1. Procedure summary

This procedure outlines the method to send material and water to the evaporation ponds.

1.1. Related Procedures

Polymer Make Down Station Operations	CB-02-002-002
Saturation Tank Operations	CB-02-005-003
DAF Operations	CB-02-004-004

1.2. Procedure impacts and concerns

Safety	All hoses along the ground must be identified and placed out of high traffic areas to prevent trip hazards. All open manholes must be labeled and fenced off to prevent injury.	<Additional notes>
Quality	If thick material is placed into the process drains there is the potential to clog the drain if it is not diluted with water.	<Additional notes>
Delivery	All process building drains in the Harvest Area drain to the process lift station and are pumped to the evaporation area.	
Environmental	All process drain totals are captured by the HMI process lift station totals for the day, previous day, month and previous month.	<Additional notes>
Cost	The total volume sent to the evaporation area needs to be accounted for in order to satisfy regulatory requirements. If the evaporation area were to be closed, operations could be greatly impacted.	<Additional notes>
Compliance	Discharge to the evaporation pond cannot exceed 538,000 gallons in one day.	

1.3. Responsibilities and owners

Document Owner	Manage content and distribution	Timothy Langer
Process Owner	Responsible for content and process validation	Marcos Delgado
Site Manager	Responsible for implementation and conformance	Gil Jones

2. Process

2.1.

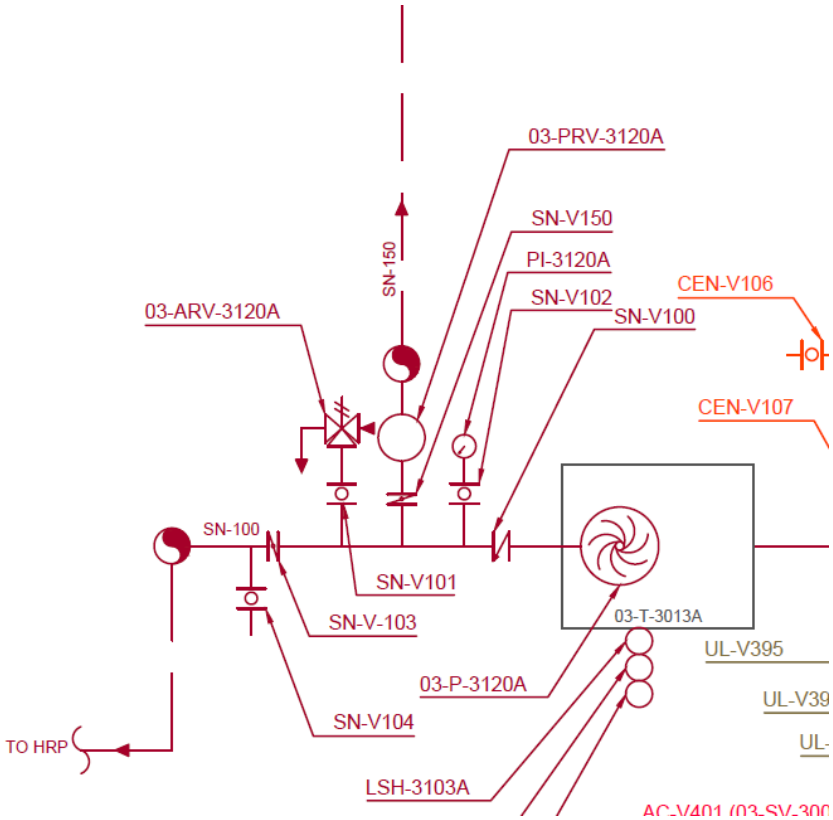

Figure 1 shows the SN pump station that is normally used to pump DAF subnatant during a harvest to the Harvest Return Pond (HRP). The SN-150 line will be used when discharging greater than 50,000 gallons of water to the evaporation pond and is not a part of normal operations.

SN-150 is used to discharge volumes greater than 50,000 gal to the evaporation pond.

This access route to the evaporation pond is not a part of normal operations and any activity via SN-150 will be considered a "Manual Dump" and will be logged in the Harvest Record.

2.2.

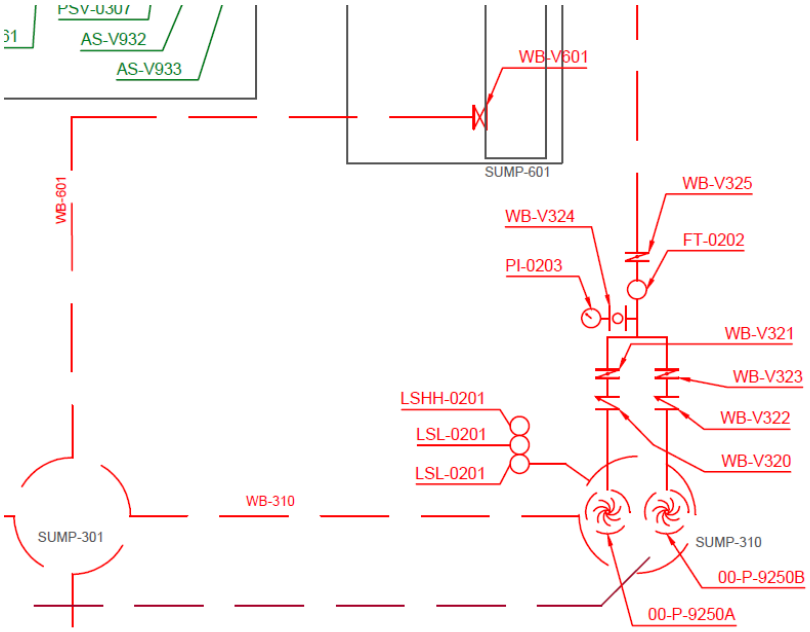

Figure 2 – This figure shows the Harvest Area process lift station which is the primary discharge to the evaporation ponds. Volumes sent to the evaporation pond should be less than 50,000 gallons during the day.

The process lift station is used for discharging volumes less than 50,000 gallons and pump access is via a clearly marked manhole cover.

<u>ALL DRAINS IN THE HARVEST AREA GO TO THE PROCESS LIFT STATION</u>

2.3.

These are photos of the floor drains at the chemical storage sump prior to the process lift station. These locations are used to move Harvest Area process drain waters to the evaporation pond. Similar locations are located in each Harvest Area process building.

Figure 1 Antifoam injection station.

2.4. Evaporation Pond usage

2.3.1 Discharging volumes >50,000 gallons – SN PUMP LIFT STATION VIA SN-150

This method will outline how to send large volumes of water >50,000 gallons to the evaporation pond

1. Log the volume sent to the evaporation area via the SN pump lift station on the Harvest Record as a "Manual Dump".
2. Open valve SN-V150 to send water to the evaporation pond via the SN-150 line.
3. Close valve SN-V103. Water can now be sent to the evaporation pond via the SN pump lift station.
4. When switching the valve positions for sending DAF processed waters to the HRP (via SN-V103) or to the evaporation area (via SN-150) the SN pump will have to be restarted due to an HMI interlock.

2.3.3 Discharging volumes <50,000 gallons – HARVEST AREA PROCESS LIFT STATION

This method will outline how to send volumes of water to the evaporation pond that are less than 50,000 gallons.

1. Log the volume sent to the evaporation area via the SN pump lift station on the Harvest Record as a "Manual Dump".
2. There are many process area drains in the Harvest Area, all of these drains go to the process lift station which pumps material to the evaporation pond. The process lift station totalizer is maintained by the HMI on the "Daily Totals" screen.
3. Containment drains located at the chemical feed station, polymer mixing, and truck loading station are WB-V800, 801, 802, WB-V700 and 701, and WB-V601 respectively are normally closed to contain a spill but need to be opened to allow contained material to drain to the Harvest Area process lift station.
4. Non-containment process drains are normally left open.
5. If material being dumped is high solids, >2% then the material needs to be diluted using process water. High solids material should be pumped using an inline system pump to avoid clogging drain lines. Downstream valves of the pump should be closed to allow flow through attached piping, and flow to the drain.

3. Required documents

3.1. Input documents

Harvest Record	<Input document number>

3.2. Output documents

Harvest Record	<Output document number>

4. Document control

4.1. Revision history

R0 – Initial Release – Timothy Langer	March 23, 2012
R1 – Updated procedure – Marcos Delgado	September 12, 2012

4.2. Document approval

<Name>	<Approval date>

4.3. Document reviewers

<Name>	<Last reviewed date>
<Name>	<Last reviewed date>

5. Risk analysis

<Risk name>	<Mitigation plan>