

WRITTEN BY: JMS
APPROVED BY:
DATE: 9/90
REVIEWED BY: DY
DATE: 10/91

6903-021.SOP
MC PRODUCT TYPE 377

OPERATOR'S NAME: _____ DATE: _____

| CHECK | ACTION STEPS (Capital Letters) and COMMENTS (Small Letters) |

1. REVIEW JOB SAFETY INSTRUCTIONS.
BECOME FAMILIAR WITH THE CHEMICALS THAT YOU ARE WORKING WITH.
KNOW SOME OF THEIR CHARACTERISTICS. KNOW WHAT PROCEDURES TO
USE IN CASE OF A SPILL/RELEASE OR ACCIDENT.
2. INSURE THAT YOU ARE WEARING PROPER SAFETY EQUIPMENT.
HARD HATS, SAFETY SHOES, SAFETY GLASSES AND ESCAPE
RESPIRATORS ARE REQUIRED WHEN WORKING IN ANY PRODUCTION AREA.
GOGGLES AND CHEMICALLY SAFE GLOVES ARE RECOMMENDED WHEN
CATCHING SAMPLES. A COMFO II IS REQUIRED WHEN GAUGING TANKS.
3. SWITCH PRODUCTION TO A STAB TANK AS PER LEAD OPERATOR. CHECK
TO MAKE SURE THAT THE VALVES ON THE PRODUCTION LINES TO THE
STAB TANKS NOT BEING USED FOR PRODUCTION ARE CLOSED. OPEN
THE VALVE ON THE PRODUCTION LINE TO THE STAB TANK THAT IS TO
BE USED FOR PRODUCTION.
4. FOLLOW THE PRODUCTION LINE TO THE PRODUCTION MANIFOLD IN THE
STAB TANK AREA. AT THE MANIFOLD, OPEN THE VALVE ON THE LINE
THAT LEADS TO THE STAB TANKS. CLOSE THE OTHER VALVES AT THE
MANIFOLD THAT LEAD TO THE OTHER TANKS. Note the beginning
level of the production stab tank so that the proper amount
of stabilizers can be added.
5. NOTIFY THE LEAD OPERATOR AND THE MC OPERATOR THAT PRODUCTION
HAS BEEN SWITCHED TO THE STAB TANK. ASK IF THE LEVEL IN THE
PHASE SEPARATOR IS OK.
6. CHECK THE LEVEL IN THE PRODUCTION STAB TANK PERIODICALLY TO
MAKE SURE THAT THE LEVEL IS COMING UP AND TO PREVENT
OVERFILLING. CHECK THE OTHER TANK LEVELS TO MAKE SURE THAT
THE LEVELS ARE HOLDING AND NOT INCREASING.
7. PRESTABILIZE THE STAB TANK WITH 100 GALLONS OF BLM. CHECK
THE STAB LINES ON THE OTHER STAB TANKS TO MAKE SURE THAT THEY
ARE CLOSED. OPEN THE VALVE ON STAB LINE OF THE PRODUCTION
STAB TANK.
8. SET THE SMITH METER AT THE BLM PUMP TO 100 GALLONS.

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9. CHECK THE VALVES ON THE DOX/DOL/SBL TANK TO MAKE SURE THAT THEY ARE CLOSED TO PREVENT CROSS CONTAMINATION. OPEN THE VALVE ON THE SUCTION LINE OF THE BLM TANK. ALSO, OPEN ANY BLOCK VALVES IN THAT LINE TO THE BLM PUMP.
10. OPEN THE SUCTION AND THE DISCHARGE VALVES AT THE BLM PUMP.
11. OPEN THE VALVE IN THE LINE THAT LEADS TO THE STAB TANK FROM THE BLM PUMP.
12. PULL THE HANDLE ON THE SMITH METER AND TURN ON THE BLM PUMP. Don't leave the pump while stabilizing. The meter doesn't always shut off automatically at the set amount.
13. AFTER THE SET AMOUNT OF BLM HAS PUMPED INTO THE PRODUCTION STAB TANK, TURN THE PUMP OFF. CLOSE THE SUCTION AND THE DISCHARGE VALVES AT THE PUMP. BLOW THE STAB LINE TO THE PRODUCTION STAB TANK FOR APPROXIMATELY 5 MINUTES TO CLEAR THE LINE AND MAKE SURE THAT THE BLM IN THE LINE GOES INTO THE PRODUCTION STAB TANK.
14. CLOSE ALL VALVES THAT WERE OPENED TO STABILIZE. DOUBLE CHECK TO MAKE SURE THAT THERE ARE NO LEAKS.
15. TOP OFF THE PRODUCTION STAB TANK AT 24'6" VAREC. SWITCH PRODUCTION TO THE NEXT TANK TO BE USED FOR PRODUCTION AS PER LEAD OPERATOR. Notify the Lead operator and the MC operator that the tank has topped off.
16. PUT THE PRODUCTION STAB TANK ON RECIRCULATION.* CHECK TO MAKE SURE THAT THE SUCTION AND RECIRCULATION LINES TO THE OTHER STAB TANKS ARE CLOSED. OPEN THE SUCTION VALVE ON THE PRODUCTION STAB TANK WIDE OPEN AND THE RECIRCULATION VALVE APPROXIMATELY HALF OPEN.
17. OPEN THE SUCTION AND THE DISCHARGE VALVES AT THE RECIRCULATION PUMP. OPEN ANY BLOCK VALVES THAT MAY BE IN THE LINE BETWEEN THE TANK AND THE PUMP. MAKE SURE THAT OTHER TIE IN LINES THAT LEAD TO OTHER PLACES ARE CLOSED.
18. TURN ON THE PUMP. DOUBLE CHECK TO MAKE SURE THAT THE PRODUCT IS FLOWING BACK INTO THE TANK. ALSO, DOUBLE CHECK TO MAKE SURE THAT ALL VALVES LEADING TO OTHER PLACES ARE CLOSED.

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* NOTE: A tank may be put on recirculation before it tops off. There may be a time when the tank cannot be put on recirculation at the time of top off or before due to other lines being used that tie into the same lines of the tank. As soon as it is possible to put the tank on recirculation, do so. Stab tanks must recirculate for 8 hours after stabilizing before sampling for clearance.

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19. SAMPLE THE TANK IN THE TE II LAB FOR MOISTURE, COLOR, GC AND PH. IF ALL TEST RESULTS ARE WITHIN SPECIFICATIONS, THE TANK IS READY TO BE STABILIZED. IF ALL TEST RESULTS ARE NOT WITHIN SPECIFICATIONS, NOTIFY THE LEAD OPERATOR. LOG THE RESULTS IN THE STAB LOG BOOK.
20. STABILIZE THE TANK USING THE RECIPE PROVIDED BY YOUR SUPERVISOR. DOL/SBL, BLM, NTE, NRE/MC AND ADH STABILIZERS ARE USED TO MAKE A BATCH OF MC PRODUCT TYPE 377.
21. CHECK THE STAB LINES ON THE TANKS THAT ARE NOT BEING STABILIZED TO MAKE SURE THAT THE VALVES ARE CLOSED. OPEN THE VALVES ON THE STAB LINES TO THE STAB TANK THAT IS READY TO BE STABILIZED.
22. START WITH THE DOL/SBL STABILIZER FIRST SINCE MORE OF IT WILL BE ADDED THAN ANY OF THE OTHER STABILIZERS. SET THE SMITH METER TO THE AMOUNT OF GALLONS SPECIFIED IN THE RECIPE.
23. DETERMINE WHICH DOL/SBL TANK IS TO BE USED (NORTH OR SOUTH). CLOSE THE VALVES ON THE TANK THAT WILL NOT BE USED AND OPEN THE SUCTION VALVE ON THE TANK THAT THE STABILIZER WILL BE USED FROM. OPEN ANY BLOCK VALVES IN THE SUCTION LINE BETWEEN THE TANK AND THE PUMP.
23. OPEN THE SUCTION AND THE DISCHARGE VALVES AT THE DOL/SBL PUMP. OPEN THE VALVE IN THE LINE THAT LEADS TO THE STAB TANKS.
24. PULL THE HANDLE ON THE SMITH METER AND TURN ON THE PUMP. The other stabilizers can be added while the Dol/Sbl is pumping into the tank.
25. CHECK THE DOL/SBL TANK PRESSURE AT THE TOP OF THE TANK. THE N2 REGULATOR SHOULD HOLD A POSITIVE PRESSURE ON THE TANK. IF IT DOES NOT, TURN THE PUMP OFF AND NOTIFY THE LEAD OPERATOR.
26. ADD THE NTE AND THE NRE/MC STABILIZERS NEXT. BOTH STABILIZERS ARE PUMPED USING THE SAME PUMP. THE NRE/MC CAN BE ADDED FIRST. SET THE SMITH METER TO THE SPECIFIED AMOUNT OF NRE/MC IN THE RECIPE.
27. MAKE SURE THAT THE VALVES IN THE NTE SUCTION LINE ARE CLOSED. OPEN THE VALVES IN THE SUCTION LINE OF THE NRE/MC TANK TO THE PUMP.
28. OPEN THE SUCTION AND THE DISCHARGE VALVES OF THE PUMP. OPEN THE VALVE IN THE LINE THAT LEADS TO THE STAB TANKS.
29. PULL THE HANDLE ON THE SMITH METER AND TURN ON THE PUMP. MAKE SURE THAT THE NRE/MC TANK PRESSURE STAYS POSITIVE.
30. AFTER THE NRE/MC HAS PUMPED INTO THE TANK, TURN OFF THE PUMP AND CLOSE THE VALVES IN THE SUCTION LINE OF THE NRE/MC TANK.

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31. SET THE SMITH METER TO THE SPECIFIED AMOUNT OF NTE IN THE RECIPE.
32. OPEN THE VALVES IN THE SUCTION LINE OF THE NTE TANK FROM THE TANK TO THE PUMP. PULL THE HANDLE ON THE SMITH METER AND TURN ON THE PUMP.
33. AFTER THE NTE HAS PUMPED INTO THE TANK, TURN OFF THE PUMP AND CLOSE ALL VALVES THAT WERE OPENED BETWEEN THE TANK AND THE PUMP. DOUBLE CHECK TO MAKE SURE THAT THERE ARE NO LEAKS.
34. BLOW THE STAB LINE TO THE STAB TANK WITH N2 FOR APPROXIMATELY 5 MINUTES TO CLEAR THE LINE AND MAKE SURE THAT ALL OF THE NTE AND NRE/MC IN THE LINE GOES INTO THE STAB TANK.
35. CHECK THE DOL/SBL TO MAKE SURE THAT IT IS STILL PUMPING AND EVERYTHING IS OK.
36. THE BLM IS ADDED NEXT. SET THE SMITH METER AT THE BLM PUMP TO THE AMOUNT OF BLM SPECIFIED IN THE RECIPE.
37. CHECK THE VALVES ON THE DOX/DOL/SBL TANK TO MAKE SURE THAT THEY ARE CLOSED TO PREVENT CROSS CONTAMINATION. OPEN THE VALVE ON THE SUCTION LINE OF THE BLM TANK. ALSO, OPEN ANY BLOCK VALVES IN THE BLM SUCTION LINE TO THE BLM PUMP.
38. OPEN THE SUCTION AND THE DISCHARGE VALVES AT THE BLM PUMP. OPEN THE VALVE IN THE LINE THAT LEADS TO THE STAB TANKS.
39. PULL THE HANDLE ON THE SMITH METER AND TURN ON THE PUMP. Don't leave the pump while the BLM is being added. The meter doesn't shut off automatically at the set amount. CHECK THE BLM TANK FOR POSITIVE TANK PRESSURE.
40. AFTER THE BLM HAS PUMPED INTO THE STAB TANK, TURN THE PUMP OFF. CLOSE THE SUCTION AND THE DISCHARGE VALVES AT THE PUMP. BLOW THE STAB LINE TO THE STAB TANK WITH N2 FOR APPROXIMATELY 5 MINUTES TO CLEAR THE LINE AND MAKE SURE THAT THE BLM IN THE LINE GOES INTO THE STAB TANK.
41. CLOSE ALL VALVES FROM THE BLM TANK TO THE PUMP. CHECK TO MAKE SURE THAT THERE ARE NO LEAKS.
42. AFTER THE DOL/SBL HAS FINISHED PUMPING INTO THE STAB TANK, TURN THE PUMP OFF. CLOSE THE SUCTION AND THE DISCHARGE VALVE AT THE DOL/SBL PUMP. BLOW THE STAB LINE TO THE STAB TANK WITH N2 FOR APPROXIMATELY 5 MINUTES TO CLEAR THE LINE AND MAKE SURE THAT THE DOL/SBL IN THE LINE GOES INTO THE STAB TANK.
43. CLOSE ALL VALVES IN THE LINES FROM THE DOL/SBL TANK TO THE PUMP. CHECK TO MAKE SURE THAT THERE ARE NO LEAKS.
44. THE ADH IS NOW ADDED INTO THE K.O. POT NEAR THE STAB MIX PUMP. PUT THE SPECIFIED AMOUNT OF ADH FROM THE RECIPE INTO A PLASTIC JUG FROM THE ADH DRUM LOCATED UNDER THE OIL SHED.

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- _____ 45. DEPRESSURIZE THE K.O. POT. OPEN THE TOP OF THE POT AND POUR THE ADH FROM THE JUG INTO IT. CLOSE THE TOP OF THE POT AND OPEN THE N2 VALVE TO IT TO PRESSURE IT UP. Proper respiration protection and rubber gloves required when handling ADH.
- _____ 46. FOLLOW THE LINE FROM THE K.O. POT TO THE LINE IN THE SUCTION OF THE MIX PUMP. OPEN THE VALVE AND ALLOW THE ADH TO BE PUMPED FROM THE POT INTO THE SUCTION LINE OF THE MIX PUMP.
- _____ 47. AFTER THE ALL OF THE ADH IS INTO THE LINE, CLOSE THE VALVE. TURN THE N2 TO THE K.O. POT OFF, THEN DEPRESSURIZE THE POT. NOTE THE TIME THAT YOU FINISH. NOTIFY THE LEAD OPERATOR THAT THE TANK HAS BEEN STABILIZED.
- _____ 48. LET THE TANK RECIRCULATE FOR 8 HOURS BEFORE SAMPLING.
- _____ 49. IF THE TANK IS TO BE USED FOR THE SHIPPING TANK, CATCH ^{THREE}~~TWO~~ 1/2 GALLONS OF SAMPLE AFTER THE FILTER AND BRING THEM TO THE MAIN LAB FOR COMPLETE CLEARANCE. TAG THE SAMPLE BOTTLES WITH THE TANK NUMBER, BATCH NUMBER OF THE TANK AND PRODUCT TYPE FOR IDENTIFICATION. ALSO STATE ON THE TAG THE TESTS THAT NEED TO BE RUN BY THE LAB.
- _____ 50. IF THE TANK IS TO BE SENT TO THE DOCK STORAGE AREA, SAMPLE IN THE TE II LAB FOR MOISTURE, COLOR, pH AND GC. NOTIFY THE LEAD OPERATOR WITH THE RESULTS OF THE SAMPLE. RECORD THE RESULTS IN THE STAB LOG BOOK.

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SPILL/RELEASE POTENTIAL:

- 1. Make sure that all bleeds are closed and plugged.
- 2. Periodically check the level in the tank to make sure that it is coming up and to prevent overfilling.
- 3. Periodically check the level in the other tanks to make sure that they are holding and not coming up.
- 4. Always check and double check valves and piping to prevent cross contamination and other problems.
- 5. Don't always count on the smith meter and the pump to shut off automatically when adding stabilizers.

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