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III. OPERATING PROCEDURES (CONTINUED)

F. Reactor Dump and Rinse (Continued)

2. Lead Operator Duties (Continued)

- c. Check the Sweco* exhauster to be sure it is running. It should be running continuously.
- d. Turn the interlock mode selector switch to the "dump" position.
- e. After the "A" operator informs lead operator that dump can begin, place the slurry transfer pumps, 72-496 and/or 72-497, in the "run" position. The level in slurry dump tank 89-007 is automatically controlled.
- f. Five minutes after the start of dump, open the reactor vent to the atmosphere.
- g. When there is no slurry flow through the sight glass, the reactor is rinsed according to formula instructions.
- h. When dump and rinse are complete, place the slurry transfer pumps in the stop position. This shuts down the pumps, 72-496 and/or 72-497.

G. Chem Wash and Rinse

Chem wash and rinse is not done as a matter of routine on all reactors; however, if it has been determined that chem wash is needed, the shift supervisor will inform the lead operator to do so.

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III. OPERATING PROCEDURES (CONTINUED)

G. Chem Wash and Rinse (Continued)

After the reactor has been rinsed during the dump cycle, it is ready to be chem washed. The chem wash cycle is necessary to remove polymer buildup from the reactor condenser, walls, baffles, and agitator. If polymer buildup is allowed to remain in the reactor, it continues to grow with each successive charge. Buildups will contribute to high gel, low quality resin, and will make reactor dumping very difficult if they get large enough to break off and plug dump valves and lines.

Operators must exercise caution during chem wash due to the caustic in the solution. If any solution should get on an operator, flush immediately with water. Caustic feels slick to the touch and will start burning the skin just a few seconds after contact. If the solution should spray over the body, immediately get under a safety shower and remove your clothing. If any should get in the eyes, flush eyes for at least fifteen minutes but until all burning stops and report to your supervisor.

Procedure

1. The lead operator will check and make sure the reactor sewer valve is closed.
2. The lead operator will then place the interlock mode selector switch to "clean and rinse."
3. The lead operator then opens the valves from the cleaning solution pump, 72-034, to the reactor condenser cleaning nozzle. The

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III. OPERATING PROCEDURES (CONTINUED)

G. Chem Wash and Rinse (Continued)

Procedure (Continued)

atmospheric vent on the reactor should be closed. All other reactor valves are closed.

4. The lead operator then opens the suction valve, CV-473, for the cleaning solution pumps, 72-034.
5. The Reactor "A" operator will check to see that the cleaning solution heater temperature controller is set at 180°F.
6. The lead operator will then turn on the cleaning solution pump 72-034.
7. When the chem wash has been flushed through the reactor condenser, the lead operator will:
 - a. Close pump suction valve CV-473 from the cleaning solution tank.
 - b. Open chem wash return valve on reactor.
 - c. Open cleaning solution pump suction valve from the reactor.
 - d. Close valves to the condenser cleaning nozzle.
 - e. Open valves to the reactor cleaning nozzle.
 - f. The chem wash solution should now be circulating from the bottom of the reactor back to the reactor cleaning nozzle. Open the atmospheric vent valve.
 - g. The reactor agitator remains on.

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III. OPERATING PROCEDURES (CONTINUED)

G. Chem Wash and Rinse (Continued)

Procedure (Continued)

8. The lead operator will recirculate the chem wash solution through the reactor for five minutes and will then pump the chem wash solution back to the cleaning solution tank by:
 - a. Opening CV-472.
 - b. Closing CV-471. This sends the cleaning solution pump discharge to the cleaning solution tank.
9. The "A" operator should monitor the cleaning solution pump and notify the lead operator when it loses suction (check pressure gauge on pump discharge).
10. The lead operator will now shut off the cleaning solution pump.
11. The lead operator will then check the cleaning solution tank high level alarm to see if all the chem wash solution has returned. If any solution is lost or accidentally dumped to the sewer, notify the utilities supervisor. The spilled solution must be neutralized to avoid upsetting the chemical balance in the lagoons.
12. The lead operator will now close the reactor cleaning valves and open the condenser cleaning valve and the reactor sewer valve.
13. The lead operator will cut on both hot water charge pumps and flush through the condenser to the sewer for ten minutes.
14. The lead operator will then close the condenser cleaning valve, open the reactor cleaning valve, and flush the reactor to the sewer for ten minutes.

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III. OPERATING PROCEDURES (CONTINUED)

G. Chem Wash and Rinse (Continued)

Procedure (Continued)

15. The lead operator will now close the reactor sewer valve.
16. Because of water dilution and resin accumulation, chem wash solution must be disposed of and fresh caustic pumped to the cleaning solution tank once per week. Follow the procedure outlined under "Used Chem Wash Solution Disposal."

H. Full and Partial Swirl

To assist in the production of quality resin, particularly low gel, it has been found that, by filling the reactor with water agitating, the gel count is markedly lower.

Swirl is performed when specified in the formula.

1. Full Swirl

In this swirl, the reactor is almost completely filled with water.

Lead Operator Duties

- a. Turn the interlock mode selector switch to the "swirl" position.
- b. Opens the reactor main charge valve and water charge valve.
- c. Starts both hot water charge pumps.
- d. Adds 880 counts of water to reactor (8800 gallons).
- e. Cuts off pumps and closes valves.
- f. Agitates for ten minutes.
- g. Opens sewer valve and dumps.