



Using Returnable Carts in Manufacturing

ESI Conference
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Drivers towards Returnable Carts

- **Pallet recycling difficulties**

of pallets to be recycled daily averaged **75**

$75 \times 5 = 375$ pallets/week, **1500 pallets/month**

40 yard pallet dumpster holds about 60 pallets

6 pallet dumpster pick ups/week

Cost to recycle = **around \$80,000/annually**



We have 3 Raleigh area plants that all collect around the same number of pallets monthly.

$\$80k \times 3 = \$240,000/annually$ in recycling pallets

Drivers towards Returnable Carts

- Pallet recycling difficulties

When the dumpster gets full the pallets pile up. There is not enough space in the plant to hold pallets. This creates trip hazards and blocks loading docks in the plant.

We tried utilizing a trailer parked at a dock to collect the pallets however the vendors were not timely in their pickups which resulted in the pallets needing to still be collected inside the plant.



Drivers towards Returnable Carts

- Wood cost

When the cost of wood skyrocketed many of our vendors started requesting their pallets be returned to them.

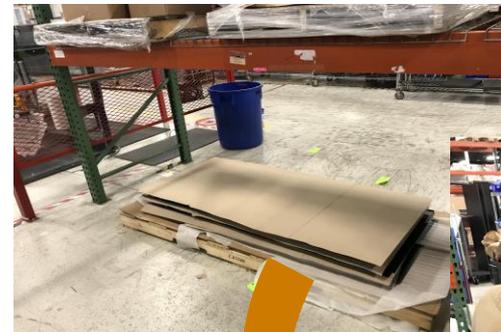
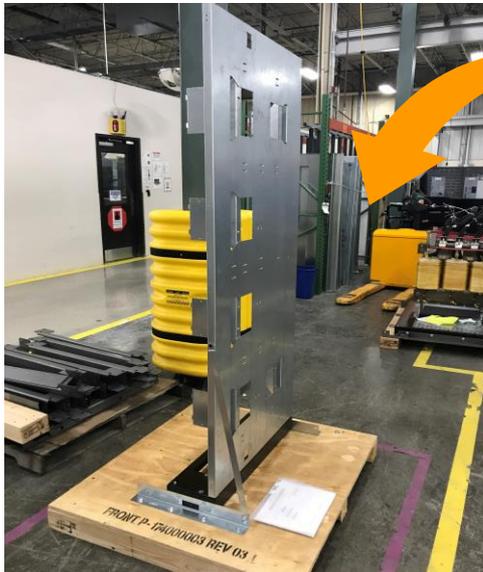
Where can we store all these pallets until the next delivery?

Drivers towards Returnable Carts

- Recordable injuries

Employees pick up large parts from floor level off the pallets and then rotate from horizontal to vertical position.

How can we prevent these injuries from occurring?



Benefits to Returnable Carts

- **Of course, the obvious -**

Less pallets to be recycled = less \$ spent on pallet “waste”



Benefits to Returnable Carts

- **No exposure permitting for stormwater runoff**

We are able to self-certify annually that we do not have any industrial materials and/or operations that are exposed to stormwater.



**Division of Energy, Mineral and Land Resources
Land Quality Section – Stormwater Permitting**

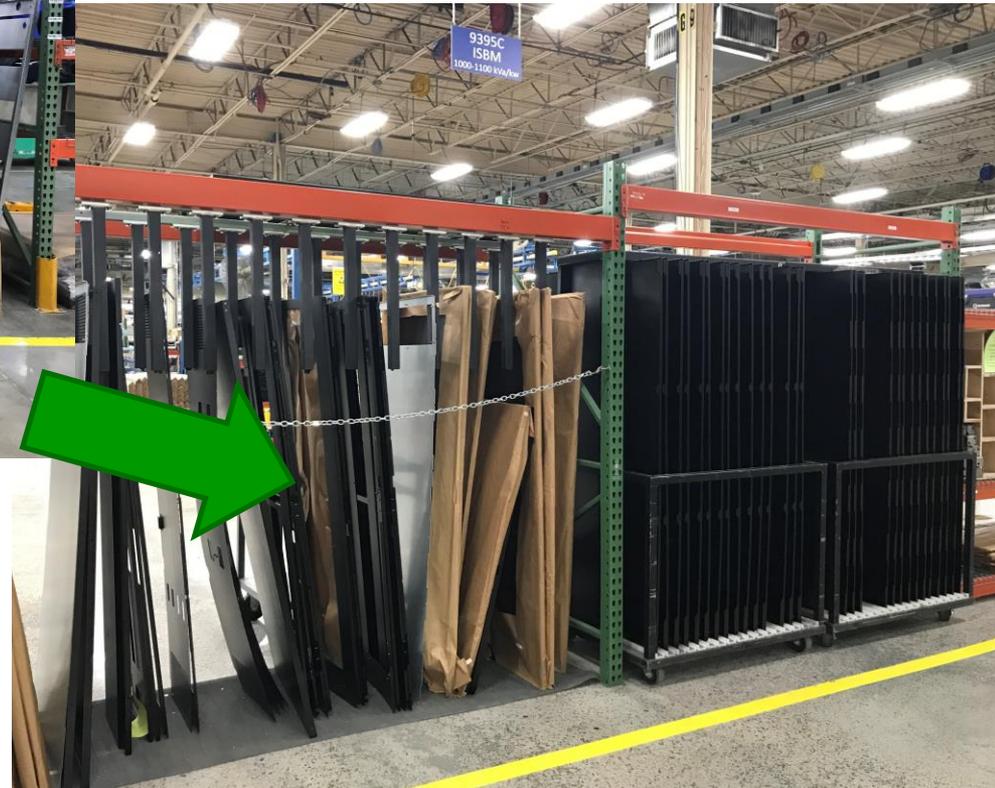
National Pollutant Discharge Elimination System
ANNUAL NO EXPOSURE EXCLUSION SELF RE-CERTIFICATION
NCGNE0000

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For questions, please contact the DEMLR Regional Office for your area or the Central Office.

Benefits to Returnable Carts

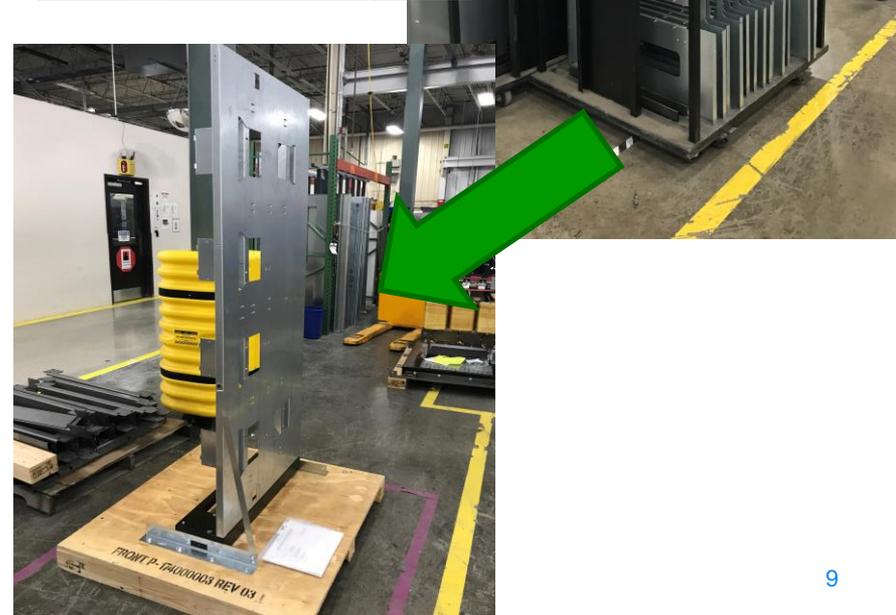
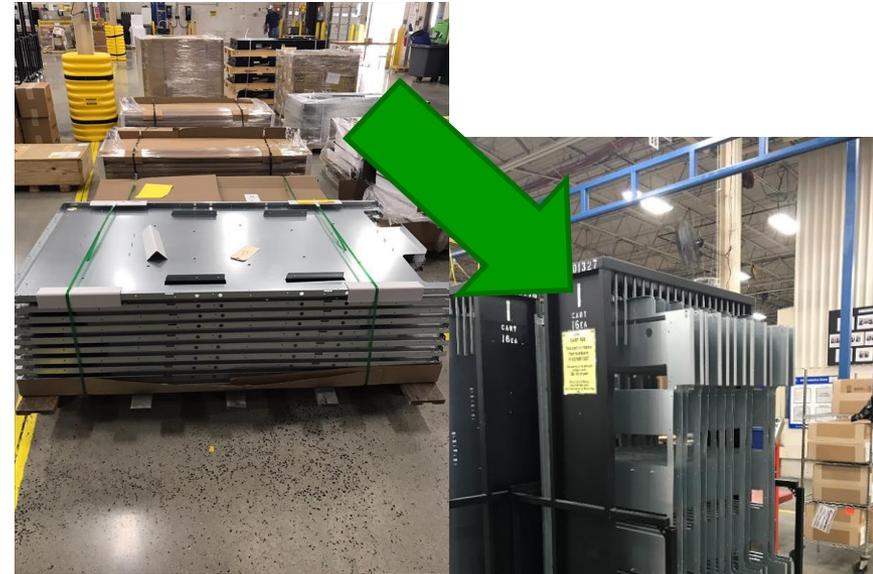
- Line side organization



Benefits to Returnable Carts

- **Reduced Ergonomic Risk**

Employees can move the parts more easily, safer and in an ergonomically correct manner since they are in the same orientation that they are within the units.



Roadblocks

- **Some difficulties we have seen since introducing the returnable carts –**

Cart design does not work for all parts. The cart may need to be modified to prevent from scratching the parts.



Roadblocks

- **Some difficulties we have seen since introducing the returnable carts –**

Cost of the carts \$1750/cart originally, most recently **\$2500/cart**.

There are over **50** different parts that returnable carts need to be utilized. Each part needs at least 2 carts – one at Eaton and one at the part manufacturer.

The parts were ranked based on use, lead time and ergonomic risks. The highest-ranking parts were the first to receive returnable carts.

Annually additional carts are purchased.



Questions?

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