



Outside Storage of Combustible Materials Ordinance

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Agenda Item #6



Recycling Plant Fire

April 12, 2011





Recycling Plant Fire

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Recycling Plant Fire

April 12, 2011 9:00am

- 15 fire units, 45 firefighters responded
- Preliminary investigation indicates the fire started outside in baled cardboard
- Fire crews fought fire for 40 minutes before bringing it under control
- 36 yr.-old male employee suffered smoke inhalation & was transported to hospital
- 2 firefighters were injured while fighting fire, but refused transport to medical facility
- Fire caused \$8,000 worth of damage
- Fire investigators determined the cause of blaze to malfunctioning Skid Steer (Bobcat) used to transport bales

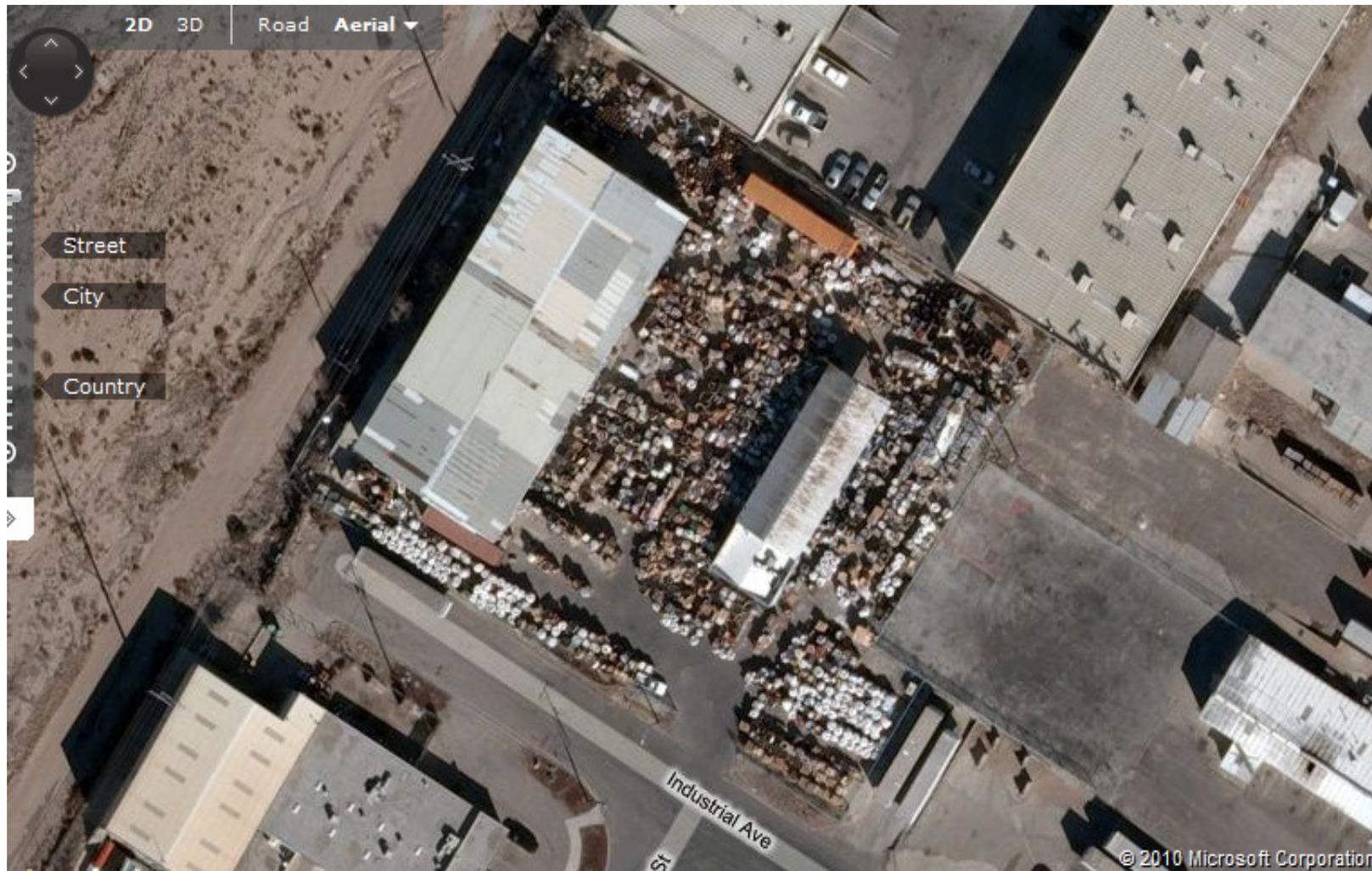


Paper Recycler





Paper/Cardboard Recycler





Plastics Recycler



07/22/2010



Fluff





Outside Storage of Combustible Materials (OSCM) Ordinance

- Permit required
- Financial assurance required
- Storage limitations imposed
- Fire protection methods required
- Sharing of information with other regulatory agencies for stormwater, air quality and recycling proposed



Goals

- Allow use of property in accordance with zoning, while regulating manner in which combustible material (CM) is stored
- Limit dimensions of individual storage units of CM and require fire protection methods
- Capture previously-unregulated storage of CM based on amount stored, rather than on specifying type of industry or facility
- Minimize potential for particulate matter to migrate off-site by limiting unit storage dimensions and buffer zones at facility



Key Protections of Public Safety and the Environment

- Requiring permit will ensure regular inspections by EPFD for compliance with OSCM ordinance
- Proposed memorandum of understanding between regulatory agencies will promote sharing of information and minimize potential for regulated facilities from “falling through the cracks”
- Violation of permit found to be a contributing factor causing a fire at facility may lead to revocation of permit
- Limitations on unit storage size should minimize potential for fire to spread at facility and also minimize chance for particulate matter to migrate off-site

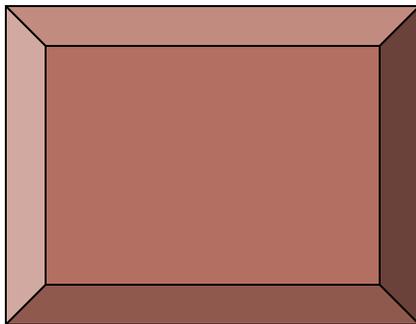


Figures, Outside Storage of Combustible Materials Ordinance



Fig. 1: Unit Dimensions (max.), by Combustibility Index

Combustibility Index: 3 or 4



Unit Footprint Perimeter:

Max. 150 feet (i.e. 37.5-ft. square)

[417 cu. yds.]

Unit Height:

Max. 8 feet

Combustibility Index: 1 or 2



Unit Footprint Perimeter:

Max. 200 feet (i.e. 50-ft. square)

[1111 cu yds.]

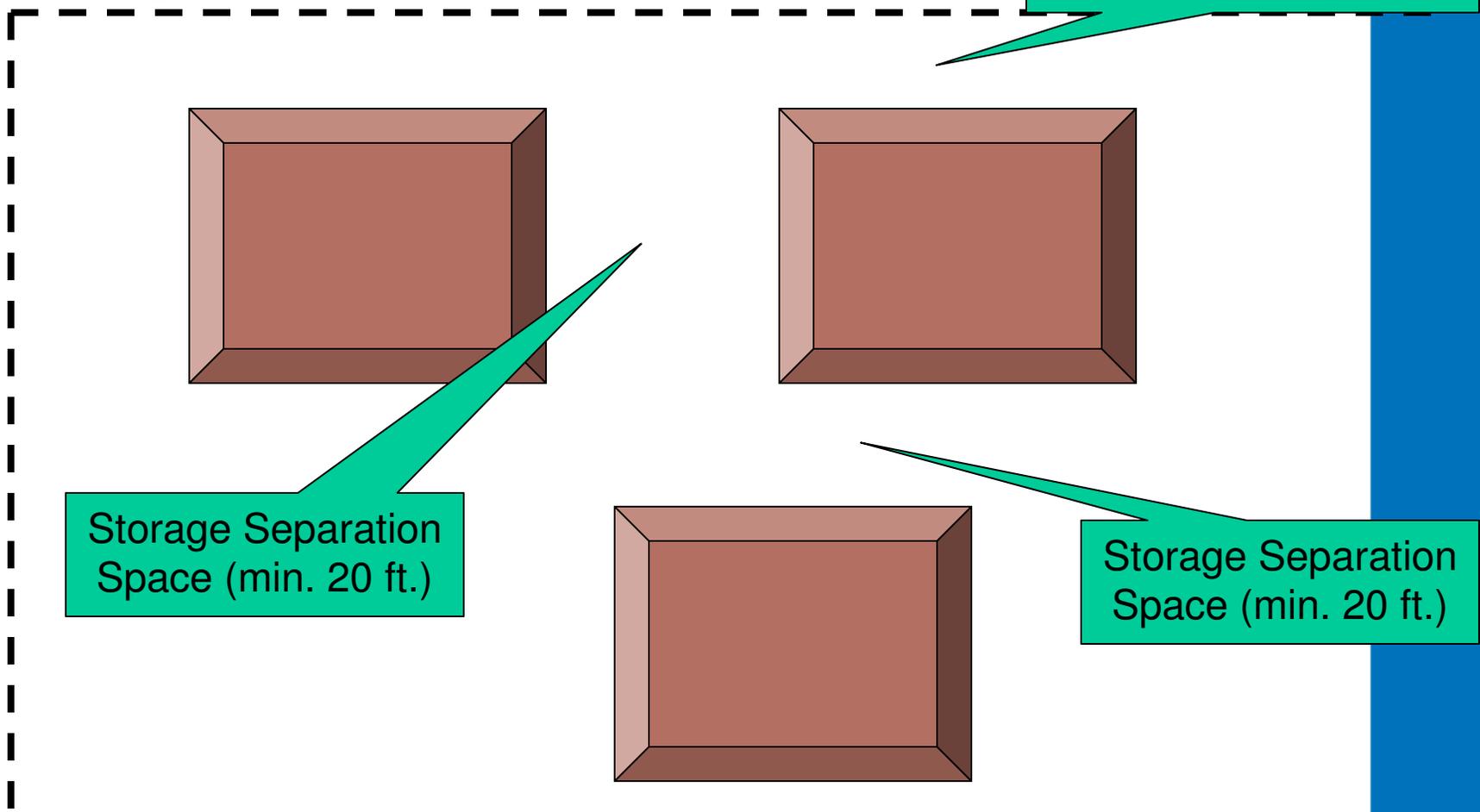
Unit Height:

Max. 12 feet



Fig. 2: Unit Spacing

Facility Fence



Fire Safety Buffer Zone (min. 20 ft.)

Storage Separation Space (min. 20 ft.)

Storage Separation Space (min. 20 ft.)



Fig. 3: Fire Extinguishers, Option A.

Facility Fence

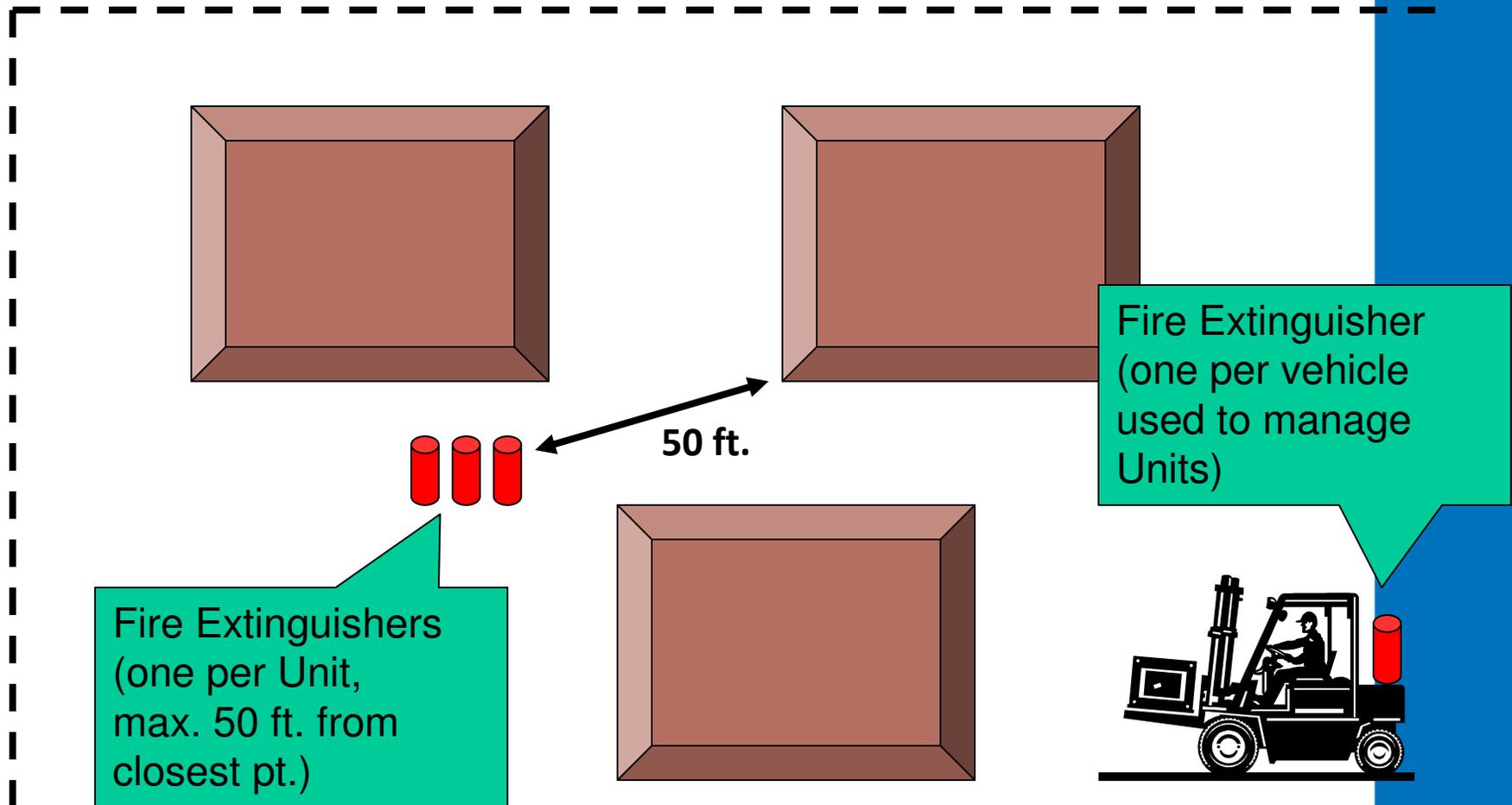
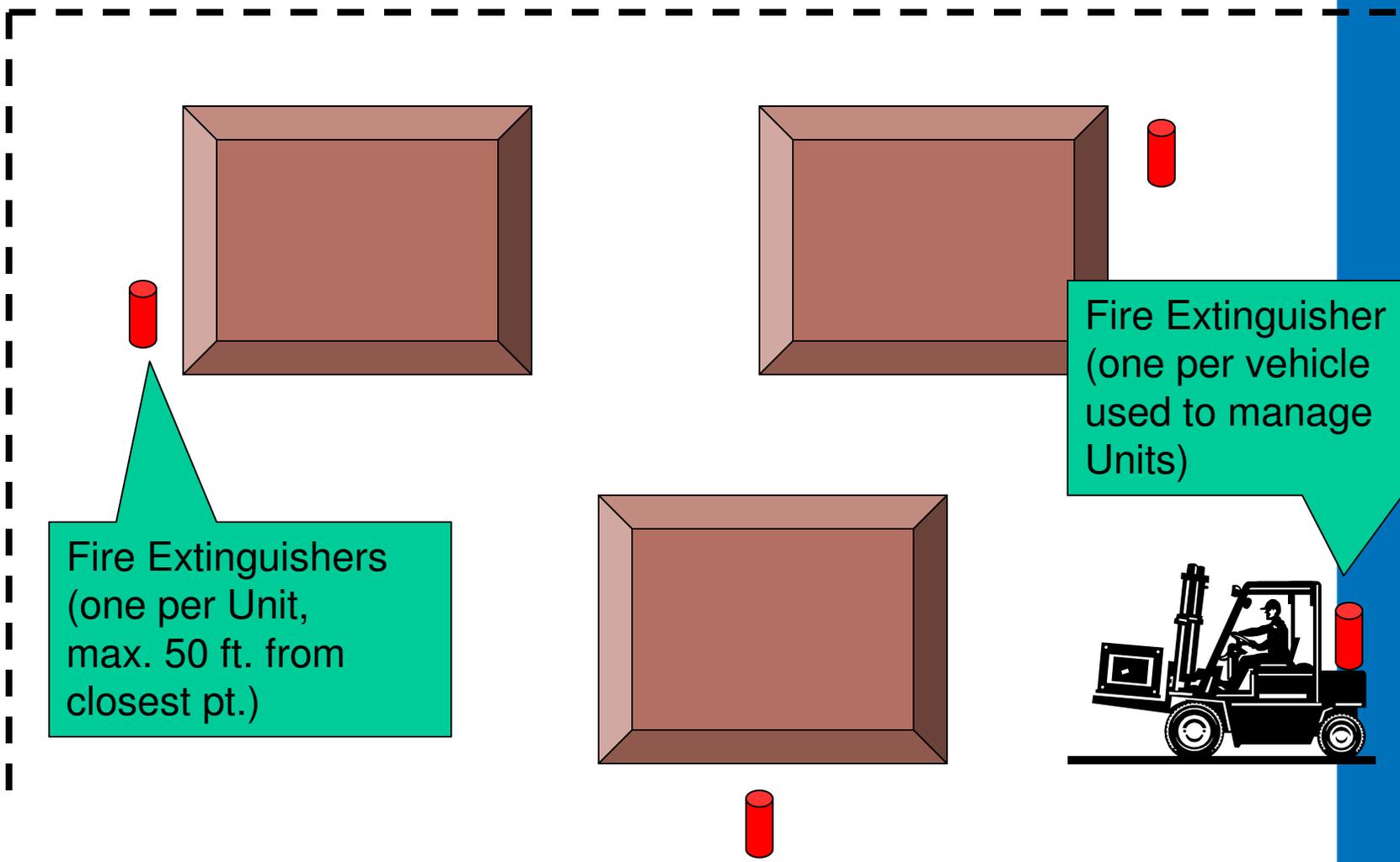




Fig. 4: Fire Extinguishers, Option B.

Facility Fence



Fire Extinguishers
(one per Unit,
max. 50 ft. from
closest pt.)

Fire Extinguisher
(one per vehicle
used to manage
Units)





Combustibility Index Determination Matrix

	Flammability and Ignitability				
		Low	Moderate	High	Severe
Combustibility	Low	1	2	2	3
	Moderate	2	2	3	3
	High	2	3	3	4
	Severe	3	3	4	4

When determining potential index between two Index blocks, the higher Index will apply; when Determining between four potential blocks, the Index indicated by three of the four blocks will apply.



Combustibility Index of Common Items (CICI)

Combustibility Index	Rank	Frequently Encountered Examples*
1	Low	<ul style="list-style-type: none"> ● PVC products ● rubber hose ● crumb rubber ● plastic chips/ granules ● plastic bottles
2	Moderate	<ul style="list-style-type: none"> ● sawdust ● excelsior (wood wool) ● swamp cooler pads ● shredded paper ● loose paper ● loose cardboard ● cardboard boxes/containers (empty) ● sugar (granulated/powdered) ● charcoal
3	High	<ul style="list-style-type: none"> ● fluff ● baled/bulked cardboard ● baled/bulked paper ● baled/bulked plastics ● wood pallets ● brush/wood/tree pruning and stumps ● firewood ● whole tires
4	Severe	<ul style="list-style-type: none"> ● magnesium metal (turnings/strips)

*List of Frequently Encountered Examples is representative and not all-inclusive.



Questions?