

Southwest Partnership CO₂ Sequestration

Risk Assessment of Field Experimentation

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US Department of Labor Occupational Safety & Health Administration (OSHA)

- **Must Comply with Code of Federal Regulations (CFR)**
- **29 CFR 1910 OSHA Standards**
 - 724 page document
 - Web – www.osha.gov
- **You MUST perform and document a Hazard Assessment Survey before starting a job!**
- **Get “HELP” from your Organization management, compliance and safety Departments.**

Project Management & Safety Planning



1. Plan Work
2. Analyze Hazards
3. Control Hazards
4. Perform Work
5. Feedback & Improve



Key Hazard Assessment Areas

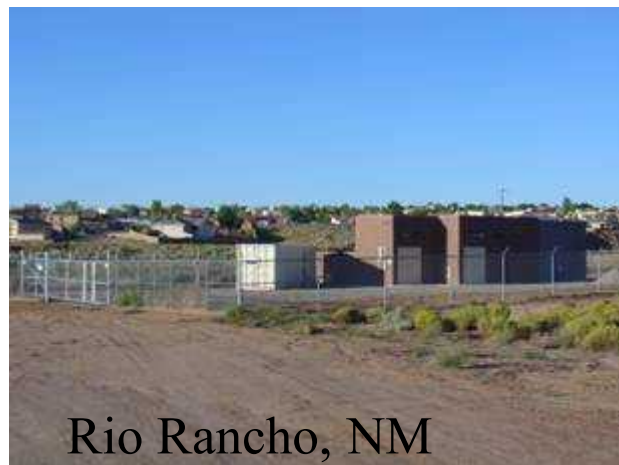
- Radiological
- Explosives
- Lasers
- Hazardous Chemicals
- Energized Electrical Work
- Mechanical Hazards
- Thermal
- Pressure
- Noise
- Environmental
- Numerous work related conditions such as; construction like activities, ladders, confined space, respiratory, etc...



Basic “Out in the Field” Survival Common Sense!

- **Adopt Two-Man Rule**
- **Communications**
- **Weather**
- **Water – Food – Facilities**
- **Transportation**

Where & What is your “Pilot Site” like?



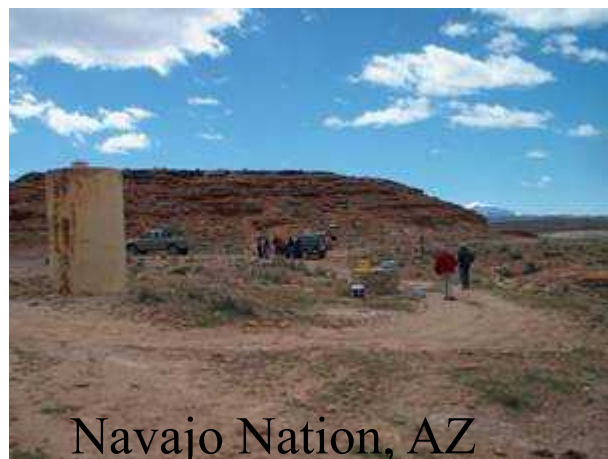
Rio Rancho, NM



Socorro, NM



Artesia, NM



Navajo Nation, AZ



El Paso, TX



Rio Rancho, NM

Arsenic Removal from Drinking Water



Zero Liquid Discharge Project using Reverse Osmosis – Electrodialysis-Methaxis



El Paso, TX

Socorro Springs Arsenic Removal Pilot for Drinking Water



Coal Bed Natural Gas Produced Water Desalination Pilot (CBNG)



**ConocoPhillips
SAN JUAN 32-8 #237A
Pilot Site**

**Sandia National Laboratories
Pilot Transporter**





(CBNG) Pilot Operation Notebook

- **ConocoPhillips Safety & Site Requirements**
- **List of Contacts & Phone Numbers**
- **Site Specific Safety & Emergency Information**
- **Pilot Procedures for System Operations**
- **Primary Hazard Screening (PHS)**
- **National Environmental Policy Act (NEPA)**
- **Pressure Package**
- **Electrical Operating Procedure (OP)**
- **MSDS**
- **Signed Forms for Authorized Users & Visitors**



Acknowledgements

- **OSHA Web Site:** www.osha.gov
- **ConocoPhillips:**
 - Health, Safety & Environmental (HSE) Orientation
 - Job Safety Analysis Worksheet (JSAW)
- **Sandia National Laboratories:**
 - Integrated Safety Management System (ISMS)
 - Environmental Safety & Health System (ES&H)
 - Arsenic Water Treatment Program (www.sandia.gov/water/arsenic)
 - Coal Bed Natural Gas Produced Water (CBNG) Desalination Pilot
 - Zero Liquid Discharge – RO/EDM (ZDD-Dow-SNL)



Conclusions

If the job is worth doing!

It is worth doing SAFELY!

**and as always ...
with its “proper documentation”**