Hundreds of garment workers killed

Hundreds are confirmed dead - with hundreds more still missing - as a result of a building collapse in Bangladesh. The building housed five garment factories, as well as a bank and other shops, which were empty at the time. The garment workers had been ordered back to work despite cracks in the building's structure.

**Building Collapse**

Booming clothing business

Evidence: Bangladesh among top exporters of clothes to US & Europe; clothing industry 77% of

- Bangladesh Information Minister, Hasanul Haque Inu

**Problem**

Building collapse

**When**

Date: April 24, 2013

Time: ~9:00 AM

Different, unusual, unique: Cracks appeared in structure; employees ordered to work

**Where**

City, country: Savar, Bangladesh

Facility, site: Rana Plaza

Task being performed: Four garment factories working

**Impact to the Goals**

<table>
<thead>
<tr>
<th>Safety Goal Imacted</th>
<th>Confirmed deaths of 433 (more missing, presumed dead)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance</td>
<td>Eight arrested</td>
</tr>
<tr>
<td>Customer Service</td>
<td>Consumers unhappy about working conditions</td>
</tr>
<tr>
<td>Production Schedule</td>
<td>Decrease in production</td>
</tr>
<tr>
<td>Property, Equip, Mils</td>
<td>Building collapse</td>
</tr>
<tr>
<td>Labor, Time</td>
<td>Rescue, recovery efforts</td>
</tr>
</tbody>
</table>

**Basic Level Cause Map** - Start with simple Why questions.

**Basic Cause-and-Effect**

- **Building collapse**
  - Safety Goal Imacted
  - Compliance Goal Imacted
  - Customer Service Goal Imacted
  - Production Goal Imacted
  - Property, Equip, Mils Goal Imacted
  - Labor, Time Goal Imacted

**More Detailed Cause Map** - Add detail as information becomes available.

**More Detailed Cause-and-Effect**

The building, which was illegally built 3 stories too high, was not up to code and not approved by the government. The building was built on wetland and used substandard materials for construction. Even though cracks appeared in the building and inspectors requested evacuation and closure of the building, garment workers were ordered back to work.

**Caution Map**

- Five garment factories in building
  - Garment workers in building
    - Garment workers ordered to return to work
      - Willing to work despite deplorable conditions
        - Relatedly high pay
          - Evidence: Minimum wage in country $38/ month
  - Inspectors requested evacuation, closure
    - Building not up to code
      - Evidence: Per country's Disaster Management Minister
        - Plan not approved by government
          - Evidence: Per country's Disaster Management Minister
  - Banking staff not at work
    - Evidence: Charged with negligence, illegal construction, forcing workers to join work
  - Thousands of workers in building
    - Evidence: Charged with negligence, illegal construction, forcing workers to join work
  - Eight arrested
    - Evidence: Charged with negligence, illegal construction, forcing workers to join work
  - Confirmed deaths of 433 (more missing, presumed dead)
    - Evidence: Charged with negligence, illegal construction, forcing workers to join work

**Caution Map**

- Booming clothing business
  - Use of substandard materials
    - Evidence: Per country's Disaster Management Minister
      - Plan not approved by government
        - Evidence: Per country's Disaster Management Minister
  - Willing to work despite deplorable conditions
    - Relatively high pay
      - Evidence: Minimum wage in country $38/ month
  - Evidence: Charged with negligence, illegal construction, forcing workers to join work
  - Evidence: Charged with negligence, illegal construction, forcing workers to join work
  - Evidence: Charged with negligence, illegal construction, forcing workers to join work

**Cause Mapping**

Problem Solving + Incident Investigation + Root Cause Analysis

**Step 1** Problem

- What's the Problem?
- Why did it happen?
- What will be done?

**Step 2** Analysis

- Building collapse
- Confirmed deaths of 433 (more missing, presumed dead)
- Compliance
- Eight arrested
- Customer Service
- Consumers unhappy about working conditions
- Production Schedule
- Decrease in production
- Property, Equip, Mils
- Building collapse
- Labor, Time
- Rescue, recovery efforts
- Frequency
- ~500 people killed in similar disasters over last decade; last major building collapse in Bangladesh in 2005, killing >70

**Step 3** Solutions

- Five garment factories in building
- Garment workers in building
- Inspectors requested evacuation, closure
- Banking staff not at work
- Thousands of workers in building
- Eight arrested
- Confirmed deaths of 433 (more missing, presumed dead)

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