

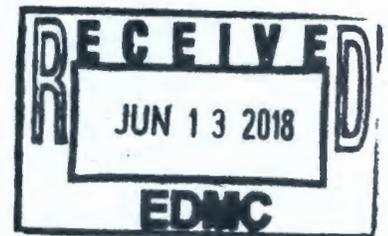


**OFFICE OF RIVER PROTECTION**  
P.O. Box 450, MSIN H6-60  
Richland, Washington 99352  
**JUN 11 2018**

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18-ECD-0041

Ms. Alexandra K. Smith, Program Manager  
Nuclear Waste Program  
Washington State  
Department of Ecology  
3100 Port of Benton Blvd.  
Richland, Washington 99354



Ms. Smith:

**SUBMITTAL OF HANFORD FACILITY RESOURCE CONSERVATION AND RECOVERY ACT PERMIT MODIFICATION NOTIFICATION FORM 24590-LAW-PCN-ENV-18-001**

- References:
1. WA7890008967, "Dangerous Waste Portion of the Hanford Facility Resource Conservation and Recovery Act Permit for the Treatment, Storage, and Disposal of Dangerous Waste, Part III, Operating Unit 10, 'Waste Treatment and Immobilization Plant.'"
  2. BNI letter from B.P. Reilly to B.T. Vance, ORP, "Submittal of Hanford Facility Resource Conservation and Recovery Act Permit Modification Notification Form 24590-LAW-PCN-ENV-18-001," CCN: 306192, dated May 15, 2018.

This letter transmits Hanford Facility Resource Conservation and Recovery Act Permit Modification Notification Form 24590-LAW-PCN-ENV-18-001, attached, for the Washington State Department of Ecology review and approval. The form describes Class 1 modifications to Reference 1.

The purpose of this Class 1 prime permit modification is to submit revisions to Piping and Instrumentation Diagrams for the Low-Activity Waste Concentrate Receipt Process System Equipment in Appendix 9.2 of Reference 1.

Washington State Department of Ecology comments resulting from review of this modification notification form and the associated information have been dispositioned.

Ms. Alexandra K. Smith  
18-ECD-0041

-2-

JUN 11 2018

If you have any questions, please contact me, or your staff may contact Gae M. Neath,  
Environmental Compliance Division, (509) 376-7828.



Robert G. Hastings, Assistant Manager  
Technical and Regulatory Support

ECD:GMN

Attachment

cc w/attach:

D.E. Casey, BNI  
B.G. Erlandson, BNI  
R.J. Landon, BNI  
B.P. Reilly, BNI  
D.C. Robertson, BNI  
D.M. Yasek, BNI  
J. Cantu, Ecology (7 hard copies)  
A.S. Carlson, Ecology  
T.Z. Gao, Ecology  
M.E. Jones, Ecology  
J.K. Perry, MSA  
A.C. McKarns, RL  
D. Rowland, YN

Administrative Record (WTP H-0-8)

BNI Correspondence  
Environmental Portal

cc w/o attach:

M. Johnson, CTUIR  
S.L. Dahl, Ecology  
D. McDonald, Ecology  
J. Bell, NPT (Acting)  
G.P. Bohnee, NPT  
K. Niles, Oregon Energy  
P.M. Pak, RL (Acting)  
R. Longoria, YN (Acting)

**Attachment  
18-ECD-0041  
(7 Pages Excluding Cover Sheet)**

**Hanford Facility RCRA Permit Modification Notification  
Form 24590-LAW-PCN-ENV-18-001**

Quarter Ending June 2018

24590-LAW-PCN-ENV-18-001

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**Hanford Facility RCRA Permit Modification Notification Form**  
**Part III, Operating Unit 10**  
**Waste Treatment and Immobilization Plant**

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**Index**

Page 2 of 3: Hanford Facility RCRA Permit, Part III, Operating Unit 10, Waste Treatment and Immobilization Plant

Replace the Piping and Instrument Diagrams (P&IDs) for the following Low-Activity Waste (LAW) Concentrate Receipt Process system (LCP) equipment in Appendix 9.2 of the Dangerous Waste Permit (DWP)

- LAW concentrate receipt process system LCP-BULGE-00002
- LAW concentrate receipt process system LCP-BULGE-00003

Submitted by Co-Operator:

Reviewed by ORP Program Office:

Roger J. Landon      5/2/18  
Roger J. Landon      Date

J.F. Grindstaff      6/6/18  
J.F. Grindstaff      Date

Quarter Ending June 2018

24590-LAW-PCN-ENV-18-001

<b>Hanford Facility RCRA Permit Modification Notification Form</b>	
Unit: <b>Waste Treatment and Immobilization Plant</b>	Permit Part: <b>Part III, Operating Unit 10</b>

**Description of Modification:**

The purpose of this Class 1 prime modification is to replace the following P&IDs in Appendix 9.2 of the DWP:

Appendix 9.2			
Replace:	24590-LAW-M6-LCP-00001005, Rev 0	With:	24590-LAW-M6-LCP-00001005, Rev 1
Replace:	24590-LAW-M6-LCP-00002002, Rev 0	With:	24590-LAW-M6-LCP-00002002, Rev 1

This modification requests Ecology approval and incorporation into the permit the specific changes to the P&IDs. These drawings include changes provided in applicable document change forms (e.g., DCN, SCN, SDDR, FCN, FCR, etc.). In addition, the P&IDs include changes associated with the resolution to comments on change documents since the issuance of the last revision of the permitted drawings.

Changes to the P&ID (24590-LAW-M6-LCP-00001005, Rev 1) for the LAW Concentrate Receipt Process System (LCP-BULGE-00002) are summarized below:

- Added or modified the notes section. Revised the References section.
- Added restriction orifices on LCP-RO-00007 outside bulges to restrict cavitation (Grid E3)
- Revised instrument lines between valves FT-0158, FI-0158 to electrical (Grid A6)
- Revised instrument lines between valves FT-0159, FI-0159 to electrical (Grid B6)
- Incorporated internal system designation for LAW-M6-LCP-00001004 (Grid H8)
- Revised quality designator from CM to Q at ASX coaxial pipe to bulge interface; Seismic designation change from IV to III (Grid E7 and D3)

Changes to the P&ID (24590-LAW-M6-LCP-00002002, Rev 1) for the LAW Concentrate Receipt Process System (LCP-BULGE-00003) are summarized below:

- Added or modified the notes section. Revised the References section.
- Added restriction orifices on LCP-RO-00006 outside bulges to restrict cavitation (Grid F3)
- Incorporated internal system designation for LAW-M6-LCP-00002001 (Grid H8)
- Added internal system designation for high flow rate device (Grid B7)
- Revised quality designator from CM to Q at ASX coaxial pipe to bulge interface (Grid B7 and E3)

This PCN updates information in Appendix 9.2 to reflect current design. These DWP components may be re-evaluated to confirm design adequacy. If the re-evaluation results in future design changes, the changes will be reviewed by Ecology in subsequent permit modifications.

The following outstanding change documents have been submitted to Ecology pursuant to Permit conditions III.10.C.9.h and are maintained in the WTP Operating Record:

24590-LAW-M6-LCP-00001005 – 24590-LAW-M6N-LCP-00063 (CCN 30266)

24590-LAW-M6-LCP-00002002 – 24590-LAW-M6N-LCP-00063 (CCN 30266)

In accordance with Permit Condition III.10.C.2.e, this permit modification sent to Ecology may include page changes to the Permit, attachments, and permit application supporting documentation.

WAC 173-303-830 Modification Class:	Class 1	Class 11	Class 2	Class 3
Please mark the Modification Class:		X		

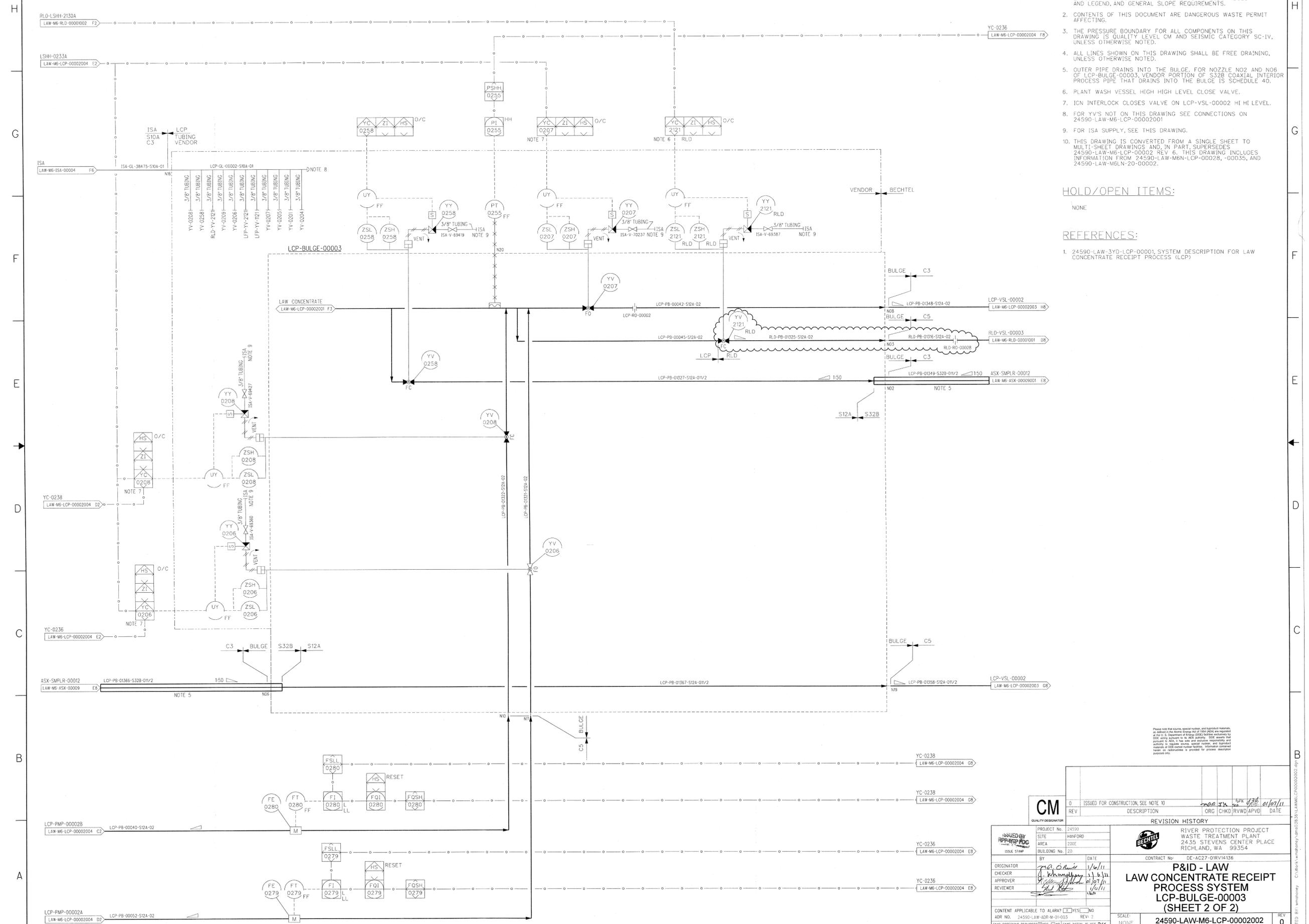
Quarter Ending June 2018

24590-LAW-PCN-ENV-18-001

Enter relevant WAC 173-303-830, Appendix I Modification citation number: N/A	
Enter wording of WAC 173-303-830, Appendix I Modification citation:  In accordance with WAC-173-303-830(4)(d)(i), this modification notification is requested to be reviewed and approved as a Class 1 modification. WAC 173-303-830(4)(d)(i)(A) states, "Class 1 modifications apply to minor changes that keep the permit current with routine changes to the facility or its operation. These changes do not substantially alter the permit conditions or reduce the capacity of the facility to protect human health or the environment. In the case of Class 1 modifications, the director may require prior approval."	
Modification Approved/Concur: <input type="checkbox"/> Yes <input type="checkbox"/> Denied (state reason below) <u>Reason for denial:</u>	Reviewed by Ecology:  S. Dahl _____ Date _____



24590-LAW-M6-LCP-00002002



NOTES:

- SEE DRAWINGS 24590-WTP-M6-50-00001 THROUGH 24590-WTP-M6-50-00008 FOR GENERAL NOTES, SYMBOLS AND LEGEND, AND GENERAL SLOPE REQUIREMENTS.
- CONTENTS OF THIS DOCUMENT ARE DANGEROUS WASTE PERMIT AFFECTING.
- THE PRESSURE BOUNDARY FOR ALL COMPONENTS ON THIS DRAWING IS QUALITY LEVEL CM AND SEISMIC CATEGORY SC-IV, UNLESS OTHERWISE NOTED.
- ALL LINES SHOWN ON THIS DRAWING SHALL BE FREE DRAINING, UNLESS OTHERWISE NOTED.
- OUTER PIPE DRAINS INTO THE BULGE. FOR NOZZLE N02 AND N06 OF LCP-BULGE-00003, VENDOR PORTION OF S328 COAXIAL INTERIOR PROCESS PIPE THAT DRAINS INTO THE BULGE IS SCHEDULE 40.
- PLANT WASH VESSEL HIGH HIGH LEVEL CLOSE VALVE.
- IGN INTERLOCK CLOSES VALVE ON LCP-VSL-00002 HI HI LEVEL.
- FOR YV'S NOT ON THIS DRAWING SEE CONNECTIONS ON 24590-LAW-M6-LCP-00002001
- FOR ISA SUPPLY, SEE THIS DRAWING.
- THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI-SHEET DRAWINGS AND, IN PART, SUPERSEDES 24590-LAW-M6-LCP-00002 REV 6. THIS DRAWING INCLUDES INFORMATION FROM 24590-LAW-M6N-LCP-00028, -00035, AND 24590-LAW-M6LN-20-00002.

HOLD/OPEN ITEMS:

NONE

REFERENCES:

- 24590-LAW-3YD-1-LCP-00001, SYSTEM DESCRIPTION FOR LAW CONCENTRATE RECEIPT PROCESS (LCP)

Please note that source, special material, and hydraulic materials as shown in the above Energy P&ID are not to be used without the approval of the U.S. Department of Energy (DOE) unless otherwise specified. DOE assets that are not to be used without the approval of the U.S. Department of Energy (DOE) are shown in the above Energy P&ID. The user is responsible for ensuring that all materials and equipment are properly identified and approved for use. The user is also responsible for ensuring that all materials and equipment are properly identified and approved for use.

<b>CM</b> QUALITY OBSERVATION 0 ISSUED FOR CONSTRUCTION, SEE NOTE NO REV DESCRIPTION ORG (CHKD) (RVWD) (APVD) DATE	<b>REVISION HISTORY</b> PROJECT No: 24590 SITE: HANFORD AREA: 200E BUILDING No: 20	
	RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354	
ISSUED BY: <i>[Signature]</i> CHECKER: <i>[Signature]</i> APPROVER: <i>[Signature]</i> REVIEWER: <i>[Signature]</i>	CONTRACT No: DE-AC27-01RV14136 <b>P&amp;ID - LAW          LAW CONCENTRATE RECEIPT          PROCESS SYSTEM          LCP-BULGE-00003          (SHEET 2 OF 2)</b>	SCALE: NONE 24590-LAW-M6-LCP-00002002 REV 0

**Table III.10.E.L - LAW Vitrification Plant Tank Systems Secondary Containment Systems,  
Including Sumps, Bulges, Autosamplers, and Floor Drains**

Sump or Drain Line I.D.# & Room Location	Maximum Sump (gallons) or Drain Line (gallons per minute) Capacity	Sump Type/Nominal Operating Volume (gallons)	Sump or Drain Line Dimensions <sup>a</sup> (inches) & Materials of Construction	Engineering Description (Drawing Nos., Specifications Nos., etc.)
Drain Line ID# = RLD-FD-00035 L-0126 (RLD-BULGE-0000-4 Drain El. +3')	N/A	N/A	2" Dia. 6% Mo	<u>24590-LAW</u> -M6-RLD-00001005, Rev 0
Drain Line ID# = LOP-FD-00001 L-0123 (LOP-BULGE-00001 drain El. +3)	N/A	N/A	2" Dia. 6% Mo	<u>24590-LAW</u> -M6-LOP-0001003, Rev 0
Drain Line ID# = LCP-FD-00001 L-0123 (LCP-BULGE-00001 Drain, El. +3')	N/A	N/A	2" Dia. 316L	<u>24590-LAW</u> -M6-LCP-00001001, Rev 0
Drain Line ID# = LCP-FD-00002 L-0123 (LCP-BULGE-00002 Drain, El. +3')	N/A	N/A	2" Dia. 316L	<u>24590-LAW</u> -M6-LCP-00001004, Rev 0 -M6-LCP-00001005, <del>Rev 0</del>
Drain Line ID# = RLD-WS-20037-S11B-01 L-0123 (Melter 1 Encasement Assembly Drain, El. +3')	N/A	N/A	1" Dia. 316L	<u>24590-LAW</u> -M6-LMP-00012001, Rev 0
Drain Line ID# = LFP-FD-00001 L-0123 (LFP-BULGE-00001 Drain, El. +3)	N/A	N/A	2" Dia. 316L	<u>24590-LAW</u> -M6-LFP-00001005, Rev 0

**Table III.10.E.L - LAW Vitrification Plant Tank Systems Secondary Containment Systems,  
Including Sumps, Bulges, Autosamplers, and Floor Drains**

Sump or Drain Line I.D.# & Room Location	Maximum Sump (gallons) or Drain Line (gallons per minute) Capacity	Sump Type/Nominal Operating Volume (gallons)	Sump or Drain Line Dimensions <sup>a</sup> (inches) & Materials of Construction	Engineering Description (Drawing Nos., Specifications Nos., etc.)
Drain Line ID# = LOP-FD-00002 L-0124 (LOP-BULGE-00002 Drain, El. +3)	N/A	N/A	2" Dia. 6% Mo	<u>24590-LAW</u> -M6-LOP-00002003, Rev 0
Drain Line ID# = LCP-FD-00003 L-0124 (LCP-BULGE-00003 Drain, El. +3)	N/A	N/A	2" Dia. 316L	<u>24590-LAW</u> -M6-LCP-00002001, Rev 0 -M6-LCP-00002002, <del>Rev 0</del>
Drain Line ID# = LFP-FD-00002 L-0124 (LFP-BULGE-00002 Drain, El. +3)	N/A	N/A	2" Dia. 316L	<u>24590-LAW</u> -M6-LFP-00003005, Rev 0
Drain Line ID# = RLD-WS-20033-S11B-01 L-0124 (Melter 2 Encasement Assembly Drain, El. +3')	N/A	N/A	1" Dia. 316L	<u>24590-LAW</u> -M6-LMP-00042001, Rev 0
LVP-FD-00001 L-0218 (Berm floor drain for LVP-TK-00001, El. 28') <sup>b</sup>	N/A	N/A	4" Dia. 316L	<u>24590-LAW</u> -M6-LVP-00002003, Rev 0
RLD-FD-00025 L-0304F (Curb floor drain for Caustic Scrubber, El. 48') <sup>b</sup>	N/A	N/A	4" Dia. 316L	<u>24590-LAW</u> -M6-RLD-00003001, Rev 0