



ISSUED BY  
RPP-WTP PDC

**24590-CM-HC4-HXYG-00240-02-00005**

**REV 00A**

**SUBCONTRACT SUBMITTAL  
REVIEW NOT REQUIRED**

AFS-12-0112



May 23, 2012

Ms. Trina Howard  
Subcontract Administrator  
Bechtel National, Inc.  
2435 Stevens Center Place  
Richland, Washington 99354

Dear Ms. Howard:

**BECHTEL NATIONAL, INC. CONTRACT NO. 24590-CM-HC4-HXYG-00240 IQRPE  
STRUCTURAL INTEGRITY ASSESSMENT REPORT FOR LAB BELOW GRADE LEVEL  
SECONDARY CONTAINMENT (IA-3007238-000)**

The integrity assessment of the LAB below grade level secondary containment has been completed per the contract requirements and is enclosed for your use. The assessment found that the design is sufficient to ensure that the secondary containment rooms are adequately designed and have sufficient structural strength, compatibility with the waste(s) to be processed/stored/treated, and corrosion protection to ensure that they will not collapse, rupture, or fail.

If you have any questions, please contact Tarlok Hundal at (509) 371-1975, or via email at [tarlok.hundal@areva.com](mailto:tarlok.hundal@areva.com).

Sincerely,

A handwritten signature in black ink, appearing to read 'Fred R. Renz', written over a horizontal line.

Fred R. Renz  
Contracts Administration  
AREVA Federal Services LLC  
Richland Office

Enclosure (1)

lak

cc: D. C. Pfluger, MS 5l w/enclosure (2)

**AREVA Federal Services LLC**

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**IQRPE STRUCTURAL INTEGRITY ASSESSMENT REPORT  
FOR  
LAB BELOW GRADE LEVEL SECONDARY CONTAINMENT**

**Please note that source, special nuclear and byproduct materials, as defined in the Atomic Energy Act of 1954 (AEA), are regulated at the U.S. Department of Energy (DOE) facilities exclusively by DOE acting pursuant to its AEA authority. DOE asserts, that pursuant to the AEA, it has sole and exclusive responsibility and authority to regulate source, special nuclear, and byproduct materials at DOE-owned nuclear facilities. Information contained herein on radionuclides is provided for process description purposes only.**

**IQRPE STRUCTURAL INTEGRITY ASSESSMENT REPORT  
FOR  
LAB BELOW GRADE LEVEL SECONDARY CONTAINMENT**

"I, Tarlok Singh Hundal, have reviewed and certified a portion of the design of a new tank system or component located at the Hanford Waste Treatment Plant, owned/operated by Department of Energy, Office of River Protection, Richland, Washington. My duties were independent review of the current design for the LAB Below Grade Level Secondary Containment, as required by the Washington Administrative Code, *Dangerous Waste Regulations*, Section WAC-173-303-640(3) (a) through (g) applicable components."

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

The documentation reviewed indicates that the design fully satisfies the requirements of the WAC.

The attached review is thirteen (13) pages numbered one (1) through thirteen (13).



T. Hundal  
Signature

5/23/12  
Date

<p style="text-align: center;"><b>Scope</b></p>	<p style="text-align: center;">Scope of this Integrity Assessment</p>	<p>This Integrity Assessment addresses Analytical Laboratory (LAB) Facility Secondary Containment at below grade elevations. The specific cells/rooms considered in this assessment are:</p> <p><b>Room A-B002 @ Elev. (-) 6'-8 1/2"</b>: Pump Pit  <b>Room A-B003 @ Elev. (-) 18'-7"</b>: Houses the Sink Drain Collection Vessel (RLD-VSL-00164)  <b>Room A-B004 @ Elev. (-) 19'-2"</b>: Houses the Hot Cell Drain Collection Vessel (RLD-VSL-00165)  <b>Room A-B005 @ Elev. (-) 6'-7"</b>: Pump Pit  <b>Room A-B006 @ Elev. (-) 6'-7"</b>: Piping Pit  <b>Room A-B007 @ Elev. (-) 6'-7"</b>: Pump Pit</p>
<p style="text-align: center;"><b>References</b></p>	<p style="text-align: center;">Drawings</p>	<p>24590-LAB-P1-60-P0007, Rev. 2, Analytical Laboratory General Arrangement Plan at El. (-) 19'-2", Sections E-E, F-F, &amp; G-G;                  24590-LAB-P1-60-P0010, Rev. 1, Analytical Laboratory General Arrangement Sections A-A, B-B, C-C, &amp; D-D;                  24590-LAB-CE-C13T-00001, Rev. 2, Analytical Laboratory Excavation Site Plan;                  24590-LAB-CE-C13T-00002, Rev. 2, Analytical Laboratory Excavation Sections;                  24590-LAB-D0-S13T-00002, Rev. 4, Analytical Laboratory Structural Concrete Notes and Reinforcing Steel;                  24590-LAB-DB-S13T-00018, Rev. 8, Analytical Laboratory C5 Cell Structural Concrete Forming Plans and Sections;                  24590-LAB-DB-S13T-00019, Rev. 4, Analytical Laboratory C5 Cell Structural Concrete Forming Sections and Details;                  24590-LAB-DB-S13T-00020, Rev. 2, Analytical Laboratory C2 Vault and C3 Cell Structural Concrete Forming Plans and Sections;                  24590-LAB-DB-S13T-00021, Rev. 2, Analytical Laboratory C2 Vault and C3 Cell Structural Concrete Forming Sections and Details.                  24590-LAB-DG-S13T-00018, Rev. 1, Analytical Laboratory C5 Cell Structural Concrete Reinforcement Plans Sections and Details;                  24590-LAB-DG-S13T-00019, Rev. 2, Analytical Laboratory C2 Vault &amp; C3 Cell Structural Concrete Reinforcement Plans and Sections.</p>
<p style="text-align: center;"><b>Summary of Assessment</b></p>		<p>For each item of "Information Assessed" (i.e., Criteria) on the following pages, the documents listed under "Source of Information" were reviewed and found to furnish adequate design requirements and controls to ensure that the design fully satisfies the requirements of Washington Administrative Code (WAC), Chapter 173-303 WAC, <i>Dangerous Waste Regulations</i>, WAC-173-303-640, <i>Tank Systems</i>.</p>

	Information Assessed	Source of Information	Assessment
<b>Design</b>	Description of subsurface conditions and soil bearing capacity are adequate	<p>Drawings listed above under References;</p> <p>24590-WTP-DC-ST-01-001, Rev. 13, Structural Design Criteria;</p> <p>24590-BOF-3PS-CE01-T0001, Rev. 6, Engineering Specification for Excavation and Backfill;</p> <p>24590-BOF-3PS-C000-T0001, Rev. 6, Engineering Specification for Material Testing Services;</p> <p>WTSC99-1036-42-17, RPP-WTP Final Report Geotechnical Investigation, Shannon &amp; Wilson Inc. (H-1616-51), May 2000;</p> <p>24590-LAB-DGC-S13T-00001, Rev. 0, C2 Vault &amp; C3 Cell Concrete Reinforcement Design;</p> <p>24590-LAB-DGC-S13T-00002, Rev. 0, Elevation +0-Ft Basemat Concrete Reinforcement Design;</p> <p>24590-LAB-DGC-S13T-00003, Rev. 0, C5 Cell Concrete Reinforcement Design;</p> <p>24590-WTP-3DP-G04B-00037, Rev. 19A, Engineering Calculations.</p>	<p>The Structural Design Criteria provides adequate design guidance for both mat and spread footings based on the Geotechnical Investigation report for the facility. Bearing capacity and settlement design parameters are presented for the dense Hanford Upper and Lower Sand Units and Structural Fill. Use of the loose wind blown (dune) sands for foundations is precluded. The Specification for Excavation and Backfill provides structural backfill requirements based on the geotechnical report and current codes and standards for the selection, placing, compacting, and backfill testing of candidate fill materials and completed backfills. The Specification for Material Testing Services provides current and adequate codes and standards for testing of the candidate structural fill materials, and in-situ testing of structural fills as they are placed. The codes and standards are consistent with those called out in the Specification for Excavation and Backfill. The drawings show that appropriate foundation subsurface and backfill materials have been utilized and/or placed under and around the Secondary Containment structures. Review of the Concrete Reinforcing design calculations of the concrete cells acting as Secondary Containment for the equipment installed in these cells show that the subsurface conditions and bearing capacity are adequate to sustain the applicable loads. The methodology described in the Engineering Calculations document assures that the final Secondary Containment structure is designed to comply with all applicable requirements.</p>

	Information Assessed	Source of Information	Assessment
<p><b>Design (cont'd)</b></p>	<p>Foundation design loads (including full tanks) and estimated settlement are adequately considered.</p>	<p>Drawings listed above under References;                       24590-WTP-DC-ST-01-001, Rev. 13, Structural Design Criteria;                      ASCE 7-98, Minimum Design Loads for Buildings and Other Structures, American Society of Civil Engineers;                      ACI 318-99, Building Code Requirements for Structural Concrete and Commentary, American Concrete Institute;                      ACI 349-01, Code Requirements for Nuclear Safety-Related Concrete Structures and Commentary, American Concrete Institute;                      24590-LAB-DGC-S13T-00001, Rev. 0, C2 Vault &amp; C3 Cell Concrete Reinforcement Design;                      24590-LAB-DGC-S13T-00003, Rev. 0, C5 Cell Concrete Reinforcement Design.</p>	<p>The Structural Design Criteria uses current adequate standards to define design loads and load combinations (ASCE 7-98, ACI 349-01 and ACI 318-99). Dead and fluid loads are included in these loads and load combinations. Settlement design parameters are included in the Structural Design Criteria (Section 7.7, Geotechnical Design Parameters and Foundation Design). Review of the C3 and C5 cells Reinforcement Design calculations shows that full loads of the vessels have been appropriately considered for their foundation design and the design drawings accurately reflect the detail as shown in the design calculations.</p>

	Information Assessed	Source of Information	Assessment
Design (cont'd)	Design calculation approach and design basis of footings with design standard references (e.g., ACI) are adequate.	Drawings listed above under References;  24590-WTP-DB-ENG-01-001, Rev. 1Q, Basis of Design; 24590-WTP-DC-ST-01-001, Rev. 13, Structural Design Criteria; ACI 318-99, Building Code Requirements for Structural Concrete and Commentary, American Concrete Institute; 24590-LAB-DGC-S13T-00001, Rev. 0, C2 Vault & C3 Cell Concrete Reinforcement Design; 24590-LAB-DGC-S13T-00003, Rev. 0, C5 Cell Concrete Reinforcement Design; 24590-WTP-VV-ST-01-001, Rev. 5A, Verification and Validation Test Plan and Test Report for GTSTRUDL.	The Basis of Design provides many fundamental general requirements for footing design. The Structural Design Criteria document references current adequate detailed design criteria for the design of concrete foundations and footings. ACI 318-99 is referenced for the strength design of commercial grade structures. Review of the Concrete Reinforcing Design (structural design) calculations shows that design approach, basis, and methodology used for the design of the secondary containment foundations/footings are appropriate. The conclusions of the design calculations are correctly shown in the design drawings. The above mentioned codes and standards, design approach, methodology, and basis delineated are appropriate and adequate for the foundation design. The input parameters used in the GTSTRUDL computer code utilized for this secondary containment design are appropriate and the output results have been appropriately validated via the Verification and Validation Test Plan and Test Report document.

	Information Assessed	Source of Information	Assessment
<b>Foundation Design</b>	Foundation material is compatible with the soil.	<p>Drawings listed above under References;</p> <p>24590-WTP-3PS-DB01-T0001, Rev. 8, Engineering Specification for Furnishing and Delivering Ready-Mix Concrete;</p> <p>24590-BOF-3PS-C000-T0001, Rev. 6, Engineering Specification for Material Testing Services;</p> <p>24590-WTP-DB-ENG-01-001, Rev. 1Q, Basis of Design.</p>	<p>The materials for secondary containment structure and backfill used under the containment structure are consistently identified in the specifications, drawings, and calculations. The Specification for Furnishing and Delivering Ready-Mix Concrete provides adequate current testing requirements for the selection of coarse and fine aggregates and the procurement of cementitious materials. Adequate test procedures are provided in the Material Testing Services specification for testing candidate aggregates for chemical reactivity. Instructions for mixing and delivering ready-mix concrete are adequate and current. As noted in the Basis of Design document (Section 4.7), the groundwater table is more than 250 feet below the ground surface; therefore, no compatibility problem is expected between the concrete foundations and the surrounding backfill materials used under and around it.</p>
	Foundation will withstand the effects of frost heave	<p>Drawings listed above under References;</p> <p>24590-WTP-DC-ST-01-001, Rev. 13, Structural Design Criteria.</p>	<p>The Structural Design Criteria includes adequate provisions to preclude frost heave in the section addressing lateral earth pressure loads. All structural foundations are required to extend into the soil below the frost line to preclude frost heave. The frost line depth is 30 in. below the finished grade. The structural drawings show that Rooms A-B003 and A-B004 are located inside the LAB building at approximately (-) 18'-7" and (-) 19'-2" slab elevation, respectively. Therefore, the foundation slabs will not be subject to frost heave effects.</p>

Information Assessed		Source of Information	Assessment
<b>Seismic</b>	Seismic considerations have been adequately addressed.	24590-WTP-PER-CSA-02-001, Rev. 10, Secondary Containment Design; 24590-WTP-DC-ST-01-001, Rev. 13, Structural Design Criteria; 24590-LAB-3YD-RLD-00001, Rev. 4, System Description for Radiological Liquid Waste Disposal System for the Analytical Laboratory; ACI 318-99, Building Code Requirements for Structural Concrete and Commentary; UBC 1997, Uniform Building Code; AISC M016-89, Manual of Steel Construction - Allowable Stress Design, Ninth Edition; 24590-LAB-DGC-S13T-00001, Rev. 0, C2 Vault & C3 Cell Concrete Reinforcement Design; 24590-LAB-DGC-S13T-00003, Rev. 0, C5 Cell Concrete Reinforcement Design.	The Secondary Containment Design document describes and provides references for the design methodology, materials, loads, and load combinations (including seismic loads) for the LAB facility secondary containment components. The System Description document shows the cells in this integrity assessment to be Seismic Category-III (SC-III) components. The Structural Design Criteria document provides detailed discipline specific codes and standards for the design of SC-III LAB secondary containment foundations, structures, and liners by the design engineers. Design loads and analysis methods for SC-III secondary containments and liners are taken from the Uniform Building Code. The ACI 318-99 code provides the design requirements and load combinations for the design of the secondary containment reinforced concrete foundations and structures. The AISC M016-89 code is used for the design of SC-III secondary containment stainless steel liners and building structural steel. The above listed codes, standards, and documents adequately address the applicable seismic requirement, which are appropriately considered in the Concrete Reinforcement Design calculations.

	Information Assessed	Source of Information	Assessment
Compatibility	<p>The stored waste is compatible with its Secondary Containment and leak detection hardware based on a detailed chemical and physical analysis of the wastes used and other information sources.</p>	<p>Drawings listed above under References; 24590-WTP-DB-ENG-01-001, Rev. 1Q, Basis of Design; 24590-WTP-PER-M-02-001, Rev. 3, Material Selections for Building Secondary Containment/Leak Detection; 24590-WTP-PER-CSA-02-001, Rev. 10, Secondary Containment Design; 24590-WTP-PER-J-02-002, Rev. 4, Leak Detection in Secondary Containment Systems.</p>	<p>The Basis of Design document states that cells are to be appropriately lined and any leaks or spills will be removed within 24 hours of a leak detection or in as timely a manner as possible. Based on a detailed chemical and physical analysis of the wastes and other process information sources, the Material Selections report identifies appropriate corrosion resistant materials for Secondary Containment liners, special protective coatings, and leak detection hardware. The Secondary Containment Design document provides adequate typical construction details for liners including tank anchorage details, special protective coatings, sumps, and leak detection equipment to be used for Secondary Containment structures. Typical details are furnished for leak detection/sump level measurement systems equipment in the Leak Detection in Secondary Containment Systems document. The above mentioned documents provide adequate information that the materials and hardware used are compatible with the waste and the design drawings show the appropriate required installation details.</p>

	Information Assessed	Source of Information	Assessment
<b>Strength</b>	<p>The design shows that the Secondary Containment has sufficient strength and thickness to prevent failure owing to pressure gradients, static head during a release, physical contact with the waste, climatic conditions, and the stress of daily operations (e.g., vehicular traffic).</p>	<p>Drawings listed above under References;  24590-WTP-DC-ST-01-001, Rev. 13, Structural Design Criteria; 24590-WTP-DB-ENG-01-001, Rev. 1Q, Basis of Design; 24590-WTP-PER-CSA-02-001, Rev. 10, Secondary Containment Design; 24590-LAB-DGC-S13T-00001, Rev. 0, C2 Vault &amp; C3 Cell Concrete Reinforcement Design; 24590-LAB-DGC-S13T-00003, Rev. 0, C5 Cell Concrete Reinforcement Design.</p>	<p>The Structural Design Criteria document identifies adequate and appropriate design codes and standards and all applicable load cases from site specific conditions that must be considered in the design. Pressure gradients, static head during a release, physical contact with the waste, climatic conditions, and the stresses of daily operations are adequately stated as design goals in the Basis of Design document. The Secondary Containment Design document describes and provides references for the design methodology, materials, loads, and load combinations (including seismic loads) for the LAB facility secondary containment components. The secondary containments being considered are located in the below ground level cells inside the LAB facility; therefore, they are not subject to vehicular traffic. Applicable pressure gradient due to soil load is considered in the design calculations. The Concrete Reinforcement Design calculations and drawings show that the foundation slabs and walls are adequately designed to sustain the applicable loads imposed by the RLD-VSL-00164/00165 vessels at the interface of vessel bottom and top of concrete floor and that of the soil around the cells.</p>

	Information Assessed	Source of Information	Assessment
Strength (cont'd)	The Secondary Containment system has sufficient strength in the presence of operational stresses from site-specific conditions (i.e., traffic, heavy equipment, precipitation, frost).	Drawings listed above under References; 24590-WTP-PER-CSA-02-001, Rev. 10, Secondary Containment Design; 24590-WTP-3PS-NLLR-T0002, Rev. 1, Engineering Specification for Furnishing, Detailing, Fabrication, Delivery and Installation of Stainless Steel Liner Plates; 24590-WTP-PER-M-02-001, Rev. 3, Material Selections for Building Secondary Containment/Leak Detection; 24590-LAB-DGC-S13T-00001, Rev. 0, C2 Vault & C3 Cell Concrete Reinforcement Design; 24590-LAB-DGC-S13T-00003, Rev. 0, C5 Cell Concrete Reinforcement Design.	The LAB drawings show that the Secondary Containment structures being considered are installed below grade inside the building. Because they are located inside the building, traffic, heavy equipment, precipitation and frost are not applicable load cases. The Secondary Containment Design document identifies the applicable load cases (operational stresses) from site specific conditions that must be considered in the design. The Engineering Specification for Furnishing Stainless Steel Liner Plates includes specific provisions for protection of and repair of completed liners during the construction process. The Material Selections for Building Secondary Containment report addresses the potential effects of operations conditions on liner special protective coating integrity and the associated maintenance requirements. The Concrete Reinforcing Design calculations and drawings show that the secondary containment structure has sufficient strength to sustain loads from applicable operational loads.

	Information Assessed	Source of Information	Assessment
<b>Foundation Integrity</b>	<p>The Secondary Containment is properly supported by a foundation or base in order to prevent failure from settlement, compression, or uplift, including the residual effects of installation.</p>	<p>Drawings listed above under References;</p> <p>24590-WTP-DC-ST-01-001, Rev. 13, Structural Design Criteria;</p> <p>24590-WTP-PER-CSA-02-001, Rev. 10, Secondary Containment Design.</p> <p>24590-LAB-DGC-S13T-00001, Rev. 0, C2 Vault &amp; C3 Cell Concrete Reinforcement Design;</p> <p>24590-LAB-DGC-S13T-00003, Rev. 0, C5 Cell Concrete Reinforcement Design;</p> <p>24590-LAB-DDC-S13T-00001, Rev. 0, C5 Vessel Anchorage-Hot Cell Drain Collection;</p> <p>24590-LAB-DDC-S13T-00003, Rev. 0, C3 Vessel Anchorage-LAB Area Sink Drain Collection;</p> <p>24590-LAB-DDC-S13T-00014, Rev. 0, Anchor Bolts Design for C2, C3, and C5 Vessels.</p>	<p>Settlement, compression, or uplift including the residual effects of installation, are addressed in the Secondary Containment Design document and the Structural Design Criteria. The design requirements and codes and standards specified are adequate to satisfy these performance goals. The design and construction specifications adequately provide for proper foundation construction and installation of the Secondary Containment. The LAB general arrangement drawings provide an adequate description of the Secondary Containment being considered. Review of the Concrete Reinforcement Design and Vessel Anchorage design calculations and drawings shows that the design process appropriately considered all applicable load factors for the foundation design to prevent its failure.</p>

Information Assessed		Source of Information	Assessment
<b>Foundation Integrity (cont'd)</b>	The placement, structural support, and type of material used for backfill around and below the Secondary Containment are appropriate.	Drawings listed above under References;  24590-BOF-3PS-CE01-T0001, Rev. 6, Engineering Specification for Excavation and Backfill; 24590-BOF-3PS-C000-T0001, Rev. 6, Engineering Specification for Material Testing Services. 24590-WTP-PER-CON-02-001, Rev. 6, Installation of Tank Systems and Miscellaneous Unit Systems.	The drawings and Specification for Excavation and Backfill provide specific materials to be used under and around the secondary containment foundations and contain placing and backfilling requirements. The Material Testing specifications contain current adequate industry standards for selecting and testing fill materials, and testing not less than once per each lift to ensure adequate compaction. Requirements for testing and record keeping are current and adequate for the backfill around and below the secondary containment. Furthermore, the certification of construction (installation) by an independent inspector as required by the Installation of Tank System document will ensure that all vessel system units including Secondary Containment structural support and backfill placement comply with the applicable documents.
<b>Infiltration</b>	The design or operation (e.g., diking & curbing) prevents run-on or infiltration of precipitation into the Secondary Containment system unless the collection system has sufficient excess capacity (25 yr rainfall) to contain the run-on precipitation.	Drawings listed above under References;  24590-WTP-DB-ENG-01-001, Rev. 1Q Basis of Design.	The Basis of Design document requires that secondary containment structures shall be capable to contain 100% liquid volume of the largest tank in the group of tanks plus the run-on or infiltration of precipitation from a 25-year, 24-hour rainfall event. The secondary containment cells housing the tanks are located inside the LAB where they are protected from direct run-on or infiltration of precipitation by the building structure as shown in the general arrangement drawings; therefore, they will not be subject to run-on or infiltration of precipitation effects.

	Information Assessed	Source of Information	Assessment
<b>Infiltration (cont'd)</b>	<p>The design includes an external moisture barrier or other means to prevent moisture from entering the cell.</p>	<p>Drawings listed above under References; 24590-WTP-DB-ENG-01-001, Rev. 1Q, Basis of Design.</p>	<p>The Basis of Design document requires the design include provisions to prevent external moisture intrusion. The Secondary Containments shown in the general arrangement drawings are inside the LAB building which shields them from precipitation and surface water percolation. As noted in the Basis of Design document, the ground water table is located about 250 feet below the floors of the cells; therefore, ground water infiltration is precluded. However, as a good engineering practice, the drawings show that the Secondary Containment structures have the bituminous damp-proofing material applied to the external faces of their concrete walls.</p>
<b>Liner System</b>	<p>The containment area is free of cracks or gaps and the design discusses methods of their minimization.</p>	<p>Drawings listed above under References; 24590-WTP-PER-CSA-02-001, Rev. 10, Secondary Containment Design; 24590-WTP-3PS-NLLR-T0002, Rev. 1, Engineering Specification for Furnishing, Detailing, Fabrication, Delivery and Installation of Stainless Steel Liner Plates.</p>	<p>The Secondary Containment Design document provides current adequate design requirements and codes and standards to design leak tight stainless steel liners. This document includes appropriate details for installation of stainless steel liners free of cracks and gaps. The procurement specification for Furnishing, Detailing, Fabrication, Delivery and Installation of Stainless Steel Liner Plates provides adequate requirements and standards for furnishing stainless steel liners free of cracks and gaps. The design drawings show the appropriate required installation details.</p>

	Information Assessed	Source of Information	Assessment
<b>Liner System (cont'd)</b>	<p>The design has considered the compatibility of the concrete liner or coatings and waste and presents information on coatings planning to be used from the manufacturer addressing compatibility with the stored waste. The lining or coating must prevent the waste from migrating into the concrete.</p>	<p>Drawings listed above under References; 24590-WTP-PER-M-02-001, Rev. 3, Material Selections for Building Secondary Containment/Leak Detection; 24590-WTP-PER-CSA-02-001, Rev. 10, Secondary Containment Design.</p>	<p>The Material Selections document contains general information on the compatibility of planned Secondary Containment stainless steel liners and special protective coatings with the waste. These linings and special protective coatings prevent the waste from migrating into the concrete. The Secondary Containment Design document provides standard installation details for liners and special protective coatings that will ensure leak-tight liners that prevent the migration of the waste into the concrete. The design drawings show the appropriate required installation details.</p>