

S.H. Bell Company
Chicago Terminal

CDPH Request for Additional Information Regarding Variance Request
Summary of Transfer Points / Control Measures

Emission Source	Transfer Point (s)	Control Measure(s) Implemented from City of Chicago Regulations - "Bulk Materials Rule" Options				Additional Control Measures Implemented	Alternative Control Measure Implemented if Rule Options not Chosen	Additional Comments
		Total Enclosure	Water Spray System	Vented to Air Pollution Control Equipment	Transfer Only Moist Material (3% by Weight Minimum) AND Minimize Exposed Drop			
Small Particle Material Storage Piles (1/2 inch in size or less)		X (stored indoors to the maximum extent practical)	X (sprayed until crusted)				tarped if not controlled via water spray system	
Active Storage Piles	Front end loader to truck, barge, or rail		X (dampen material as possible and/or position mobile misters)			Minimize drop heights		Inbound shipments of DRI fines no longer accepted for storage or re-loading; only accepted for direct transfer from barge to truck if moisture content is minimum of 5%
Paved Roadways			X			Sweeping; application of salt and/or brine solution in wintertime, as necessary		
Unpaved Roadways			X			Application of salt and/or brine solution in wintertime, as necessary		
Bag Filling Station	Front end loader to hopper/feeder	X						
	Hopper/feeder to weigh hopper	X		X				
	Weigh hopper to small storage bag or can	X		X				
Box Filling Station	Front end loader to hopper / vibratory feeder	X						
	Hopper / feeder to box or bulk bag	X		X				
Screen Boxes	Front end loader to screen box	X				If performed outdoors (for wet materials), use of water truck or bucket loader for water addition to material		
	Screening (first pass through)	X				If performed outdoors (for wet materials), use of water truck or bucket loader for water addition to material		
	Screening (second pass through)	X				If performed outdoors (for wet materials), use of water truck or bucket loader for water addition to material		
Crusher-Screener	Front end loader to hopper	X						
	Hopper to crusher	X	X					
	Crusher to screener	X	X					
	Screener to storage #1	X						
	Screener to Crusher (#2)	X						
	Crusher (#2) to Screener (#2)	X	X					
	Screener (#2) to Storage (#2)	X						
	Screener (#2) to Storage (#3)	X						

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Screener	Front end loader to vibrator	X						
	Vibrator to bin	X						
	Vibrator to conveyor	X						
	Conveyor to screener	X						
	Screener to bin (top size material)	X						
	Screener to bin (mid size material)	X						
	Screener to bin (fine size material)	X						
PRODUCT TRANSFER								
Indoor Truck Loading (Ryerson / Norcon Buildings)	Front end loader to truck			X (to be implemented)		1) Partial enclosure (lean-to loadout shed); 2) Minimize drop height; 3) lengthen truck wait time before exiting loadout enclosure; 4) Tarp load after safely clearing the exit of loadout shed		
Loading from Outdoor Storage Piles	Front end loader to truck		X (dampen material as possible and/or position mobile misters)			Minimize drop height		
Truck Unloading	Truck to ground		X (dampen material or use of mobile misters as needed)			Choke feed		
Barge Unloading - Bulk	Excavator to truck		X (dampen material with water truck or excavator as possible, and/or use of mobile misters, or use of dry fogging system)			Minimize drop height		Water application entails either adding to barge with water truck or excavator and/or use of mobile misters, or use of dry fogging system
Barge Unloading - Sacks	Sack material release to pile at dock		X (primary use of mobile misters; secondary use of water truck or excavator to dampen material)			Minimize drop height to approximately 5 feet		Water spray system primarily equates to use of mobile misters; secondarily use of water truck or excavator for water addition to material
	Pile to truck via front end loader		X (secondary use of mobile misters; tertiary use of water truck or excavator to dampen material)	X (primary use of portable dust collector)		Minimize drop height		
Barge Loading	Excavator to barge		X (dampen material with water truck or excavator as possible, and/or use of mobile misters, or use of dry fogging system)			Minimize drop height (ability of excavator to reach directly into bottom of barge)		Water application entails either adding to barge with water truck or excavator and/or use of mobile misters, or use of dry fogging system

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Railcar Unloading - Bottom unload	Railcar to pile (bottom unload)		X (primary use of mobile misters; secondary use of water truck or excavator to dampen material)				Choke feed	Utilize water spray primarily in the form of mobile misters or secondary use of water truck or bucket loader for water addition to material, as necessary
	Pit to storage via bucket loader		X (primary use of mobile misters; secondary use of water truck or excavator to dampen material)					Utilize water spray primarily in the form of mobile misters or secondary use of water truck or bucket loader for water addition to material, as necessary, if final storage location is outside
Railcar Unloading - Box cars	Skid steer to front end loader		X (mobile misters or dry fogging system)					Utilize water spray system in the form of mobile misters or dry fogging cart
	Skid steer to bucket loader (alternative)		X (mobile misters or dry fogging system)					Utilize water spray system in the form of mobile misters or dry fogging cart
	Skid steer to ground (alternative)		X (mobile misters or dry fogging system)					Utilize water spray system in the form of mobile misters or dry fogging cart
Railcar Loading - Open top railcars	Bucket loader to railcar		X (dampen material with water truck or excavator as possible, and/or use of mobile misters, or use of dry fogging system)			Minimize drop height		Water application entails either water addition to material via bucket loaders and/or use of mobile misters, or use of dry fogging system
Railcar Loading - Covered hopper railcars	Front end loader to hopper / belt conveyer		X (primary: mobile mister or dry fogging system)	X (secondary: portable dust collector)		Choke feed		Primary use of water spray systems; secondary use of portable dust collector
	Hopper / belt conveyor to railcar		X (mobile mister)			Minimize drop height		Secondary use of water spray in the form of water truck or bucket loader to dampen material, as necessary

Notes:

- City of Chicago Bulk Materials Regulations define the term "transfer point" as the location at or within a facility where material being moved, carried, or conveyed is dropped or deposited.
- City of Chicago Bulk Materials Regulations require one of the four control options identified above in order to ensure compliance with the opacity set forth in 3.0(2)(b) (i.e., 10%), unless a variance is requested with a proposed alternative measure
- Materials handled at S.H. Bell Co.'s Chicago Terminal include, but may not be limited to, the following product groups:

a. ALUMINUM - BUNDLES	g. FERRO ALLOYS	m. OLIVINE	s. SILICON METAL
b. BAUXITE/MAGNESITE/BFA	h. HOT BRIQUETTED IRON	n. PIG IRON	t. SPECIALTY ALLOYS
c. CARBON PRODUCTS	i. IRON ORE	o. REFRACTORY PRODUCTS	u. SPECIALTY SCRAP
d. CERAMIC PRODUCTS	j. MAGNESIUM	p. SALT	v. ZINC
e. CORED WIRE	k. MINERAL SANDS/SILICA FUMES	q. SCRAP	
f. DIRECT REDUCED IRON	l. NICKEL	r. SEMI-FINISHED STEEL	
- Materials within the product groups can be handled at any of the transfer points indicated in the table above
- Only pig iron can be directly dampened / wetted, unless customer approval is obtained