



- NOTES:**
- SEE DRAWING 24590-WTP-M5-V17T-00001 FOR GENERAL NOTES AND SYMBOLS AND LEGEND.
 - CONTENTS OF THIS DOCUMENT ARE DANGEROUS WASTE PERMIT AFFECTING.
 - ONLY MAJOR INDICATION AND CONTROL INSTRUMENTATION SHOWN.
 - STREAM TABLES FOR SYSTEMS DEP AND DVP PROVIDED ON 24590-BOF-M3-V17T-00001001 AND -00001002.
 - PROVIDE SECONDARY COOLING LOOP TO PREVENT CONTAMINATION OF BOF PCW SYSTEM. NOT ALL COMPONENTS ARE SHOWN.
 - STREAMS TO/FROM CURRENTLY DO NOT HAVE PROCESS FLOW DIAGRAMS.
 - PROVIDE SUFFICIENT FLOW OF PROCESS CONDENSATE (PREFERRED) OR DIW FOR FLUSHING OF TRANSFER LINE.
 - PROVIDE ALTERNATIVE ROUTE TO TRUCK LOADING STATION OR OTHER MEANS OF DISPOSAL CURRENTLY NO PROCESS FLOW DIAGRAM FOR ALTERNATE DISPOSAL ROUTE.
 - OVERFLOW TO LOW POINT DRAIN VESSEL, DEP-VSL-00001 FOR TRANSFER LINES.
 - PROVIDE LOW POINT DRAIN CONNECTION TO DEP-VSL-00001 FOR TRANSFER LINES.
 - BATCH TRANSFER RATE IS 88 GPM. REQUIRED RECIRCULATION RATE TO BE DETERMINED BY VENDOR. SEE HOLD/OPEN ITEMS.
 - PROVIDE SNR-TK-00002 AND SHR-TK-00013 WITH FREEZE PROTECTION FOR LONG TERM OUTDOOR STORAGE. MAINTAIN SNR-TK-00002 CONTENTS AT A MINIMUM 60°F AND SHR-TK-00013 AT A MINIMUM 40°F.
 - ANTI-FOAM REAGENT TOTE SIZING BASED ON STANDARD SUPPLIER INVENTORY.

- HOLD/OPEN ITEMS:**
- EQUIPMENT SIZING ON HOLD PENDING RESOLUTION OF ICD 31 CHEMICAL ADDITIONS REQUIREMENTS.
 - CURRENT SIZING BASED ON CRITICAL VELOCITY IN 0.5 INCH LINE. PUMP RATE TO BE DETERMINED BY PUMP SIZING CALCULATION.
 - PUMP SIZING FOR RECIRCULATION RATE TO BE DETERMINED BY VENDOR.

- REFERENCES:**
- 24590-BOF-3ZD-25-00001, WTP DIRECT FEED LOW ACTIVITY WASTE (DLAW) FACILITY AND SYSTEM DESIGN DESCRIPTIONS.
 - 24590-WTP-RPT-PR-01-008, PROCESS STREAM NUMBERS.
 - 24590-WTP-RPT-ENG-02-009, SYSTEM AND AREA LOCATORS LIST AND SYSTEM DIVISION OF RESPONSIBILITY.
 - 24590-WTP-RPT-ENG-02-010, COMPONENT IDENTIFIERS LIST.
 - 24590-WTP-ICD-MG-01-031, ICD 31-INTERFACE CONTROL DOCUMENT FOR DFLAW EFFLUENT RETURNS TO DOUBLE SHELL TANKS.
 - 24590-BOF-MVC-DEP-00009, BATCH SIZING CALCULATION FOR DEP (DIRECT FEED LAW EFFLUENT MANAGEMENT FACILITY PROCESS SYSTEM) VESSELS: DEP-VSL-00001, -00002, -00003A/B/C, -00004A/B, -00005A/B.
 - 24590-BOF-MVC-DEP-00010, PROCESS DATA FOR THE EVAPORATOR CONCENTRATE VESSELS, DEP-VSL-00003A/B/C, AND PUMPS, DEP-PMP-00003A/B.
 - 24590-BOF-M6C-DVP-00001, DFLAW EMF VESSEL VENT PROCESS SYSTEM (DVP) LINE SIZING.

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.

REV	ISSUED FOR DESIGN	DESCRIPTION	ORG	CHKD	RVWD	APVD	DATE
0	ISSUED FOR DESIGN		DTC	SN	N/A		3/24/16

ISSUED BY		PROJECT No.		RIVER PROTECTION PROJECT	
RPP-WTP PDC	DATE	24590	WASTE TREATMENT PLANT	2435 STEVENS CENTER PLACE	
AREA	DATE	HANFORD	200E	RICHLAND, WA 99354	
BUILDING No.	DATE	25	CONTRACT No.	DE-AC27-01RV14136	
ORIGINATOR	DATE	By: [Signature]	3/24/16	PROCESS FLOW DIAGRAM	
CHECKER	DATE	By: [Signature]	3/24/16	DIRECT FEED	
APPROVER	DATE	By: [Signature]	3/24/16	CONCENTRATE TRANSFER	
REVIEWER	DATE	N/A		(SYSTEM DEP AND DVP)	

CONTENT APPLICABLE TO ALARA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	SCALE: NONE	24590-BOF-M5-V17T-00013	REV: 0
ADR NO. 24590-BOF-ADR-PR-15-0001	SCALE: NONE	24590-BOF-M5-V17T-00013	REV: 0