

[Checklist: Handling Your Sugar]

Use this handy check list to help guide your sugar handling plans and needs.

1. Bulk Sugar Handling Recommendations:

- Unloading supply air is filtered.
- Unloading air supply is humidity controlled to 50-60% RH.
- Headspace in sugar storage is maintained at 50-60% RH, no greater than 85 degrees.
- Minimize/eliminate 90 degree turns in transfer piping.
- Unloading pressures not to exceed 10-12 psi.
- Minimize amount of transfer points in the process which contribute to crystal degradation resulting in excess fines, overheating, and crystal fracturing.
- Minimize horizontal transfer distances.
- Determine need for either dilute phase or dense phase in pneumatic transfers.
- Analyze process regarding combustible dust opportunities (product leakage, dust concentrations, type of dust).
- Conduct a Dust Hazard Analysis (DHA).
- Minimize the use of external vibrators on railcars to reduce product compaction.
- Assuring sugar meets specifications for moisture, CV, granulation.
- Managing inventory levels during operations & shutdown periods.
- Minimize sugar exposure to uncontrolled environmental conditions.
- Assure proper maintenance of transfer lines for leaks and loss of pressure.

2. Liquid Sugar Handling Recommendations

- Determine amount of CFM's needed to exchange air in headspace of storage tank to prevent condensation on storage tank ceiling.
- Filter any air in system through HEPA filters and treat with UV light.
- Minimize exposure of product in delivery vehicle to ambient environmental air.
- Assure all personnel are trained to obtain sanitary samples.
- Assure there are no lags or dead spots in product lines.
- Determine viable CIP schedule for the entire liquid sugar system.
- Regularly confirm effectiveness of CIP through micro sampling such as ATP swabbing.
- If liquid sucrose is received, conduct periodical micro analysis audits of carrier and wash stations to assure effectiveness of sanitary wash and conditions.
- Determine if delivery vehicle is involved in backhauls other than liquid sugar.
- Assure wash cycle on delivering vehicle does not exceed 24 hours.
- Conduct routine micro audits of delivering vehicle at key points (discharge pumps, hoses, etc.).
- Assure there are no openings or access points in the liquid sugar system (storage tanks, etc.).

