Safety and Productivity Moment: Safety and Productivity Technology at Suncor
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The Safety & Productivity Technology uses near real-time location technology to:

1. **Enhance Worker Safety**
2. **Support Productivity and Site Efficiency Opportunities**

**Background:**

**Technology Implemented at:**

- **Two Operating Plant Sites for:**
  - Turnarounds
  - Regular Operations

- **One Large Construction Project**
  - Daily Onsite Manpower: >6000 Craft
  - >14,000 Technology Devices Paired to Craft and Leadership

- **One Debottleneck Construction Project**
  - Peak Manpower ~375
  - New GPS/Cellular Technology Pilot - 16 Month Duration - Brownfield Application
Safety & Productivity Technology at Suncor

Enhanced Worker Safety:

The technology supported the response to 9 medical emergencies on construction sites in 2017-2018, including 4 serious events.

Key events:

• Event 1:
  o Worker experienced a seizure 13 stories up in steel structure.
  o The technology panic alarm initiated the response.
  o ESD was able to reach the individual within 11 minutes.

• Event 2:
  o Worker had a cardiac event in a break area.
  o Individuals device was activated by co-worker
  o Device was the only notification mechanism of event - no radios, phones or supervision were in the immediate area.
  o ESD was able to reach the individual within 6 minutes.
Support Productivity and Site Efficiency Opportunities:

Location data (anonymized and aggregated to groups of 5 or more workers) also provided powerful insight into workforce movement and supported key conversations and decisions.

Examples:

**Workforce Management:**
- Provided a visual representation of a large workforce movement (>6000 workers) and supported execution milestone delivery.

**Facilities Location Optimization:**
- This analysis identified areas of opportunities for leadership to move facilities and reduce craft commute times to and from the workface.
What is new in Safety and Productivity Technology?

A GPS/Cellular technology was selected for a Pilot Implementation on a Suncor project in 2019:

Near real-time communication to:
- Safety Operations Center
- Analytics Platform

Value (with New Technology)

- SOS Button (panic alarm)
- Gas Detection Option
- 2-way Voice and Text Communication
- Evacuation Support

Cost Reduction

- Deployment Costs Infrastructure, Resources
- ‘Data to Action’ Analytics

Innovation

- New Functionalities ex.: ‘Push-to-Talk’
- New Opportunities ex.: Equipment Utilization