



U.S. Department of Energy  
**Office of River Protection**

0074188

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

**OCT 18 2007**

07-ESQ-179

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

**RECEIVED**  
OCT 23 2007

**EDMC**

Dear Ms. Hedges:

SUBMITTAL OF HANFORD FACILITY RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) PERMIT MODIFICATION NOTIFICATION FORM 24590-HLW-PCN-ENV-06-013

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-06-013 for the Washington State Department of Ecology (Ecology) review and approval. The form describes a requested Class 1 modification to the Reference.

Permit Modification Notification Form 24590-HLW-PCN-ENV-06-013 updates the Piping and Instrumentation Diagrams (24590-HLW-M6-HDH-P0001, 24590-HLW-M6-HDH-P0002, and 24590-HLW-M6-HDH-P20001) for the High-Level Waste Facility Canister Decontamination Handling System vessels (HDH-VSL-00001, HDH-VSL-00002, HDH-VSL-00003, and HDH-VSL-00004) found in Appendix 10.2 of the Reference.

Ecology was provided an opportunity to review the modification notification form and the associated information and comments were dispositioned.

If you have any questions, please contact me, or your staff may contact Lori A. Huffman, Office of Environmental Safety and Quality, (509) 376-0104.

Sincerely,

Shirley J. Olinger, Acting Manager  
Office of River Protection

ESQ:LAH

Attachment

cc: See page 2

Ms. Jane A. Hedges  
07-ESQ-179

-2-

OCT 18 2007

cc w/attach:

Administrative Record *H-0-8*  
BNI Correspondence  
Environmental Portal, LMSI

cc electronic:

B. Dubiel, BNI  
W. S. Elkins, BNI  
B. G. Erlandson, BNI  
P. A. Fisher, BNI  
J. S. Hill, BNI  
S. Murdock, BNI  
P. Peistrup, BNI  
D. Becker, Ecology  
B. Becker-Khaleel, Ecology (1 hard copy)  
R. Biyani, Ecology  
E. A. Fredenburg, Ecology  
T. A. Williams, Ecology  
S. A. Thompson, FHI  
A. C. McKarns, RL  
D. J. Sommer, SCS

cc w/o attaches:

D. A. Klein, BNI  
J. Cox, CTUIR  
S. Harris, CTUIR  
S. L. Dahl, Ecology  
G. P. Davis, Ecology  
G. Bohnee, NPT  
K. Niles, Oregon Energy  
R. Jim, YN

**Attachment  
07-ESQ-179**

**Hanford Facility RCRA Permit Modification Notification  
Form 24590-HLW-PCN-ENV-06-013**

Quarter Ending 12/31/2007

24590-HLW-PCN-ENV-06-013

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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  
Update HLW Vitrification Building Piping and Instrumentation Diagrams (P&IDs) for the HLW Canister  
Decontamination Handling System (HDH-VSL-00001, HDH-VSL-00002, HDH-VSL-00003 and HDH-VSL-  
00004) in Appendix 10.2 of the Dangerous Waste Permit.

Submitted by Co-Operator:

Reviewed by ORP Program Office:

*D. A. Klein*      9/26/07  
D. A. Klein                      Date

*S. J. Olinger*      10/17/07  
S. J. Olinger                      Date

Quarter Ending 12/31/2007

24590-HLW-PCN-ENV-06-013

### Hanford Facility RCRA Permit Modification Notification Form

Unit: <b>Waste Treatment and Immobilization Plant</b>	Permit Part & Chapter: <b>Part III, Operating Unit 10</b>
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**Description of Modification:**

The purpose of this Class 1 prime modification is to update the Piping and Instrumentation Diagrams (P&IDs) for the HLW Canister Decontamination Handling System (HDH-VSL-00001, HDH-VSL-00002, HDH-VSL-00003 and HDH-VSL-00004). The following permit P&IDs are submitted to replace those currently in Appendix 10.2.

Appendix 10.2			
Replace:	24590-HLW-M6-HDH-P0001, Rev. 1	With:	24590-HLW-M6-HDH-P0001, Rev. 2
	24590-HLW-M6-HDH-P0002, Rev. 1		24590-HLW-M6-HDH-P0002, Rev. 2
	24590-HLW-M6-HDH-P20001, Rev. 1		24590-HLW-M6-HDH-P20001, Rev. 2

The referenced P&IDs are complete revisions. They incorporate changes provided in applicable document change forms (e.g., DCN, SCN, SDDR, FCN, FCR, etc.) and changes associated with the resolution to comments on change documents since the issuance of the last revision of the permitted drawing. This modification requests Ecology approval and incorporation into the permit, the specific changes to these P&IDs that are indicated by a note on each P&ID, clouds, and/or revision triangles. Revisions are the result of ongoing design changes. The following identifies the significant types of changes on the attached drawings.

**24590-HLW-M6-HDH-P0001**

Specific changes to this P&ID are provided on note 33.

- Revised slope notation to specific lines
- Added, revised, and deleted notes, holds, and references
- Revised various off-sheet connectors and/or descriptions
- Revised through wall penetration designations from wall boxes to p-joggles
- Combined overflow line vents (HDH-VSL-00002 and HDH-VSL-00004) and routed to PJV Header through demister (HDH-DMST-00001)
- Revised various quality/seismic identifiers
- Revised and added line identification numbers.

**24590-HLW-M6-HDH-P0002**

Specific changes to this P&ID are provided on note 32.

- Revised slope notation to specific lines
- Added, revised, and deleted notes, holds, and references
- Revised various off-sheet connectors
- Revised through wall penetration designations from wall boxes to p-joggles
- Added level element LE 0125 (coordinates B6)
- Added check valves HDH-V-00107 and HDH-V-00251 (coordinates F4)
- Revised various quality/seismic identifiers
- Revised and added line identification numbers.

**24590-HLW-M6-HDH-P20001**

Specific changes to this P&ID are provided on note 31.

Quarter Ending 12/31/2007

24590-HLW-PCN-ENV-06-013

- Incorporated updates to design
- Revised slope notation to specific lines
- Added, revised, and deleted notes, holds, and references
- Revised various off-sheet connectors
- Revised through wall penetration designations from wall boxes to p-joggles
- Combined overflow line vents (HDH-VSL-00002 and HDH-VSL-00004) and routed to PJV Header through demister (HDH-DMST-00001)
- Added demister HDH-DMST-00001 (coordinates G3)
- Revised and added various quality/seismic identifiers
- Revised and added line identification numbers.

The following is a list of outstanding change documents that have not been incorporated into this modification:  
None

WAC 173-303-830 Modification Class: <sup>1 2</sup>	Class 1	Class <sup>1</sup> 1	Class 2	Class 3
Please mark the Modification Class:		X		

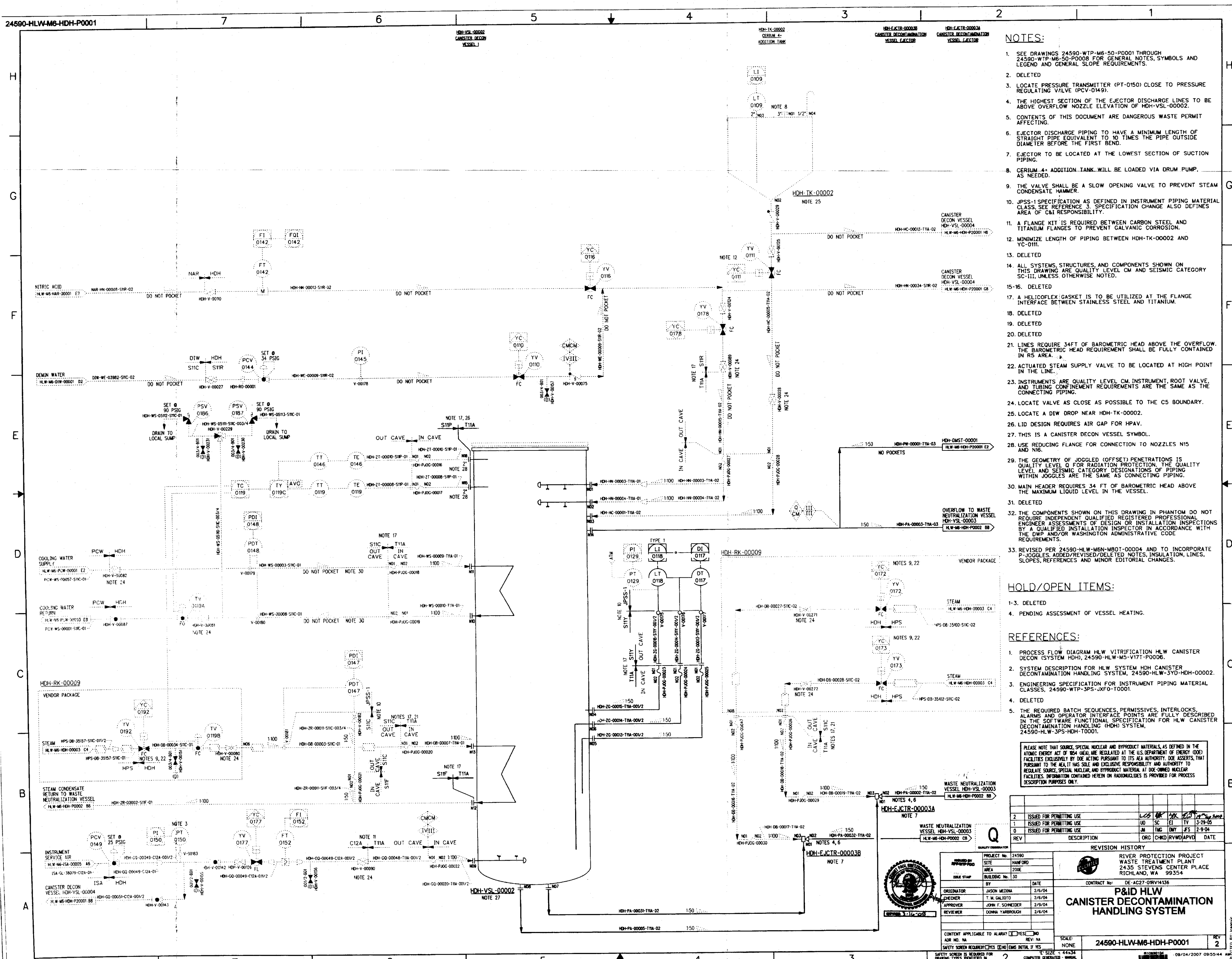
Enter Relevant WAC 173-303-830, Appendix I Modification citation number: N/A  
 Enter wording of WAC 173-303-830, Appendix I Modification citation:

In accordance with WAC 173-303-830(4)(d)(i), this modification notification is requested to be reviewed and approved as a Class <sup>1</sup>1 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 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: <input type="checkbox"/> Yes <input type="checkbox"/> No (state reason for denial)	Reviewed by Ecology:
<u>Reason for denial:</u>	
	B. Becker-Khaleel _____ Date _____

<sup>1</sup> Class 1 modifications requiring prior Agency approval.

<sup>2</sup> If the proposed modification does not match any modification listed in WAC 173-303-830 Appendix I, then the proposed modification should automatically be given a Class 3 status. This status may be maintained by the Department of Ecology, or down graded to a Class '1, if applicable.



- NOTES:**
- SEE DRAWINGS 24590-WTP-M6-50-P0001 THROUGH 24590-WTP-M6-50-P0008 FOR GENERAL NOTES, SYMBOLS AND LEGEND AND GENERAL SLOPE REQUIREMENTS.
  - DELETED
  - LOCATE PRESSURE TRANSMITTER (PT-0150) CLOSE TO PRESSURE REGULATING VALVE (PCV-0149).
  - THE HIGHEST SECTION OF THE EJECTOR DISCHARGE LINES TO BE ABOVE OVERFLOW NOZZLE ELEVATION OF HDH-VSL-00002.
  - CONTENTS OF THIS DOCUMENT ARE DANGEROUS WASTE PERMIT AFFECTING.
  - EJECTOR DISCHARGE PIPING TO HAVE A MINIMUM LENGTH OF STRAIGHT PIPE EQUIVALENT TO 10 TIMES THE PIPE OUTSIDE DIAMETER BEFORE THE FIRST BEND.
  - EJECTOR TO BE LOCATED AT THE LOWEST SECTION OF SUCTION PIPING.
  - CERIUM 4+ ADDITION TANK WILL BE LOADED VIA DRUM PUMP, AS NEEDED.
  - THE VALVE SHALL BE A SLOW OPENING VALVE TO PREVENT STEAM CONDENSATE HAMMER.
  - JPS-1 SPECIFICATION AS DEFINED IN INSTRUMENT PIPING MATERIAL CLASS SEE REFERENCE 3. SPECIFICATION CHANGE ALSO DEFINES AREA OF C&I RESPONSIBILITY.
  - A FLANGE KIT IS REQUIRED BETWEEN CARBON STEEL AND TITANIUM FLANGES TO PREVENT GALVANIC CORROSION.
  - MINIMIZE LENGTH OF PIPING BETWEEN HDH-TK-00002 AND YC-0111.
  - DELETED
  - ALL SYSTEMS, STRUCTURES, AND COMPONENTS SHOWN ON THIS DRAWING ARE QUALITY LEVEL CM AND SEISMIC CATEGORY SC-III, UNLESS OTHERWISE NOTED.
  - DELETED
  - DELETED
  - A HELICOFLEX GASKET IS TO BE UTILIZED AT THE FLANGE INTERFACE BETWEEN STAINLESS STEEL AND TITANIUM.
  - DELETED
  - DELETED
  - DELETED
  - LINES REQUIRE 34FT OF BAROMETRIC HEAD ABOVE THE OVERFLOW. THE BAROMETRIC HEAD REQUIREMENT SHALL BE FULLY CONTAINED IN RS AREA.
  - ACTUATED STEAM SUPPLY VALVE TO BE LOCATED AT HIGH POINT IN THE LINE.
  - INSTRUMENTS ARE QUALITY LEVEL CM, INSTRUMENT, ROOT VALVE, AND TUBING CONFINEMENT REQUIREMENTS ARE THE SAME AS THE CONNECTING PIPING.
  - LOCATE VALVE AS CLOSE AS POSSIBLE TO THE C5 BOUNDARY.
  - LOCATE A DIW DROP NEAR HDH-TK-00002.
  - LID DESIGN REQUIRES AIR GAP FOR HPAV.
  - THIS IS A CANISTER DECON VESSEL SYMBOL.
  - USE REDUCING FLANGE FOR CONNECTION TO NOZZLES N15 AND N16.
  - THE GEOMETRY OF JOGGLED (OFFSET) PENETRATIONS IS QUALITY LEVEL D FOR RADIATION PROTECTION. THE QUALITY LEVEL AND SEISMIC CATEGORY DESIGNATIONS OF PIPING WITHIN JOGGLES ARE THE SAME AS CONNECTING PIPING.
  - MAIN HEADER REQUIRES 34 FT OF BAROMETRIC HEAD ABOVE THE MAXIMUM LIQUID LEVEL IN THE VESSEL.
  - DELETED
  - THE COMPONENTS SHOWN ON THIS DRAWING IN PHANTOM DO NOT REQUIRE INDEPENDENT QUALIFIED REGISTERED PROFESSIONAL ENGINEER ASSESSMENTS OF DESIGN OR INSTALLATION INSPECTIONS BY A QUALIFIED INSTALLATION INSPECTOR IN ACCORDANCE WITH THE DWP AND/OR WASHINGTON ADMINISTRATIVE CODE REQUIREMENTS.
  - REVISED PER 24590-HLW-MEN-M807-00004 AND TO INCORPORATE P-JOGGLES, ADDED/REVISED/DELETED NOTES, INSULATION, LINES, SLOPES, REFERENCES AND MINOR EDITORIAL CHANGES.

- HOLD/OPEN ITEMS:**
- 1-3. DELETED
  - PENDING ASSESSMENT OF VESSEL HEATING.

- REFERENCES:**
- PROCESS FLOW DIAGRAM HLW VITRIFICATION HLW CANISTER DECON (SYSTEM HDH), 24590-HLW-M5-V171-P0006.
  - SYSTEM DESCRIPTION FOR HLW SYSTEM HDH CANISTER DECONTAMINATION HANDLING SYSTEM, 24590-HLW-3YD-HDH-00002.
  - ENGINEERING SPECIFICATION FOR INSTRUMENT PIPING MATERIAL CLASSES, 24590-WTP-3PS-JXFO-T0001.
  - DELETED
  - THE REQUIRED BATCH SEQUENCES, PERMISSIVES, INTERLOCKS, ALARMS AND OPERATOR INTERFACE POINTS ARE FULLY DESCRIBED IN THE SOFTWARE FUNCTIONAL SPECIFICATION FOR HLW CANISTER DECONTAMINATION HANDLING (HDH) SYSTEM, 24590-HLW-3PS-HDH-T0001.

PLEASE NOTE THAT SOURCE SPECIAL NUCLEAR AND BYPRODUCT MATERIALS AS DEFINED IN THE ATOMIC ENERGY ACT OF 1954 (AS AMENDED) ARE REGULATED BY THE U.S. DEPARTMENT OF ENERGY (DOE) FACILITIES EXCLUSIVELY BY DOE ACTING PURSUANT TO ITS AUTHORITY. DOE ASSERTS THAT PURSUANT TO THE HEALTH, SAFETY AND ENVIRONMENTAL PROTECTION ACT AND AUTHORITY TO REGULATE SOURCE SPECIAL NUCLEAR AND BYPRODUCT MATERIAL AT DOE OWNED NUCLEAR FACILITIES, INFORMATION CONTAINED HEREIN ON RADIOISOTOPES IS PROVIDED FOR PROCESS DESCRIPTION PURPOSES ONLY.

REV	DESCRIPTION	ORIG	CHKD	REVW	DATE
2	ISSUED FOR PERMITTING USE	LD	AK	AK	2/6/04
1	ISSUED FOR PERMITTING USE	LD	SC	LD	12/29/03
0	ISSUED FOR PERMITTING USE	LD	DM	JES	12/29/03

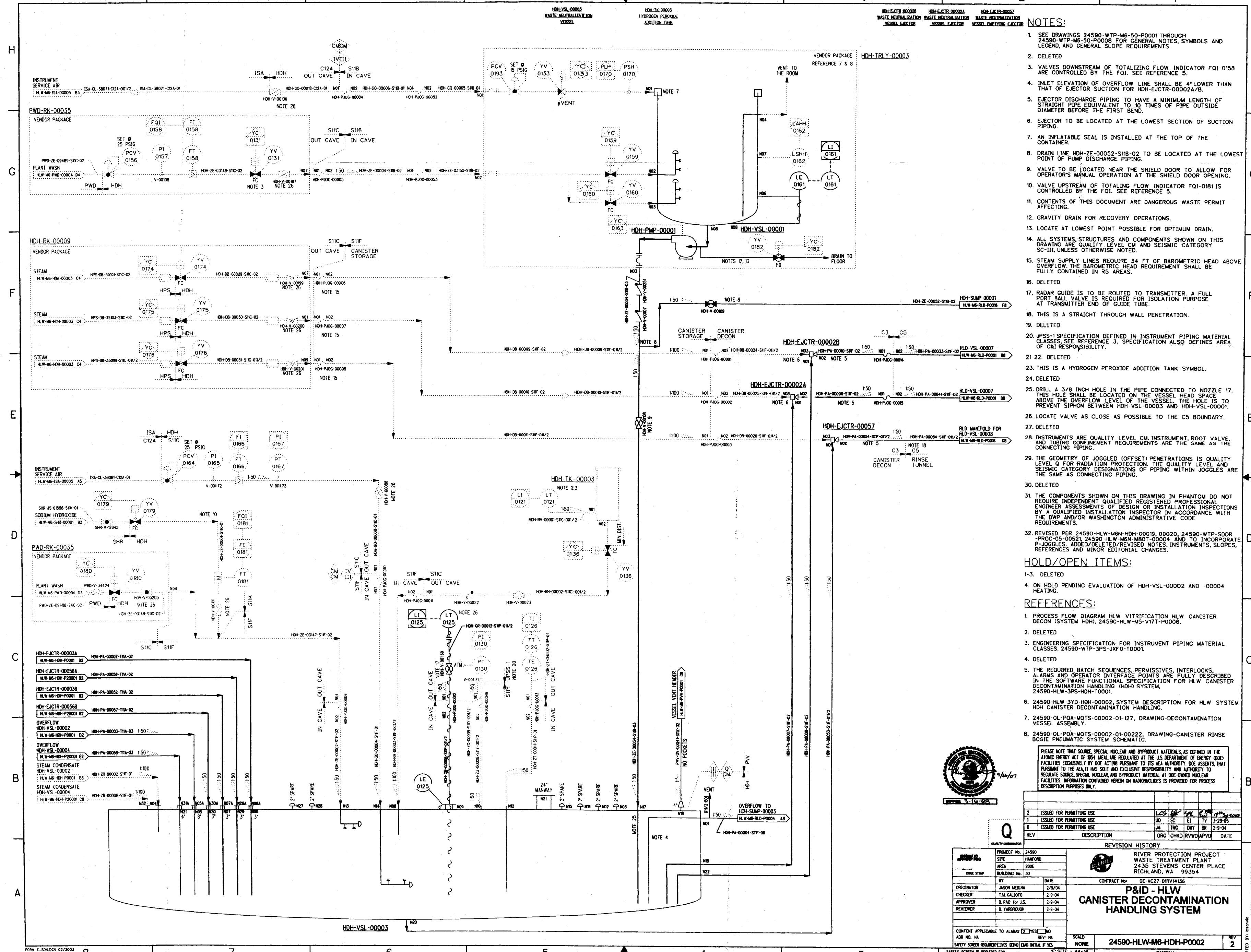
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2	ISSUED FOR PERMITTING USE	LD	AK	AK	2/6/04
1	ISSUED FOR PERMITTING USE	LD	SC	LD	12/29/03
0	ISSUED FOR PERMITTING USE	LD	DM	JES	12/29/03

PROJECT No.	24590
SITE	HANFORD
AREA	200E
BUILDING No.	30
OPERATOR	JASON MEDINA
CHECKER	T. G. CALVERT
APPROVER	JOHN F. SCHNEIDER
REVIEWER	DONNA YARBROUGH

CONTRACT No.	DE-AC27-03RV41336
<b>P&amp;ID HLW CANISTER DECONTAMINATION HANDLING SYSTEM</b>	
SCALE	24590-HLW-M6-HDH-P0001
REV	2



- NOTES:**
- SEE DRAWINGS 24590-WTP-M6-S0-P0001 THROUGH 24590-WTP-M6-S0-P0008 FOR GENERAL NOTES, SYMBOLS AND LEGEND, AND GENERAL SLOPE REQUIREMENTS.
  - DELETED
  - VALVES DOWNSTREAM OF TOTALIZING FLOW INDICATOR FQI-0158 ARE CONTROLLED BY THE FQI. SEE REFERENCE 5.
  - INLET ELEVATION OF OVERFLOW LINE SHALL BE 4" LOWER THAN THAT OF EJECTOR SUCTION FOR HDH-EJCTR-00002A/B.
  - EJECTOR DISCHARGE PIPING TO HAVE A MINIMUM LENGTH OF STRAIGHT PIPE EQUIVALENT TO 10 TIMES OF PIPE OUTSIDE DIAMETER BEFORE THE FIRST BEND.
  - EJECTOR TO BE LOCATED AT THE LOWEST SECTION OF SUCTION PIPING.
  - AN INFLATABLE SEAL IS INSTALLED AT THE TOP OF THE CONTAINER.
  - DRAIN LINE HDH-ZE-00005-SIB-02 TO BE LOCATED AT THE LOWEST POINT OF PUMP DISCHARGE PIPING.
  - VALVE TO BE LOCATED NEAR THE SHIELD DOOR TO ALLOW FOR OPERATOR'S MANUAL OPERATION AT THE SHIELD DOOR OPENING.
  - VALVE UPSTREAM OF TOTALIZING FLOW INDICATOR FQI-0151 IS CONTROLLED BY THE FQI. SEE REFERENCE 5.
  - CONTENTS OF THIS DOCUMENT ARE DANGEROUS WASTE PERMIT AFFECTING.
  - GRAVITY DRAIN FOR RECOVERY OPERATIONS.
  - LOCATE AT LOWEST POINT POSSIBLE FOR OPTIMUM DRAIN.
  - ALL SYSTEMS, STRUCTURES, AND COMPONENTS SHOWN ON THIS DRAWING ARE QUALITY LEVEL CM AND SEISMIC CATEGORY SC-III, UNLESS OTHERWISE NOTED.
  - STEAM SUPPLY LINES REQUIRE 34 FT OF BAROMETRIC HEAD ABOVE OVERFLOW. THE BAROMETRIC HEAD REQUIREMENT SHALL BE FULLY CONTAINED IN RS AREAS.
  - DELETED
  - RADAR GUIDE IS TO BE ROUTED TO TRANSMITTER. A FULL PORT BALL VALVE IS REQUIRED FOR ISOLATION PURPOSE AT TRANSMITTER END OF GUIDE TUBE.
  - THIS IS A STRAIGHT THROUGH WALL PENETRATION.
  - DELETED
  - JPS-1 SPECIFICATION DEFINED IN INSTRUMENT PIPING MATERIAL CLASSES, SEE REFERENCE 3. SPECIFICATION ALSO DEFINES AREA OF CM RESPONSIBILITY.
  - DELETED
  - THIS IS A HYDROGEN PEROXIDE ADDITION TANK SYMBOL.
  - DELETED
  - DELETED
  - DRILL A 3/8 INCH HOLE IN THE PIPE CONNECTED TO NOZZLE 17. THIS HOLE SHALL BE LOCATED ON THE VESSEL HEAD SPACE ABOVE THE OVERFLOW LEVEL OF THE VESSEL. THE HOLE IS TO PREVENT SIPHON BETWEEN HDH-VSL-00003 AND HDH-VSL-00001.
  - LOCATE VALVE AS CLOSE AS POSSIBLE TO THE CS BOUNDARY.
  - DELETED
  - INSTRUMENTS ARE QUALITY LEVEL CM. INSTRUMENT, ROOT VALVE, AND TUBING CONFORMANCE REQUIREMENTS ARE THE SAME AS THE CONNECTING PIPING.
  - THE GEOMETRY OF JOGGLED (OFFSET) PENETRATIONS IS QUALITY LEVEL Q FOR RADIATION PROTECTION. THE QUALITY LEVEL AND SEISMIC CATEGORY DESIGNATIONS OF PIPING WITHIN JOGGLES ARE THE SAME AS CONNECTING PIPING.
  - DELETED
  - THE COMPONENTS SHOWN ON THIS DRAWING IN PHANTOM DO NOT REQUIRE INDEPENDENT QUALIFIED PROFESSIONAL ENGINEER ASSESSMENTS OF DESIGN OR INSTALLATION INSPECTIONS BY A QUALIFIED INSTALLATION INSPECTOR IN ACCORDANCE WITH THE DWP AND/OR WASHINGTON ADMINISTRATIVE CODE REQUIREMENTS.
  - REVISED PER 24590-HLW-MEN-HDH-00019, 00020, 24590-WTP-SDDR-PROC-05-00521, 24590-HLW-MEN-MB07-00004, AND TO INCORPORATE P-JOGGLES, ADDED/DELETED/REVISED NOTES, INSTRUMENTS, SLOPES, REFERENCES AND MINOR EDITORIAL CHANGES.

**HOLD/OPEN ITEMS:**

- 1-3. DELETED
- ON HOLD PENDING EVALUATION OF HDH-VSL-00002 AND -00004 HEATING.

- REFERENCES:**
- PROCESS FLOW DIAGRAM HLW VITRIFICATION HLW CANISTER DECON (SYSTEM HDH), 24590-HLW-M5-V171-P0006.
  - DELETED
  - ENGINEERING SPECIFICATION FOR INSTRUMENT PIPING MATERIAL CLASSES, 24590-WTP-SPS-JXF0-T0001.
  - DELETED
  - THE REQUIRED BATCH SEQUENCES, PERMISSIVES, INTERLOCKS, ALARMS AND OPERATOR INTERFACE POINTS ARE FULLY DESCRIBED IN THE SOFTWARE FUNCTIONAL SPECIFICATION FOR HLW CANISTER DECONTAMINATION HANDLING (HDH) SYSTEM, 24590-HLW-SPS-HDH-T0001.
  - 24590-HLW-3YD-HDH-00002, SYSTEM DESCRIPTION FOR HLW SYSTEM HDH CANISTER DECONTAMINATION HANDLING.
  - 24590-QL-POA-MQTS-00002-01-127, DRAWING-CANISTER RINSE BOGIE PNEUMATIC SYSTEM SCHEMATIC.
  - 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 US DEPARTMENT OF ENERGY (DOE) FACILITIES EXCLUSIVELY BY DOE ACTING PURSUANT TO ITS AEA AUTHORITY. DOE ASSETS, THAT PURSUANT TO THE AEA, HAS SOLE AND EXCLUSIVE RESPONSIBILITY AND AUTHORITY TO REGULATE SOURCE SPECIAL NUCLEAR AND BYPRODUCT MATERIALS AT DOE-OWNED NUCLEAR FACILITIES. INFORMATION CONTAINED HEREIN ON RADIOISOTOPES IS PROVIDED FOR PROCESS DESCRIPTION PURPOSES ONLY.

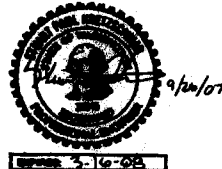
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1	ISSUED FOR PERMITTING USE	UD	SC	ET	TV 3-29-05
0	ISSUED FOR PERMITTING USE	BM	TMG	DWT	BR 2-9-04

PROJECT No.	24590
SITE	HANFORD
AREA	200E
BUILDING No.	30
DATE	2/9/04
BY	WJON MEJONA
CHECKED	T.M. CALZOTO
APPROVED	B. RAO for J.S.
REVIEWER	D. YARBROUGH

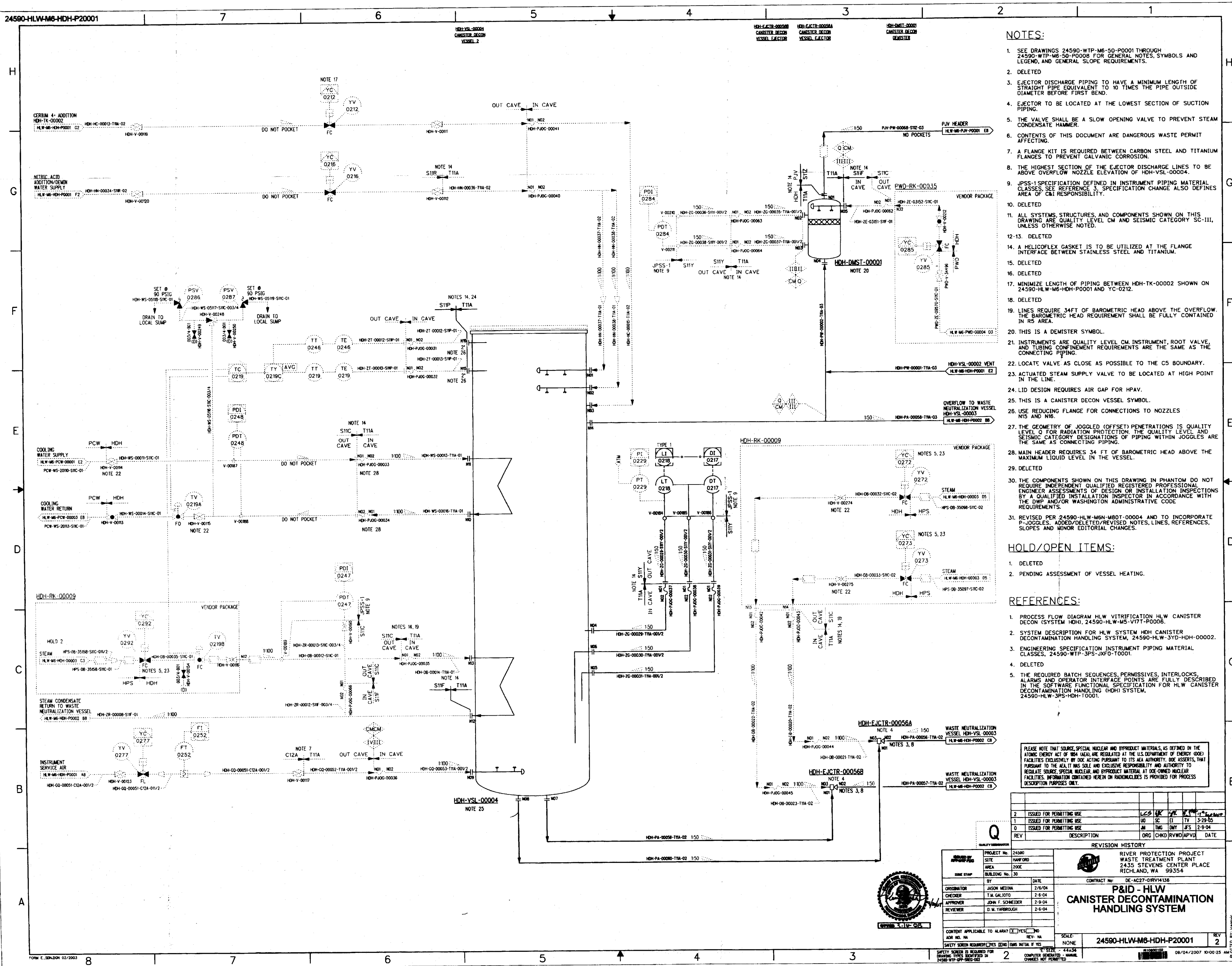
  

SCALE	NONE
PROJECT No.	24590-HLW-M6-HDH-P0002
REV	2





24590-HLV-M6-HDH-P20001



NOTES:

1. SEE DRAWINGS 24590-WTP-M6-50-P0001 THROUGH 24590-WTP-M6-50-P0008 FOR GENERAL NOTES, SYMBOLS AND LEGEND, AND GENERAL SLOPE REQUIREMENTS.
2. DELETED
3. EJECTOR DISCHARGE PIPING TO HAVE A MINIMUM LENGTH OF STRAIGHT PIPE EQUIVALENT TO 10 TIMES THE PIPE OUTSIDE DIAMETER BEFORE FIRST BEND.
4. EJECTOR TO BE LOCATED AT THE LOWEST SECTION OF SUCTION PIPING.
5. THE VALVE SHALL BE A SLOW OPENING VALVE TO PREVENT STEAM CONDENSATE HAMMER.
6. CONTENTS OF THIS DOCUMENT ARE DANGEROUS WASTE PERMIT AFFECTING.
7. A FLANGE KIT IS REQUIRED BETWEEN CARBON STEEL AND TITANIUM FLANGES TO PREVENT GALVANIC CORROSION.
8. THE HIGHEST SECTION OF THE EJECTOR DISCHARGE LINES TO BE ABOVE OVERFLOW NOZZLE ELEVATION OF HDH-VSL-00004.
9. JPSS-1 SPECIFICATION DEFINED IN INSTRUMENT PIPING MATERIAL CLASSES, SEE REFERENCE 3, SPECIFICATION CHANGE ALSO DEFINES AREA OF C&I RESPONSIBILITY.
10. DELETED
11. ALL SYSTEMS, STRUCTURES, AND COMPONENTS SHOWN ON THIS DRAWING ARE QUALITY LEVEL CM AND SEISMIC CATEGORY SC-III, UNLESS OTHERWISE NOTED.
- 12-13. DELETED
14. A HELICOPLY GASKET IS TO BE UTILIZED AT THE FLANGE INTERFACE BETWEEN STAINLESS STEEL AND TITANIUM.
15. DELETED
16. DELETED
17. MINIMIZE LENGTH OF PIPING BETWEEN HDH-TK-00002 SHOWN ON 24590-HLV-M6-HDH-P0001 AND YC-0212.
18. DELETED
19. LINES REQUIRE 34FT OF BAROMETRIC HEAD ABOVE THE OVERFLOW. THE BAROMETRIC HEAD REQUIREMENT SHALL BE FULLY CONTAINED IN RS AREA.
20. THIS IS A DEMISTER SYMBOL.
21. INSTRUMENTS ARE QUALITY LEVEL CM, INSTRUMENT, ROOT VALVE, AND TUBING CONFORMANCE REQUIREMENTS ARE THE SAME AS THE CONNECTING PIPING.
22. LOCATE VALVE AS CLOSE AS POSSIBLE TO THE CS BOUNDARY.
23. ACTUATED STEAM SUPPLY VALVE TO BE LOCATED AT HIGH POINT IN THE LINE.
24. LID DESIGN REQUIRES AIR GAP FOR HPAY.
25. THIS IS A CANISTER DECON VESSEL SYMBOL.
26. USE REDUCING FLANGE FOR CONNECTIONS TO NOZZLES N15 AND N16.
27. THE GEOMETRY OF JOGGLED (OFFSET) PENETRATIONS IS QUALITY LEVEL Q FOR RADIATION PROTECTION. THE QUALITY LEVEL AND SEISMIC CATEGORY DESIGNATIONS OF PIPING WITHIN JOGGLES ARE THE SAME AS CONNECTING PIPING.
28. MAIN HEADER REQUIRES 34 FT OF BAROMETRIC HEAD ABOVE THE MAXIMUM LIQUID LEVEL IN THE VESSEL.
29. DELETED
30. THE COMPONENTS SHOWN ON THIS DRAWING IN PHANTOM DO NOT REQUIRE INDEPENDENT QUALIFIED REGISTERED PROFESSIONAL ENGINEER ASSESSMENTS OF DESIGN OR INSTALLATION INSPECTIONS BY A QUALIFIED INSTALLATION INSPECTOR IN ACCORDANCE WITH THE DWP AND/OR WASHINGTON ADMINISTRATIVE CODE REQUIREMENTS.
31. REVISED PER 24590-HLV-M6-HDH-P0004 AND TO INCORPORATE P&ID CHANGES, ADDED/DELETED/REVISED NOTES, LINES, REFERENCES, SLOPES AND MINOR EDITORIAL CHANGES.

HOLD/OPEN ITEMS:

1. DELETED
2. PENDING ASSESSMENT OF VESSEL HEATING.

REFERENCES:

1. PROCESS FLOW DIAGRAM HLW VITRIFICATION HLW CANISTER DECON (SYSTEM HDH), 24590-HLV-M5-V17T-P0006.
2. SYSTEM DESCRIPTION FOR HLW SYSTEM HDH CANISTER DECONTAMINATION HANDLING SYSTEM, 24590-HLV-3YD-HDH-00002.
3. ENGINEERING SPECIFICATION INSTRUMENT PIPING MATERIAL CLASSES, 24590-WTP-3PS-JXF0-T0001.
4. DELETED
5. THE REQUIRED BATCH SEQUENCES, PERMISSIVES, INTERLOCKS, ALARMS AND OPERATOR INTERFACE POINTS ARE FULLY DESCRIBED IN THE SOFTWARE FUNCTIONAL SPECIFICATION FOR HLW CANISTER DECONTAMINATION HANDLING (HDH) SYSTEM, 24590-HLV-3PS-HDH-T0001.

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 REG. AUTHORITY. DOE ASSURES THAT PURSUANT TO THE HEALTH, SAFETY AND ENVIRONMENTAL PROTECTION ACT AND REGULATORY AUTHORITY TO REGULATE SOURCE, SPECIAL NUCLEAR AND BYPRODUCT MATERIAL AT DOE-OWNED NUCLEAR FACILITIES. INFORMATION CONTAINED HEREIN ON RADIOISOTOPES IS PROVIDED FOR PROCESS DESCRIPTION PURPOSES ONLY.

REV	DESCRIPTION	ORG	CHKD	REVNO	APPROV	DATE
2	ISSUED FOR PERMITTING USE	CS	JK	1	JK	2-28-04
1	ISSUED FOR PERMITTING USE	UD	SC	1	TY	3-29-05
0	ISSUED FOR PERMITTING USE	AM	TMC	1	JFS	2-9-04

REVISION HISTORY	
PROJECT NO.	24590
SITE	HLW-P00
AREA	2006
BUILDING No.	30
BY	DATE
ORIGINATOR	JASON MEDINA 2/6/04
CHECKER	T.M. GALOTTO 2-8-04
APPROVER	JOHN F. SCHNEIDER 2-9-04
REVIEWER	D.M. YARBROUGHL 2-9-04

**P&ID - HLW  
CANISTER DECONTAMINATION  
HANDLING SYSTEM**

CONTRACT NO: DE-AC27-03RV14136

QUALITY CHECK	DATE	INITIALS
ISSUED FOR PERMITTING USE		
ISSUED FOR PERMITTING USE		
ISSUED FOR PERMITTING USE		

CONTENT APPLICABLE TO ALARA?	YES	NO	SCALE
FOR NO. NA			NONE

SAFETY SYMBOLS REQUIRED FOR DRAWING TYPES IDENTIFIED IN 24590-WTP-001-REV-002

2

24590-HLV-M6-HDH-P20001 REV 2

