## Significant Risk Assessment – Industrial Railroad Policy

![RR](image)

### Potentially Fatal Risk | Critical Controls to Reduce or Eliminate
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**Derailment** | Documented rail and track inspections  
Preventative maintenance of rolling stock and track, and locomotives  
Audits of rolling stock and track, with timely repairs  
Train inspections (locos, cars, etc.) – daily – incoming and outgoing  
Operational practices/procedures  
Geometry car usage  
Calculation of train make-up (number of empty to full, number locos, etc.)  
Use of de-railers – location, how many, what type  
**Critical Behaviors** – Fit for duty; training and education; following procedures

**Switching** | Weighing on flat ground  
LOTOTO  
De-railer at weight scale, head of every drop point  
Air brake system  
Red Zones (safety zones) established  
Use of brakeman and switchman (not just one person)  
**Critical Behaviors** – Good communication between operator and groundsmen; Training; following procedures

**Run-a-ways** | Use of operational procedures  
Maintenance practices  
Use of de-railers  
Block/chock/energy control  
Regular inspections and audits

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<table>
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<th>Risk analysis</th>
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<tr>
<td>Radio controlled crossing arms</td>
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<td>Restricted areas (rail yard, switch yard, etc.)</td>
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<td>PMs of locomotive, brake systems, conditions of cars, type (size, air system, etc.)</td>
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<td>Max weight restrictions specified within contractual agreements</td>
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<td>Calculation for weights and locomotive requirements, length of train, grade</td>
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**Critical Behaviors** – Training; following procedures

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**Stop the Work Warnings (Red Flags)** – Indicate potential unsafe behavior or lack of controls

- Crossing signals not working
- Noticeable damage to tracks
- Defective railcars not being reported to the owners
- Tracks are not being inspected
- Handbrakes are not set in parked railcars
- Wheels have not been evaluated for flat spots
- Maximum speed limits have not been established and posted
- Tonnage limits are not being followed
- LOTOTO not in place for repairs and maintenance work
- Significant risks and critical controls have not been communicated to employees
- Dump doors are open when train is in motion
- No procedure is in place for railroad crossings where vehicles or foot traffic is possible
- Employees are not wearing high visibility clothing or vests
- Maximum braking formulas are not being utilized when setting up the train make-up
- Unauthorized passengers are on the train
- Air brake test procedures have not been performed