EXECUTIVE SUMMARY

In the time period of October 20, 2004 to October 27, 2004, Mr. Brian Jaynes of Pinnacle Engineering, Inc., visited the CLIENT Distribution Facilities in New York and Pennsylvania. During this timeframe, Mr. Jaynes observed the material handling functions with a “focus on safety” at the various distribution facilities. Mr. Jaynes also met with the CLIENT corporate staff as well as a CLIENT representative from each of the distribution centers observed. The extreme cooperation of the CLIENT staff lent a lot of credence to a successful and value-added site visit by Pinnacle.

The Safety Analysis Report has been broken up into sections that reflect the individual distribution centers that were observed. Because of the variance in the age of the facilities, there can be unique situations to each facility that another might not have. Thus, it was only logical to segregate each facility in this manner. Following are the facilities included in this analysis:

- Dry Grocery Distribution
- Fleet Maintenance
- Grocery Distribution
- Produce Distribution
- General Merchandise Distribution
- Reclamation Center
- Fresh Foods Distribution
- Meat Distribution
- Frozen
- Retail Service Center Distribution

In simple terms, there are 4 (four) key items of a safety analysis that need to be considered during facility observation. These general areas cover both product stored at CLIENT Distribution Centers and CLIENT personnel, and, in certain instances, how they affect each other with regards to safety. The key items are:

- Objects that fall (Product and Personnel)
- Objects that crash/collide (Product and Personnel)
- Objects that get caught (Product and Personnel)
- Occurrences of risk related to the above 3

Why a safety analysis?

A safety analysis is done to protect assets from accidents. Assets consist of personnel, product, pallets, facilities, racks, conveyors, tools, and equipment. CLIENT has identified its personnel as one of its most important assets. Often times it is found that by protecting your personnel you will also protect the other assets used with your business.

There are many facets of material handling and related safety issues comprised in each one of the CLIENT Distribution Centers. The safety analysis is broken down into specific material handling functions and related safety issues that are reflected in each facility observed. A “safety audit/inspection checklist” was used by Pinnacle to identify and record safety concerns within each facility and for each material handling function. A basic yes/no column arrangement denotes on the checklist (noted by a “•” in the appropriate box. Whether there is an H.I.C. in each of the facility sections that identifies in greater detail the hazard, cause, effect, probability of accident due to hazard, and suggestions related to corrective or preventive measures. There are a number of photographs in each facility section that correlate to a specific safety issue listed in the “Safety Audit/Inspection Checklist.”
The following is an outline of the material handling functions observed and common to all of the CLIENT Distribution Centers. Within each function category are some key observations that are deemed noteworthy and will be depicted in the “Safety Audit/Inspections Checklist” as well as the H.I.C. within the respective facility section.

**RACK AND BIN STORAGE**
- Rack design and layout appears sufficient in all facilities.
- Most rack sections have end of aisle guards installed, which is the correct arrangement. Rack sections that do not have these guards in place should have them installed to prevent further damage to rack uprights.
- There are a few of safety/support rails that are missing and need to be installed. Without these, pallet loads can fall off racks or in between the front and rear beams of the rack if the fork truck driver is not careful.
- It is recommended that deflectors be installed in the floor in front of all rack uprights in all facilities where they are lacking.
- Damaged (some collapsed) uprights need immediate repair.

**AISLES**
- Aisles in all facilities are of sufficient width provided they are free and clear of palletized loads, mechanical equipment and debris.
- An aisle-striping program is highly recommended to segregate pedestrian and electric vehicle traffic in a safe and orderly manner.
- There are various high traffic areas (electric truck and pedestrian) in most facilities that consist of blind spots and/or blind corners. Radial mirrors should be hung overhead in these locations to increase visibility.

**MANUAL PICKING ZONES**
- All areas appeared to be well lit and for the most part accessible.
- Could use more “reach assist” hooks for selectors in the facility.
- Walk areas could use better housekeeping

**DOCKS**
- Dock levelers are present at each bay and are well designed.
- Dock bays are well lit
- The dock bays in the facilities are in need of mechanical dock locks
- There is evidence of wheel chocks in use (other than GMDC), which is an OSHA requirement if there are no other means of mechanical restraint present
- In the warehouse it is recommended that an alternative layout be investigated to segregate the traffic and congestion between receivers, material handlers and pedestrians. One solution might be the integration of a staging rack system between the docks and the existing racks and creating separate pedestrian aisles.

**DOCKS-BATTERY CHARGE AREA**
- Aerosol area (GMDC) needs eyewash station
- Provide apron/goggles/gloves at all eyewash stations (not currently evident)
- Mark eyewash areas with signage
- The battery charge area in the covered dock bays is large enough to require an additional eyewash station at the opposite end of the existing eyewash station
- Guard eyewash stations (post and/or rails)
CONTAINERIZATION-LARGE AND SMALL CONTAINERS

- Other than the issues with the wooden pallets, containerization in all the facilities appeared to be efficient and optimal per the application.
- Condition of pallets creates to much downtime in the grocery AS/RS area
- Need to investigate means of keeping bad pallets out of the AS/RS
- Also need to investigate means of handling pallets (focus on bad wood) when they make it into the AS/RS system
  - Rework roller conveyors into AS/RS building
  - A pallet slave system isolated to the inbound and outbound pick-up and drop-off stations and the travel between. This would not include AS/RS storage
  - A comprehensive pallet slave system that encompasses all of the AS/RS storage as well as the roller delivery conveyors

POWERED INDUSTRIAL TRUCKS

- Well-designed and maintained with proper applications
- Dry grocery - some move way to fast
- Lack of horns at blind corners (driver discipline)

CONVEYOR SYSTEMS-AS/RS

- Conveyors appear to be very well maintained. Most noteworthy are the older systems in grocery.
- Great strides have been made in maintenance accessibility with the installation of catwalks, but more are needed.
- Moving components on conveyors are well guarded with the following exceptions:
  - All shaft ends and shaft bearings need to be capped or shrouded
  - Any moving components such as belting that is exposed underneath a conveyor that a person could walk under needs to be guarded
- Other than a couple of areas that will be defined in the report, pull cords and emergency stops are properly located
- To prevent personnel from standing on moving conveyors, more conveyor crossover stairs on the longer runs of conveyors need to be installed
- The installation of safety netting under and around the conveyors is good. There are some areas over aisles and high traffic areas that should have netting installed as well.
- Housekeeping around conveyors in walkways could be better as far as product strewn about and even broken glass
- AS/RS crane maintenance areas are laid out well and secure
- All AS/RS cranes were operational and appeared in very good condition
- Some problems exist with storage of palletized loads especially in this facility, which are mostly related to issues with pallet construction.

Overall, the observations made did not identify what could be called “showstoppers”. Some issues if not addressed could end up in that category. Even as operations carry on in the same manner there can always be room for improvement when it comes to safety. What was observed was that the CLIENT employees were careful and conscientious about their work and that is half the battle to good safety practices.

Not all of the hazards identified are necessarily code violations. Some are common sense, comfort level items that give reassurance of extra safety measures provided to CLIENT personnel.
## MATERIAL HANDLING SAFETY ANALYSIS

### HAZARD IDENTIFICATION CHART

<table>
<thead>
<tr>
<th>#</th>
<th>HAZARD</th>
<th>CAUSE</th>
<th>EFFECT</th>
<th>PROBABILITY OF ACCIDENT DUE TO HAZARD</th>
<th>CORRECTIVE OR PREVENTATIVE MEASURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aisle Obstruction</td>
<td>Pallets dropped in aisles</td>
<td>Aisle congestion and blocked vision danger of collision</td>
<td>Medium risk of collision</td>
<td>Use only designed storage Keep aisles and intersections clear</td>
</tr>
<tr>
<td>2</td>
<td>Restart Warning Not Audible</td>
<td>Not installed or shut off</td>
<td>Possible injury due to sudden start-up of conveyor</td>
<td>High</td>
<td>Add audible or visual restart system to avoid restart injuries</td>
</tr>
<tr>
<td>3</td>
<td>Unstable Pallet Loads Stored In Racks</td>
<td>Missing rack safety bars</td>
<td>Injury due to fallen pallet load</td>
<td>High risk of pallet load falling through because of replaced stability</td>
<td>Provide safety bars where required.</td>
</tr>
</tbody>
</table>

**CLIENT**

**FACILITY NAME**

**CITY**

**AREA**

Dry Grocery

**DATE**

**FUNCTION**

Distribution

**PEI JOB NO.**

04-0311

**LOCATION**
<table>
<thead>
<tr>
<th>AISLES</th>
<th>Yes</th>
<th>No</th>
<th>H.I.C.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free of obstacles and trash</td>
<td>I</td>
<td></td>
<td>#1</td>
</tr>
<tr>
<td>(See figure 1-3 and 1-5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trash containers are liberally provided</td>
<td></td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Aisle lines are properly marked</td>
<td></td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Floor surface in good condition</td>
<td></td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Aisle width is adequate</td>
<td></td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>There is proper clearance to stock and work areas</td>
<td>I</td>
<td></td>
<td>#1</td>
</tr>
<tr>
<td>Congested intersections are properly marked and protected</td>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(See figure 1-2 : Eye wash blocked)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radial mirrors in use at blind corners</td>
<td>I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONVEYORS</td>
<td>Yes</td>
<td>No</td>
<td>H.I.C.</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
<td>-----</td>
<td>----</td>
<td>--------</td>
</tr>
<tr>
<td>Moving components are properly guarded</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>On-off controls are properly located</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Warning labels are provided at critical areas</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Points of equipment maintenance are safely accessible</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>(Paint padding &quot;yellow&quot; on headknockers)</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Moving components are worn to an unsafe condition</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Elevated conveyors equipped with falling parts guard</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Condition of pallets will allow for smooth conveyance and minimal jamming</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>E-Stops are present and accessible</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>End of travel conveyor hard stops are installed</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Hard guarding present around systems and/or pinch points</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Conveyor start-up alarm is audible</td>
<td></td>
<td>1</td>
<td>#2</td>
</tr>
<tr>
<td>Crossovers in place</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>RACK AND BIN STORAGE</td>
<td>Yes</td>
<td>No</td>
<td>H.I.C.</td>
</tr>
<tr>
<td>----------------------------------------------------------</td>
<td>-----</td>
<td>----</td>
<td>-------</td>
</tr>
<tr>
<td>Orientation of stored materials is stable</td>
<td></td>
<td>I</td>
<td>#3</td>
</tr>
<tr>
<td>(See figure 1-1 : Lack of safety plans)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stored materials accessible to aisles and workers</td>
<td></td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Storage capacities are within safe limits</td>
<td></td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Storage rack/bin installations are secure</td>
<td></td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Proper fire protection is in place</td>
<td></td>
<td>I</td>
<td></td>
</tr>
<tr>
<td>Upright base guarding is in place (See figure 1-4)</td>
<td></td>
<td>I</td>
<td></td>
</tr>
</tbody>
</table>

**Note:**
- **CLIENT**
- **FACILITY NAME**
- **CITY**
- **AREA** Dry Grocery
- **DATE**
- **FUNCTION** Distribution
- **PEI JOB NO.** 04-0311
- **LOCATION**
Figure 1-1
Lack of “safety rail” under pallet load.
Figure 1-2
Access to the eye wash station has been blocked at the end of aisle #94.
Figure 1-3
Mezzanine access has been blocked at the end of aisle #94.
Figure 1-4
Lack of base guarding on rack uprights.
Figure 1-5
Access to emergency exit diminished due to empty pallet stacks at end of aisle #83.