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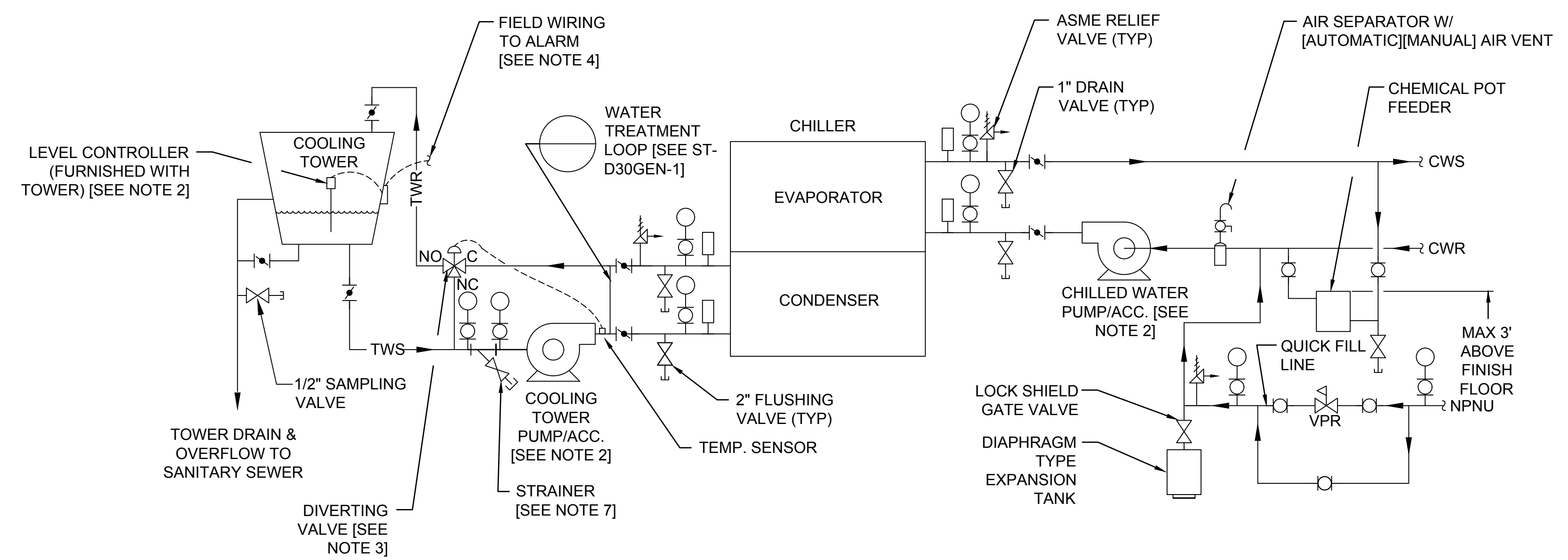
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NOTES FOR DESIGNER: (DO NOT INCLUDE ON CONSTRUCTION DRAWINGS)

- WHEN EDITING DETAIL TO SUIT PROJECT, ADD JOB SPECIFIC REQUIREMENTS AND DELETE ONLY THOSE PORTIONS THAT DO NOT APPLY. TO SEEK A VARIANCE FROM APPLICABLE REQUIREMENTS, CONTACT THE ESM MECHANICAL POC.
- REFER TO THE FOLLOWING LANL STANDARDS FOR ADDITIONAL REQUIREMENTS:
 - ENGINEERING MANUAL MECHANICAL CHAPTER.
 - MECHANICAL DRAWING ST-D30GEN-4, PUMP PIPING DETAILS.
 - MECHANICAL DRAWING ST-D2020-2, PRV PIPING DETAIL.
 - MASTER SPECIFICATION 01 3545, WATER DISCHARGE REQUIREMENTS.
 - MASTER SPECIFICATION 23 2113, HYDRONIC PIPING.
 - MASTER SPECIFICATION 23 2500, HVAC WATER TREATMENT.
 - MASTER SPECIFICATION 23 6509, INDUCED DRAFT COOLING TOWERS, STEEL.
 - MASTER SPECIFICATION 23 6511, INDUCED DRAFT COOLING TOWERS, FIBERGLASS.
- WHEN TOWER IS USED DURING WINTER SEASON WITH A REFRIGERANT CHILLER, PROVIDE A DIVERTING VALVE TO MAINTAIN TOWER WATER SUPPLY TEMPERATURE AT CHILLER CONDENSER, NO LOWER THAN 60°F. LOCATE DIVERTING VALVE IN EQUIPMENT ROOM.
- SELECT TYPE OF WATER LEVEL ALARM (AUDIBLE, LIGHT, ETC.) AS DETERMINED BY SITE REQUIREMENTS.
- SIZE COOLING TOWER DRAIN AND OVERFLOW PIPING AS REQUIRED. MINIMUM SIZE TO MATCH COOLING TOWER CONNECTIONS.
- ANALYZE SYSTEM (PIPING WATER LEVELS, DIVERTING VALVE OPERATION, ETC.) AND HEAT TAPE AND INSULATE TOWER PIPING AS REQUIRED TO PREVENT FREEZING.
- DUAL PARALLEL STRAINERS OR BYPASS LINE MAY BE REQUIRED IN SYSTEMS TO AVOID SHUTTING DOWN THE CHILLED WATER SERVICE DURING MAINTENANCE ACTIVITIES.



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

COOLING TOWER & CHILLER COMPONENT DETAIL
SCALE: NONE

| NO | DATE | CLASS REV | DC | DESCRIPTION | DWN | DSGN | CHKD | SUB | APP |
|----|------------|-----------|----|---|-----|------|------|-----|-----|
| 1 | 06-15-2017 | UNCLASS | TO | ADMIN. CHANGES TO CAD STD. REV#5 FORMAT & SHEET NUMBER WAS 1 OF 2. | | | | | |

| | | | |
|---|--|---|------------------|
| MECHANICAL | | DRAWN | R.PEARSON |
| COOLING TOWER & CHILLER COMPONENT DETAIL | | DESIGN | R.FROST |
| | | CHECKED | J.MACY |
| TA- XX | | DATE | 08-11-2005 |
| SUBMITTED DISCIPLINE POC: CHARLES DUPRE | | APPROVED FOR RELEASE STANDARDS MANAGER: TOBIN ORUCH | |
| Los Alamos NATIONAL LABORATORY | | P0 Box 1663 Los Alamos, New Mexico 87545 | |
| D.C.: U | | REVIEWER: LARRY BAYS | DATE: 08-11-2005 |
| PROJECT ID | | DRAWING NO | REV |
| CHAPTER 6 | | ST-D3030-1 | 1 |

00% REVIEW
NOT FOR CONSTRUCTION