



U.S. Department of Energy
Office of River Protection

0098536

P.O. Box 450, MSIN H6-60
Richland, Washington 99352

SEP 01 2011

11-ESQ-213

Ms. Jane A. Hedges, Program Manager
Nuclear Waste Program
Washington State
Department of Ecology
3100 Port of Benton Blvd.
Richland, Washington 99354

Dear Ms. Hedges:

SUBMITTAL OF HANFORD FACILITY RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) PERMIT MODIFICATION NOTIFICATION FORM 24590-LAW-PCN-ENV-11-002, REPLACE PIPING AND INSTRUMENTATION DIAGRAMS (P&ID) DRAWINGS FOR LOW-ACTIVITY WASTE (LAW) PRIMARY OFFGAS PROCESS SYSTEM (LOP) IN APPENDIX 9.2 OF THE DANGEROUS WASTE PERMIT (DWP)

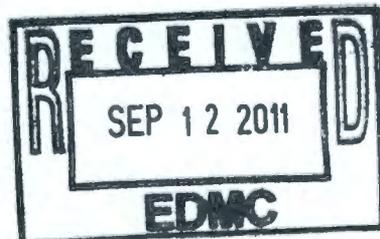
Reference: WA7890008967, "Dangerous Waste Portion of the Hanford Facility Resource Conservation and Recovery Act Permit for the Treatment, Storage, and Disposal of Dangerous Waste, Part III, Operating Unit 10, 'Waste Treatment and Immobilization Plant.'"

This letter transmits Hanford Facility RCRA Permit Modification Notification Form 24590-LAW-PCN-ENV-11-002, attached, for the Washington State Department of Ecology (Ecology) review and approval. The form describes a requested Class 1 modification requiring concurrence or approval to the Reference.

Modification Notification Form 24590-LAW-PCN-ENV-11-002 submits updated P&IDs to replace existing P&IDs for LAW LOP in Appendix 9.2 of the DWP.

Ecology comments resulting from review of this modification notification form and the associated information have been resolved.

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



Sincerely,

Paul G. Harrington, Acting Assistant Manager
Office of Environmental Safety and Quality

ESQ:GMN

Attachment

cc: See page 2

Ms. Jane A. Hedges
11-ESQ-213

-2-

SEP 01 2011

cc w/attach:

B. L. Curn, BNI
B. G. Erlandson, BNI
P. A. Fisher, BNI
S. K. Murdock, BNI
D. C. Robertson, BNI
F. M. Russo, BNI

Administrative Record (WTP H-0-8)

BNI Correspondence
Environmental Portal, LMSI

cc electronic:

J. Cantu, Ecology (2 hard copies)
A. S. Carlson, Ecology
T. Z. Gao, Ecology
M. E. Jones, Ecology
J. F. Ollero, MSA
A. C. McKarns, RL
D. J. Sommer, SCS

cc w/o attach:

D. M. Busche, BNI
J. Cox, CTUIR
S. G. Harris, CTUIR
S. L. Dahl, Ecology
D. McDonald, Ecology
G. P. Bohnee, NPT
K. Niles, Oregon Energy
S. R. Weil, RL
R. Jim, YN

Attachment
11-ESQ-213
(21 Pages)

Hanford Facility RCRA Permit Modification Notification
Form 24590-LAW-PCN-ENV-11-002

Quarter Ending 09/30/2011

24590-LAW-PCN-ENV-11-002

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

Index

Page 2 of 5: Hanford Facility RCRA Permit, Part III, Operating Unit 10, Waste Treatment and Immobilization Plant
Replace Piping and Instrumentation Diagram (P&ID) drawings for LAW Primary Offgas Process System
(LOP) in Appendix 9.2 of the Dangerous Waste Permit (DWP).

Submitted by Co-Operator:

Donna Busche

D. M. Busche

08/16/11

Date

Reviewed by ORP Program Office:

D. L. Noyes

D. L. Noyes

08/16/11

Date

Quarter Ending 09/30/2011

24590-LAW-PCN-ENV-11-002

Hanford Facility RCRA Permit Modification Notification Form

Unit:

Waste Treatment and Immobilization Plant

Permit Part:

Part III, Operating Unit 10Description of Modification:

The purpose of this Class 1 prime modification is to update the P&ID drawings for the LAW LOP System in Appendix 9.2 of the DWP.

The following P&IDs are being submitted to replace the P&IDs currently in Appendix 9.2. The increase in the number of drawings submitted results from converting the source drawings into two or more drawings to provide a clearer representation of the LOP system, including additional details on instrumentation and logic controls.

| Appendix 9.2 | | | |
|--------------|--------------------------------|-------|-----------------------------------|
| Replace: | | With: | |
| | 24590-LAW-M6-LOP-P0001, Rev. 2 | | 24590-LAW-M6-LOP-00001001, Rev. 0 |
| | | | 24590-LAW-M6-LOP-00001002, Rev. 0 |
| | | | 24590-LAW-M6-LOP-00001003, Rev. 0 |
| | | | 24590-LAW-M6-LOP-00001004, Rev. 0 |
| | | | 24590-LAW-M6-LOP-00001005, Rev. 0 |
| | | | 24590-LAW-M6-LOP-00001006, Rev. 0 |
| | 24590-LAW-M6-LOP-P0002, Rev. 2 | | 24590-LAW-M6-LOP-00002001, Rev. 0 |
| | | | 24590-LAW-M6-LOP-00002002, Rev. 0 |
| | | | 24590-LAW-M6-LOP-00002003, Rev. 0 |
| | | | 24590-LAW-M6-LOP-00002004, Rev. 0 |
| | | | 24590-LAW-M6-LOP-00002005, Rev. 0 |
| | | | 24590-LAW-M6-LOP-00002006, Rev. 0 |
| | 24590-LAW-M6-LOP-00004, Rev. 4 | | 24590-LAW-M6-LOP-00004001, Rev. 0 |
| | | | 24590-LAW-M6-LOP-00004002, Rev. 0 |
| | 24590-LAW-M6-LOP-00005, Rev. 4 | | 24590-LAW-M6-LOP-00005001, Rev. 0 |
| | | | 24590-LAW-M6-LOP-00005002, Rev. 0 |

This modification requests Ecology approval and incorporation into the permit the specific changes to these P&IDs that are indicated by revision notes and clouds. The referenced P&IDs include changes provided in applicable document change forms (e.g., DCN, SCN, SDDR, FCN, FCR, etc.) that were submitted to Ecology in accordance with Condition III.10.C.9.h. 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 drawing.

The following types of changes apply to the LOP P&IDs:

- Drawing converted from a single sheet to multi-sheet drawings
- Modified, deleted, and added notes and references
- Expanded instruments and logic controls information
- Incorporated change notices as specified in Revision Notes

LAW Primary Offgas P&IDs (24590-LAW-M6-LOP-00001001, 24590-LAW-M6-LOP-00001002, 24590-LAW-M6-LOP-00001003, 24590-LAW-M6-LOP-00001004, 24590-LAW-M6-LOP-00001005, and 24590-LAW-M6-LOP-00001006):

- Converted from single sheet to multi-sheet format with each sheet documenting one of the following LOP equipment items or piping:
 - LOP-SCB-00001
 - LOP-VSL-00001
 - LOP-BULGE-00001
 - LOP-WESP-00001

Quarter Ending 09/30/2011

24590-LAW-PCN-ENV-11-002

- Melter 1 Film Cooler Offgas
- LOP-PMP-00003A/B

LAW Primary Offgas P&IDs (24590-LAW-M6-LOP-00002001, 24590-LAW-M6-LOP-00002002, 24590-LAW-M6-LOP-00002003, 24590-LAW-M6-LOP-00002004, 24590-LAW-M6-LOP-00002005, and 24590-LAW-M6-LOP-00002006):

- Converted from single sheet to multi-sheet format with each sheet documenting one of the following LOP equipment items or piping:
 - LOP-SCB-00002
 - LOP-VSL-00002
 - LOP-BULGE-00002
 - LOP-WESP-00002
 - Melter 2 Film Cooler Offgas
 - LOP-PMP-00006A/B
- See DCNL 24590-LAW-M6LN-LOP-00005 for correction of title block error on 24590-LAW-M6-LOP-00002003 and change equipment tag from LOP-PMP-00003B to LOP-PMP-00006B in two places at Grid H-5 and F-5 on 24590-LAW-M6-LOP-00002006.

LAW Primary Offgas P&IDs (24590-LAW-M6-LOP-00004001 and 24590-LAW-M6-LOP-00004002):

- Converted from single sheet to multi-sheet format with each sheet documenting one of the following LOP equipment items:
 - LOP-FCLR-00002
 - LOP-FCLR-00001
- Deleted HEPA filters

LAW Primary Offgas P&IDs (24590-LAW-M6-LOP-00005001 and 24590-LAW-M6-LOP-00005002):

- Converted from single sheet to multi-sheet format with each sheet documenting one of the following LOP equipment items:
 - LOP-FCLR-00004
 - LOP-FCLR-00003
- Deleted HEPA filters

This modification requests Ecology approval and incorporation of the following list of outstanding change documents into the permit. Although not yet incorporated into the revised documents attached to this PCN, this list of outstanding DCNs are intended to be incorporated into this modification:

Applicable to P&ID: 24590-LAW-M6-LOP-00001001

- DCNL: 24590-LAW-M6LN-LOP-00002
- DCN: 24590-LAW-M6N-LOP-00013
- DCN: 24590-LAW-M6N-LOP-00066

Applicable to P&ID: 24590-LAW-M6-LOP-00001002

- DCN: 24590-LAW-M6N-LOP-00065

Applicable to P&ID: 24590-LAW-M6-LOP-00001003

- DCNL: 24590-LAW-M6LN-LOP-00003
- DCNL: 24590-LAW-M6LN-LOP-00013
- DCN: 24590-LAW-M6N-LOP-00014

Quarter Ending 09/30/2011

24590-LAW-PCN-ENV-11-002

Applicable to P&ID: 24590-LAW-M6-LOP-00001004

- DCNL: 24590-LAW-M6LN-LOP-00005
- DCN: 24590-LAW-M6N-LOP-00013
- DCN: 24590-LAW-M6N-LOP-00063
- DCN: 24590-LAW-M6N-LOP-00066

Applicable to P&ID: 24590-LAW-M6-LOP-00001005

- DCN: 24590-LAW-M6N-LOP-00063
- DCN: 24590-LAW-M6N-LOP-00065

Applicable to P&ID: 24590-LAW-M6-LOP-00002001

- DCNL: 24590-LAW-M6LN-LOP-00002
- DCN: 24590-LAW-M6N-LOP-00013
- DCN: 24590-LAW-M6N-LOP-00066

Applicable to P&ID: 24590-LAW-M6-LOP-00002002

- DCN: 24590-LAW-M6N-LOP-00065

Applicable to P&ID: 24590-LAW-M6-LOP-00002003

- DCNL: 24590-LAW-M6LN-LOP-00003
- DCNL: 24590-LAW-M6LN-LOP-00005
- DCNL: 24590-LAW-M6LN-LOP-00013
- DCN: 24590-LAW-M6N-LOP-00014

Applicable to P&ID: 24590-LAW-M6-LOP-00002004

- DCNL: 24590-LAW-M6LN-LOP-00005
- DCN: 24590-LAW-M6N-LOP-00013
- DCN: 24590-LAW-M6N-LOP-00063
- DCN: 24590-LAW-M6N-LOP-00066

Applicable to P&ID: 24590-LAW-M6-LOP-00002005

- DCN: 24590-LAW-M6N-LOP-00065

Applicable to P&ID: 24590-LAW-M6-LOP-00002006

- DCNL: 24590-LAW-M6LN-LOP-00005

Applicable to P&ID: 24590-LAW-M6-LOP-00004001

- DCNL: 24590-LAW-M6LN-LOP-00011
- DCN: 24590-LAW-M6N-LOP-00066

Applicable to P&ID: 24590-LAW-M6-LOP-00004002

- DCN: 24590-LAW-M6N-LOP-00063

Applicable to P&ID: 24590-LAW-M6-LOP-00005001

- DCNL: 24590-LAW-M6LN-LOP-00011
- DCN: 24590-LAW-M6N-LOP-00066

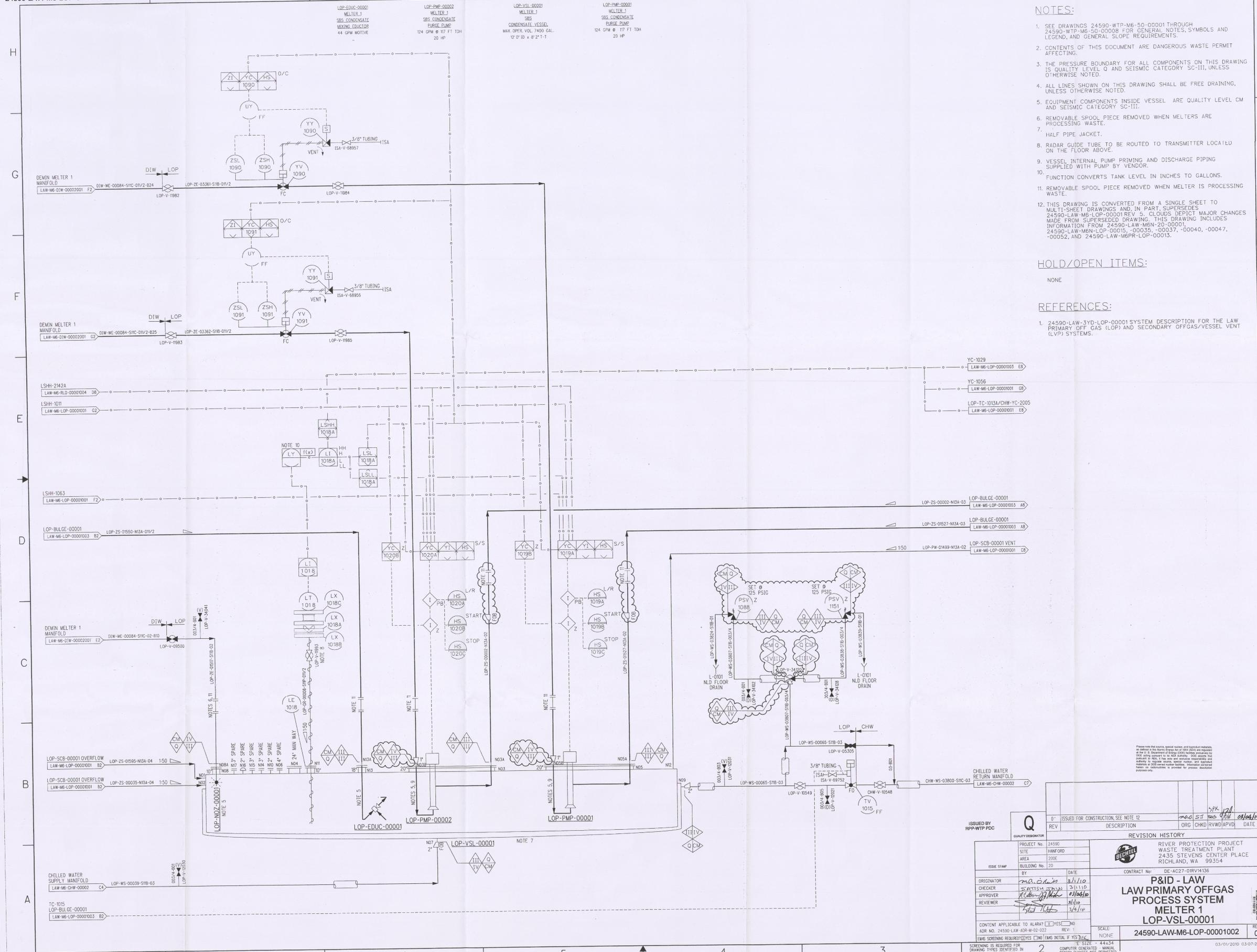
Applicable to P&ID: 24590-LAW-M6-LOP-00005002

- DCN: 24590-LAW-M6N-LOP-00063

Quarter Ending 09/30/2011

24590-LAW-PCN-ENV-11-002

| WAC 173-303-830 Modification Class: | Class 1 | Class ¹ 1 | Class 2 | Class 3 |
|---|---|----------------------|---------|---------|
| Please mark the Modification Class: | | X | | |
| Enter relevant WAC 173-303-830, Appendix I Modification citation number: A.1 | | | | |
| Enter wording of WAC 173-303-830, Appendix I Modification citation: | | | | |
| <p>In accordance with WAC 173-303-830(4)(d)(i), this modification notification is requested to be reviewed and approved as a Class ¹1 modification. WAC 173-303-830(4)(d)(ii)(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."</p> | | | | |
| <p>Modification Approved/Concur: <input type="checkbox"/> Yes <input type="checkbox"/> Denied (state reason below)</p> <p><u>Reason for denial:</u></p> | <p>Reviewed by Ecology:</p> <p style="text-align: center;">D. McDonald _____ Date _____</p> | | | |



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 Q AND SEISMIC CATEGORY SC-III, UNLESS OTHERWISE NOTED.
- ALL LINES SHOWN ON THIS DRAWING SHALL BE FREE DRAINING, UNLESS OTHERWISE NOTED.
- EQUIPMENT COMPONENTS INSIDE VESSEL ARE QUALITY LEVEL CM AND SEISMIC CATEGORY SC-III.
- REMOVABLE SPOOL PIECE REMOVED WHEN MELTERS ARE PROCESSING WASTE.
- HALF PIPE JACKET.
- RADAR GUIDE TUBE TO BE ROUTED TO TRANSMITTER LOCATED ON THE FLOOR ABOVE.
- VESSEL INTERNAL PUMP PRIMING AND DISCHARGE PIPING SUPPLIED WITH PUMP BY VENDOR.
- FUNCTION CONVERTS TANK LEVEL IN INCHES TO GALLONS.
- REMOVABLE SPOOL PIECE REMOVED WHEN MELTER IS PROCESSING WASTE.
- THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI-SHEET DRAWINGS AND, IN PART, SUPERSEDES 24590-LAW-M6-L-OP-00001 REV. 5. CLOUDS DEPICT MAJOR CHANGES MADE FROM SUPERSEDED DRAWING. THIS DRAWING INCLUDES INFORMATION FROM 24590-LAW-M6N-20-00001, 24590-LAW-M6N-L-OP-00015, -00035, -00037, -00040, -00047, -00052, AND 24590-LAW-M6PR-LOP-00013.

HOLD/OPEN ITEMS:

NONE

REFERENCES:

- 24590-LAW-3YD-LOP-00001 SYSTEM DESCRIPTION FOR THE LAW PRIMARY OFF GAS (LOP) AND SECONDARY OFFGAS/VESSEL VENT (LVP) SYSTEMS.

ISSUED BY: RFP-WTP PDC

QUALITY ASSURANCE

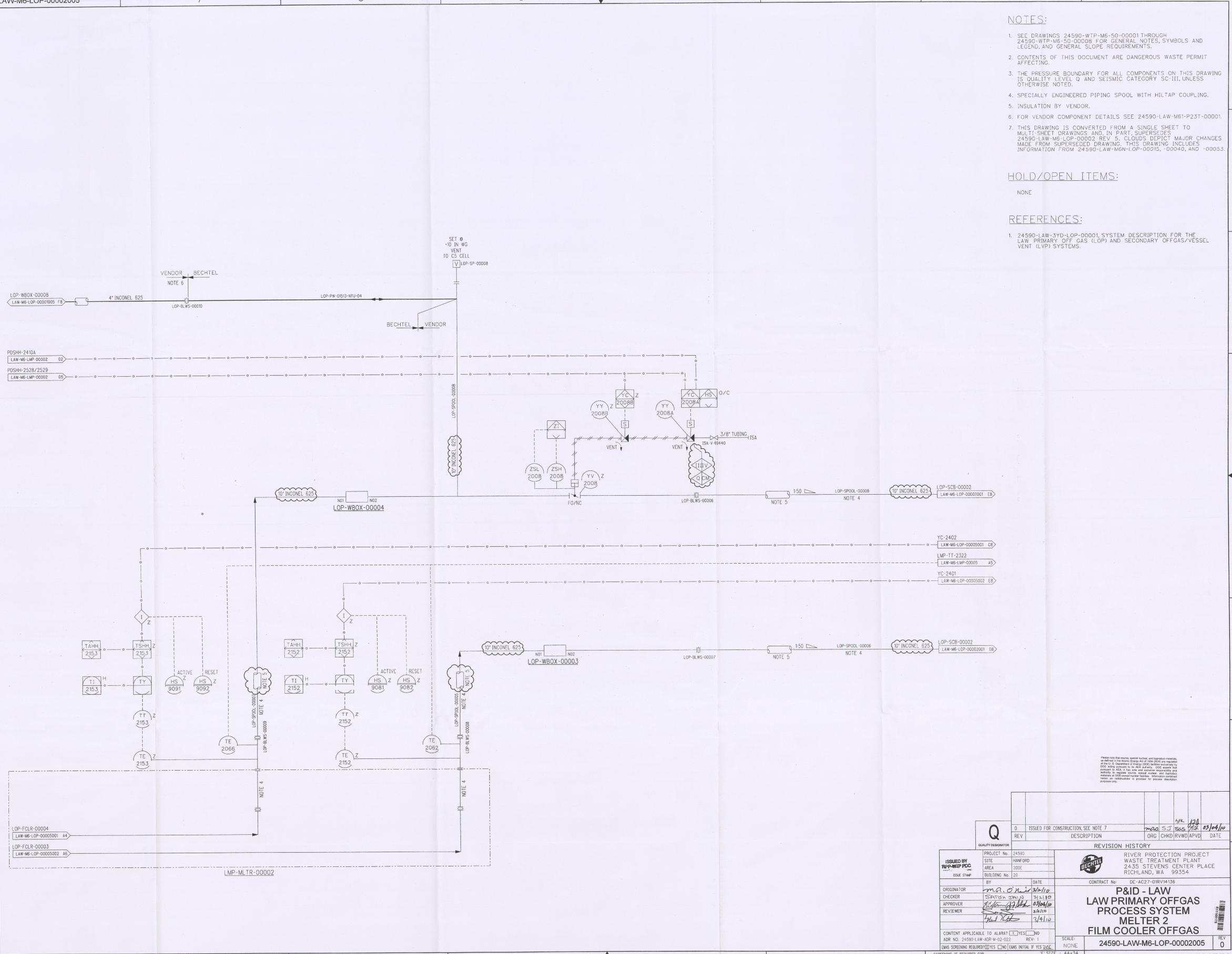
PROJECT No: 24590
 SITE: HANFORD
 AREA: 2000
 BUILDING No: 20

CONTRACT No: DE-AC27-DWRV4136

**P&ID - LAW
 LAW PRIMARY OFFGAS
 PROCESS SYSTEM
 MELTER 1
 LOP-VSL-00001**

SCALE: NONE
 24590-LAW-M6-LOP-00001002

03/01/2010 03:07:22 PM



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 Q AND SEISMIC CATEGORY SC-II, UNLESS OTHERWISE NOTED.
- SPECIALLY ENGINEERED PIPING SPOOL WITH HILTAP COUPLING.
- INSULATION BY VENDOR.
- FOR VENDOR COMPONENT DETAILS SEE 24590-LAW-M61-P23T-00001.
- THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI-SHEET DRAWINGS AND, IN PART, SUPERSEDES 24590-LAW-M6-LOP-00002 REV 5. CLOUDS DEPICT MAJOR CHANGES MADE FROM SUPERSEDED DRAWING. THIS DRAWING INCLUDES INFORMATION FROM 24590-LAW-M6N-LOP-00015, -00040, AND -00053.

HOLD/OPEN ITEMS:

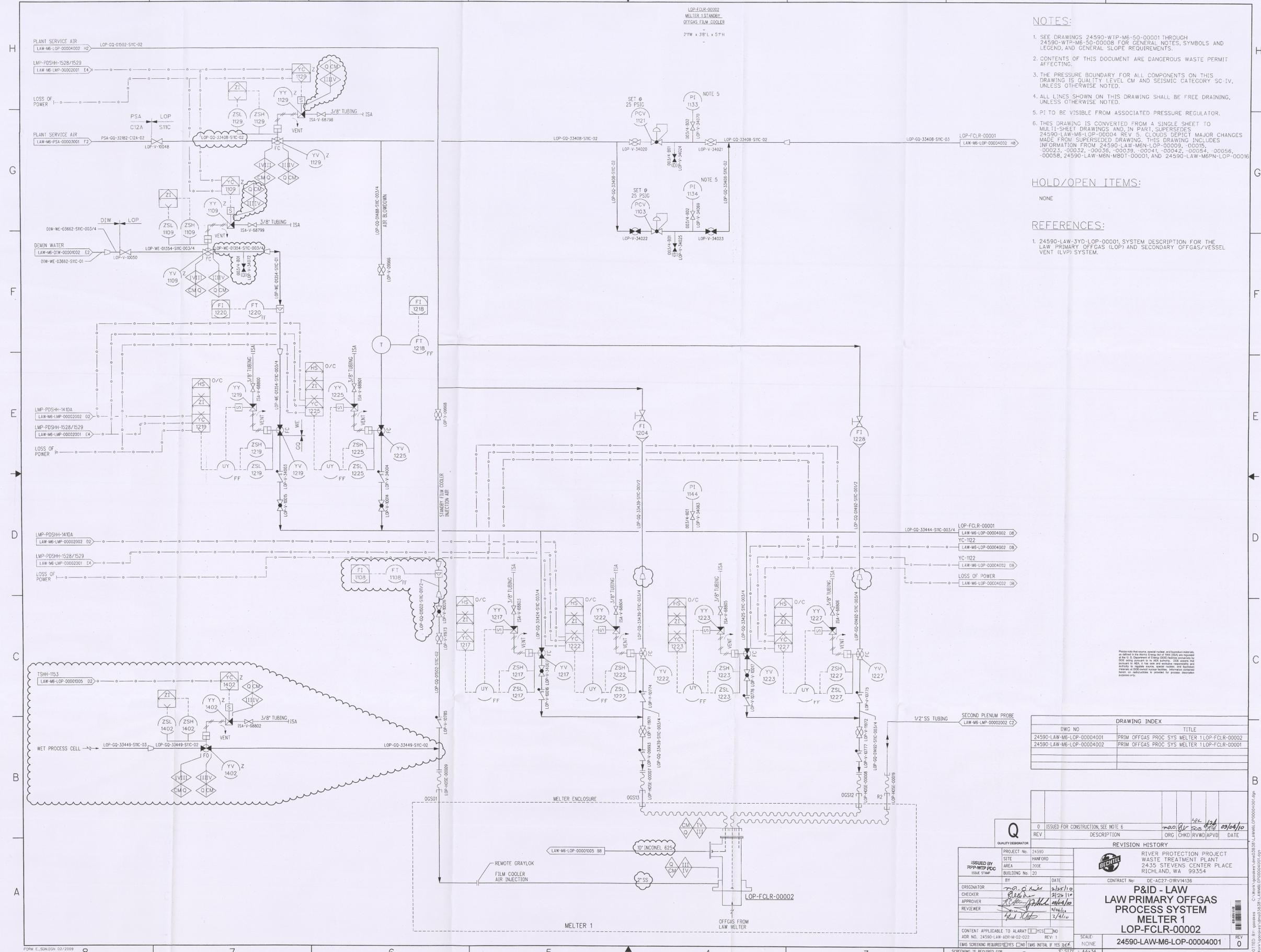
NONE

REFERENCES:

- 24590-LAW-3YD-LOP-00001 SYSTEM DESCRIPTION FOR THE LAW PRIMARY OFF GAS (LOP) AND SECONDARY OFFGAS/VESSEL VENT (LVP) SYSTEMS.

Check with the owner, general contractor and regulatory agencies as to the applicability of the Atomic Energy Act of 1954 (AEA) and regulations thereunder to the project. The project is not a nuclear power plant and is not subject to the AEA. It is not a nuclear power plant and is not subject to the AEA. It is not a nuclear power plant and is not subject to the AEA. It is not a nuclear power plant and is not subject to the AEA.

| | | | |
|---|---|-------|---------------------------|
| Q | ISSUED FOR CONSTRUCTION SEE NOTE 7 | DATE | 03/04/10 |
| | DESCRIPTION | ORG | CHKD |
| REVISION HISTORY | | | |
| PROJECT No. | 24590 | | |
| SITE | HANFORD | | |
| AREA | 2002 | | |
| BUILDING No. | 00 | | |
| CONTRACT No. | DE-AC27-ORR14136 | | |
| ISSUED BY | ma | DATE | 3/4/10 |
| CHECKER | SAT | DATE | 3/2/10 |
| APPROVER | R | DATE | 03/04/10 |
| REVIEWER | H | DATE | 3/4/10 |
| CONTENT APPLICABLE TO ALARA? | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | SCALE | NONE |
| ADR NO. 24590-LAW-ADR-M-02-022 | REV. 1 | SCALE | 24590-LAW-M6-LOP-00002005 |
| EMAS SCREENING REQUIRED? | <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO | SCALE | REV 0 |
| SCREENING IS REQUIRED FOR DRAWING TYPES IDENTIFIED IN 24590-WTP-GPP-REG-002 | 2 | SCALE | 44x34 |
| COMPUTER GENERATED MANUAL DESIGN CHANGES NOT PERMITTED | | DATE | 03/02/2010 12:57:33 PM |



- 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.
 - PI TO BE VISIBLE FROM ASSOCIATED PRESSURE REGULATOR.
 - THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI-SHEET DRAWINGS AND, IN PART, SUPERSEDES 24590-LAW-M6-LOP-00004 REV 5. CLOUDS DEPICT MAJOR CHANGES MADE FROM SUPERSEDED DRAWING. THIS DRAWING INCLUDES INFORMATION FROM 24590-LAW-M6N-LOP-00009, -00015, -00025, -00032, -00036, -00039, -00041, -00042, -00054, -00056, -00058, 24590-LAW-M6N-M80T-00001, AND 24590-LAW-M6PN-LOP-00016

HOLD/OPEN ITEMS:

NONE

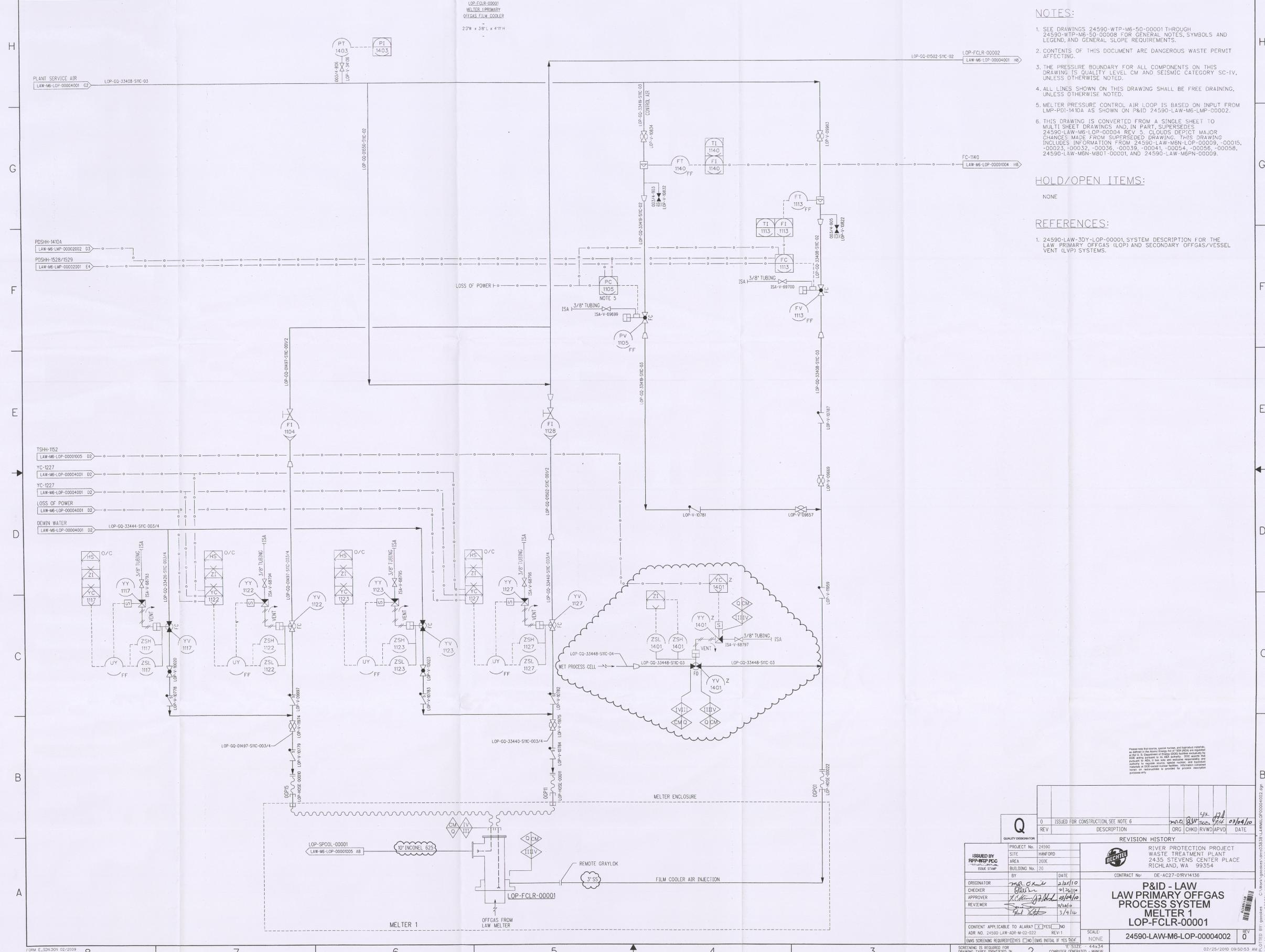
REFERENCES:

- 24590-LAW-3YD-LOP-00001, SYSTEM DESCRIPTION FOR THE LAW PRIMARY OFFGAS (LOP) AND SECONDARY OFFGAS/VESSEL VENT (LVP) SYSTEM.

| DWG NO | TITLE |
|---------------------------|--|
| 24590-LAW-M6-LOP-00004001 | PRIM OFFGAS PROC SYS MELTER 1 LOP-FCLR-00002 |
| 24590-LAW-M6-LOP-00004002 | PRIM OFFGAS PROC SYS MELTER 1 LOP-FCLR-00001 |

| REV | DESCRIPTION | ORG | CHKD | RVWD | APVD | DATE |
|-----|------------------------------------|-----|------|------|------|----------|
| 0 | ISSUED FOR CONSTRUCTION SEE NOTE 6 | | | | | 03/04/10 |

| PROJECT No: | | 24590 | |
|--------------|--------|---------|-------|
| SITE: | | HANFORD | |
| AREA: | | 300E | |
| BUILDING No: | | 20 | |
| ISSUED BY: | BY: | DATE: | DATE: |
| CHKD: | CHKD: | DATE: | DATE: |
| APPRV: | APPRV: | DATE: | DATE: |
| REV: | REV: | DATE: | DATE: |

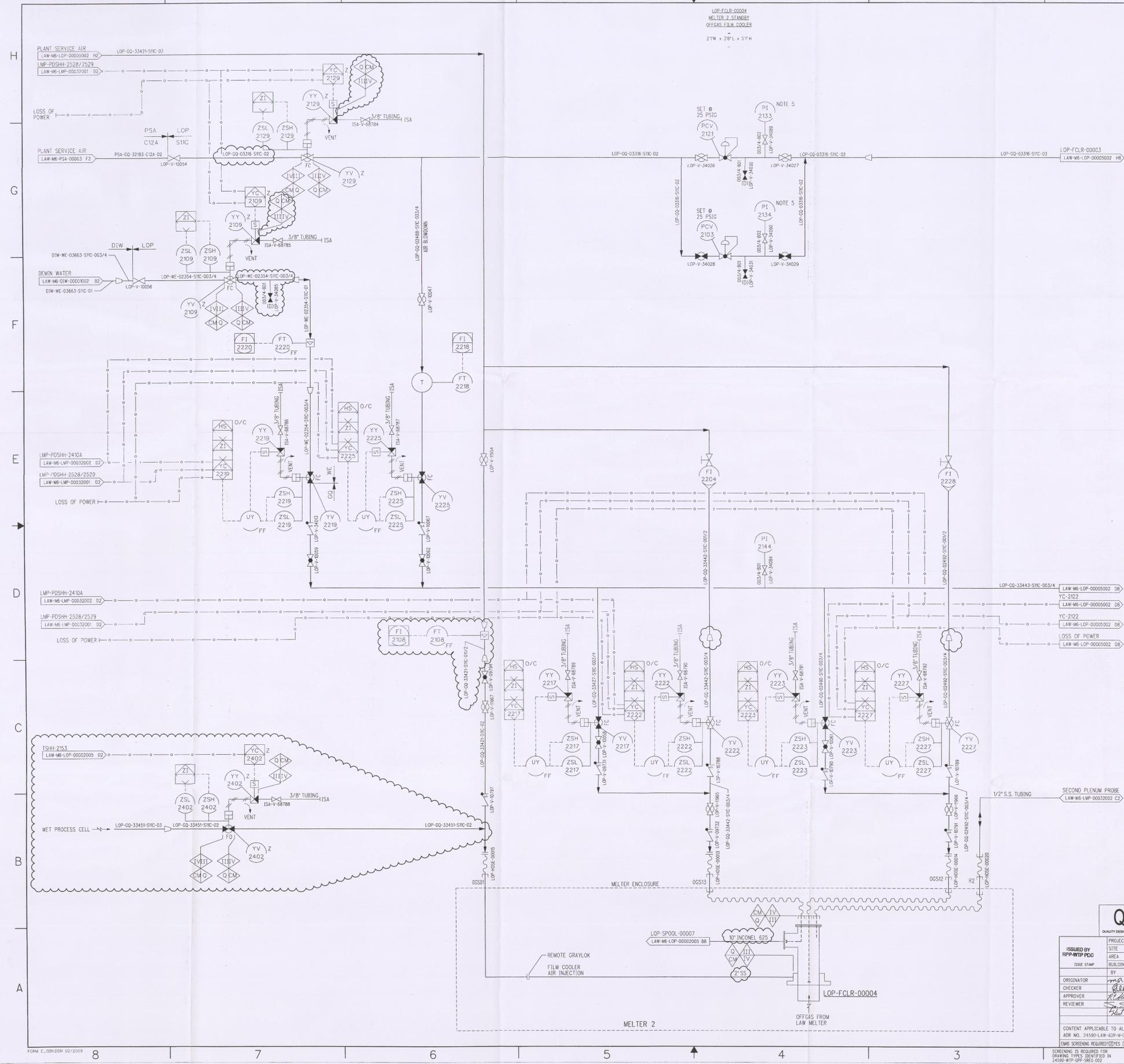


- NOTES:**
- SEE DRAWINGS 24590-WTP-M6-50-00001 THROUGH 24590-WTP-M6-50-00008 FOR GENERAL NOTES, SYMBOLS AND LEGEND, AND GENERAL SLOPE REQUIREMENTS.
 - CONTENTS OF THIS DOCUMENT ARE DANGEROUS WASTE PERMIT AFFECTING.
 - THE PRESSURE BOUNDARY FOR ALL COMPONENTS ON THIS DRAWING IS QUALITY LEVEL CM AND SEISMIC CATEGORY SC-IV, UNLESS OTHERWISE NOTED.
 - ALL LINES SHOWN ON THIS DRAWING SHALL BE FREE DRAINING, UNLESS OTHERWISE NOTED.
 - MELTER PRESSURE CONTROL AIR LOOP IS BASED ON INPUT FROM LMP-PDI-1410A AS SHOWN ON P&ID 24590-LAW-M6-LMP-00002.
 - THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI SHEET DRAWINGS AND, IN PART, SUPERSEDES 24590-LAW-M6-LOP-00004 REV 5. CLOUDS DEPICT MAJOR CHANGES MADE FROM SUPERSEDED DRAWING. THIS DRAWING INCLUDES INFORMATION FROM 24590-LAW-M6N-LOP-00009, -00015, -00023, -00032, -00036, -00039, -00041, -00054, -00056, -00058, 24590-LAW-M6N-MB01-00001, AND 24590-LAW-M6PN-00009.

HOLD/OPEN ITEMS:
NONE

- REFERENCES:**
- 24590-LAW-3DY-LOP-00001 SYSTEM DESCRIPTION FOR THE LAW PRIMARY OFFGAS (LOP) AND SECONDARY OFFGAS/VESSEL VENT (LVP) SYSTEMS.

| | | | | | | | |
|--|--|--|--|---|--|---|--|
| <p>ISSUED BY: REPP/RED PCC</p> <p>DATE: 03/04/10</p> | | <p>PROJECT No: 24590</p> <p>SITE: HANFORD</p> <p>AREA: 200E</p> <p>BUILDING No: 20</p> | | <p>ISSUED FOR CONSTRUCTION, SEE NOTE 6</p> <p>REV: 0</p> | | <p>REVISION HISTORY</p> <p>03/04/10</p> | |
| <p>ORIGINATOR: <i>ma</i></p> <p>CHECKER: <i>ma</i></p> <p>APPROVER: <i>ma</i></p> <p>REVIEWER: <i>ma</i></p> | | <p>DATE: 2/25/10</p> <p>DATE: 2/26/10</p> <p>DATE: 2/26/10</p> <p>DATE: 3/1/10</p> | | <p>CONTRACT No: DE-AC27-09W14136</p> <p>RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2455 STEVENS CENTER PLACE RICHLAND, WA 99354</p> | | <p>P&ID - LAW LAW PRIMARY OFFGAS PROCESS SYSTEM MELTER 1 LOP-FCLR-00001</p> | |
| <p>CONTENT APPLICABLE TO ALABAMA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>ADR NO. 24590-LAW-ADR-M-02-022 REV:1</p> <p>ENR SCREENING REQUIRED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO ENR INITIAL IF YES: <i>ma</i></p> | | <p>SCALE: NONE</p> <p>24590-LAW-M6-LOP-00004002</p> | | <p>02/28/2010 09:50:53</p> | | <p>REV: 0</p> | |



- 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.
 - PI TO BE VISIBLE FROM ASSOCIATED PRESSURE REGULATOR.
 - THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI-SHEET DRAWINGS AND, IN PART, SUPERSEDES 24590-LAW-M6-LOP-00005 REV 5. CLOUDS DEPICT MAJOR CHANGES MADE FROM SUPERSEDED DRAWING. THIS DRAWING INCLUDES INFORMATION FROM 24590-LAW-M6N-LOP-00001, -00005, -00024, -00032, -00036, -00038, -00041, -00142, -00055, -00058, 24590-LAW-M6N-M80T-00001, AND 24590-LAW-M6PN-LOP-00016.

HOLD/OPEN ITEMS:
NONE

- REFERENCES:**
- 24590-LAW-3YD-LOP-00001, SYSTEM DESCRIPTION FOR THE LAW PRIMARY OFFGAS (LOP) AND SECONDARY OFFGAS/VESSEL VENT (LVP) SYSTEM.

Please note that special approval, and approval, are required for any modification to the design of this system. Any modification to the design of this system must be approved by the appropriate authority. The design of this system is the property of the owner and is not to be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of the owner.

| DWG NO | TITLE |
|---------------------------|--|
| 24590-LAW-M6-LOP-00005001 | PRIM OFFGAS PROC SYS MELTER 2 LOP-FCLR-00004 |
| 24590-LAW-M6-LOP-00005002 | PRIM OFFGAS PROC SYS MELTER 2 LOP-FCLR-00003 |

| REV | DESCRIPTION | ORG | CHKD | REV'D | APVD | DATE |
|-----|-------------------------------------|-----|------|-------|------|----------|
| 0 | ISSUED FOR CONSTRUCTION, SEE NOTE 6 | mac | gpl | sc | pld | 03/04/10 |

REVISION HISTORY

PROJECT No: 24590
 SITE: HANFORD
 AREA: 200E
 BUILDING No: 20

CONTRACT No: DE-AC27-01RVM136

P&ID - LAW LAW PRIMARY OFFGAS PROCESS SYSTEM MELTER 2 LOP-FCLR-00004

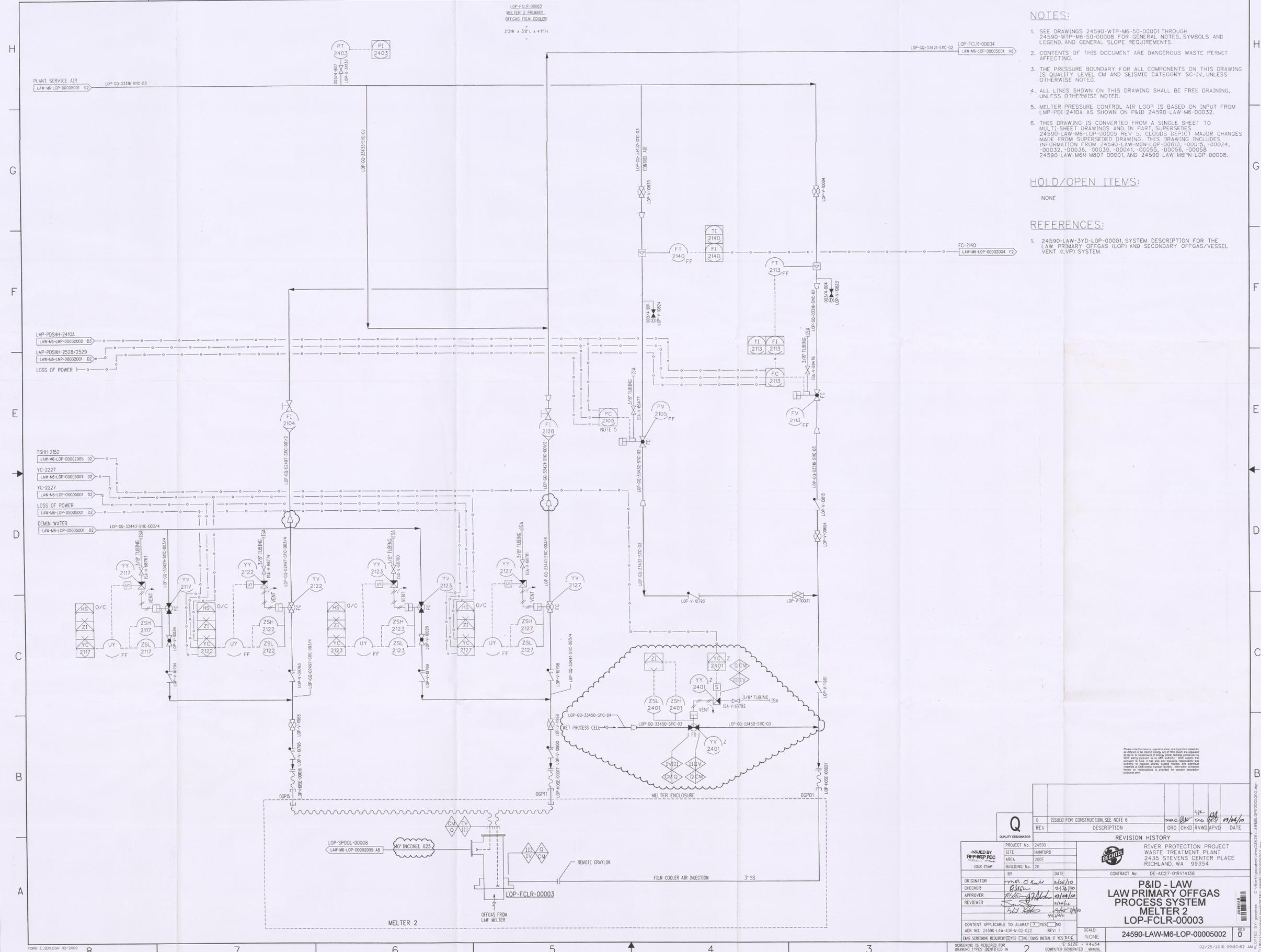
ISSUED BY: P&ID
 CHECKER: [Signature]
 APPROVER: [Signature]
 REVIEWER: [Signature]

DATE: 03/04/10

SCALE: NONE

24590-LAW-M6-LOP-00005001

REV 0



- 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.
 - MELTER PRESSURE CONTROL AIR LOOP IS BASED ON INPUT FROM LMP-PDI-2410A AS SHOWN ON P&ID 24590-LAW-M6-00032.
 - THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI-SHEET DRAWINGS AND IN PART SUPERSEDES 24590-LAW-M6-10P-00005 REV 5. CLOUDS DEPICT MAJOR CHANGES MADE FROM SUPERSEDED DRAWING. THIS DRAWING INCLUDES INFORMATION FROM 24590-LAW-M6N-LOP-00010, -00015, -00024, -00032, -00036, -00039, -00041, -00055, -00056, -00058, 24590-LAW-M6N-M80T-00001, AND 24590-LAW-M6PN-LOP-00008.

HOLD/OPEN ITEMS:

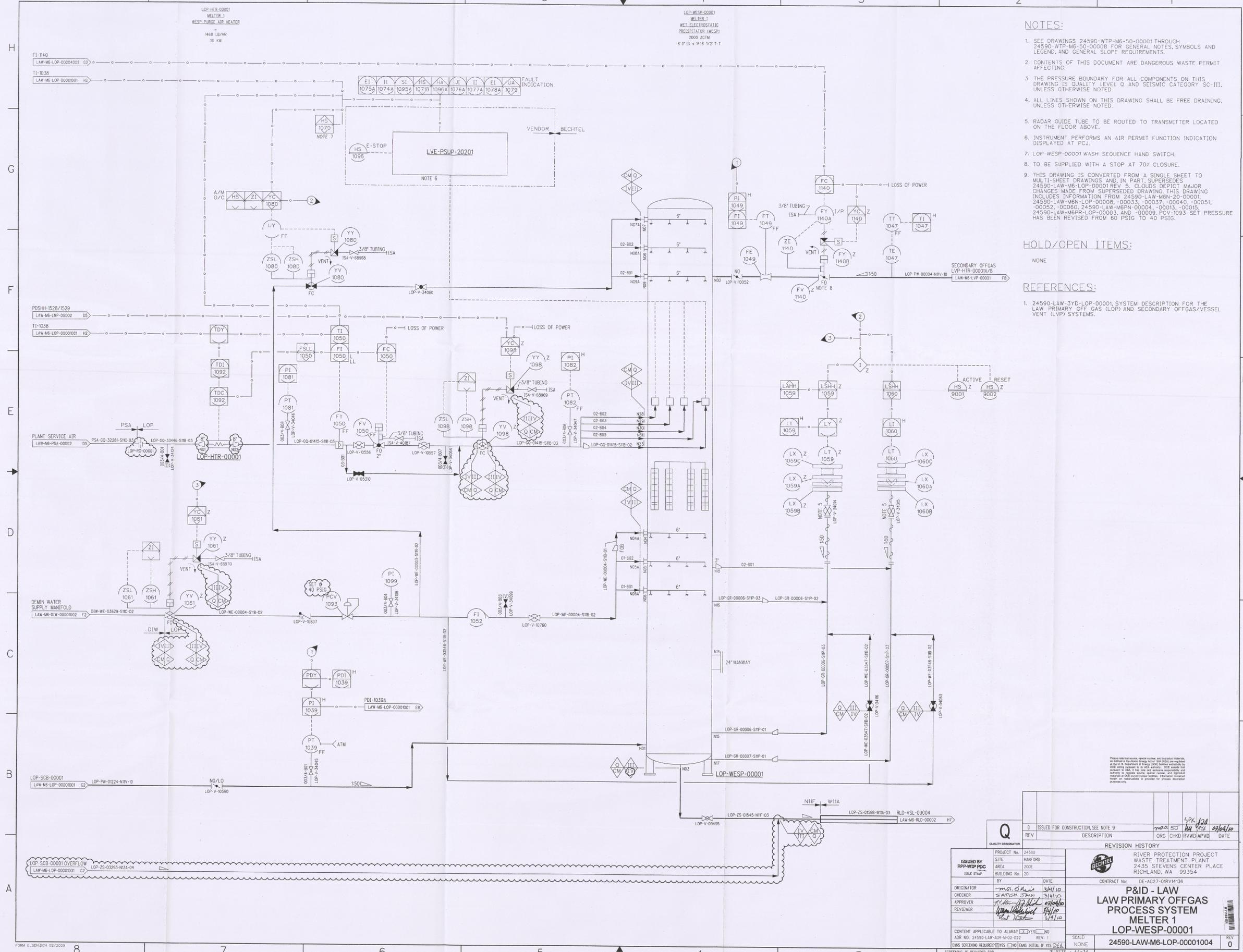
NONE

REFERENCES:

- 24590-LAW-3YD-LOP-00001, SYSTEM DESCRIPTION FOR THE LAW PRIMARY OFFGAS (LOP) AND SECONDARY OFFGAS/VESSEL VENT (LVP) SYSTEM.

Please note that special, non-standard, and hazardous materials, as indicated on this drawing, shall be ordered by the purchaser from the manufacturer. The purchaser shall be responsible for obtaining all necessary permits and approvals from the appropriate authorities in the field. The purchaser shall be responsible for obtaining all necessary permits and approvals from the appropriate authorities in the field. The purchaser shall be responsible for obtaining all necessary permits and approvals from the appropriate authorities in the field.

| | | |
|--|--|--|
| Q QUANTITY OBSERVATION 0 ISSUED FOR CONSTRUCTION, SEE NOTE 6 REV DESCRIPTION ORG CHKD RYMD APVD DATE | PROJECT No: 24590 SITE: HANFORD AREA: 200E BUILDING No: 20 | REVISION HISTORY RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354 |
| | CONTRACT No: DE-AC27-01R14136 P&ID - LAW LAW PRIMARY OFFGAS PROCESS SYSTEM MELTER 2 LOP-FCLR-00003 | SCALE: NONE 4 1/4" x 5 1/2" COMPUTER GENERATED DESIGN CHANGES NOT PERMITTED |



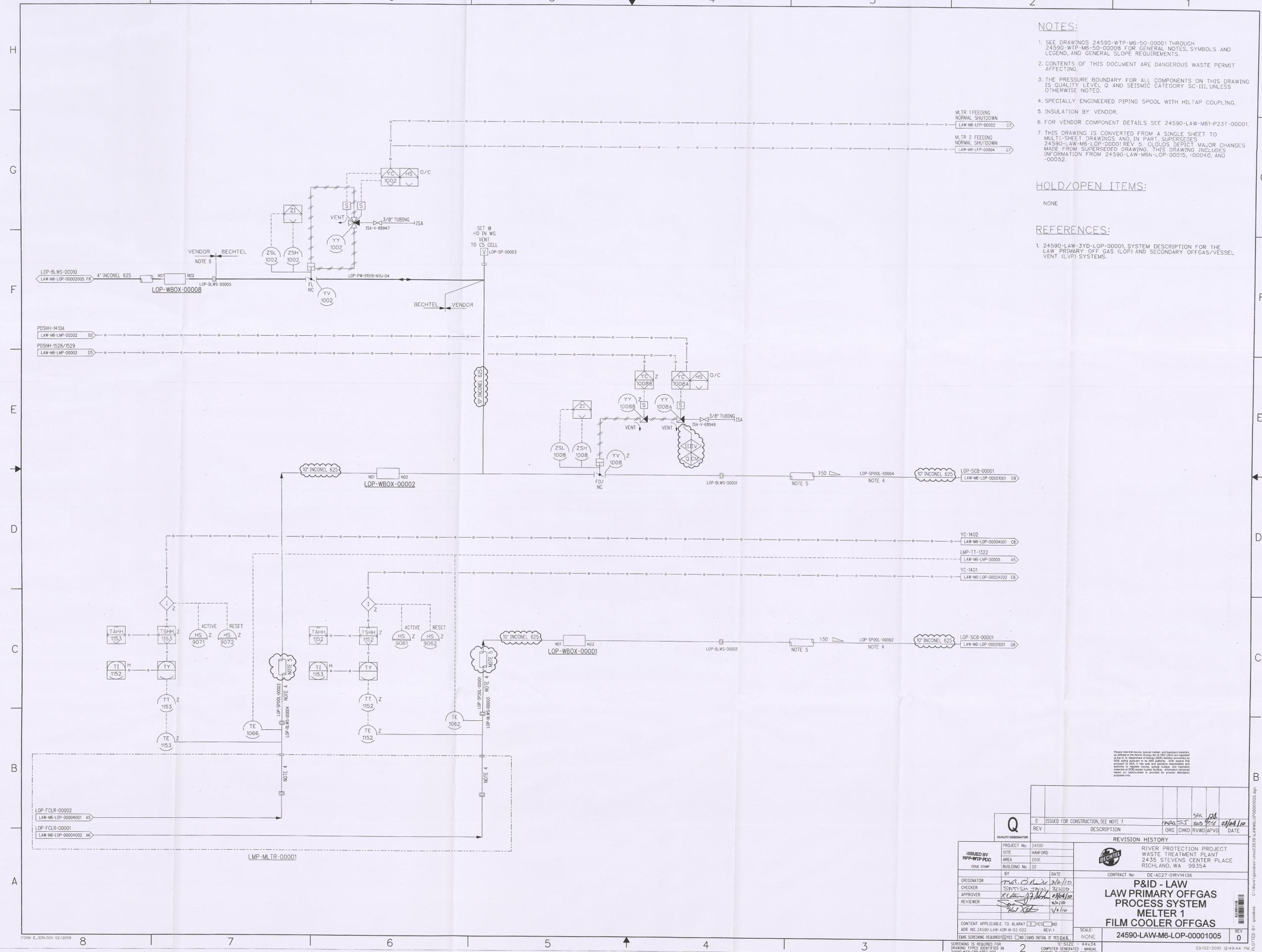
- NOTES:**
- SEE DRAWINGS 24590-WTP-M6-50-00001 THROUGH 24590-WTP-M6-50-00008 FOR GENERAL NOTES, SYMBOLS AND LEGEND, AND GENERAL SLOPE REQUIREMENTS.
 - CONTENTS OF THIS DOCUMENT ARE DANGEROUS WASTE PERMIT AFFECTING.
 - THE PRESSURE BOUNDARY FOR ALL COMPONENTS ON THIS DRAWING IS QUALITY LEVEL Q AND SEISMIC CATEGORY SC-III, UNLESS OTHERWISE NOTED.
 - ALL LINES SHOWN ON THIS DRAWING SHALL BE FREE DRAINING, UNLESS OTHERWISE NOTED.
 - RADAR GUIDE TUBE TO BE ROUTED TO TRANSMITTER LOCATED ON THE FLOOR ABOVE.
 - INSTRUMENT PERFORMS AN AIR PERMIT FUNCTION INDICATION DISPLAYED AT PCL.
 - LOP-WESP-00001 WASH SEQUENCE HAND SWITCH.
 - TO BE SUPPLIED WITH A STOP AT 70% CLOSURE.
 - THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI-SHEET DRAWINGS AND, IN PART, SUPERSEDES 24590-LAW-M6-LOP-00001 REV 5. CLOUDS DEPICT MAJOR CHANGES MADE FROM SUPERSEDED DRAWING. THIS DRAWING INCLUDES INFORMATION FROM 24590-LAW-M6N-20-0001, 24590-LAW-M6N-LOP-00002, -00003, -00037, -00040, -00051, -00052, -00060, 24590-LAW-M6PN-00004, -00013, -00015, 24590-LAW-M6PR-LOP-00003, AND -00009. PCV-1093 SET PRESSURE HAS BEEN REVISED FROM 60 PSIG TO 40 PSIG.

HOLD/OPEN ITEMS:
NONE

- REFERENCES:**
- 24590-LAW-3YD-LOP-00001, SYSTEM DESCRIPTION FOR THE LAW PRIMARY OFF GAS (LOP) AND SECONDARY OFFGAS/VESSEL VENT (LVP) SYSTEMS.

Please note that notes, special notes, and legend symbols, as defined in the notes section of this drawing are subject to change without notice. The user is responsible for ensuring that all drawings are up to date and approved by the U.S. Department of Energy (DOE) before use. The user is responsible for ensuring that all drawings are up to date and approved by the U.S. Department of Energy (DOE) before use. The user is responsible for ensuring that all drawings are up to date and approved by the U.S. Department of Energy (DOE) before use.

| | | | |
|---|------------------------------------|--|------|
| Q QUALITY DESIGNATION ISSUED FOR CONSTRUCTION SEE NOTE 9 REV 0 | ISSUED FOR CONSTRUCTION SEE NOTE 9 | DESCRIPTION | DATE |
| | REV 0 | DESCRIPTION | DATE |
| PROJECT No. 24590 SITE HANFORD AREA 200E BUILDING No. 20 | | | |
| RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354 | | | |
| ORIGINATOR: M.A. O'NEILL CHECKER: S.A. O'NEILL APPROVER: J.P. O'NEILL REVIEWER: J.P. O'NEILL | | CONTRACT No. DE-AC27-01RV14136 DATE: 3/11/10 | |
| P&ID - LAW LAW PRIMARY OFFGAS PROCESS SYSTEM MELTER 1 LOP-WESP-00001 | | | |
| CONTENT APPLICABLE TO ALARAY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO ADR NO. 24590-LAW-ADR-M-02-022 SCALE: NONE | | REVISION HISTORY 24590-LAW-M6-LOP-00001004 REV 0 | |



- 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 Q AND SEISMIC CATEGORY SC-III, UNLESS OTHERWISE NOTED.
 - SPECIALLY ENGINEERED PIPING SPOOL WITH HILTAP COUPLING.
 - INSULATION BY VENDOR.
 - FOR VENDOR COMPONENT DETAILS SEE 24590-LAW-M61-P231-00001.
 - THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI-SHEET DRAWINGS AND, IN PART, SUPERSEDES 24590-LAW-M6-LOP-00001 REV. 5. CLOUDS DEPICT MAJOR CHANGES MADE FROM SUPERSEDED DRAWING. THIS DRAWING INCLUDES INFORMATION FROM 24590-LAW-M6N-LOP-00015, -00040, AND -00052.

HOLD/OPEN ITEMS:

NONE

REFERENCES:

- 24590-LAW-3YD-LOP-00001, SYSTEM DESCRIPTION FOR THE LAW PRIMARY OFF GAS (LOP) AND SECONDARY OFFGAS/VESSEL VENT (LVP) SYSTEMS.

| | | | |
|--|--|--|--|
| Q ISSUED FOR CONSTRUCTION, SEE NOTE 7 REV 0 ORG CHKD RWVD APVD DATE meo JTS sas JJK csl/ed/jie | | REVISION HISTORY PROJECT No: 24590 SITE: HANFORD AREA: 203E BUILDING No: 20 CONTRACT No: DE-AC27-08RV14136 RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99254 | |
| ISSUED BY: RPP-WTP-PDC ISSUE STAMP: BY: ma on 3/6/10 CHECKER: SATHISHAN 3/21/10 APPROVER: [Signature] 3/24/10 REVIEWER: [Signature] 3/11/10 [Signature] 3/4/10 | | SCALE: NONE 24590-LAW-M6-LOP-00001005 REV 0 | |
| CONTENT APPLICABLE TO ALABAMA? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO ADR NO. 24590-LAW-ADR-M-02-022 REV 1 SCREENING IS REQUIRED FOR DRAWING TYPES IDENTIFIED IN 24590-WTP-OPP-SREG-002 | | E-5122 4x34 COMPUTER GENERATED - MANUAL DESIGN CHANGES NOT PERMITTED 03/02/2010 12:49:44 PM PLOTTED BY: gsschae | |

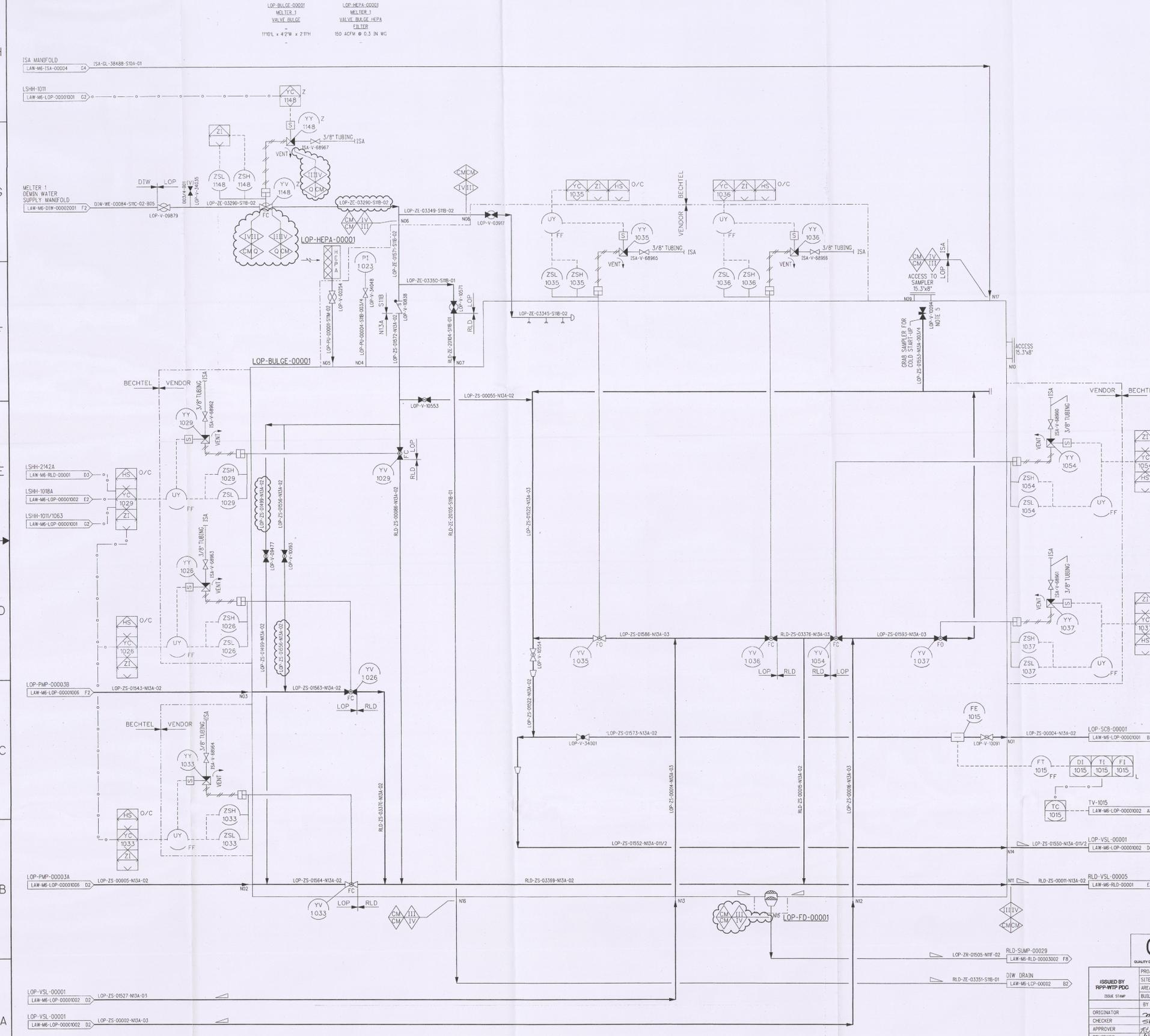
LOP-BULGE-00001
MELTER 1
VALVE BULGE
1107L x 427B x 211H

LOP-HEPA-00001
MELTER 1
VALVE BULGE HEPA
FILTER
150 ACFM @ 0.3 IN WC

- 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-III, UNLESS OTHERWISE NOTED.
 - ALL LINES SHOWN ON THIS DRAWING SHALL BE FREE DRAINING, UNLESS OTHERWISE NOTED.
 - TO BE SEALED AFTER COLD STARTUP.
 - THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI-SHEET DRAWINGS AND, IN PART, SUPERSEDES 24590-LAW-M6-LOP-00001 REV 5. CLOUDS DEPICT MAJOR CHANGES MADE FROM SUPERSEDED DRAWING. THIS DRAWING INCLUDES INFORMATION FROM 24590-LAW-M6N-LOP-00040, AND -00052.

HOLD/OPEN ITEMS:
NONE

- REFERENCES:**
- 24590-LAW-3YD-LOP-00001, SYSTEM DESCRIPTION FOR THE LAW PRIMARY OFF GAS (LOP) AND SECONDARY OFFGAS/VESSEL VENT (LVP) SYSTEMS.



Please note that this drawing is the property of the contractor and shall remain the property of the contractor. It is to be used only for the project for which it was prepared. It is not to be used for any other purpose without the written consent of the contractor. The contractor shall be responsible for the accuracy of the information contained herein. The contractor shall be responsible for the accuracy of the information contained herein. The contractor shall be responsible for the accuracy of the information contained herein.

| <p>ISSUED BY RPP-WTP-PDC</p> <p>DATE 3/4/10</p> | | <p>0 ISSUED FOR CONSTRUCTION. SEE NOTE 6</p> | | | | | | | | | | | | | | | |
|--|-------------------------------------|---|------|-----|-------------|------|------|-----|------|------|---|-------------------------------------|--|--|--|--|--|
| <p>ORIGINATOR <i>mao</i></p> <p>CHECKER <i>SKT</i></p> <p>APPROVER <i>SKT</i></p> <p>REVIEWER <i>SKT</i></p> | | <p>REVISION HISTORY</p> <table border="1"> <tr> <th>REV</th> <th>DESCRIPTION</th> <th>ORG</th> <th>CHKD</th> <th>RWD</th> <th>APVD</th> <th>DATE</th> </tr> <tr> <td>0</td> <td>ISSUED FOR CONSTRUCTION. SEE NOTE 6</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table> | | REV | DESCRIPTION | ORG | CHKD | RWD | APVD | DATE | 0 | ISSUED FOR CONSTRUCTION. SEE NOTE 6 | | | | | |
| REV | DESCRIPTION | ORG | CHKD | RWD | APVD | DATE | | | | | | | | | | | |
| 0 | ISSUED FOR CONSTRUCTION. SEE NOTE 6 | | | | | | | | | | | | | | | | |
| <p>PROJECT No. 24590</p> <p>SITE HANFORD</p> <p>AREA 200E</p> <p>BUILDING No. 20</p> | | <p>CONTRACT No. DE-AC27-09W14336</p> <p>RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2455 STEVENS CENTER PLACE RICHLAND, WA 99354</p> | | | | | | | | | | | | | | | |
| <p>CONTENT APPLICABLE TO ALLMAY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p> <p>SCREENING IS REQUIRED FOR DRAWING TYPES IDENTIFIED BY 24590-WTP-PP-SPEC-002 <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p> | | <p>SCALE: NONE</p> <p>REV 1</p> <p>24590-LAW-M6-LOP-00001003</p> | | | | | | | | | | | | | | | |

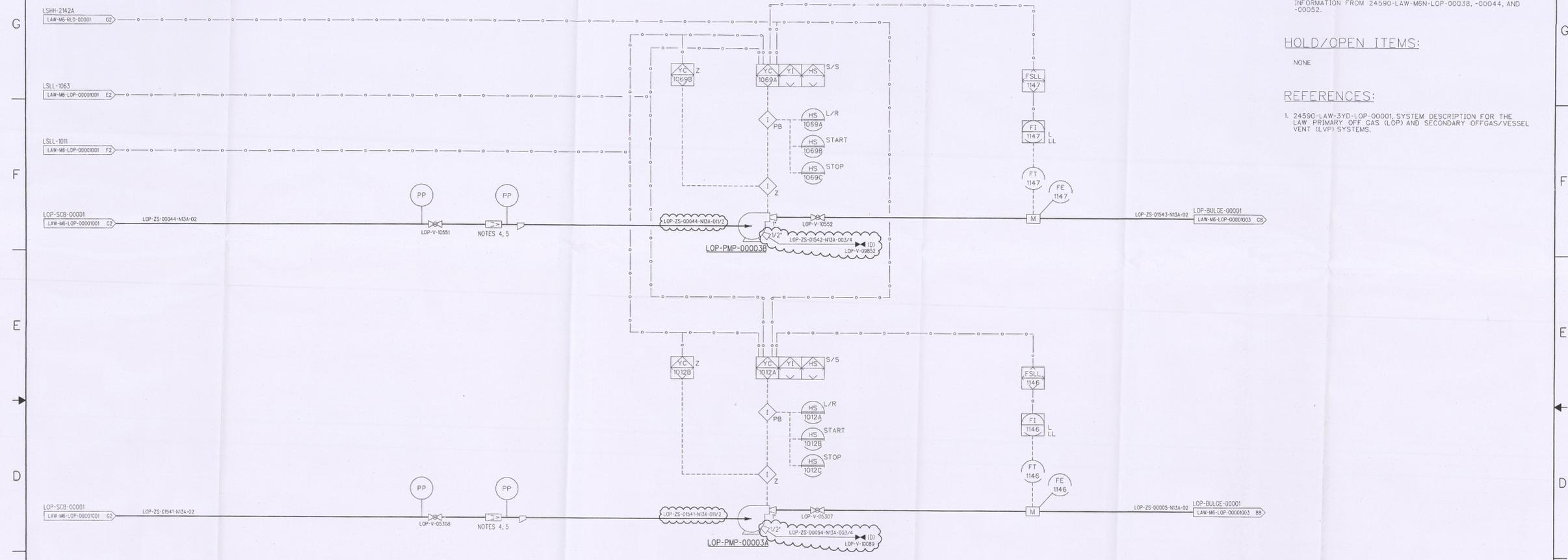
H
G
F
E
D
C
B
A

LOP-PMP-00003B
MELTER 1
SBS WATER
PURGE PUMP - STANDBY
48 GPM @ 43 FT TDH
3 HP

LOP-PMP-00003A
MELTER 1
SBS WATER
PURGE PUMP - PRIMARY
48 GPM @ 43 FT TDH
3 HP

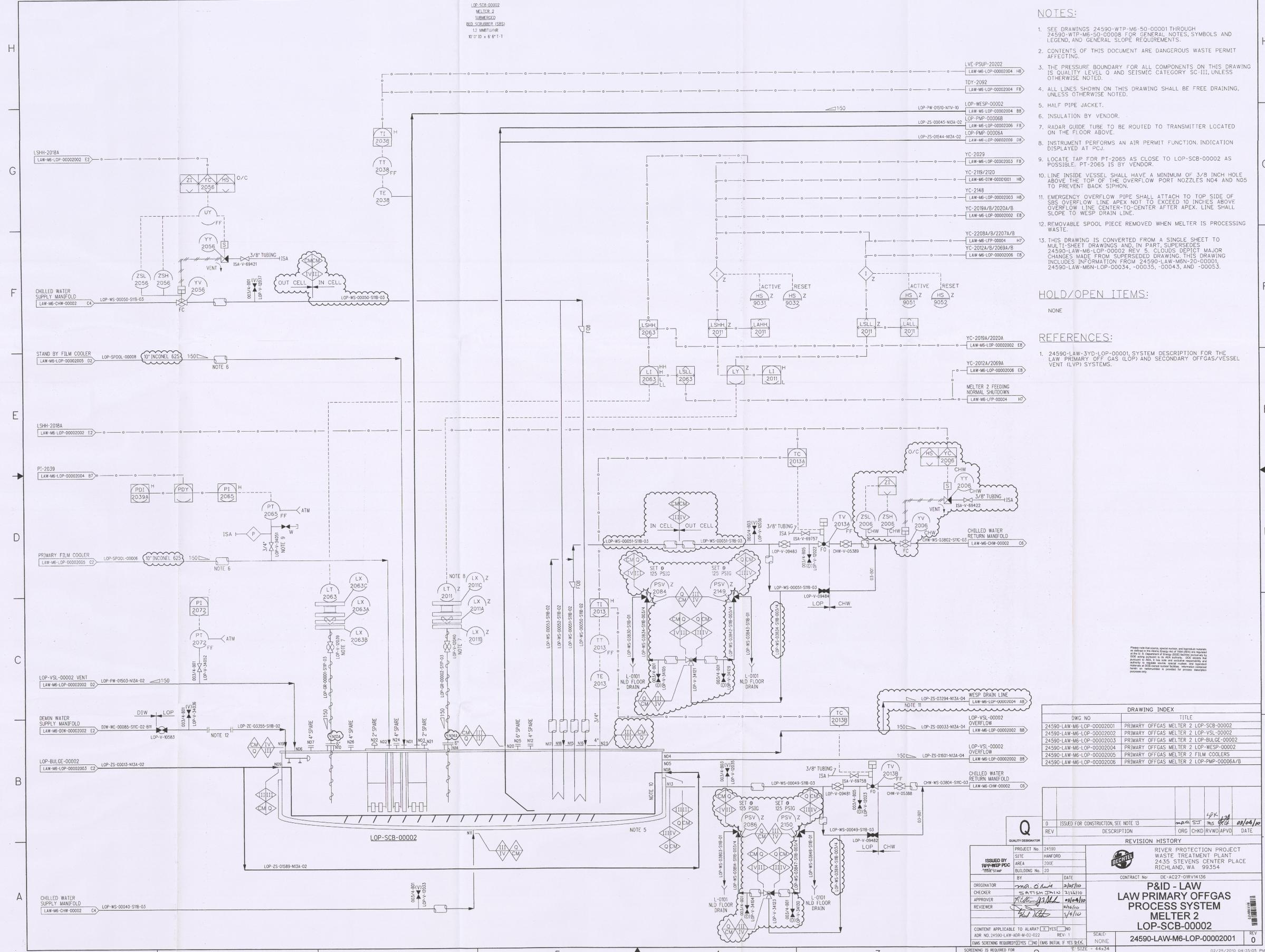
- NOTES:**
- SEE DRAWINGS 24590-WTP-M6-50-00001 THROUGH 24590-WTP-M6-50-00008 FOR GENERAL NOTES, SYMBOLS AND LEGEND, AND GENERAL SLOPE REQUIREMENTS.
 - CONTENTS OF THIS DOCUMENT ARE DANGEROUS WASTE PERMIT AFFECTING.
 - THE PRESSURE BOUNDARY FOR ALL COMPONENTS ON THIS DRAWING IS QUALITY LEVEL CM AND SEISMIC CATEGORY SC-III, UNLESS OTHERWISE NOTED.
 - CONNECTIONS FOR PP IS 1/2 INCH THREADED. THESE CONNECTIONS FOR TEMPORARY INSTRUMENTS WILL BE PLUGGED AFTER TESTING.
 - PROVIDE REMOVABLE PIPING SPOOL FOR START-UP STRAINER.
 - THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI-SHEET DRAWINGS AND, IN PART, SUPERSEDES 24590-LAW-M6-LOP-00001 REV 5. CLOUDS DEPICT MAJOR CHANGES MADE FROM SUPERSEDED DRAWING. THIS DRAWING INCLUDES INFORMATION FROM 24590-LAW-M6N-LOP-0003B, -00044, AND -00052.

- HOLD/OPEN ITEMS:**
- NONE
- REFERENCES:**
- 24590-LAW-3YD-LOP-00001, SYSTEM DESCRIPTION FOR THE LAW PRIMARY OFF GAS (LOP) AND SECONDARY OFFGAS/VESSEL VENT (LVP) SYSTEMS.



Please refer to the notes, issued number and technical materials as directed in the notes. Design No. of 24590-LAW is required for U.S. Department of Energy (DOE) Safety Assessment for DOE facility licensed to the DOE. DOE, through the contract to AEC, is the sole and exclusive proprietor and holder of all rights, including patent, copyright, and trademark in all intellectual property rights. Reproduction, distribution, or disclosure is prohibited in violation of process description documents.

| | | | |
|---|---|--|--|
| <p>Q QUALITY DESIGNATOR</p> | 0 | ISSUED FOR CONSTRUCTION, SEE NOTE 6 | 03/04/02 |
| | REV | DESCRIPTION | DATE |
| <p>REVISION HISTORY</p> | | | |
| <p>ISSUED BY RPP-WTP PDC</p> | <p>PROJECT No. 24590 SITE HANFORD AREA 200C BUILDING No. 20</p> | <p>CONTRACT No. DE-AC27-01RV14136</p> | <p>RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354</p> |
| <p>ORIGINATOR CHECKER APPROVER REVIEWER</p> | <p>DATE</p> | <p>P&ID - LAW LAW PRIMARY OFFGAS PROCESS SYSTEM MELTER 1 LOP-PMP-00003A/B</p> | |
| <p>CONTENT APPLICABLE TO ALARA <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO ADR NO. 24590-LAW-ADR-14-02-022 REV 1 S&MS SCREENING REQUIRED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> EMS INITIAL IF YES D.E.K.</p> | <p>SCALE: NONE</p> | <p>24590-LAW-M6-LOP-00001006</p> | <p>REV 0</p> |
| <p>SCREENING IS REQUIRED FOR DRAWING TYPES IDENTIFIED IN 24590-WTP-OP-REQ-002</p> | <p>E: SIZE - 44x34 COMPUTER GENERATED MANUAL DESIGN CHANGES NOT PERMITTED</p> | <p>02/25/2002 09:50:59 AM PLOTTED BY: gpoakes</p> | |



- 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 Q AND SEISMIC CATEGORY SC-III, UNLESS OTHERWISE NOTED.
 - ALL LINES SHOWN ON THIS DRAWING SHALL BE FREE DRAINING, UNLESS OTHERWISE NOTED.
 - HALF PIPE JACKET.
 - INSULATION BY VENDOR.
 - RADAR GUIDE TUBE TO BE ROUTED TO TRANSMITTER LOCATED ON THE FLOOR ABOVE.
 - INSTRUMENT PERFORMS AN AIR PERMIT FUNCTION. INDICATION DISPLAYED AT PCU.
 - LOCATE TAP FOR PT-2065 AS CLOSE TO LOP-SCB-00002 AS POSSIBLE. PT-2065 IS BY VENDOR.
 - LINE INSIDE VESSEL SHALL HAVE A MINIMUM OF 3/8 INCH HOLE ABOVE THE TOP OF THE OVERFLOW PORT NOZZLES N04 AND N05 TO PREVENT BACK SIPHON.
 - EMERGENCY OVERFLOW PIPE SHALL ATTACH TO TOP SIDE OF SBS OVERFLOW LINE. APEX NOT TO EXCEED 10 INCHES ABOVE OVERFLOW LINE CENTER-TO-CENTER AFTER APEX. LINE SHALL SLOPE TO WESP DRAIN LINE.
 - REMOVABLE SPOOL PIECE REMOVED WHEN MELTER IS PROCESSING WASTE.
 - THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI-SHEET DRAWINGS AND, IN PART, SUPERSEDES 24590-LAW-M6-LOP-00002 REV. 5. CLOUDS DEPICT MAJOR CHANGES MADE FROM SUPERSEDED DRAWING. THIS DRAWING INCLUDES INFORMATION FROM 24590-LAW-M6-LOP-00001, 24590-LAW-M6-LOP-00003, -00004, -00005, -00006, -00007, -00008, -00009, -00010, -00011, -00012, -00013, -00014, -00015, -00016, -00017, -00018, -00019, -00020, -00021, -00022, -00023, -00024, -00025, -00026, -00027, -00028, -00029, -00030, -00031, -00032, -00033, -00034, -00035, -00036, -00037, -00038, -00039, -00040, -00041, -00042, -00043, -00044, -00045, -00046, -00047, -00048, -00049, -00050, -00051, -00052, -00053, -00054, -00055, -00056, -00057, -00058, -00059, -00060, -00061, -00062, -00063, -00064, -00065, -00066, -00067, -00068, -00069, -00070, -00071, -00072, -00073, -00074, -00075, -00076, -00077, -00078, -00079, -00080, -00081, -00082, -00083, -00084, -00085, -00086, -00087, -00088, -00089, -00090, -00091, -00092, -00093, -00094, -00095, -00096, -00097, -00098, -00099, -00100.

- HOLD/OPEN ITEMS:**
- NONE
- REFERENCES:**
- 24590-LAW-3YD-LOP-00001, SYSTEM DESCRIPTION FOR THE LAW PRIMARY OFF GAS (LOP) AND SECONDARY OFFGAS/VESSEL VENT (LVP) SYSTEMS.

DRAWING INDEX

| DWG NO | TITLE |
|---------------------------|--|
| 24590-LAW-M6-LOP-00002001 | PRIMARY OFFGAS MELTER 2 LOP-SCB-00002 |
| 24590-LAW-M6-LOP-00002002 | PRIMARY OFFGAS MELTER 2 LOP-VSL-00002 |
| 24590-LAW-M6-LOP-00002003 | PRIMARY OFFGAS MELTER 2 LOP-BULGE-00002 |
| 24590-LAW-M6-LOP-00002004 | PRIMARY OFFGAS MELTER 2 LOP-WESP-00002 |
| 24590-LAW-M6-LOP-00002005 | PRIMARY OFFGAS MELTER 2 FILM COOLERS |
| 24590-LAW-M6-LOP-00002006 | PRIMARY OFFGAS MELTER 2 LOP-PMP-00006A/B |

REVISION HISTORY

| NO | DESCRIPTION | ORG | CHKD | RWD | APVD | DATE |
|----|--------------------------------------|-----|------|-----|------|----------|
| 0 | ISSUED FOR CONSTRUCTION, SEE NOTE 13 | ma | sd | ms | js | 02/04/20 |

PROJECT INFORMATION

PROJECT No: 24590
 SITE: HANFORD
 AREA: 200E
 BUILDING No: 20

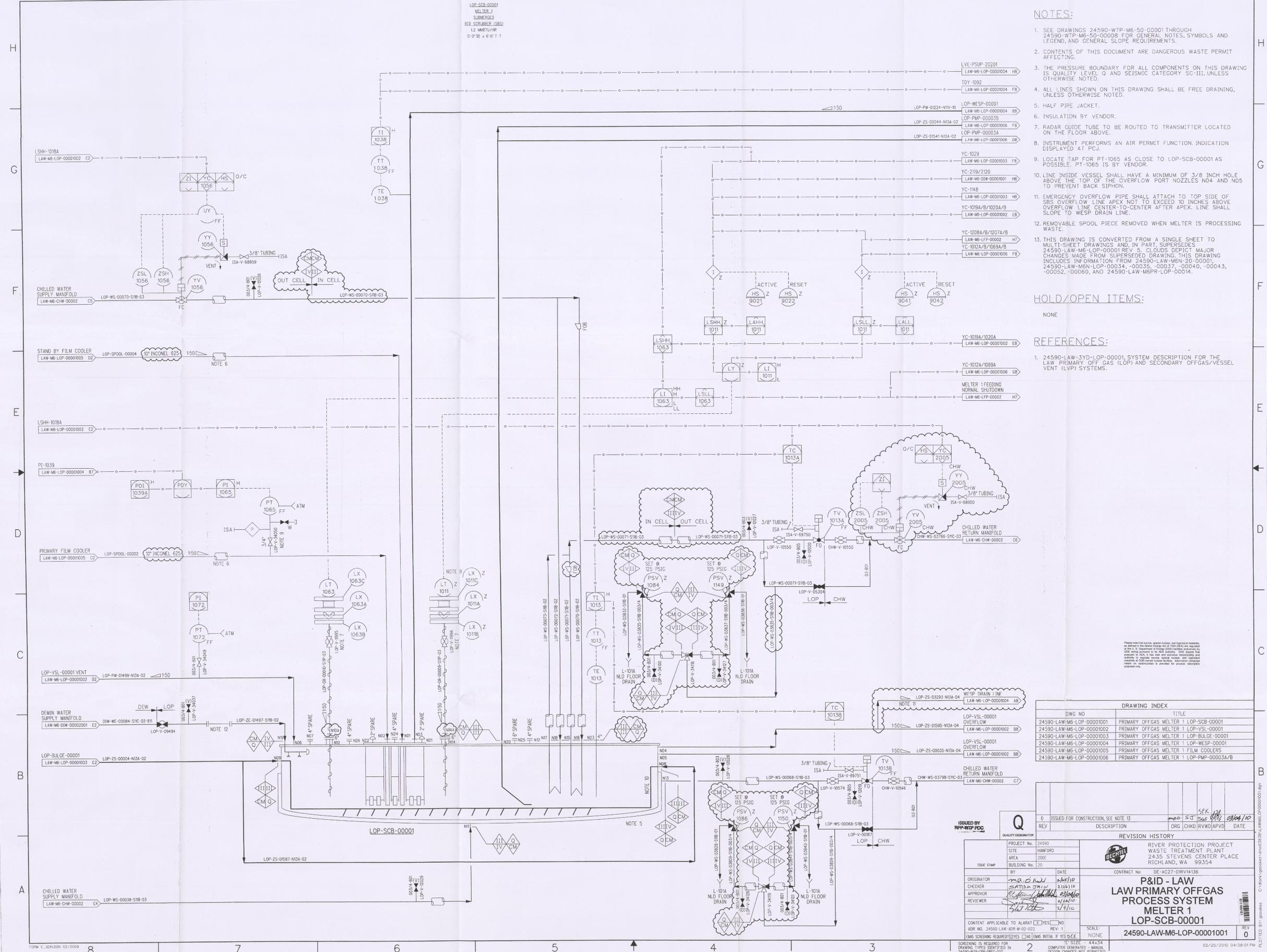
CONTRACT No: DE-AC27-08R14136

**RIVER PROTECTION PROJECT
 WASTE TREATMENT PLANT
 2435 STEVENS CENTER PLACE
 RICHLAND, WA 99354**

**P&ID - LAW
 LAW PRIMARY OFFGAS
 PROCESS SYSTEM
 MELTER 2
 LOP-SCB-00002**

24590-LAW-M6-LOP-00002001

SCALE: NONE
 COMPUTER GENERATED - MANUAL DESIGN CHANGES NOT PERMITTED



- 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 Q AND SEISMIC CATEGORY SC-III, UNLESS OTHERWISE NOTED.
 - ALL LINES SHOWN ON THIS DRAWING SHALL BE FREE DRAINING, UNLESS OTHERWISE NOTED.
 - HALF PIPE JACKET.
 - INSULATION BY VENDOR.
 - RADAR GUIDE TUBE TO BE ROUTED TO TRANSMITTER LOCATED ON THE FLOOR ABOVE.
 - INSTRUMENT PERFORMS AN AIR PERMIT FUNCTION INDICATION DISPLAYED AT PCJ.
 - LOCATE TAP FOR PT-1065 AS CLOSE TO LOP-SCB-00001 AS POSSIBLE. PT-1065 IS BY VENDOR.
 - LINE INSIDE VESSEL SHALL HAVE A MINIMUM OF 3/8 INCH NDS ABOVE THE TOP OF THE OVERFLOW PORT NOZZLES N04 AND N05 TO PREVENT BACK SIPHON.
 - EMERGENCY OVERFLOW PIPE SHALL ATTACH TO TOP SIDE OF SBS OVERFLOW LINE APEX NOT TO EXCEED 10 INCHES ABOVE OVERFLOW LINE CENTER-TO-CENTER AFTER APEX. LINE SHALL SLOPE TO WESP DRAIN LINE.
 - REMOVABLE SPOOL PIECE REMOVED WHEN MELTER IS PROCESSING WASTE.
 - THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI-SHEET DRAWINGS AND, IN PART, SUPERSEDES 24590-LAW-M6-LOP-00001 REV. 5. CLOUDS DEPICT MAJOR CHANGES MADE FROM SUPERSEDED DRAWING. THIS DRAWING INCLUDES INFORMATION FROM 24590-LAW-M6-20-00001, 24590-LAW-M6-LOP-00034-00035-00037-00040-00043-00052-00060, AND 24590-LAW-M6PR-LOP-00004.

NOTE/OPEN ITEMS:

NONE

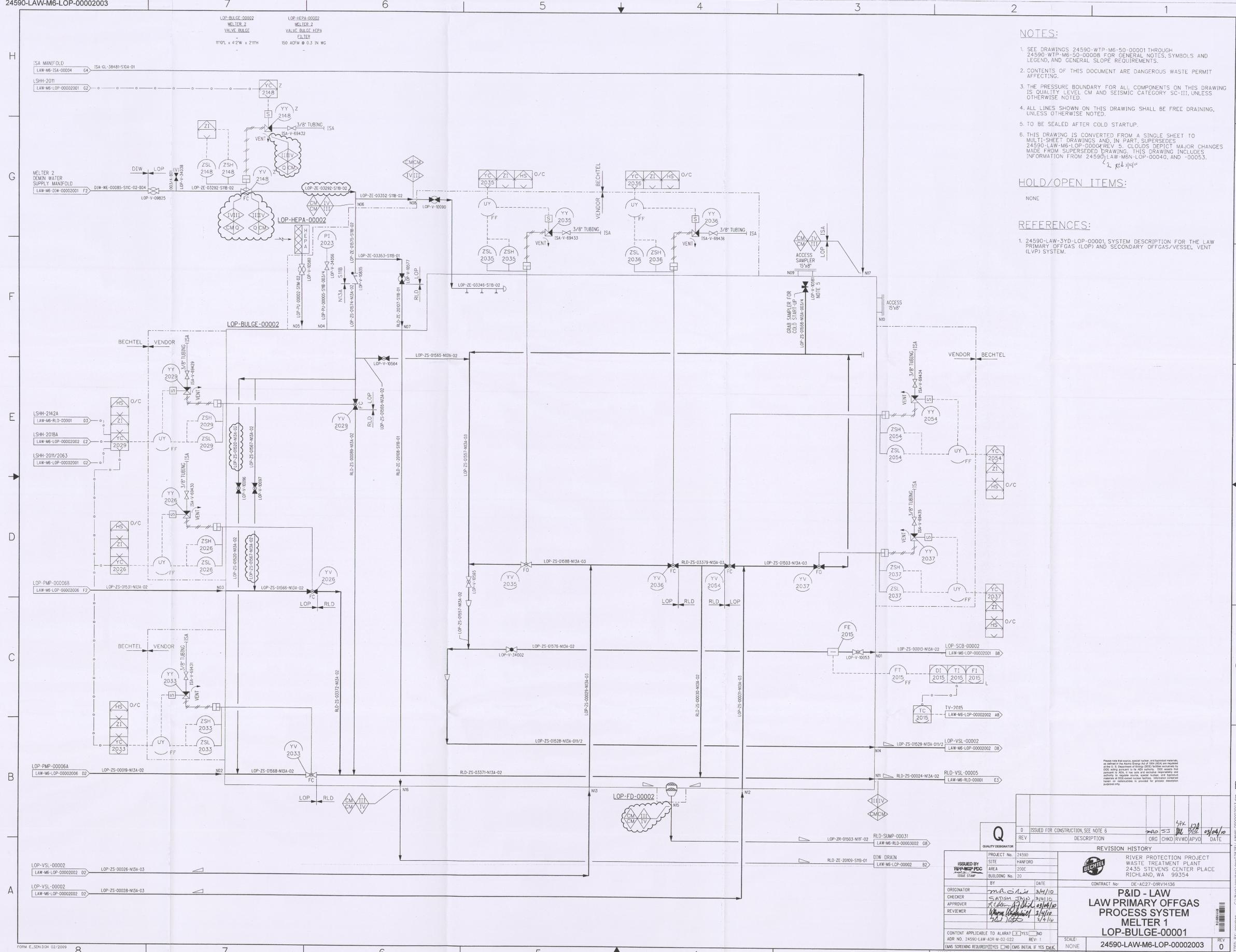
REFERENCES:

- 24590-LAW-3YD-LOP-00001 SYSTEM DESCRIPTION FOR THE LAW PRIMARY OFF GAS (LOP) AND SECONDARY OFFGAS/VESSEL VENT (LVP) SYSTEMS.

| DWG NO | TITLE |
|---------------------------|--|
| 24590-LAW-M6-LOP-00001001 | PRIMARY OFFGAS MELTER 1 LOP-SCB-00001 |
| 24590-LAW-M6-LOP-00001002 | PRIMARY OFFGAS MELTER 1 LOP-VSL-00001 |
| 24590-LAW-M6-LOP-00001003 | PRIMARY OFFGAS MELTER 1 LOP-BULGE-00001 |
| 24590-LAW-M6-LOP-00001004 | PRIMARY OFFGAS MELTER 1 LOP-WESP-00001 |
| 24590-LAW-M6-LOP-00001005 | PRIMARY OFFGAS MELTER 1 FILM COOLERS |
| 24590-LAW-M6-LOP-00001006 | PRIMARY OFFGAS MELTER 1 LOP-FMP-00003A/B |

| REV | DESCRIPTION | ORG | CHKD | RVWD | APVD | DATE |
|-----|--------------------------------------|-----|------|------|------|----------|
| 0 | ISSUED FOR CONSTRUCTION, SEE NOTE 13 | mpc | st | scs | gpc | 03/04/10 |

| REVISION HISTORY | |
|--|-------------------|
| PROJECT No. | 24590 |
| SITE | HANFORD |
| AREA | 2006 |
| BUILDING No. | 20 |
| CONTRACT No. | DE-AC27-01RV14356 |
| P&ID - LAW LAW PRIMARY OFFGAS PROCESS SYSTEM MELTER 1 LOP-SCB-00001 | |
| 24590-LAW-M6-LOP-00001001 | REV 0 |



- 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-III, UNLESS OTHERWISE NOTED.
 - ALL LINES SHOWN ON THIS DRAWING SHALL BE FREE DRAINING, UNLESS OTHERWISE NOTED.
 - TO BE SEALED AFTER COLD STARTUP.
 - THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI-SHEET DRAWINGS AND, IN PART, SUPERSEDES 24590-LAW-M6-LOP-00002 REV. 5. CLOUDS DEPICT MAJOR CHANGES MADE FROM SUPERSEDED DRAWING. THIS DRAWING INCLUDES INFORMATION FROM 24590-LAW-M6N-LOP-00040, AND -00053.

HOLD/OPEN ITEMS:
NONE

REFERENCES:
1. 24590-LAW-3YD-LOP-00001, SYSTEM DESCRIPTION FOR THE LAW PRIMARY OFFGAS (LOP) AND SECONDARY OFFGAS/VESSEL VENT (LVP) SYSTEM.

| | | | |
|---|--|--|---|
| Q ISSUED FOR CONSTRUCTION SEE NOTE 6 REV 1 DESCRIPTION ORG CHKD RVD/AVD DATE | | PROJECT No. 24590 SITE HANFORD AREA 200E BUILDING No. 20 BY DATE ORIGINATOR CHECKER APPROVER REVIEWER | REVISION HISTORY CONTRACT No. DE-AC27-08R14136 P&ID - LAW LAW PRIMARY OFFGAS PROCESS SYSTEM MELTER 1 LOP-BULGE-00001 24590-LAW-M6-LOP-00002003 REV 0 |
| CONTENT APPLICABLE TO ALARA? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO ADR NO. 24590-LAW-ADR-M-02-022 REV 1 HAZ SCREENING REQUIRED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO SCREENING IS REQUIRED FOR DRAWING TYPES IDENTIFIED IN 24590-WTP-OPP-SPEC-002 | | SCALE: NONE 2 | 03/04/2010 07:37:19 AM PLOTTED BY: gskates |

