

NIOSH Denver Regional Office Field Effort:

Characterization of Chemical Exposures to Gas and Oil Workers

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NIOSH Field Effort to Assess Chemical Exposure Risks to Oil and Gas Workers



- Managers, supervisors, health and safety professionals
- Drilling and servicing field operations
- Workers must be willing to participate
- All costs covered by NIOSH



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- Respirable Silica
- BTEX
- Diesel Particulate
- Aldehydes
- Acid Mists
- Respirable Dust
- Metals

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Photo: Jeff Swensen for The New York Times

- Utilize IH expertise of NIOSH
- Identify workplace exposures
- Identify possible controls
- Be a leader in OH&S

Overview / Rationale

- NORA Oil and Gas Subsector, Strategic Goal 6 (Health)
- Lack of existing information: diversity & magnitude of potential chemical exposures to workers
- Unknowns: locations, work practices, equipment, where chemical exposures most likely to occur
- Traditional emphasis O&G, OS&H: S & h
- Increase understanding of H issues in O&G
OH&S

1° Objectives

- Develop partnerships with oil and gas industry
- Review the work processes
- Identify potential chemical hazards
- Characterize risks for exposure (IH work)
- Evaluate significance of risks (> OEL's)
- Communicate findings



2° Objectives (if necessary)

- Identify potential / possible controls for exposures
- Evaluate possible controls for exposure
- Trial proposed controls, reevaluate



Potential Chemical Hazards

- Hydrocarbons
 - Benzene, Toluene, Ethyl benzene, Xylenes, other aromatics and aliphatic







Potential Chemical Hazards

- Respirable crystalline silica





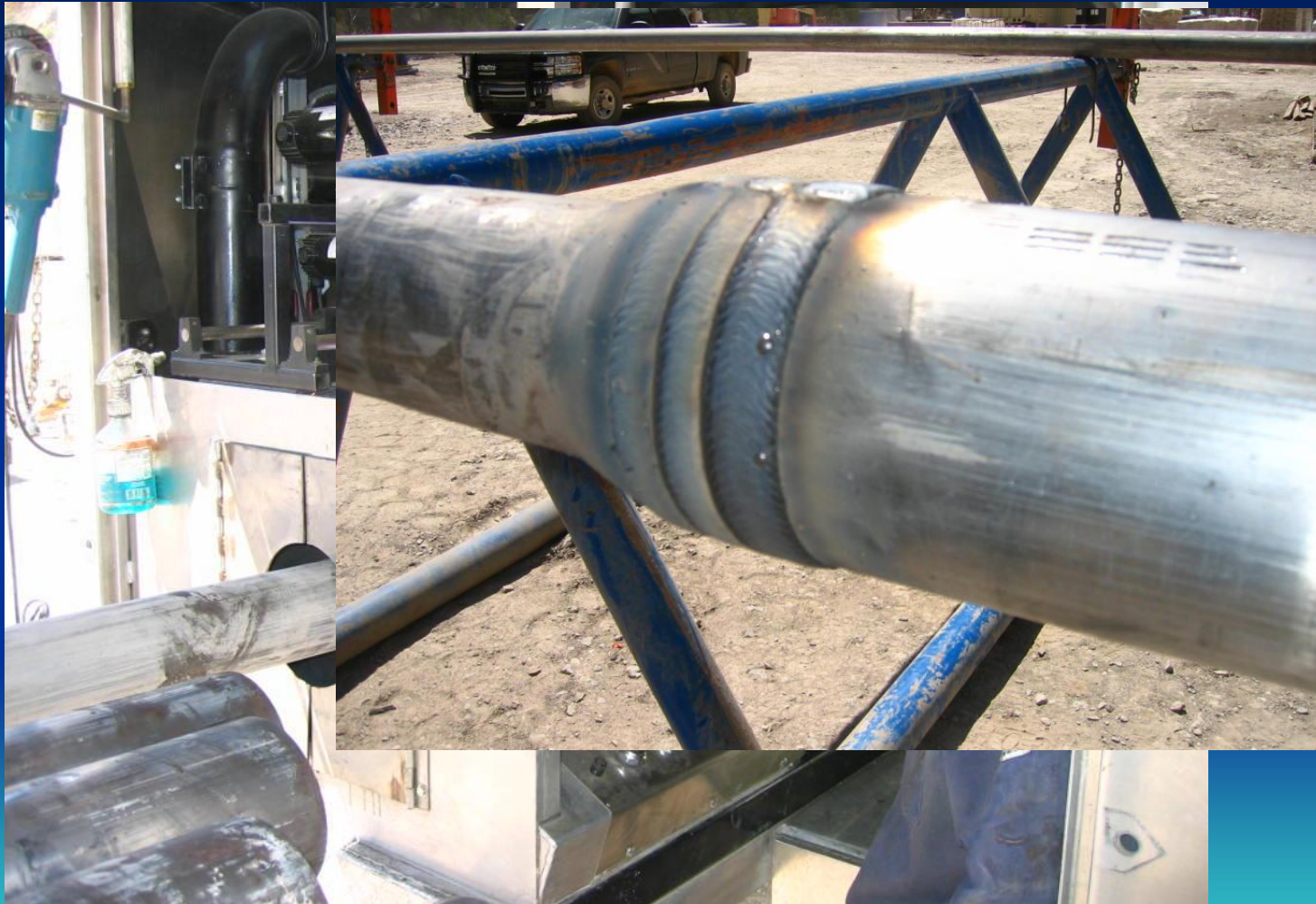
Potential Chemical Hazards

- Diesel exhaust





Hard banding (elements, CrVI, Mn)







Mud mixing chemicals

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