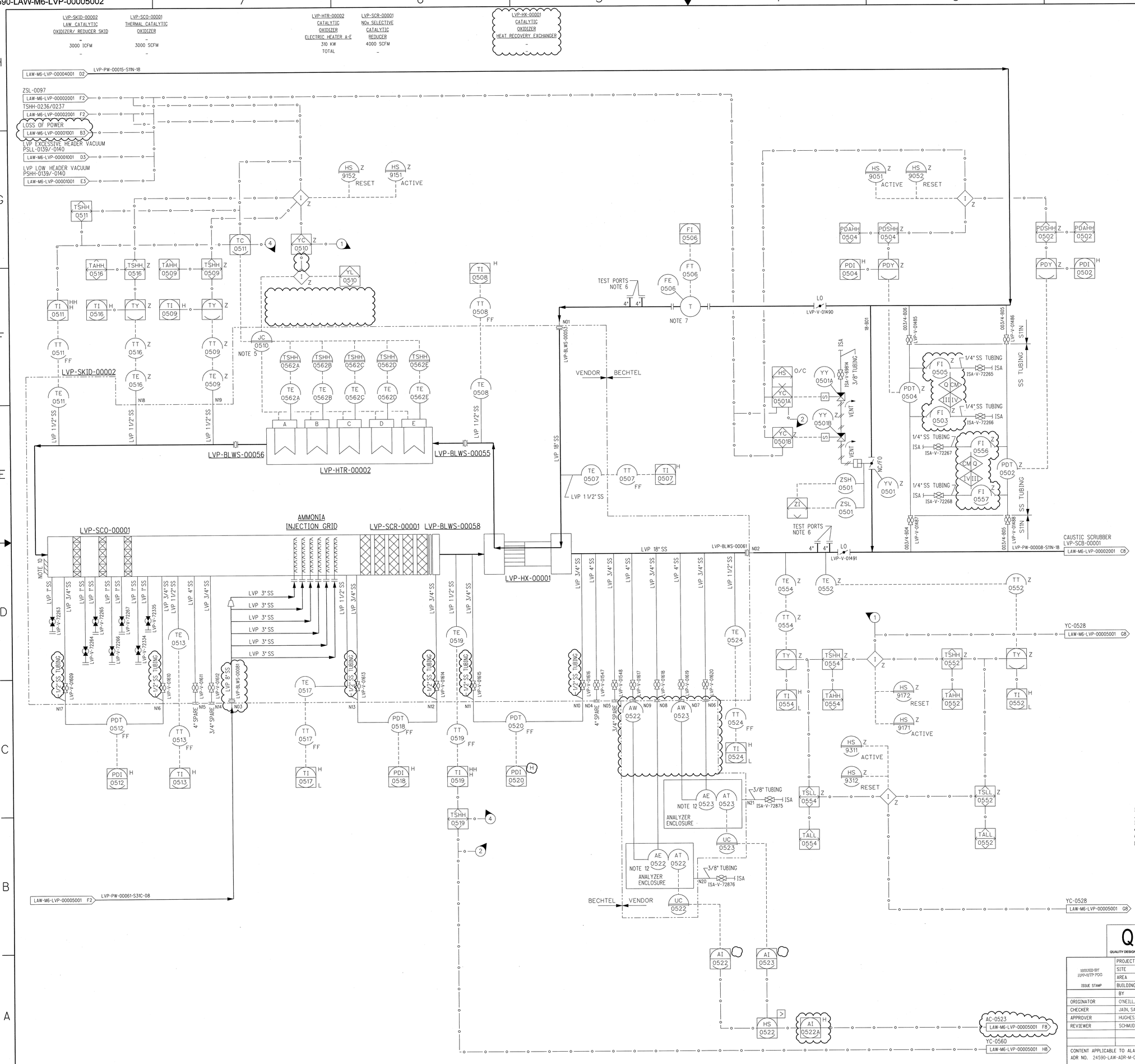


## NOTES:

1. SEE DRAWINGS 24590-WTP-M6-50-00001 THROUGH 24590-WTP-M6-50-00008 FOR GENERAL NOTES, SYMBOLS AND LEGEND, AND GENERAL SLOPE REQUIREMENTS.
2. CONTENTS OF THIS DOCUMENT ARE DANGEROUS WASTE PERMIT AFFECTING.
3. THE PRESSURE BOUNDARY FOR ALL COMPONENTS ON THIS DRAWING IS QUALITY LEVEL Q AND SEISMIC CATEGORY SC-III, UNLESS OTHERWISE NOTED.
4. DELETED
5. FIVE HEATER BANKS ARE CONTROLLED FROM ICN VIA VENDOR CONTROL PANEL LVP-PNL-00003.
6. TEST PORTS ARE TO BE INSTALLED AT THE SAME AXIAL POSITION. ONE PORT SHOULD BE AS CLOSE TO VERTICAL (TOP) AS POSSIBLE. THE OTHER SHOULD BE 90° OPPOSED. TEST PORTS SHALL BE PLACED A MINIMUM OF TWO (2) INSIDE PIPE DIAMETERS FROM UPSTREAM FLOW DISTURBANCES AND A MINIMUM OF ONE-HALF (1/2) INSIDE PIPE DIAMETER FROM DOWNSTREAM DISTURBANCES. WHERE PRACTICAL, THESE STRAIGHT RUN DISTANCES SHOULD BE DOUBLED.
7. FLOW ELEMENT SHALL BE LOCATED A MINIMUM OF TEN INSIDE PIPE DIAMETERS FROM UPSTREAM AND DOWNSTREAM FLOW DISTURBANCES TO ENSURE STRAIGHT PIPE FLOW DISTRIBUTION THROUGH THE DEVICE. TEST PORTS ARE NOT REGARDED TO CREATE FLOW DISTURBANCES.
8. JUNCTION BOX LVP-JB-00012 (NON-SAFETY) TO BE INSTALLED ON TCO SKID.
9. THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI-SHEET DRAWINGS AND IN PART SUPERSEDES 24590-LAW-M6-LVP-00005 REV 2. THIS DRAWING INCLUDES INFORMATION FROM 24590-LAW-M6N-LVP-00054, -00057, -00060, -00066, -00069, AND 24590-QL-MRA-MBT0-00007-T0003.
10. INSULATION PER 24590-WTP-SDDR-MS-14-00002.
11. REVISION 1: INCORPORATED 24590-LAW-M6N-LVP-00083, -00088, AND -00091. REVISED/ADDED VALVES, BELLOWS, NOZZLES, NOTES, AND INSTRUMENTATION.
12. INSTRUMENTS AE-0522 AND AE-0523 MEASURE NH3 LEVELS.
13. REVISION 2: INCORPORATED 24590-LAW-M6N-LVP-00074. REVISED/DELETED/ADDED NOTES, HOSES, CAP, VALVES, BELLOWS, LINE MATERIALS, VENDOR/BECHTEL BOUNDARY, FLANGES, AND INSTRUMENTATION.
14. REVISION 3: INCORPORATED 24590-LAW-M6N-LVP-00128 AND 24590-LAW-M6N-M8OT-00033. DELETED INSTRUMENTS LVP-HS-0510, LVP-HA-0510, HIGH ALARM DESIGNATION ON LVP-AI-0522, LVP-AI-0523, PIPELINES LVP-PW-00015, -00016, -00017, -00018, VALVES LVP-V-72340 AND -72341. ADDED INSTRUMENT LVP-AI-0522A AND BELLOW LVP-BLWS-00081 TO PIPELINE LVP-PW-00061. REVISED BELLOWS LVP-BLWS-00055, -00056 AND -00058 FROM IN-LINE FITTINGS TO EQUIPMENT, INSTRUMENT LINE BETWEEN LVP-YC-0510 AND INTERLOCK FROM ELECTRICAL SIGNAL TO DATA LINK, EQUIPMENT DESCRIPTION FOR LVP-HX-00001 FROM HEAT RECOVERY UNIT TO HEAT RECOVERY EXCHANGER AND VENDOR BOUNDARY FOR ANALYZER ENCLOSURES. UPDATED ZONE LOCATION ON CONTINUATION ARROWS TO LAW-M6-LVP-00005001 FROM H8 TO F8 AND LAW-M6-LVP-00001001 FROM C3 TO B3.

## 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) SYSTEMS.

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 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.

Q QUALITY DESIGNATOR

| REV | DESCRIPTION | ORG | CHKD | RVWD | APVD | DATE |
|---|---|---|---|---|---|---|
| 3 | REVISED PER NOTE 14 | | | | | 9/15/15 |
| 2 | REVISED PER NOTE 13 | DMH | MRO | BA/SS | JW/DC | 08/22/14 |
| 1 | REVISED PER NOTE 11 | RP | RM | SA/SS | KH/PO | 06/26/13 |
| 0 | ISSUED FOR CONSTRUCTION, SEE NOTE 9 | MO | SJ | SS | TH/DM | 11-22-11 |

REVISION HISTORY

ISSUED BY RPP-WTP PDO
ISSUE STAMP

| | | |
|---|---|---|
| PROJECT No. | 24590 | |
| SITE | HANFORD | |
| AREA | 200E | |
| BUILDING No. | 20 | |
| | BY | DATE |
| ORIGINATOR | O'NEILL, MICHAEL | 11-18-11 |
| CHECKER | JAIN, SATISH | 11-18-11 |
| APPROVER | HUGHES, T / MILDON, D. | 11-22-11 |
| REVIEWER | SCHMUDE, STEVEN | 11-18-11 |

CONTENT APPLICABLE TO ALARA? [X] YES [ ] NO
ADR NO. 24590-LAW-ADR-M-02-023 REV: 4

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

CONTRACT No: DE-AC27-01RV14136

# P&ID - LAW
# LAW SECONDARY OFFGAS/VESSEL VENT PROCESS SYSTEM SCO/SCR SKID

SCALE: NONE

24590-LAW-M6-LVP-00005002

REV 3

'E' SIZE - 44x34
COMPUTER GENERATED - MANUAL DESIGN CHANGES NOT PERMITTED

R1174057

9/10/2015 1:01:29 PM

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FORM E_SDN.DGN 02/2009