



- 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.
 - DEP-FILT-00004A/B REQUIRES CONTAMINATED SOLID MATTER DISPOSAL.
 - SECONDARY STEAM LOOP WILL BE PROVIDED TO PREVENT CONTAMINATION OF HPS/SCW SYSTEMS IN STEAM PLANT FACILITY. NOT ALL COMPONENTS ARE SHOWN.
 - IN-BLEED IS PROVIDED FOR PRESSURE CONTROL IN EVAPORATOR.
 - IN-BLEED IS PROVIDED AS VACUUM BREAK.
 - SECONDARY COOLING LOOP WILL BE PROVIDED TO PREVENT CONTAMINATION OF BOF PCW SYSTEM, NOT ALL COMPONENTS ARE SHOWN.
 - PROVIDE SATURATED LOW PRESSURE STEAM AT 13.0 PSIA FROM A DEDICATED OR SECONDARY STEAM SYSTEM. SECONDARY STEAM CHEST CONNECTED TO SAME VACUUM SOURCE AS DEP-RBLR 00001.
 - CONDENSATE RETURN TO A DEDICATED OR SECONDARY STEAM SYSTEM TO PREVENT POSSIBLE CONTAMINATION OF BOF HPS SYSTEM.
 - CONDENSATE FROM DEP-COND-00001 WILL BE RECYCLED WHEN EVAPORATOR IS IN REFLUX MODE. REFLUX MODE MAY BE INITIATED BY HIGH ACTIVITY.
 - TWO FLOW INDICATORS REQUIRED: ONE MAGNETIC FLOW METER AND ONE CORIOLIS METER. PROVIDES REAL-TIME DENSITY MEASUREMENT.
 - CONDUCTIVITY INDICATOR SERVES AS RADIATION MONITOR.
 - PROVIDE PURGE AIR FOR LONG TERM EVAPORATOR SHUTDOWN.

- HOLD/OPEN ITEMS:**
- VENDOR TO DETERMINE FINAL EQUIPMENT SIZING.

- REFERENCES:**
- 24590-BOF-3ZD-25-00001, WTP DIRECT FEED LOW ACTIVITY WASTE (DFLAW) 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-BOF-MEC-DEP-00001, DFLAW EMF PROCESS SYSTEM (DEP) EVAPORATOR OPERATING CONDITIONS, HEATING/COOLING DUTY, AND UTILITY REQUIREMENTS.

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.

PROJECT No.	24590	ISSUED FOR DESIGN	DATE	3/24/16	
ISSUED BY	RPP-WTP PDC	ORG	CHKD	RVWD	APVD
ORIGINATOR	3/24/16	REVISION HISTORY			
CHECKER	3/24/16	RIVER PROTECTION PROJECT			
APPROVER	3/24/16	WASTE TREATMENT PLANT			
REVIEWER	N/A	2435 STEVENS CENTER PLACE			
		RICHLAND, WA 99354			
		CONTRACT No. DE-AC27-01RV14136			
CONTENT APPLICABLE TO ALARA? [X] YES [] NO		PROCESS FLOW DIAGRAM			
ADR NO. 24590-BOF-ADR-PR-5-0001		DIRECT FEED EFFLUENT			
		EVAPORATOR			
		(SYSTEM DEP)			
SCALE: NONE		24590-BOF-M5-V17T-00012			
REV: 0		0			