



- KEYED NOTES:**
- ① THREAD END OF PIPE AT AIR GAP.
 - ② THREADED PIPE CAP.
 - ③ INJECTION FITTING FURNISHED WITH WATER TREATMENT SYSTEM (TYP).
 - ④ MOUNT BOTTOM OF CONTROL PANEL 4'-8" AFF.
 - ⑤ DECHLORINATION LINE (3/8" PLASTIC TUBING) REQUIRED ONLY WHEN ENV-CP ALLOWS DISCHARGE TO A PERMITTED OUTFALL.
 - ⑥ 3/4" PVC SCH 80.
 - ⑦ 1/2" COMPLIANCE SAMPLING VALVE.
 - ⑧ 1/2" OPERATIONAL SAMPLING VALVE.
 - ⑨ 1/2" SAMPLING VALVE.
 - ⑩ INHIBITOR AND BROMINE TO BE INJECTED IN WATER TREATMENT LINE NO CLOSER THAN 10 FEET.
 - ⑪ BROMINATOR DISCHARGE TO BE ROUTED DIRECTLY TO COOLING TOWER BASIN IF FEASIBLE.

DRAWING DEVELOPED FOR ML-3/ML-4 PROJECTS. FOR ML-1/ML-2, ADDITIONAL REQUIREMENTS AND QA REVIEWS ARE REQUIRED. (REMOVE THIS NOTE WHEN INSERTED INTO A DRAWING PACKAGE)

OPEN COOLING TOWER WATER TREATMENT FLOW DIAGRAM

SCALE: NONE

NOTES FOR DESIGNER: (DO NOT INCLUDE ON CONSTRUCTION DRAWINGS)

1. THIS DIAGRAM IS GUIDANCE ONLY AND ILLUSTRATES ONE TYPE OF A GARRETT CALLAHAN TREATMENT SYSTEM. CONSULT WITH THE FOD FACILITY ENGINEER FOR TYPE OF TREATMENT SYSTEM/CHEMICALS REQUIRED.
2. CONSULT WITH THE FOD FACILITY ENGINEER AND ENV-CP FOR LOCATION OF FLOW METERS AND SAMPLING VALVES (OPERATION, COMPLIANCE, ETC.)
3. DECHLORINATOR IS ONLY REQUIRED WHEN TOWER BLOW DOWN IS ROUTED TO A PERMITTED OUTFALL. DELETE LOOP FROM DRAWINGS FOR SYSTEMS THAT DISCHARGE TO THE SANITARY SEWER.
4. SEE SHEET 2 FOR ADDITIONAL NOTES.

NO	DATE	CLASS REV	ADC	DESCRIPTION	DWN	DSGN	CHKD	SUB	APP
2	9-3-14	U	ML	GENERAL REVISIONS.	JM	SH	RC	ML	TO
1	6-23-05	U	DY	GENERAL REVISIONS. DWG. NO. WAS ST6800.	RP	MN	RF	CD	TO

ENGINEERING STANDARDS PROGRAM										
STANDARD DRAWINGS & DETAILS								DRAWN	R.PEARSON	
								DESIGN	R.ROMERO	
								CHECKED	D.NGUYEN	
								DATE	6-28-99	
BLDG X				TA-X				DATE		6-28-99
SUBMITTED				APPROVED FOR RELEASE						
POC DISCIPLINE: CHARLES DUPRE				STANDARDS MANAGER: TOBIN ORUCH						
								SHEET		
OPEN COOLING TOWER WATER TREATMENT FLOW DIAGRAM								1		
Los Alamos NATIONAL LABORATORY								1 OF 2		
CLASSIFICATION: U				REVIEWER: LARRY BAYS				DATE:		
PROJECT ID				DRAWING NO				REV		
CHAPTER 6				ST-D30GEN-1				2		