0098434

U.S. Department of Energy
Office of River Protection
P.O. Box 450, MSIN H6-60
Richland, Washington 99352

AUG 2 2 2011

11-ESQ-190

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-HLW-PCN-ENV-11-005

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

This letter transmits Hanford Facility RCRA Permit Modification Notification Form 24590-HLW-PCN-ENV-11-005, 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-HLW-PCN-ENV-11-005 submits updated Piping and Instrumentation Diagrams for the High-Level Waste Canister Decontamination Handling System to replace the permitted drawings currently found in Appendix 10.2 of the Reference.

Ecology was provided an opportunity to review the modification notification form.

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

Sincerely,

P. G. Harrington

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

ESQ:GMN

Attachment

cc: See page 2

cc w/attach:
B. L. Curn, BNI
B. Dubiel, BNI
B. G. Erlandson, BNI
P. A. Fisher, BNI
S. K. Murdock, BNI
F. M. Russo, BNI
Administrative Record (WTP H-0-8)
BNI Correspondence
Environmental Portal, LMSI

cc electronic:
D. L. Becker, Ecology
J. Cantu, Ecology (2 hard copies)
A. S. Carlson, Ecology
M. K. Faber, 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-190
(8 Pages)

Hanford Facility RCRA Permit Modification Notification
Form 24590-HLW-PCN-ENV-11-005

Quarter Ending 09/30/2011 24590-HLW-PCN-ENV-11-005

Hanford Facility RCRA Permit Modification Notification Form

Part III, Operating Unit 10

Waste Treatment and Immobilization Plant

Index

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

Hanford Facility RCRA Permit, Part III, Operating Unit 10, Waste Treatment and Immobilization Plant, Update Piping and Instrumentation Diagrams (P&ID) for the HLW Canister Decontamination Handling System (HDH) in Appendix 10.2.

Submitted by Co-Operator:

Donna Busche 7/25/11

D. M. Busche Date

Reviewed by ORP Program Office:

Del C May 8/17/11

D. L. Noyes Date

Quarter Ending 09/30/2011 24590-HLW-PCN-ENV-11-005

Hanford Facility RCRA Permit Modification Notification Form

Unit:	Permit Part:
Waste Treatment and Immobilization Plant	**Part III, Operating Unit 10**

Description of Modification:

The purpose of this Class 1 modification is to update the P&IDs for the HDH in Appendix 10.2 of the Dangerous Waste Permit (DWP). This PCN will replace 3 permit P&IDs incorporated into the DWP with 6 source P&IDs as indicated in the Table below. The additional drawings are the result of converting source drawings into multiple sheets (i.e., split/expanded) in an effort to provide clearer representation of the HDH system, including additional details for instrumentation.

The following source P&IDs are submitted to replace the permit P&IDs currently in Appendix 10.2:

Appendix 10.2			
Replace:	24590-HLW-M6-HDH-P0001, Rev 2	With:	24590-HLW-M6-HDH-00001001, Rev 0
	24590-HLW-M6-HDH-P0002, Rev 2		24590-HLW-M6-HDH-00002001, Rev 0
			24590-HLW-M6-HDH-00002002, Rev 0
			24590-HLW-M6-HDH-00002003, Rev 0
	24590-HLW-M6-HDH-P20001, Rev 2		24590-HLW-M6-HDH-20001001, Rev 0
			24590-HLW-M6-HDH-20001002, 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 incorporate changes provided in applicable document change forms (e.g., DCN, SCN, SDDR, FCN, FCR, etc.) since the issuance of the last revision of the permitted drawing. All change documents were provided to Ecology in accordance with Condition III.10.C.9.h.

The following types of changes apply to the HDH 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 History

This modification requests Ecology approval and incorporation of the following outstanding change document(s) into the permit. Although not yet incorporated into the revised documents included in this PCN, the listed outstanding change document(s) are intended to be incorporated into the permit.

None

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: A1 and A3

Enter wording of WAC 173-303-830, Appendix I Modification citation:

A.1. Administrative and informational changes

A.3. Equipment replacement or upgrading with functionally equivalent components (e.g., pipes, valves, pumps, conveyors, controls)

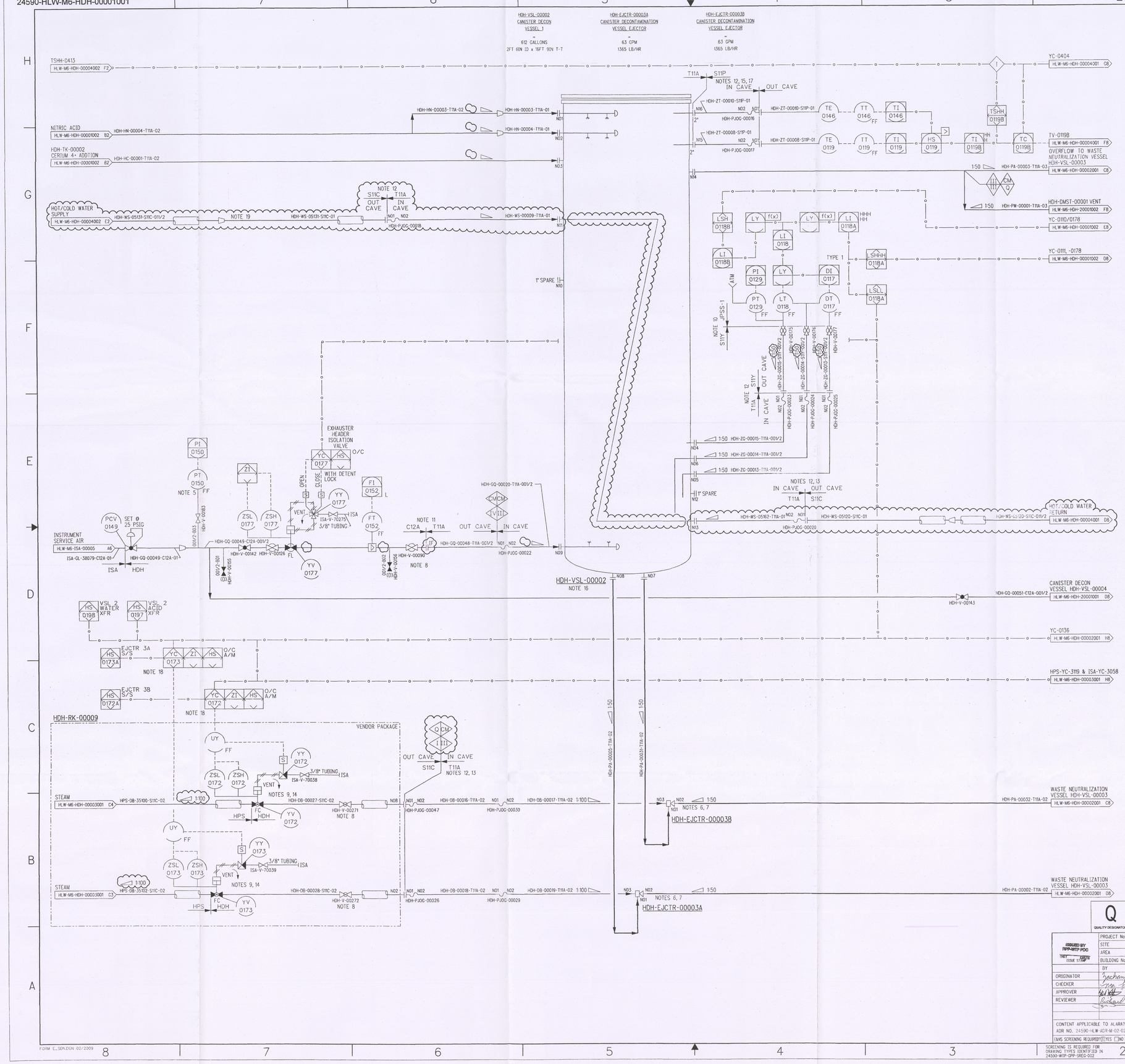
Modification Approved/Concur: ☐ Yes ☐ Denied (state reason below)

Reason for denial:

Reviewed by Ecology:

J. J. Wallace Date

24590-HLW-M6-HDH-00001001



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 CM AND SEISMIC CATEGORY SC-III, UNLESS OTHERWISE NOTED.
4. ALL LINES SHOWN ON THIS DRAWING SHALL BE FREE DRAINING, UNLESS OTHERWISE NOTED.
5. LOCATE PRESSURE TRANSMITTER (PT-0150) CLOSE TO PRESSURE REGULATING VALVE (PCV-0149).
6. THE HIGHEST SECTION OF THE EJECTOR DISCHARGE LINES TO BE ABOVE OVERFLOW NOZZLE ELEVATION OF HDH-VSL-00002.
7. EJECTOR DISCHARGE PIPING TO HAVE A MINIMUM LENGTH OF STRAIGHT PIPE EQUIVALENT TO 10 TIMES THE PIPE OUTSIDE DIAMETER BEFORE THE FIRST BEND.
8. LOCATE VALVE WITHIN 3 FEET OF IN-CAVE BOUNDARY.
9. THE VALVE SHALL BE A SLOW OPENING VALVE TO PREVENT STEAM CONDENSATE HAMMER.
10. JPSS-1 SPECIFICATION AS DEFINED IN INSTRUMENT PIPING MATERIAL CLASS, SEE REFERENCE 3. SPECIFICATION CHANGE ALSO DEFINES AREA OF C&I RESPONSIBILITY.
11. A FLANGE KIT IS REQUIRED BETWEEN CARBON STEEL AND TITANIUM FLANGES TO PREVENT GALVANIC CORROSION.
12. A HELICOFLEX GASKET IS TO BE UTILIZED AT THE FLANGE INTERFACE BETWEEN STAINLESS STEEL AND TITANIUM.
13. LINES REQUIRE 34FT OF BAROMETRIC HEAD ABOVE THE OVERFLOW. THE BAROMETRIC HEAD REQUIREMENT SHALL BE FULLY CONTAINED IN R5 AREA.
14. ACTUATED STEAM SUPPLY VALVE TO BE LOCATED AT HIGH POINT IN THE LINE.
15. LID DESIGN REQUIRES AIR GAP FOR HPAV.
16. THIS IS A CANISTER DECON VESSEL SYMBOL.
17. USE REDUCING FLANGE FOR CONNECTION TO NOZZLES N15 AND N16.
18. ICN INTERLOCK CLOSES HDH-YV-0172, -0173 AND STOPS HDH-PMP-00001 ON HDH-TSHH-0126 OR HDH-LSHH-0125A.
19. MAIN HEADER REQUIRES 34 FT OF BAROMETRIC HEAD ABOVE THE MAXIMUM LIQUID LEVEL IN THE VESSEL.
20. THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI-SHEET DRAWINGS AND, IN PART, SUPERSEDES 24590-HLW-M6-HDH-00001 REV 5. THIS DRAWING INCLUDES INFORMATION FROM 24590-HLW-M6N-HDH-00021, -00039, -00040, -00055, 24590-HLW-M6PR-HDH-00002, 24590-HLW-M6LN-30-00001, AND 24590-WTP-SDDR-MS-07-00046.

HOLD/OPEN ITEMS:

NONE

REFERENCES:

1. 24590-HLW-3YD-HDH-00002, SYSTEM DESCRIPTION FOR THE HLW SYSTEM HDH CANISTER DECONTAMINATION HANDLING SYSTEM.
2. 24590-HLW-M5-V17T-00006, PROCESS FLOW DIAGRAM HLW VITRIFICATION HLW CANISTER DECON (SYSTEM HDH).
3. 24590-WTP-3PS-JXFO-T0001, ENGINEERING SPECIFICATION FOR INSTRUMENT PIPING MATERIAL CLASSES.

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

DRAWING INDEX

DWG NO	TITLE
24590-HLW-M6-HDH-00001001	HDH SYSTEM HDH-VSL-00002
24590-HLW-M6-HDH-00001002	HDH SYSTEM

REV	DESCRIPTION	ORG	CHKD	RVWD	APVD	DATE
0	ISSUED FOR CONSTRUCTION, SEE NOTE 20					5/26/11

REVISION HISTORY

Q
QUALITY DESIGNATOR

ISSUED BY: RPP-WTP PDC
ISSUE STAMP

	PROJECT No.	24590
	SITE	HANFORD
	AREA	200E
	BUILDING No.	30

	BY	DATE
ORIGINATOR	Zachary Cross	5/26/11
CHECKER	Jim Edwards	5/26/11
APPROVER	[illegible]	5/26/11
REVIEWER	Richard Peterson	5-26-11

CONTENT APPLICABLE TO ALARA? [X] YES [ ] NO
ADR NO. 24590-HLW-ADR-M-02-021 REV: 4
EANS SCREENING REQUIRED? [X] YES [ ] NO EANS INITIAL IF YES

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

CONTRACT No: DE-AC27-01RV14136

P&ID - HLW HLW CANISTER DECONTAMINATION HANDLING SYSTEM HDH-VSL-00002

SCALE: NONE

24590-HLW-M6-HDH-00001001

REV 0

SCREENING IS REQUIRED FOR DRAWING TYPES IDENTIFIED IN 24590-WTP-GPP-SREQ-002

E SIZE - 44x34
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5/26/2011 9:02:16 AM

FORM E_SDAD.DN 02/2009

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24590-HLW-M6-HDH-00002001

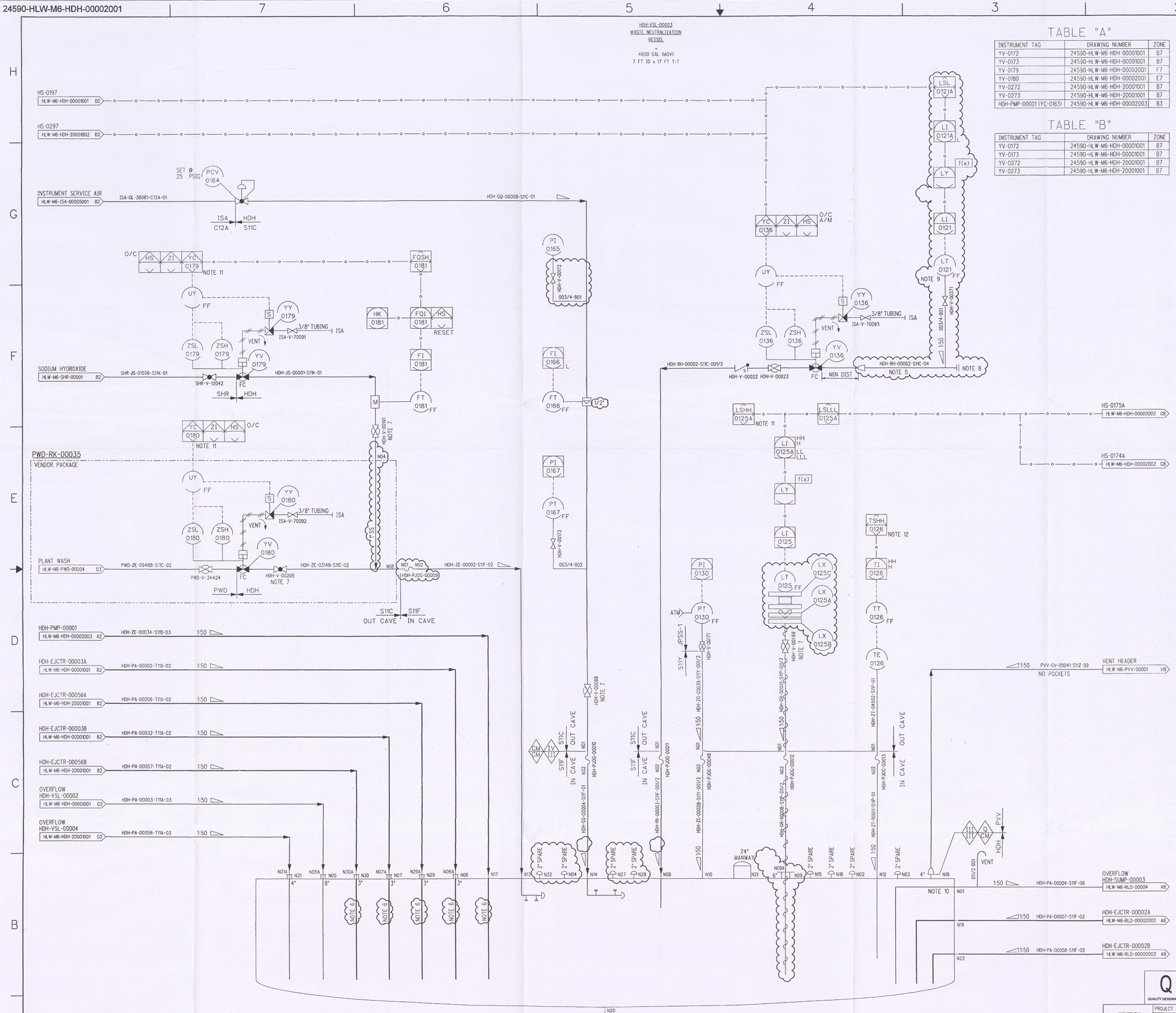

TABLE "A"

INSTRUMENT TAG	DRAWING NUMBER	ZONE
YV-0172	24590-HLW-M6-HDH-00001001	B7
YV-0173	24590-HLW-M6-HDH-00001001	B7
YV-0179	24590-HLW-M6-HDH-00002001	F7
YV-0180	24590-HLW-M6-HDH-00002001	E7
YV-0272	24590-HLW-M6-HDH-20001001	B7
YV-0273	24590-HLW-M6-HDH-20001001	B7
HDH-PMP-00001 (YC-0163)	24590-HLW-M6-HDH-00002003	B3

TABLE "B"

INSTRUMENT TAG	DRAWING NUMBER	ZONE
YV-0172	24590-HLW-M6-HDH-00001001	B7
YV-0173	24590-HLW-M6-HDH-00001001	B7
YV-0272	24590-HLW-M6-HDH-20001001	B7
YV-0273	24590-HLW-M6-HDH-20001001	B7

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 CM AND SEISMIC CATEGORY SC-III, UNLESS OTHERWISE NOTED.
4. ALL LINES SHOWN ON THIS DRAWING SHALL BE FREE DRAINING, UNLESS OTHERWISE NOTED.
5. HYDROGEN PEROXIDE ADDITION POINT. THE VERTICAL FOUR-INCH DIAMETER PIPE SECTION IS 18 INCHES LONG. LOCATE BLIND FLANGE APPROXIMATELY 42 INCHES FROM FLOOR.
6. DRILL NOMINAL 3/8 INCH HOLE IN EACH OF THE PIPES WHERE INDICATED. THIS HOLE SHALL BE LOCATED IN THE VESSEL HEAD SPACE ABOVE THE OVERFLOW LEVEL OF THE VESSEL. THE HOLE IS TO PREVENT BACK SIPHON.
7. LOCATE VALVE WITHIN 3 FEET OF THE CAVE BOUNDARY.
8. PROVIDE A HANDLE ON THE 4 INCH STAINLESS STEEL BLIND FLANGE FOR EASY ROTATION. BLIND IS TO HAVE ONE STUD BOLT HAND TIGHTENED TO HOLD THE FLANGE IN PLACE WHILE ALLOWING THE BLIND TO SWING OPEN AS NEEDED.
9. LEVEL TRANSMITTER HAS INTEGRAL LEVEL INDICATOR. MOUNT SO INDICATOR IS VISIBLE TO OPERATOR WHEN FILLING STANDPIPE.
10. INLET ELEVATION OF OVERFLOW LINE SHALL BE 4 INCHES LOWER THAN THAT OF EJECTOR SUCTION FOR HDH-EJCTR-00002A/B.
11. ICN INTERLOCK CLOSES YV-0172/0173/0179/0180/0272/0273 AND STOPS HDH-PMP-00001 ON HDH-VSL-00003 HI HI LEVEL. SEE TABLE "A".
12. ICN INTERLOCK CLOSES YV-0172/0173/0272/0273 ON HDH-VSL-00003 HI HI TEMP. SEE TABLE "B".
13. THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI -SHEET DRAWINGS AND IN PART, SUPERSEDES 24590-HLW-M6-HDH -00002 REV 5. THIS DRAWING INCLUDES 24590-HLW-M6LN-HDH-00003, -00005, 24590-HLW-M6N-30-00007, -00008, -00011, 24590-HLW-M6N-HDH-00021, -00034, -00041, -00054, -00055, AND 24590-HLW-M6PR-HDH-00002.

HOLD/OPEN ITEMS:

NONE

REFERENCES:

1. 24590-HLW-3YD-HDH-00002, SYSTEM DESCRIPTION FOR THE HLW SYSTEM HDH CANISTER DECONTAMINATION HANDLING.

Please note that source, special nuclear, and byproduct materials, as defined in the Atomic Energy Act of 1954 (AEA) are regulated by the U.S. Department of Energy (DOE) facilities exclusively by DOE authority. Operation of DOE facilities is not subject to or 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 or in addendums is provided for process description purposes only.

DRAWING INDEX	
DWG NO	TITLE
24590-HLW-M6-HDH-00002001	HDH SYSTEM HDH-VSL-00003
24590-HLW-M6-HDH-00002002	HDH SYSTEM TRANSFER EJECTORS
24590-HLW-M6-HDH-00002003	HDH SYSTEM HDH-TRLY-00003

REV	DESCRIPTION	ORG	CHKD	RVWD	APVD	DATE
0	ISSUED FOR CONSTRUCTION, SEE NOTE 13	ZC	JK			5/26/11

REVISION HISTORY

Q — QUALITY DESIGNATOR

ISSUED BY RPP-WTP PDC — TITLE — DATE — ISSUE STAMP

PROJECT No.	24590
SITE	HANFORD
AREA	200E
BUILDING No.	30

	BY	DATE
ORIGINATOR	Zachary Cocco	5/26/11
CHECKER	J. Khoudagir	5/26/11
APPROVER	[illegible]	5/26/11
REVIEWER	Richard Potter	5-26-11
		5/26/11

CONTENT APPLICABLE TO ALARA? [X] YES [ ] NO
ADR NO. 24590-HLW-ADR-M-02-021 REV: 4
EMS SCREENING REQUIRED? [X] YES [ ] NO EMS INITIAL IE YES

BECHTEL

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

CONTRACT No: DE-AC27-01RV14136

P&ID - HLW HLW CANISTER DECONTAMINATION HANDLING SYSTEM HDH-VSL-00003

SCALE: NONE

24590-HLW-M6-HDH-00002001

REV 0

SCREENING IS REQUIRED FOR DRAWING TYPES IDENTIFIED IN 24590-WTP-GPP-SRED-002

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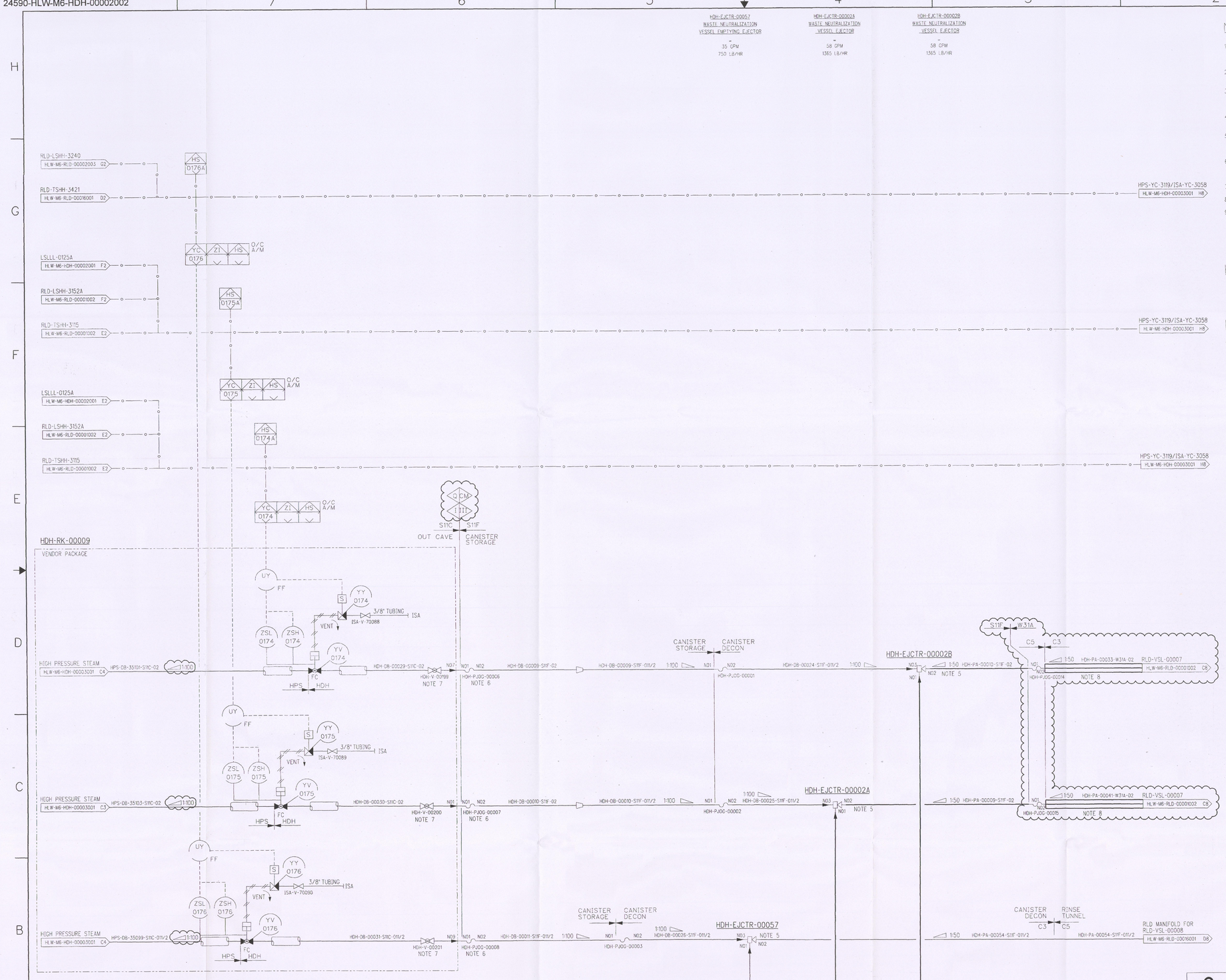
FORM E_SDN.DGN 02/2009

24590-HLW-M6-HDH-00002002



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 CM AND SEISMIC CATEGORY SC-III, UNLESS OTHERWISE NOTED.
4. ALL LINES SHOWN ON THIS DRAWING SHALL BE FREE DRAINING, UNLESS OTHERWISE NOTED.
5. EJECTOR DISCHARGE PIPING TO HAVE A MINIMUM LENGTH OF STRAIGHT PIPE EQUIVALENT TO 10 TIMES OF PIPE OUTSIDE DIAMETER BEFORE THE FIRST BEND.
6. STEAM SUPPLY LINES REQUIRE 34 FT OF BAROMETRIC HEAD ABOVE OVERFLOW. THE BAROMETRIC HEAD REQUIREMENT SHALL BE FULLY CONTAINED IN INCAVE/INCELL AREAS.
7. LOCATE VALVE WITHIN 3 FT OF THE CAVE BOUNDARY.
8. USE STAINLESS STEEL JACKET. CARBON STEEL PROHIBITED.
9. THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI -SHEET DRAWINGS AND IN PART, SUPERSEDES 24590-HLW-M6-HDH-00002 REV 5. THIS DRAWING INCLUDES 24590-HLW-M6LN-30-00004, 24590-HLW-M6N-30-00014, AND 24590-HLW-M6N-HDH-00041.

HOLD/OPEN ITEMS:

NONE

REFERENCES:

1. 24590-HLW-3YD-HDH-00002, SYSTEM DESCRIPTION FOR THE HLW SYSTEM HDH CANISTER DECONTAMINATION HANDLING.

Please note that source, special nuclear, and byproduct materials, as defined in the Atomic Energy Act of 1954 (AEA) are regulated by the U.S. Nuclear Regulatory Commission (NRC) when possessed 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, including models, is provided for process description purposes only.

REV	DESCRIPTION	ORG	CHKD	RVWD	APVD	DATE
0	ISSUED FOR CONSTRUCTION, SEE NOTE 9	IC	JK	CDP	MH	5/26/11

REVISION HISTORY

QUALITY DESIGNATOR: Q

ISSUED BY RPP-WTP PDC — REV — DATE — ISSUE STAMP

PROJECT No.	24590
SITE	HANFORD
AREA	200E
BUILDING No.	30

	BY	DATE
ORIGINATOR	Anthony Eccre	5/23/11
CHECKER	J. Kamenbyan	5/23/11
APPROVER	[illegible]	5/26/11
REVIEWER	Richard Pelkus	5-24-11
		5-26-11

CONTENT APPLICABLE TO ALARA? [X] YES [ ] NO
ADR NO. 24590-HLW-ADR-M-02-021 REV: 4
EMS SCREENING REQUIRED? [X] YES [ ] NO EMS INITIAL IF YES: [illegible]

SCREENING IS REQUIRED FOR DRAWING TYPES IDENTIFIED IN 24590-WTP-QPP-SREQ-002

BECHTEL

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

CONTRACT No: DE-AC27-01RV14136

P&ID - HLW HLW CANISTER DECONTAMINATION HANDLING SYSTEM TRANSFER EJECTORS

SCALE: NONE

24590-HLW-M6-HDH-00002002

REV 0

"C" SIZE - 44x34
COMPUTER GENERATED - MANUAL DESIGN CHANGES NOT PERMITTED

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5/20/2011 3:43:20 PM

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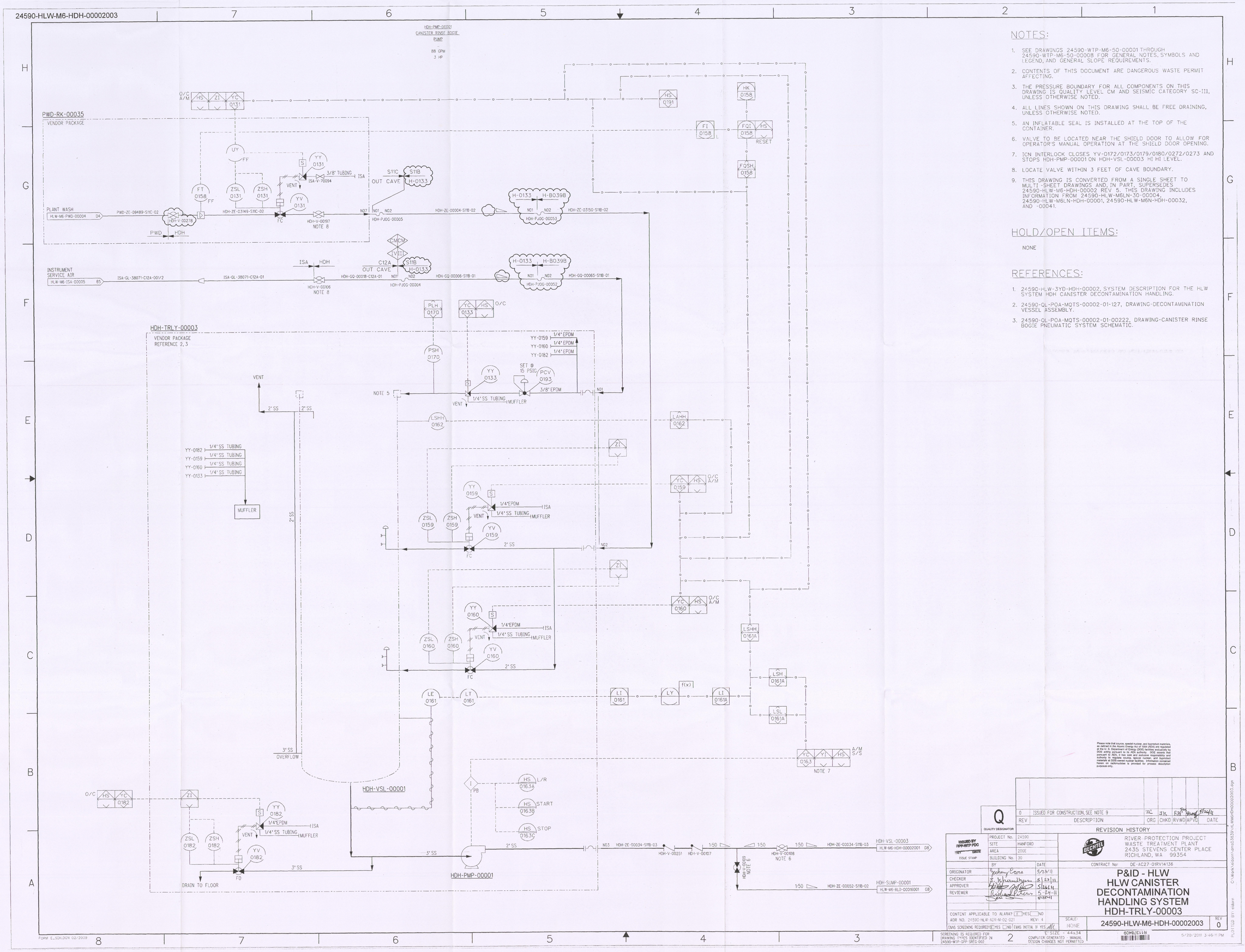
PLOTTED BY: eckern

FORM EJSDR.DGN 02/2009

24590-HLW-M6-HDH-00002003



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 CM AND SEISMIC CATEGORY SC-III, UNLESS OTHERWISE NOTED.
4. ALL LINES SHOWN ON THIS DRAWING SHALL BE FREE DRAINING, UNLESS OTHERWISE NOTED.
5. AN INFLATABLE SEAL IS INSTALLED AT THE TOP OF THE CONTAINER.
6. VALVE TO BE LOCATED NEAR THE SHIELD DOOR TO ALLOW FOR OPERATOR'S MANUAL OPERATION AT THE SHIELD DOOR OPENING.
7. ICN INTERLOCK CLOSES YV-0172/0173/0179/0180/0272/0273 AND STOPS HDH-PMP-00001 ON HDH-VSL-00003 HI HI LEVEL.
8. LOCATE VALVE WITHIN 3 FEET OF CAVE BOUNDARY.
9. THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI-SHEET DRAWINGS AND, IN PART, SUPERSEDES 24590-HLW-M6-HDH-00002 REV 5. THIS DRAWING INCLUDES INFORMATION FROM 24590-HLW-M6LN-30-00004, 24590-HLW-M6LN-HDH-00001, 24590-HLW-M6N-HDH-00032, AND -00041.

HOLD/OPEN ITEMS:

NONE

REFERENCES:

1. 24590-HLW-3YD-HDH-00002, SYSTEM DESCRIPTION FOR THE HLW SYSTEM HDH CANISTER DECONTAMINATION HANDLING.
2. 24590-QL-POA-MQTS-00002-01-127, DRAWING-DECONTAMINATION VESSEL ASSEMBLY.
3. 24590-QL-POA-MQTS-00002-01-00222, DRAWING-CANISTER RINSE BOGIE PNEUMATIC SYSTEM SCHEMATIC.

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 under the AEA. Bechtel National, Inc. (BNI) operates, pursuant to AEA, it has sole and exclusive responsibility and authority to regulate source, special nuclear, and byproduct materials on DOE-owned nuclear facilities. Information contained herein on radionuclides is provided for process description purposes only.

REV	DESCRIPTION	ORG	CHKD	RVWD	APVD	DATE
0	ISSUED FOR CONSTRUCTION, SEE NOTE 9	ZC	JK	RJP		5/24/11

REVISION HISTORY

QUALITY DESIGNATOR: Q

ISSUED BY RPP-WTP PDC

	BY	DATE
ORIGINATOR	Rodney Cross	5/23/11
CHECKER	J. Kirschbaum	5/23/11
APPROVER	[illegible]	5/24/11
REVIEWER	[illegible]	5-24-11

CONTENT APPLICABLE TO ALARA? [X] YES [ ] NO
AOR NO. 24590-HLW-AOR-M-02-021 REV: 4
EMS SCREENING REQUIRED [X] YES [ ] NO EMS INITIAL IF YES

SCREENING IS REQUIRED FOR DRAWING TYPES IDENTIFIED IN 24590-WTP-GPP-SREQ-002

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

PROJECT No. 24590
SITE HANFORD
AREA 200E
BUILDING No. 30
ISSUE STAMP

BECHTEL

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

CONTRACT No: DE-AC27-01RV14136

P&ID - HLW HLW CANISTER DECONTAMINATION HANDLING SYSTEM HDH-TRLY-00003

SCALE: NONE

24590-HLW-M6-HDH-00002003

REV 0

FORM E_SCHLDGN 02/2009

5/20/2011 3:46:11 PM

PLOTTED BY: Gdavis

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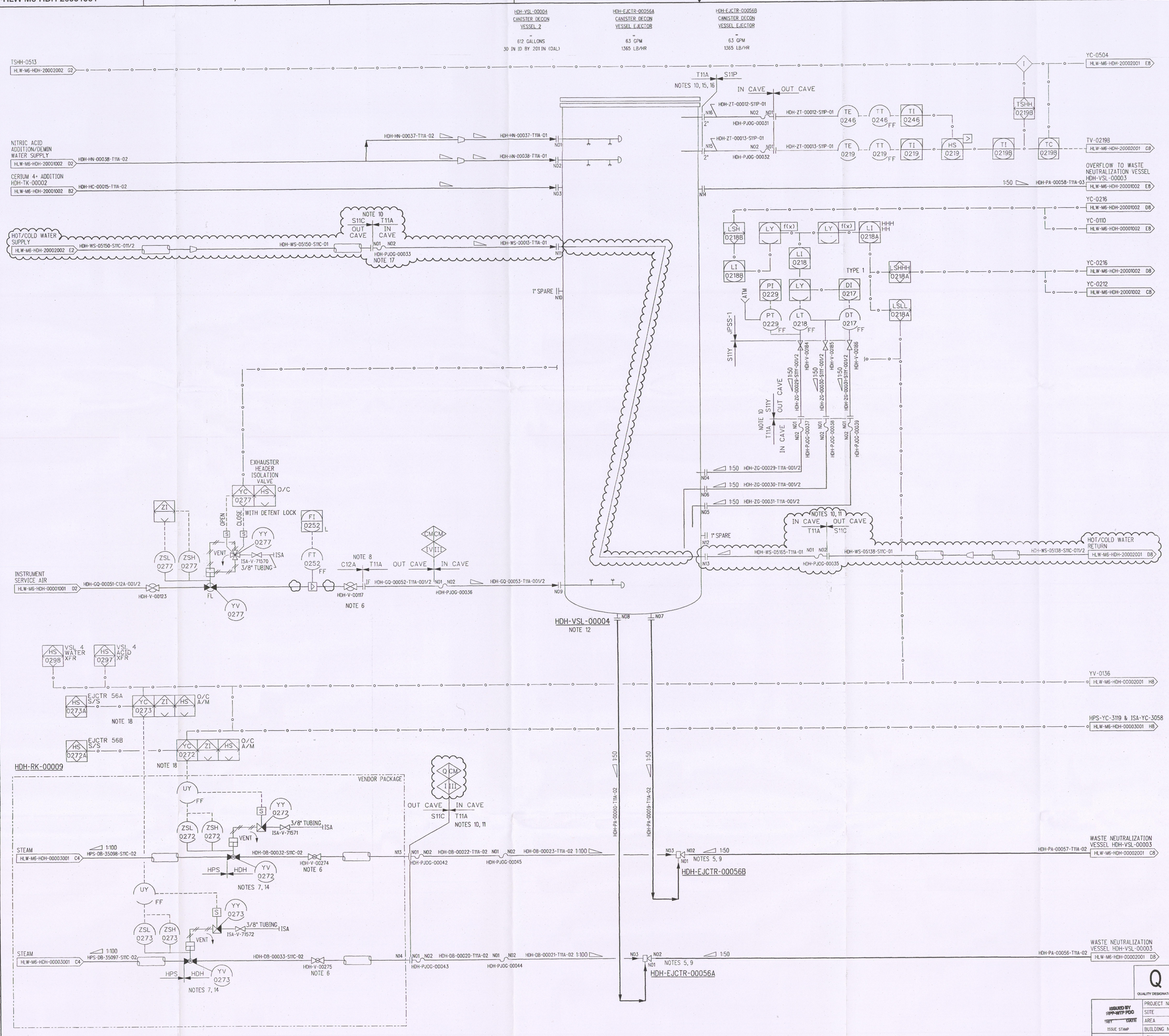
24590-HLW-M6-HDH-20001001



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 CM AND SEISMIC CATEGORY SC-III, UNLESS OTHERWISE NOTED.
4. ALL LINES SHOWN ON THIS DRAWING ARE FREE DRAINING, UNLESS OTHERWISE NOTED.
5. EJECTOR DISCHARGE PIPING TO HAVE A MINIMUM LENGTH OF STRAIGHT PIPE EQUIVALENT TO 10 TIMES THE PIPE OUTSIDE DIAMETER BEFORE FIRST BEND.
6. LOCATE VALVE WITHIN 3 FEET OF THE IN-CAVE BOUNDARY.
7. THE VALVE SHALL BE A SLOW OPENING VALVE TO PREVENT STEAM CONDENSATE HAMMER.
8. A FLANGE KIT IS REQUIRED BETWEEN CARBON STEEL AND TITANIUM FLANGES TO PREVENT GALVANIC CORROSION.
9. THE HIGHEST SECTION OF THE EJECTOR DISCHARGE LINES TO BE ABOVE OVERFLOW NOZZLE ELEVATION OF HDH-VSL-00004.
10. A HELICOFLEX GASKET IS TO BE UTILIZED AT THE FLANGE INTERFACE BETWEEN STAINLESS STEEL AND TITANIUM.
11. LINES REQUIRE 34FT OF BAROMETRIC HEAD ABOVE THE OVERFLOW. THE BAROMETRIC HEAD REQUIREMENT SHALL BE FULLY CONTAINED IN R5 AREA.
12. THIS IS A CANISTER DECON VESSEL SYMBOL.
13. INSTRUMENTS ARE QUALITY LEVEL CM. INSTRUMENT, ROOT VALVE, AND TUBING CONFINEMENT REQUIREMENTS ARE THE SAME AS THE CONNECTING PIPING.
14. ACTUATED STEAM SUPPLY VALVE TO BE LOCATED AT HIGH POINT IN THE LINE.
15. LID DESIGN REQUIRES AIR GAP FOR HPAV.
16. USE REDUCING FLANGE FOR CONNECTIONS TO NOZZLES N15 AND N16.
17. MAIN HEADER REQUIRES 34 FT OF BAROMETRIC HEAD ABOVE THE MAXIMUM LIQUID LEVEL IN THE VESSEL.
18. ION INTERLOCK CLOSES YC-0272/0273 ON HDH-TSHH-0126 OR HDH-LSHH-0125A.
19. THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI-SHEET DRAWINGS AND, IN PART, SUPERSEDES 24590-HLW-M6-HDH-20001 REV 4. THIS DRAWING INCLUDES INFORMATION FROM 24590-HLW-M6N-HDH-00021, -00039, -00043, -00055, 24590-HLW-M6PR-HDH-00002, AND 24590-HLW-M6LN-30-00001.

HOLD/OPEN ITEMS:

NONE

REFERENCES:

1. 24590-HLW-3YD-HDH-00002, SYSTEM DESCRIPTION FOR HLW SYSTEM HDH CANISTER DECONTAMINATION HANDLING SYSTEM.
2. 24590-HLW-M5-V17T-00006, PROCESS FLOW DIAGRAM HLW VITRIFICATION HLW CANISTER DECON (SYSTEM HDH).
3. 24590-WTP-3PS-JXF0-T0001, ENGINEERING SPECIFICATION FOR INSTRUMENT PIPING MATERIAL CLASSES.

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 under authority in the AEA authority. DOE asserts that the AEA has sole and exclusive responsibility and authority to regulate nuclear safety and radiation protection materials at DOE-owned nuclear facilities. Information contained herein on radionuclides is provided for process description purposes only.

DRAWING INDEX

DWG NO	TITLE
24590-HLW-M6-HDH-20001001	HDH SYSTEM HDH-VSL-00004
24590-HLW-M6-HDH-20001002	HDH SYTEM HDH-DMST-00001

Q
QUALITY DESIGNATOR

REVISION HISTORY

REV	DESCRIPTION	ORG	CHKD	RVWD	APVD	DATE
0	ISSUED FOR CONSTRUCTION, SEE NOTE 19					

ISSUED BY WTP-WTP PDO
SIGN DATE
ISSUE STAMP

	BY	DATE
PROJECT No.	24590	
SITE	HANFORD	
AREA	200E	
BUILDING No.	30	
ORIGINATOR	Zachary Crane	5/26/11
CHECKER	Dan Johnson	5/26/11
APPROVER	[illegible]	5/26/11
REVIEWER	Richard Peterson	5/26/11

CONTENT APPLICABLE TO ALARA? [X] YES [ ] NO
ADR NO. 24590-HLW-ADR-M-02-021 REV: 4
EMS SCREENING REQUIRED? [X] YES [ ] NO | EMS INITIAL IF YES: [illegible]
SCREENING IS REQUIRED FOR DRAWING TYPES IDENTIFIED IN 24590-WTP-GPP-SREG-002

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

CONTRACT No: DE-AC27-01RV14136

P&ID - HLW HLW CANISTER DECONTAMINATION HANDLING SYSTEM HDH-VSL-00004

SCALE: NONE
24590-HLW-M6-HDH-20001001
REV 0

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

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PLOTTED BY: gpoorkes

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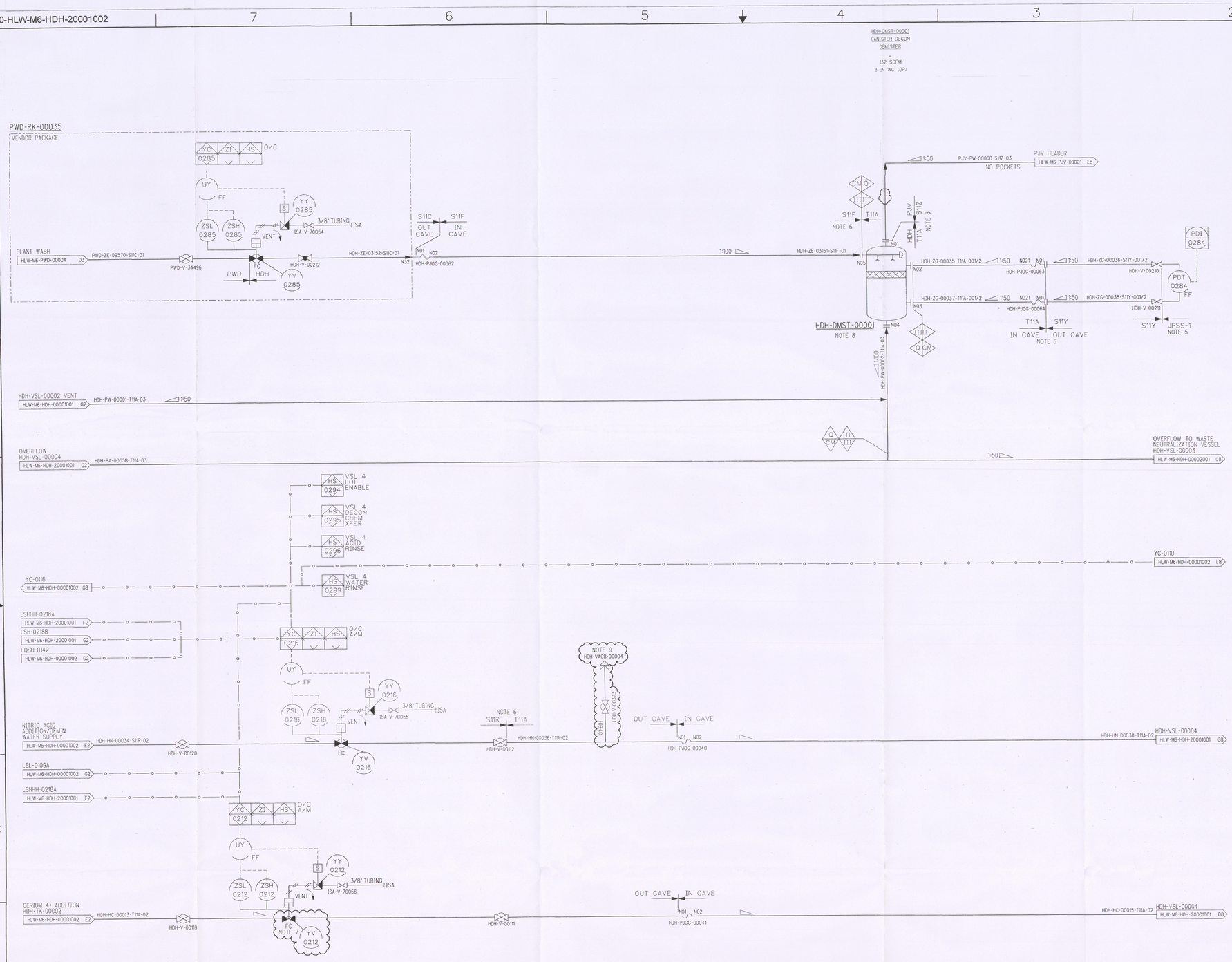
FORM E_SDNLDGN 02/2009



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 CM AND SEISMIC CATEGORY, SC-III, UNLESS OTHERWISE NOTED.
4. ALL LINES SHOWN ON THIS DRAWING ARE FREE DRAINING, UNLESS OTHERWISE NOTED.
5. JPSS-1 SPECIFICATION DEFINED IN INSTRUMENT PIPING MATERIAL CLASSES; SEE REFERENCE 3. SPECIFICATION CHANGE ALSO DEFINES AREA OF C&I RESPONSIBILITY.
6. A HELICOFLEX GASKET IS TO BE UTILIZED AT THE FLANGE INTERFACE BETWEEN STAINLESS STEEL AND TITANIUM.
7. MINIMIZE LENGTH OF PIPING BETWEEN HDH-TK-00002 SHOWN ON 24590-HLW-M6-HDH-00001002 AND YC-0212.
8. THIS IS A DEMISTER SYMBOL.
9. LOCATE VACUUM BREAKER AT HIGH POINT OF LINE.
10. THIS DRAWING IS CONVERTED FROM A SINGLE SHEET TO MULTI-SHEET DRAWINGS AND, IN PART, SUPERSEDES 24590-HLW-M6-HDH-20001 REV 4. THIS DRAWING INCLUDES INFORMATION FROM 24590-HLW-M6N-HDH-00043, -00046, AND -00055.

HOLD/OPEN ITEMS:

NOTE

REFERENCES:

1. 24590-HLW-3YD-HDH-00002, SYSTEM DESCRIPTION FOR THE HLW SYSTEM HDH CANISTER DECONTAMINATION HANDLING SYSTEM.
2. 24590-HLW-M5-V17T-00006, PROCESS FLOW DIAGRAM HLW VITRIFICATION HLW CANISTER DECON (SYSTEM HDH).
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REV	DESCRIPTION	ORG	CHKD	RVWD	APVD	DATE
0	ISSUED FOR CONSTRUCTION, SEE NOTE 10	ZC				

Q — QUALITY DESIGNATOR

REVISION HISTORY

ISSUED BY RPP-WTP PDC — DATE — ISSUE STAMP

PROJECT No.	24590
SITE	HANFORD
AREA	200E
BUILDING No.	30

	BY	DATE
ORIGINATOR	Zachary Cross	5-11-11
CHECKER	Mike Johnson	5-19-11
APPROVER	Ted Ritter	5-24-11
REVIEWER	Richard Rattiner	5-24-11

CONTENT APPLICABLE TO ALARA? [X] YES [ ] NO
ADR NO. 24590-HLW-ADR-M-02-021 REV: 4
EMS SCREENING REQUIRED? [X] YES [ ] NO | EMS INITIAL IF YES

BECHTEL

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

CONTRACT No: DE-AC27-01RV14136

P&ID - HLW CANISTER DECONTAMINATION HANDLING SYSTEM HDH-DMST-00001

SCALE: NONE

24590-HLW-M6-HDH-20001002

REV 0

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

SCREENING IS REQUIRED FOR DRAWING TYPES IDENTIFIED IN 24590-WTP-GPP-SREQ-002

FORM E_SDN.DGN 02/2009

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PLOTTED BY: mdorn

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