the SWMS, the augments considered for the LWMS and GWMS apply to the SWMS, which provides inputs to those systems. As described in Sections 11.2.1 and 11.3.1, no augments are needed for the LWMS and GWMS to comply with 10 CFR 50, Appendix I, Section II.D. Therefore, no augments are needed for the SWMS to comply with 10 CFR 50, Appendix I, Section II.D.

Replace the fourth sentence of the fourth paragraph with the following:

STD COL 11.4-5-A

Section 12.6 discusses how the ESBWR design features and procedures for operation will minimize contamination of the facility and environment, facilitate decommissioning, and minimize the generation of radioactive wastes, in compliance with 10 CFR 20.1406. Section 13.5 describes the requirement for procedures for operation of the radioactive waste processing system. Operating procedures for mobile/portable SWMS required by Sections 12.4, 12.5, and 13.5 address requirements of 10 CFR 20.1406.

11.4.2.2 **System Operation**

11.4.2.2.4 **Container Storage Subsystem**

Replace the first sentence with the following.

NAPS DEP 11.4-1

On-site storage space for packaged waste is provided.

Add the following at the end of this section.

NAPS DEP 11.4-1

On-site storage space for packaged waste is provided in the Radwaste Building. The Radwaste Building waste storage space can accommodate a minimum of ten years of Class B and C waste generated during plant operation, and three months of Class A waste.

The available storage capacity was determined based on anticipated low-level waste volumes generated during plant operation. As a conservative measure, no volume reduction methods or techniques were credited in determination of the volume of Class B and C waste to be stored other than dewatering to meet stabilized waste criteria.

The stored Class B/C HICs are shielded by shield bells surrounding each container and shield wall enclosing the storage area. Shielding analyses, assuming filled HICs and crediting shielding and radioactive decay of the HIC contents over time, have shown that the dose rates in surrounding areas, both within the building and externally, are maintained below the allowable limits in accordance with the radiological area classification as defined in Section 12.3.1.3. Total radioactive material inventory limits are established to ensure shielding analysis assumptions for HIC dose rates are maintained. Inventory records are maintained for waste types, waste contents, radionuclides and radioactive material, dates of storage, shipments, and other relevant data related to storage of Class B and C wastes.

To maintain container integrity for the storage period, and to allow handling during eventual transportation and disposal, the HICs are constructed of corrosion resistant materials that are compatible with the stored waste and the indoor environment of the Radwaste Building. The design life for the HIC is 300 years. HICs are vented to prevent internal pressurization due to gases generated from stored wastes. The vented gases are removed from the storage space by the Radwaste Building heating, ventilating, and air-conditioning system, which is filtered and

monitored prior to discharge to atmosphere. Visual inspection is periodically performed for a sampling of HICs using remote monitoring techniques to ensure container integrity in storage.

Class B and C wastes are stored in HICs that meet transportation and disposal requirements in effect at the time the container is placed in storage. In the event that repackaging is required at the time of disposal due to requirements in effect at that time, the HIC can be relocated to a dewatering station for processing.

Fire protection features for the Radwaste Building waste storage area are provided as described in Section 9.5.1, Fire Protection System, and Section 9A, Fire Hazards Analysis. The floor drains in the waste storage area are sized for the fire suppression water anticipated and are directed to the LWMS for processing.

The Class B/C HICs are remotely placed in the storage area utilizing the Radwaste Building crane. Accurate placement and retrieval of the HIC is accomplished using indexing or locating features of the crane. The crane is equipped with a grapple mechanism and load cell for handling the HIC or shield bell.

11.4.2.3 Detailed System Component Description

11.4.2.3.5 SWMS Processing Subsystem

Replace the last three sentences of the second paragraph with the following.

STD COL 11.4-1-A

Testing of the SWMS includes testing specified in Table 1 of RG 1.143. Implementation of the programs described in Section 12.1, for maintaining occupational dose ALARA, and Section 12.5, Radiation Protection Program, ensure that operation, maintenance, and testing of the SWMS satisfy the guidance contained in RG 8.8.

STD COL 11.4-2-A

Specific equipment connection configuration and plant sampling procedures are used to implement the guidance in Inspection and Enforcement (IE) Bulletin 80-10 (DCD Reference 11.4-19). The permanent and mobile/portable non-radioactive systems, which are connected to radioactive or potentially radioactive portions of SWMS, are protected from contamination with an arrangement of double check valves in each line. The configuration of each line is also equipped with a tell-tale connection, which permits periodic checks to confirm the integrity

of the line and its check valve arrangement. Plant procedures describe sampling of non-radioactive systems that could potentially become contaminated by cross-connection with systems that contain radioactive material. In accordance with the guidance in RG 1.109, exposure pathways that may arise due to unique conditions are considered for incorporation into the plant-specific ODCM if they are likely to contribute significantly to the total dose.

STD COL 11.4-3-A Waste classification and process controls are described in the PCP. NEI 07-10, "Generic FSAR Template Guidance for Process Control Program (PCP)," which is under review by the NRC, is incorporated by reference. (Reference 11.4-201) The milestone for development and implementation of the PCP is addressed in Section 13.4.

11.4.6 COL Information

11.4-1-A SWMS Processing Subsystem Regulatory Guide Compliance

STD COL 11.4-1-A This COL item is addressed in Section 11.4.2.3.5.

11.4-2-A Compliance with IE Bulletin 80-10

STD COL 11.4-2-A This COL item is addressed in Section 11.4.2.3.5.

11.4-3-A Process Control Program

STD COL 11.4-3-A This COL item is addressed in Section 11.4.2.3.5.

11.4-4-A Temporary Storage Facility

STD COL 11.4-4-A This COL item is addressed in Section 11.4.1.

11.4-5-A Compliance with Part 20.1406

STD COL 11.4-5-A This COL item is addressed in Section 11.4.1.

11.4.7 References

11.4-201 NEI 07-10, Generic FSAR Template Guidance for Process Control Program (PCP).