

Sisk 1997



# Incineration of Explosive-Contaminated Soil



- Pilot demonstration at Savanna Army Depot, IL, 1982
- Soil manifested from Louisiana AAP to Savanna
- Incinerator moved from NJ
- Permit to construct and operate hazardous waste incinerator from State of IL
- Department of defense explosive safety board approval
- 26 days of testing
- 200 to 400 lbs of soil per hour feed rate

3534



58940  
16-000672



# Advantages Of Incineration

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- Incinerator very forgiving
- Large thru put - 20 to 40 tons per hr
- Round the clock operation, 80%
- Not affected by weather
- Treats both liquids and solids at the same time



# Disadvantages Of Incineration

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- Does not enjoy public favor
- Needs air pollution control equipment
- Large mob and demob cost ~ \$ 2 - 3.5 million
- Can be energy intensive



# Sites Remediated Using Incineration

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- Cornhusker AAP, NB
- Louisiana AAP, LA
- Savanna AD, IL
- Alabama AAP, AL



# Sites Under Remediation Using Incineration

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- Weldon Springs Ordnance Works,  
MO
- Former Nebraska Ordnance Works,  
Mead, NB



# Incinerator Equipment

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- Feed System
- Rotary Kiln
- Secondary Combustion Unit
- Spray Quench System
- Bag House
- Id Fan
- Stack



# Cornhusker AAP



- 42,000 tons
- \$238 per ton *turnkey costs is total cost/tons treated*
- Excavate to 5 PPM
- Treat to 1 PPM



# Louisiana AAP

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- 102,000 tons
- \$270 per ton (turnkey costs)
- Excavate to 5 PPM, changed to 100 PPM
- Treat to 1 PPM



# Savanna AD



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- 46,000 tons
  - \$325 per ton
  - Excavate to 22 PPM
  - Treat to 1 PPM



# Alabama AAP

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- 28,000 tons
- \$325 per ton
- Treat to 1 PPM