Prevention & Control
The Key to Property Conservation

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• Operational Risk
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Risk Management

Business Need  Insurance
  Acceptance  Transfer
  Avoidance  Mitigate
  Location?

Operational Risk

Loss control from an operational perspective:

- Fire = stopped production
- Stopped production = unhappy customers
Question:

Did it burn down because it wasn’t sprinklered...?

Or

Did it burn down because it caught fire?
Prevention and Control

DOWNTIME & / OR FIRE

Goal…..
Meet out customer expectations – supply our customers

<table>
<thead>
<tr>
<th></th>
<th>Prevention</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPR</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Non-HPR</td>
<td>✔️</td>
<td></td>
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</tbody>
</table>
Causes of Loss

Top causes of loss in commercial property:

• Arson
• Hot Work
• Contractors

• Electrical
• Equipment failure causing fire
• Industry specific special hazards
  Flammable liquids
  Data centers
  Theatres
  Laundry

Hot Work & Contractors
Electrical

Over 60% of electrical Failures – improper connections

Equipment Failure Causing Fire
Electrical

<table>
<thead>
<tr>
<th>Date</th>
<th>Cause</th>
<th>Description</th>
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<tbody>
<tr>
<td>June 2011</td>
<td>Arson</td>
<td>Man set fire to Toy Aisle</td>
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<tr>
<td>November 2011</td>
<td>Electrical</td>
<td>Electrical fault in compactor</td>
</tr>
<tr>
<td>April 2013</td>
<td>Electrical</td>
<td>Electrical fault in cooler</td>
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<tr>
<td>March 2014</td>
<td>Spontaneous Ignition</td>
<td>Butchers rags – oil breakdown</td>
</tr>
<tr>
<td>August 2014</td>
<td>Gas</td>
<td>Natural gas leak</td>
</tr>
<tr>
<td>November 2014</td>
<td>Electrical</td>
<td>Air conditioner</td>
</tr>
<tr>
<td>November 2014</td>
<td>Electrical</td>
<td>Store room</td>
</tr>
</tbody>
</table>

Causes of Loss

Special hazards or hazardous processes

- Location and construction
- Plant and equipment installation
- Instrumentation and control
- Special protection
- Maintenance
- Operator Training
Prevention

Human Element Programs

- Hot Work
- Electrical Maintenance
  - Infrared surveys
- General Maintenance
- Housekeeping
- Control of Contractors
- Self Inspection
- Smoking Controls

Control

Construction & Fire Protection

- Sprinkler protection
  - Flue Spaces
  - Distance to sprinkler heads
  - Equipment inspection and testing
  - Obstructions
  - Storage heights
- Construction
  - Building materials
  - Fire stopping
  - Roofing materials
  - Temporary building materials
Questions?

Thank you!