

Paul Facility Food Safety Plan

FSP-05

Version: 10.13.2023

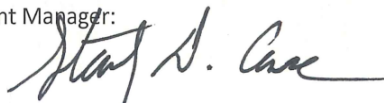
Granulated Sugar

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Plan Approval

Plant Manager:



Date:

11/13/23

Local HACCP Coordinator:



Date:

10.13.23

Facility Information

Facility Name:	Paul Factory
Facility Address:	50 South 500 West, Paul, Idaho 83347
Phone:	208.438.7164
Plant/Facility Manager:	Stan Case
Local HACCP Coordinator:	Dylan Dean
Number of Employees:	400-500 employees based on season.
Temporary Employees:	Yes
Facility Description:	The Paul factory was constructed in 1916. It is the largest of three factories located in Idaho that processes sugar beets. This facility produces granulated sugar which is conditioned and stored in silos. Stored sugar is screened and loaded into bulk cars and trailers or packaged into poly bags. Packaged product is shipped via truck or rail to distribution sites or directly to customers.

Food Safety

Products:	Granulated Sugar		
Third Party Audit Standard:	Current SQF Edition		
Certification Body:	CICS– Americas		
Import Capability:	No, Estandar may be brought in, but is processed to remove food safety hazards.		
Ingredients/Raw Materials:	Sugar Beets		
Packaging:	Poly Bags		
Prerequisite Programs :	1. Employee Training	2. Personnel Practices	3. Integrated Pest Management
	4. Equipment Calibration	5. Facility and Equipment	6. Cleaning & Sanitation
	7. Water and Air	8. Physical Contaminant Control	9. Product Storage and Warehousing
	10. Sanitary Transportation	11. Allergens and Sensitizing Agents	12. Chemical Control and Approval
	13. Supplier Approval	14. Visitors	

Team

Stan Case	Plant Manager	In-House Training
Wes Higley	Warehouse Manager	One Day HACCP Course
Nathan Smith	Senior Foreman	One Day HACCP Course
Oscar Juarez	Senior Foreman	One Day HACCP Course
Lynn Manning	Senior Foreman	One Day HACCP Course
Francisco Rios	Senior Foreman	One Day HACCP Course
Rachel Lindauer	Factory Lab Supervisor	In-house Training
Brock O'Donnell	Mechanical Supervisor	In-house Training
Dylan Dean	Food Safety & Quality Professional	Preventive Controls Qualified Individual



Product Description

**NATIONAL
SUGAR**
MARKETING

General Product Information

Product Name:	Granulated Sugar
Technical Name:	Sucrose
Product Description:	Sucrose is a nonreducing disaccharide composed of glucose and fructose bonded by an oxygen atom. It is derived from sugar beets or sugar cane and is used as a food and a sweetener.
Ingredients:	Crystalline sucrose
Intended Use:	This product is used as an ingredient in many food products and functions as a sweetener.
Intended Consumer:	Granulated sugar is sold as retail or distributed to food processors that provide products to the general public, including high risk groups.
Shelf Life:	Defined on the product data sheet
Labeling Instructions:	None
FDA Classification:	GRAS 21 CFR 184.1854
Storage:	Silo storage, ambient. Packaged product is warehoused.
Distribution:	Granulated sugar is distributed in bulk or packaged form. Bulk sugar is transported by bulk rail or truck. Packaged sugar is distributed by trailer or boxcar.

Technical Information

Chemical Formula:	$C_{12}H_{22}O_{11}$
Water Activity (a_w):	0.22 ¹
Moisture:	0.04% Max.
Sulfites:	2 to 5 ppm. Must be less than 10 ppm.
Microbiological:	Will not support the growth of vegetative pathogens. ^{2,3} Meets ISBT ⁴ and NFP ⁵ standards for use in carbonated beverages and canned foods.

Preventive Controls

Process Control:	CCP Metal Detection (CCP 1: A-side Bulk, CCP 2: B-side Bulk, CCP 3: Concetti, CCP 4: Bulk Truck)
Allergen Control:	None
Sanitation Control:	None
Supply-Chain Control:	None

¹ [Water Activity Values of Select Food Ingredients and Products](#)

² [Microbial Risk Assessment: Pathogen Challenge Evaluations of Granulated and Liquid Sugar](#)

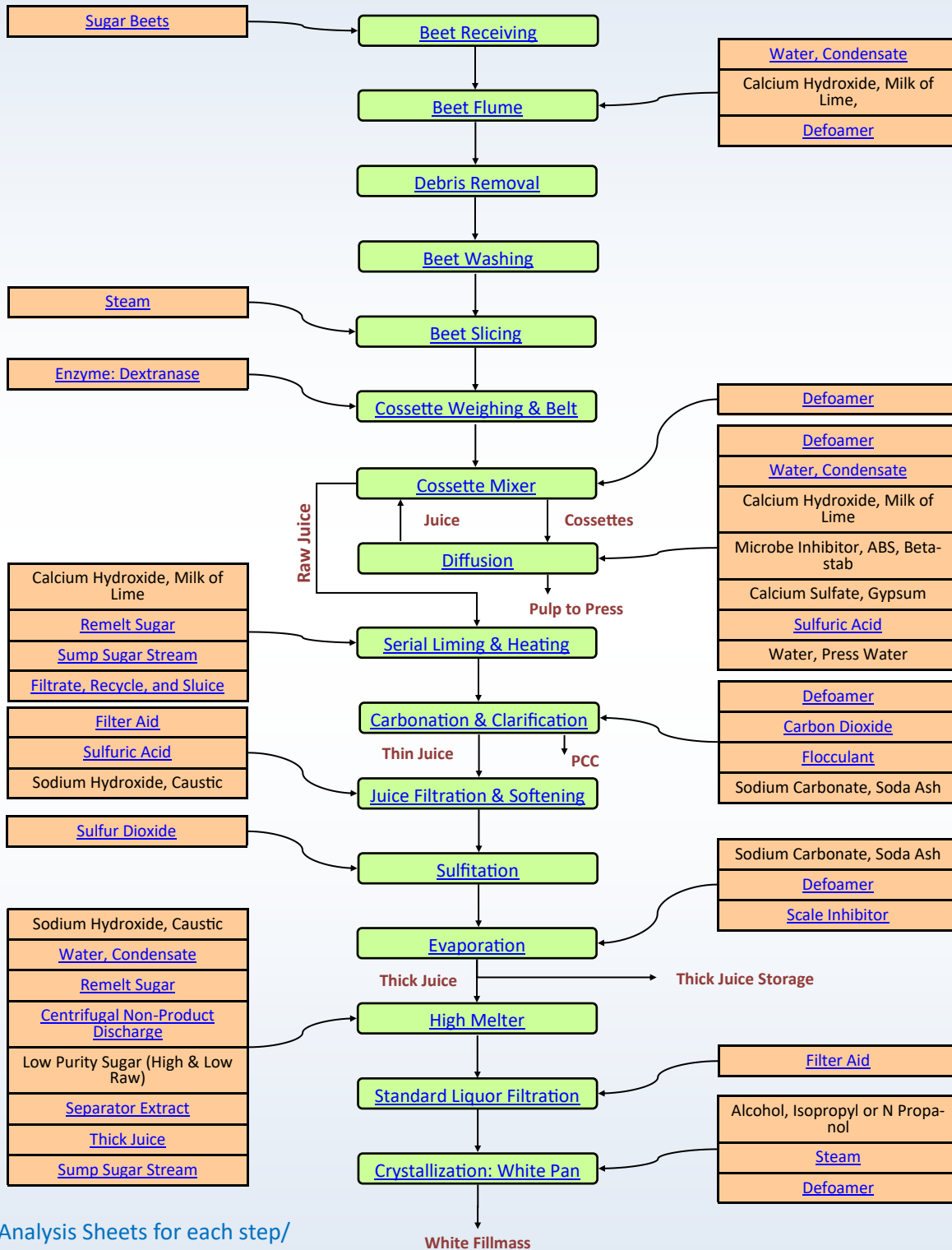
³ [Fate of Bacterial Pathogens and Indicator Organisms in Liquid Sweeteners](#)

⁴ ISBT

⁵ GMA Canner's Standard

Process Flowchart: Beets to Fillmass

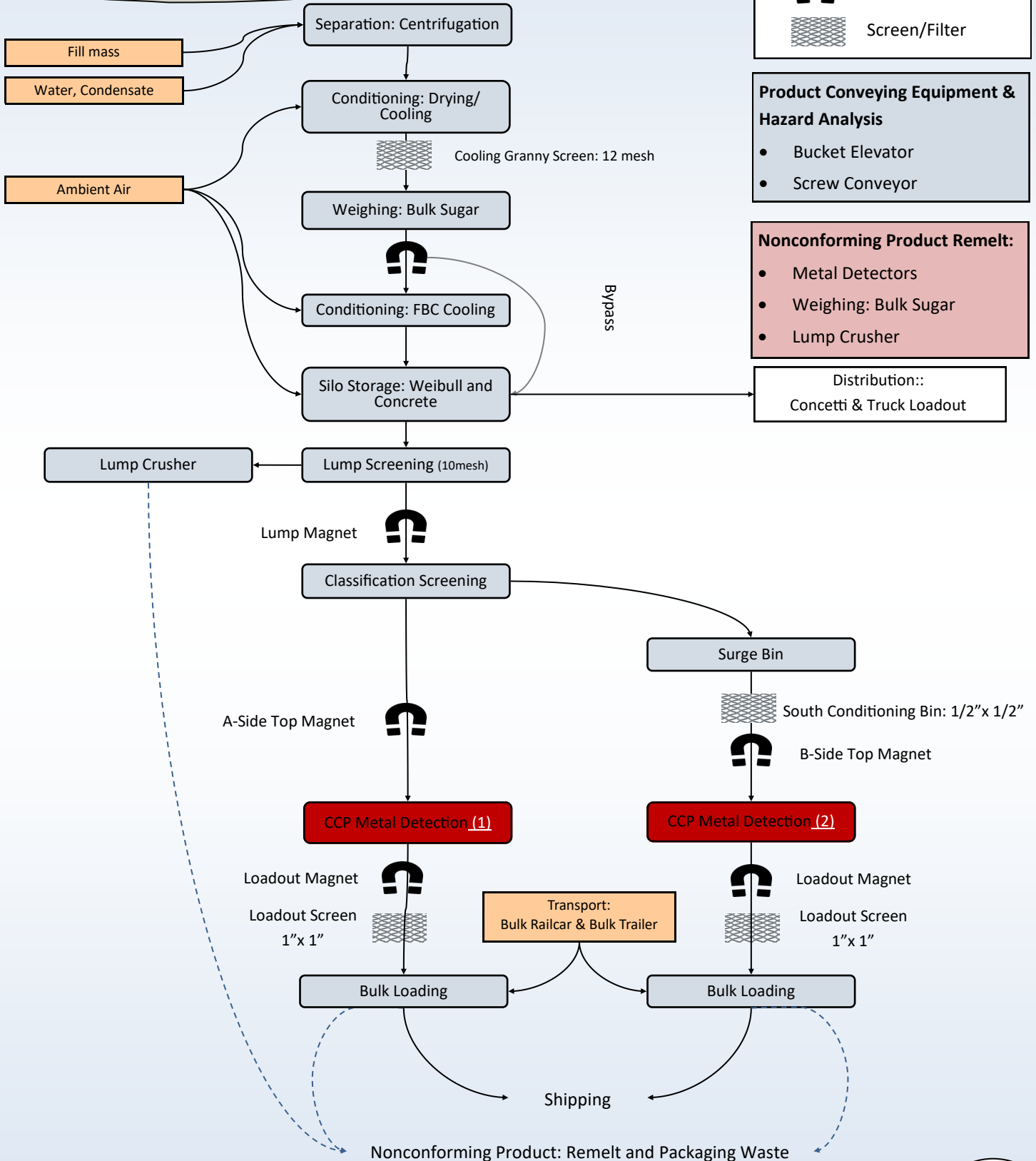
This flowchart outlines the factory mill, including slicing, extraction, purification, and crystallization. The separation in diagrams is based on product risk and resulting hygienic zoning. The factory process (outlined below) precludes any food safety hazards in prior to crystallization.



Hazard Analysis Sheets for each step/ input are available through internal links or by customer request.

Flowchart: Granulated Sugar-BULK

This flowchart outlines granulated sugar separation through storage and shipping steps. Outlined below are the areas with elevated hygiene requirements based on product risk



Legend:

- Input (Orange box)
- Process Step (Light Blue box)
- Critical Control Point (Red box)
- Magnet (Magnet icon)
- Screen/Filter (Screen icon)

Product Conveying Equipment & Hazard Analysis

- Bucket Elevator
- Screw Conveyor

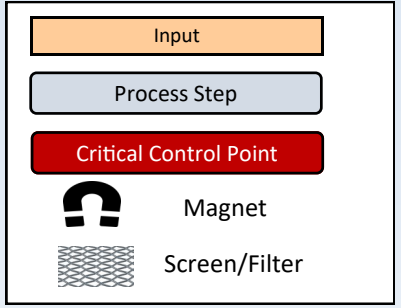
Nonconforming Product Remelt:

- Metal Detectors
- Weighing: Bulk Sugar
- Lump Crusher

Distribution:
Concetti & Truck Loadout

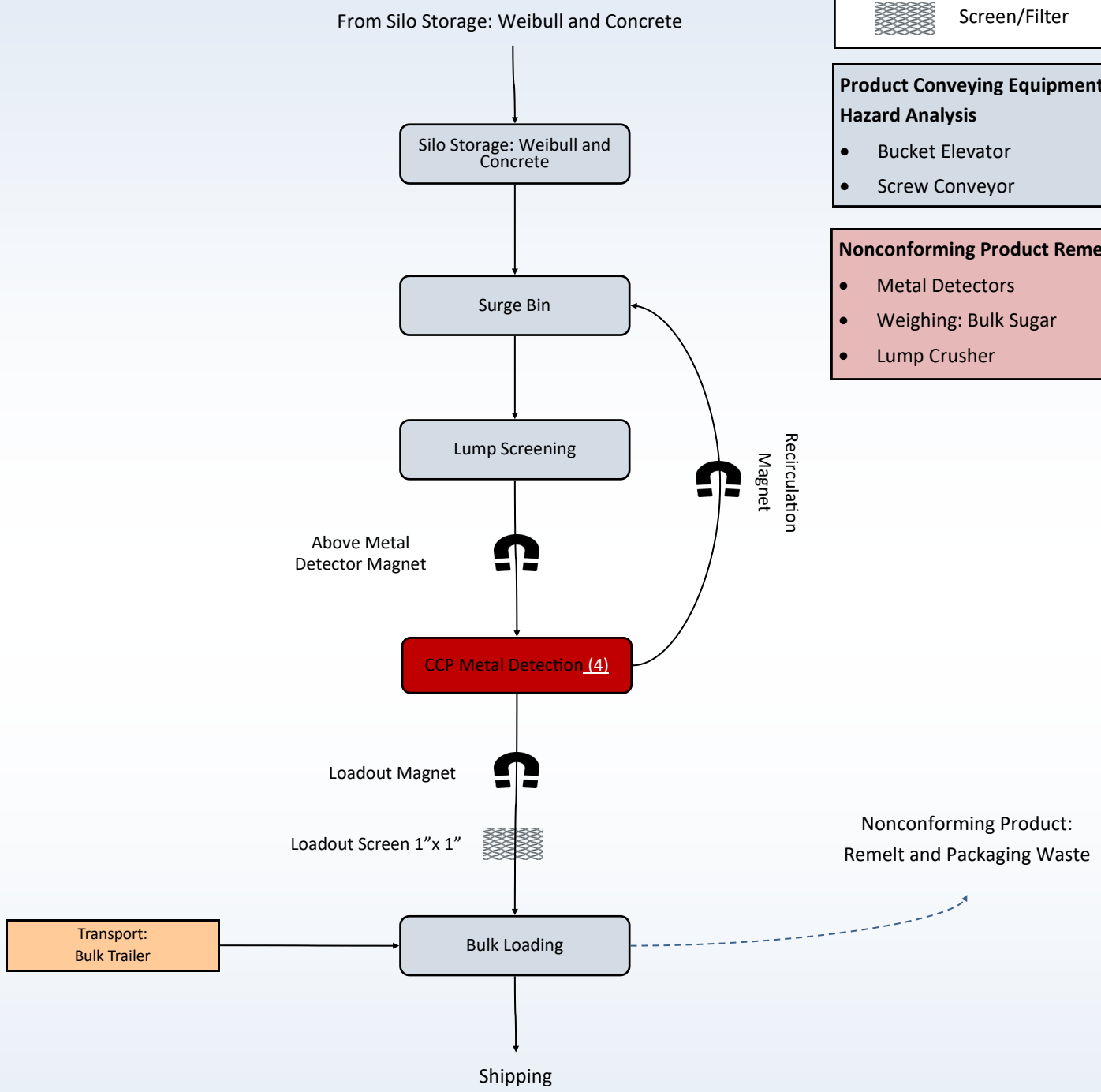
Flowchart: Granulated Sugar-TRUCK LOADOUT

This flowchart outlines granulated sugar separation through storage and shipping steps. Outlined below are the areas with elevated hygiene requirements based on product risk



- Product Conveying Equipment & Hazard Analysis**
- Bucket Elevator
 - Screw Conveyor

- Nonconforming Product Remelt:**
- Metal Detectors
 - Weighing: Bulk Sugar
 - Lump Crusher



Process Preventive Control: Critical Control Point Summary

Process Control Step:	CCP Metal Detection (Packaged & Bulk Metal Detectors)	
Hazard(s):	Metal	
Parameters, values, or critical limits:	Functioning metal detector that can detect 1.5 Fe, 1.8 NF, 2.0 SS, and 2.0 Al mm spheres.	
Monitoring:	What:	All product passes through an operating metal detector.
	How:	Monitor according to SOP 6.3-01 CCP Monitoring: Metal Detector .
	Frequency:	Conduct the inspection at the beginning of a startup, a shutdown of two hours or longer, at the end of a production run (no following shift), and at least every 1.5 on the Concetti. Bulk detectors are tested after each vessel.
	Who:	Trained warehouse operator.
Corrective Action:	Operator notifies supervisory personnel. Supervisory personnel complete corrective action according to SOP 6.3.4-03 HACCP Deviation: Metal Detector .	
Verification:	Monitoring Activity:	Supervisory personnel verify the monitoring activity through record review within 7 days of record generation. The review is indicated by a signature and date.
	Food Safety Plan:	The food safety plan is incorporated into annual internal audits. The plan, CCP selection, and CL determination are reviewed/assessed annually.
Validation:	Critical Control Point:	CCP selection is reevaluated annually in light of emerging technological and regulatory information. This review is documented on record 7.1-03 Validation .
	Critical Limits:	CL or parameter selection is reevaluated annually in light of emerging technological and regulatory information. This review is documented on record 7.1-03 Validation .
	Scientific & Technical Information:	Decisions for the hazard analysis, CCP selection, and CL selection have been based on scientific and technical information. This information is available upon request.
Records:	Monitoring Activity: 6.3-01.0 Critical Control Point: Packaged Product Metal Detector or 6.3-01.1 Critical Control Point: Bulk Loading Metal Detector . Records are retained according to retention policies.	

Procedural documentation is available on the corporate intranet through direct links or through the quality assurance tab. This documentation will be made available to customers upon request.

Supply-Chain Program

Hazards Requiring a Supply-Chain-Applied Control:	Hazard analysis determined that incoming bulk and packaged sugar requires a supply-chain-applied control for metal contamination. In the absence of a supplier-applied control, there could be the potential for hazardous metal contamination based on sugar processing equipment and facilities. Some of this product might be warehoused and distributed directly to the customer without further processing.
Preventive Controls Applied by Supplier:	Approved suppliers continually monitor sugar by passing all product through metal detectors or magnets. These actions are documented in a supplier's records.
Verification Activities:	Based on supplier performance and the low risk associated with material, a 2nd or 3rd party audit by a qualified auditor is used to verify supplier's control of metal hazard. Preference is given to GFSI certification.
Verification Procedures:	A copy of the audit is requested from the supplier annually or every three years if the supplier certifies to the FSSC 22,000 standard. The quality assurance director reviews certification audits and approves suppliers based on the onsite audit and documentation requests. System assurances include a two-step verification procedure. First, Corporate office only sources product from approved suppliers. Second, receiving facilities are given an approved supplier register which is utilized as a product acceptance criterion. Both measures should ensure that receiving facilities only receive sugar products from approved suppliers.
Verification Records:	Supplier audit report made available – Beet Sugar.
Receiving Facility Procedures:	Receiving facility only accepts product from approved suppliers as outlined on the Approved Supplier Register . Facilities hold and do not accept shipments from unapproved suppliers. If this occurs, facilities notify the quality assurance director for disposition.
Receiving Records:	Inspection and receipt records are maintained locally.

Amendments

10/13/2023	Removed Harrison Adams on HACCP team and Replaced with Rachel Lindauer. Updated Rachel Lindauer's training. Added Stan Case– Plan Manager Francisco Rios, Nathan Smith, Oscar Juarez, and Lynn Manning– Senior Foreman to the HACCP team.
3/1/2023	Removed Lisbeth Henry and Brandin Zempke for HACCP Team. Updated it with Harrison Adams and Brock O'Donnell
10/4/2022	Update flowcharts-split flow chart (bulk railcar, truck load out and concetti line on to three pages. Added a screen after the cooling granny. Added a line from the lump crusher to remelt. Updated Auditing body to CICS-Americas. Removed Charles Mowers, Francisco Rios, and Kelly Malone from Management Team
6/6/20221	Removed Corporate Recall Plan from page one. Replaced Brett Jensen with Brandin Zemke, and Frances McCray with Sonya Barajas.
10/1/2021	Added screen sizes to flow chart, added document control number to cover page, updated shelf life description.
5/13/2021	Added PCC to output in Carbonation and Clarification.
5/4/2021	Updated Team: Removed William Norman and added Lizbeth Henry. Updated the flow to include waste and screen added after surge bin.
10/16/2020	Updated the Team, Removed Tyrel Murphy and added William Norman. Added the Supply Chain Program. Updated Hyperlinks on flow chart. Updated page numbers
4/7/2020	Changed Certification body from NSF to SGS, Removed revision # from product description page.
9/9/2019	Removed Jeremy Adamson as Company HACCP Coordinator in Facility Information Section as well as from Front page.
8/14/2019	Updated the prerequisite programs,. Removed Reed Dayton, Cecil Amen, and Jeremy Adamson from HACCP team, Added Francisco Rios, Tyrel Murphy to team. Updated Charles Mower job title. Added Screen to concetti line before packaging.
01/30/2019	Removed the Tote Line from the Food Safety Plan and updated the flowchart, facility description, CCP list (Bulk Truck CCP renumbered from CCP 5 to CCP 4). Added Dylan Dean as the corporate HACCP Coordinator. Updated training log to include Dylan's and Frances' FSPCA training. Added concrete silos and associated hazard analysis to the flowchart.
10/12/2018	Replaced Erik Loseth with Dylan Dean and Kelly Malone. Updated training for Dylan Dean: Internal Auditor course. Replaced Brandi Grover with Charles Mower Factory Lab Supevisor
06/07/2018	Added Stan Case as Plant Manager and Charles Mower to replace Brandi Grover on the HACCP team as Factory Lab Supervisor.
03/22/2018	Replaced Talya Terry with Erik Loseth and Nic Castle with Brandi Grover. Updated training for Erik and Brandy. Modified phone number, certification body, and SQF ed. 8. Amended a flow diagram to include arrow from lump magnet to A/B magnet. Updated H.A. files for Concetti and FBC to include Lexan.
05/24/2017	Removed the Environmental Monitoring prerequisite program. Documented a validation of change & a notification letter outlining rationale.
03/06/2017	Wes Higley was added to the HACCP team as the warehouse manager.

08/05/2016	Rodrigo Beitia replaced Wes Higley as lead sugar mechanic and HACCP team member. Revision signature not required.
06/22/2016	Removed the local organizational chart and added links to the corporate recall procedure. Added surge tank for bulk loading and classification bypass to the flow diagram. Supply-chain program is applied to NSM facilities receiving sugar products.
02/05/2015	Talya Terry has replaced Joshua Elliott as the local HACCP coordinator. Nic Castle replaced
10/19/2015	Wes Higley replaced Brandin Zemke as the lead sugar mechanic and part of the HACCP team.
04/23/2015	The corporate SOPs were modified. Quality assurance will now verify documentation during internal audits rather than verifying on lot per week.
04/21/2015	Added Frances McCray to replace Jill Waters on the HACCP Team.

Training Log	
10/5/2023	Rachel Lindauer completed one day HACCP course. Francisco Rios, Nathan Smith, Oscar Juarez, Lynn Manning. Completed the one day HACCP courses on April 14, 20, 21 ,2022
5/4/2021	Lisbeth Henry completed one day HACCP course.
11/30/2018	Dylan Dean and Frances McCray completed FSPCA Preventive Controls for Human Food course.
10/10/2018	Dylan Dean completed a one-day internal auditor course.
05/30/2018	Charles Mower completed a one-day HACCP course.
12/01/2017	Erik Loseth completed FSPCA Preventive Controls for Human Food course.
09/13/2017	Brandi Grover completed FSPCA Preventive Controls for Human Food course.
01/21/2016	Jeremy Adamson & Talya Terry completed FSPCA Preventive Controls for Human Food course.
12/15/2016	Nic Castle completed an FSPCA one-day introduction course.
03/14/2015	Jeremy Adamson & Joshua Elliott completed Three Day: Practical Food Safety and HACCP Workshop.
10/02/2014	Brandin Zemke and Ian Kihara attended a one day HACCP course.
04/08/2014	Kyle Hickman, Frances McCray, Jeremy Smith, Silverio Tovar, Francisco Rios, Manual Morales, and William Burr attended a one day HACCP course.
04/26/2012	Wes Higley completed a one-day introduction course.