



LONE WORKER SAFETY: PERSONAL MONITORING AND ALARM NOTIFICATION

NSTEPS EMERGING ISSUES MAY 2016

Workers in upstream oil and gas frequently work alone

- ▶ Pumpers transferring/hauling production fluids
- ▶ Lease operators conducting site inspections and service operations
- ▶ Petroleum Engineering Technicians conducting site inspections, proofing
- ▶ Surveyors, inspectors
- ▶ Third party service companies



Hazards encountered

- ▶ Hazardous atmospheres
 - ▶ Oxygen deficiency/enrichment
 - ▶ Flammable atmospheres
 - ▶ Toxic gases and vapors
- ▶ Personal accidents
- ▶ Accidents/Road emergencies
- ▶ Wildlife



What is needed

- ▶ Worker personal monitoring for hazardous atmosphere alarms-remote reporting
- ▶ Worker location
- ▶ Worker wellness check
- ▶ Worker emergency notification/distress call
- ▶ Third party alerts to hazardous conditions
- ▶ Personnel accountability
 - ▶ Who's here; who's not, who's missing

John Howard ASSE Meeting June 26, 2016

Wearable Sensor Technology for Safety

- “The Lone Worker”
 - Need for automatic identification and quick location during safety incidents
- Conducting research on a device to measure worker incapacitation, location, and exposure.
- NIOSH is adapting it for specific workplaces
 - Oil and gas industry
 - Laboratory environment

