

Malfunction Abatement Plans

CHILLED COOLANT FINAL TAIL CONDENSERS

The permittee shall use the following plan for the requirement regarding the **CHILLED COOLANT FINAL TAIL CONDENSERS** referenced in FGCOMB (SP, B-100, and B-200).

Chilled coolant tail condensers are located as follows:

- Two in Building 100 (EU48-BLDG100-01),
- Two in Building 200 (EU49-BLDG200-01), and
- Two in the Specialty Plant (EU44-SP-01).

Each tail condenser is equipped with a temperature monitoring device which measures and displays the temperature of the exhaust gases (vapors) exiting the tail condenser. Should the temperature of the daily reading exceed 5 degrees C, the following plan will be initiated:

1. Check the chilled-coolant supply line pressure and flow indicators to make sure that there is chilled-coolant flow to the tail condensers.
2. Check the temperature on the chilled-coolant gauge supply and outlet to make sure that the chilled-coolant system is working properly.
3. Compare the vapor inlet and vapor outlet temperatures to ensure that the vapor outlet temperature indicator is operating properly, if applicable, to the building.
4. Check process equipment that is sending vapors to the tail condensers to ensure that solvent recovery systems on that process are operating properly.
5. Check with area operator(s) and shift supervisor to determine if process upsets or abnormal conditions are occurring.
6. Check the chilled water system in the Utility Building to check for any alarm or abnormal conditions. Refer to manufactures instructions and procedures, as needed.
7. Check the "fume" blower on the combines stack to assure that it is running and that there is sufficient draw on the air inlet to the stack.
8. If the tail condenser jacket, vapor inlet or outlet pipes are frosted on the outside it may be caused by the tubes being frozen. Apply steam so that elevated temperatures will melt any ice that has formed on the inside of the condenser.
9. If (1) through (8) appear to be the problem, take appropriate measures to fix the problem. Record the vapor outlet temperature once every 15 minutes. If the temperature continues to exceed 5°C for more than two hours, finish out the batch, shut down the equipment safely, and fix the problem. If the temperature returns to below 5°C, continue processing.
10. If (1) through (8) do not fix the problem, there may be a problem with the internal components of the condenser or a problem with the chilled water system. Contact appropriate personnel if repairs are needed. Record the vapor outlet temperature once every 15 minutes. If the temperature continues to exceed 5°C for more than two hours, finish out the batch, and shut down the equipment safely. Check the internal components of the tail condenser as necessary to determine the cause of the problem and repair if needed. Upon startup, if the temperature is below 5°C, continue processing.
11. Alternative cooling sources can be used to maintain the 5°C temperature limit when the chilled water system is offline. An alternate onsite chiller can be used, as well as, off-site rental chillers.

BAGHOUSES

The permittee shall use the following plan for the **BAGHOUSE** requirements referenced in Table EG41-EXT-02 and FGGRIND

Baghouses are located as follows:

- Two on the pneumatic conveying system (EU41-EXT-02), and
- Two in the Grinding Building (EU43-GRD-01 and EU43-GRD-02).

Should the monthly reading (as described in the tables) indicate the presence of visible emissions, the following plan will be initiated.

1. Check the hopper discharge outlet for blockage caused by foreign material such as rags or bags, or due to the bridging of collected material.
2. Check inside the collector housing for dust deposits. If dust is found, tighten nuts and bolts and/or recaulk the seam in the general vicinity of the air leak.
3. Check all internal surfaces for cracks, presence of moisture, corrosion, erosion, or buildup of dust.
4. Check that all bags are in place and installed properly.
5. Check for loose bag clamps.
6. Check all bags for possible damage. Replace all defective bags.
7. Check inside and outside of ductwork. Remove any settled dust from inside the ductwork. Any section of the ductwork which may be damaged sufficiently to interfere with the air flow or cause an air leak must be replaced as soon as possible.
8. Manually check all dampers to assure that they are operating properly.