An Overview of the US Magnesium Superfund Site

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**Site Background**
- Located in Toole County, UT
- Opened in 1972
- 75 mi² radius with an additional 5 mile boundary
- Produces 50,000 tons of Mg/yr – Only producer of Mg in NATO alliance
- Listed on NPL in 2009 with HRS score of 58.19
- Subject to regulation by both RCRA and Superfund

**Concerns:**
- Transport: Contamination of local groundwater
- Transport to GSL

**Geology:**
- Alternating layers
- Silt (↓ permeable)
- Sand (↑ permeable)

**Sampling locations:**
- ERM proposed sample locations

**Sediment/Soil**
- Dioxins/furans
- HCB
- PCB

**Concerns:**
- Contamination of local groundwater
- Transport to GSL

**Surface Water**
- pH < 1
- Dioxins/furans
- HCB
- PCB

**Concerns:**
- Containment: Direct path to GSL if Skull Valley Diversion Ditch is breached
- Groundwater Flow:
  - dh/dx = ~2/1000 ft
  - ~ 2 mil gal/day ww discharged

**Groundwater**
- Dioxins/furans
- HCB
- PCB
- VOCs

**Concerns:**
- Groundwater discharge permit
- Future Groundwater discharge permit

**Air**
- Cl₂
- VOCs/SVOCs
- HCl
- Trace Elements

**Concerns:**
- Title V Permit of 3,300 tons/yr Cl₂
- Off-site deposition:
- AERMOD – sampling locations
- Lake side mountains

**Photos and schematics courtesy of US EPA and ERM consulting**
Addition information available at: https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0802704