

How Coal Mine Projects are Permitted and Regulated in Alaska

Bruce Buzby

Coal Regulatory Program Manager

Alaska Department of Natural Resources

Division of Mining, Land & Water



Introduction

- History of Coal Regulations
- Permitting Process
- Coal Mining Operations
- Reclamation Techniques
- Inspection and Enforcement Procedures

Surface Mining Control and Reclamation Act

- Regulatory requirements for coal mines are different than for other types of mines. Spurred by major environmental impacts from coal mining in the 1960's and 1970's, the U.S. Congress passed the Surface Mining Control and Reclamation Act (SMCRA) in 1977.

Office of Surface Mining



- Making sure that SMCRA's goal are met is the responsibility of the Department of the Interior's Office of Surface Mining (OSM).
- Two major programs were created by the Surface Mining Law
 - A reclamation program for abandoned mine lands.
 - A regulatory program for active coal mining and reclamation operations.

Alaska Coal Program

- The federal Act also allowed individual states to develop coal regulatory program consistent with the federal legislation, and assume control (primacy) over the federal program.
- Because of Alaska's vast coal resources and unique conditions the State developed its own regulatory program, and enacted the Alaska Surface Coal Mining Control and Reclamation Act on May 2, 1983.

Purpose of the Act

- To assure that coal mines are operated in a manner that protects citizens and the environment during mining.
- Assure that the land is restored to stable and productive use following mining.
- Mitigate the effects of past mining by aggressively pursuing reclamation of abandoned mine lands (AML Program).

Abandoned Mine Land

- A reclamation program for abandoned mine lands, funded by 35¢ fees that operators pay on each ton of coal mined, to reclaim land and water resources adversely affected by pre-1977 coal mining.

Closure of Hazardous Openings



Elimination of Dangerous Highwalls



Reclaimed Mine Pits



Administration and Enforcement

- Essential elements of the Alaska Coal Regulatory Program:

- Exploration and baseline studies of the site are required before any activity occurs.
- Permitting system is to make expectations known to and binding on the operator, including public participation
- 65 separate performance standards for a variety of coal mining activities - everything from the placement of signs to statistical requirements for measuring revegetation success.
- Reclamation performance bonds.
- Monthly inspections of each active mine site.
- Criminal and civil penalties for violation of the Act.

Baseline Studies

- Cultural & History Resources
- Geology
- Surface Water Quality & Quantity
- Groundwater Quality & Quantity
- Meteorology/ Air Quality
- Vegetation
- Fish and Wildlife
- Soils
- Wetlands
- Land Uses

Operation and Reclamation Plans

- Operations Plan
- Blasting Plan
- Air pollution control
- Fish and Wildlife protection plan
- Reclamation plan
- Post mining land use
- Protection of the hydrologic balance
- Protection of public parks and historic places
- Relocation or use of public roads
- Transportation facilities

State Agencies

- **Department of Natural Resources (DNR)**
- **Department of Environmental Conservation (DEC)**
- **Department of Fish and Game (DF&G)**
- **Department of Transportation & Public Facilities (DOT&PF)**
- **Department of Commerce, Community and Economic Development (DCCED)**
- **Department of Law (DOL)**

State of Alaska Regulatory Requirements

- **Surface Coal Mining Permit (DNR)**
- **Dam Safety Certification (DNR)**
- **Fish Habitat and Fishway Permits (DNR)**
- **Water Rights (DNR)**
- **Cultural Resource Protection (DNR)**
- **Coastal Zone Consistency Determination (DNR)**
- **Right of Way/Access (DNR/DOT)**
- **Sewage Treatment System Approval (DEC)**
- **Solid Waste Disposal Permit (DEC)**
- **Air Quality Permits (DEC)**
- **Drinking Water Supply (DEC)**

Federal Agencies

- **US Environmental Protection Agency**
- **US Army Corps of Engineers**
- **US Fish and Wildlife Service**
- **National Marine Fisheries Service**
- **Mine Health and Safety Administration**
- **Office of Surface Mining**

Public Participation

- **Informal Public Process**
 - Pre-Application meetings and outreach
 - Attend local community meetings

- **Formal Public Process**
 - Public notice
 - Public Meetings
 - Hearings

- **NEPA public participation**

*** Comments and questions are always welcome!**



Operation and Reclamation

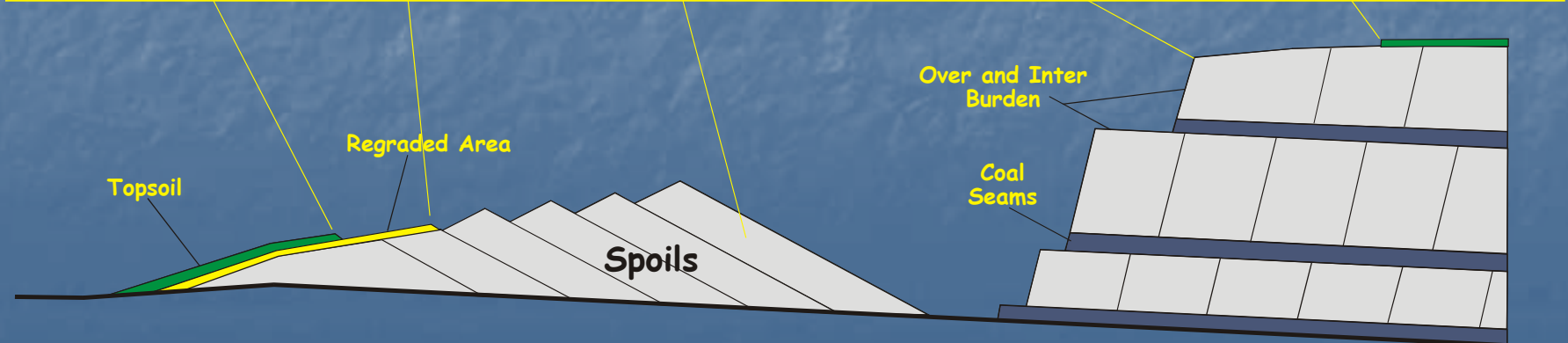
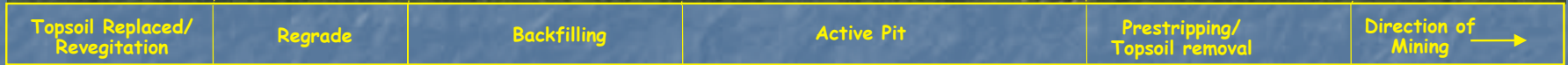
Coal Mine



Typical Surface Coal Mining Methods



Surface Coal Mining



Truck / Shovel Operation



Dragline Operation



Drilling and Blasting



Coal Haulage and Stockpiles



Conveyor



Conveyor



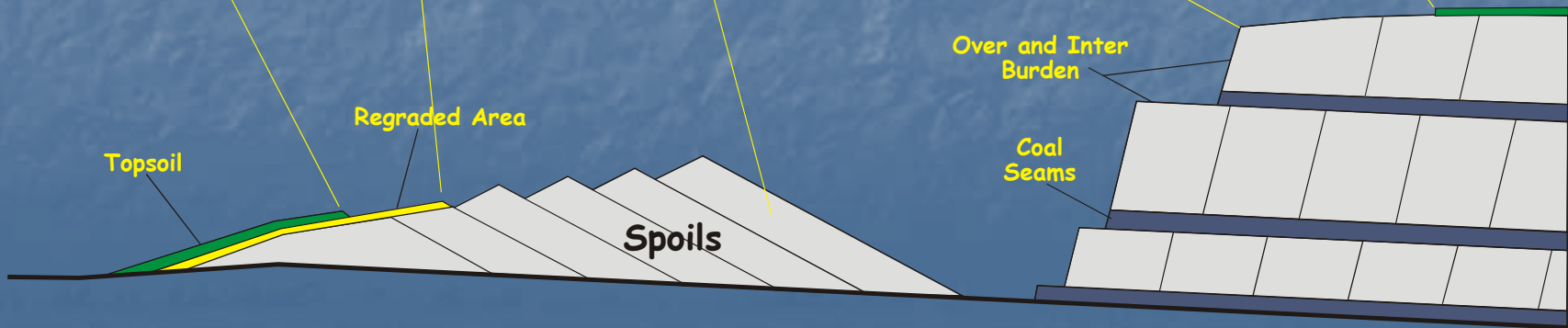
Port Facilities



Reclamation



Reclamation Practices



Backfilling and Regrading



Topsoil Placement



Seeding



Reclamation Bonding

- The amount of the bond shall reflect the probable difficulty of the reclamation.
- Bond Release
 - Phase I – Completion of backfilling, grading, and drainage control
 - Phase II – Replacement of topsoil and the establishment of vegetation
 - Phase III – 10 years after final completion of all surface coal mining and reclamation activities.

Red Pit – 1983



Red Pit – 2006



It's Here!

Red Pit – 2006



Blue Pit – 1983



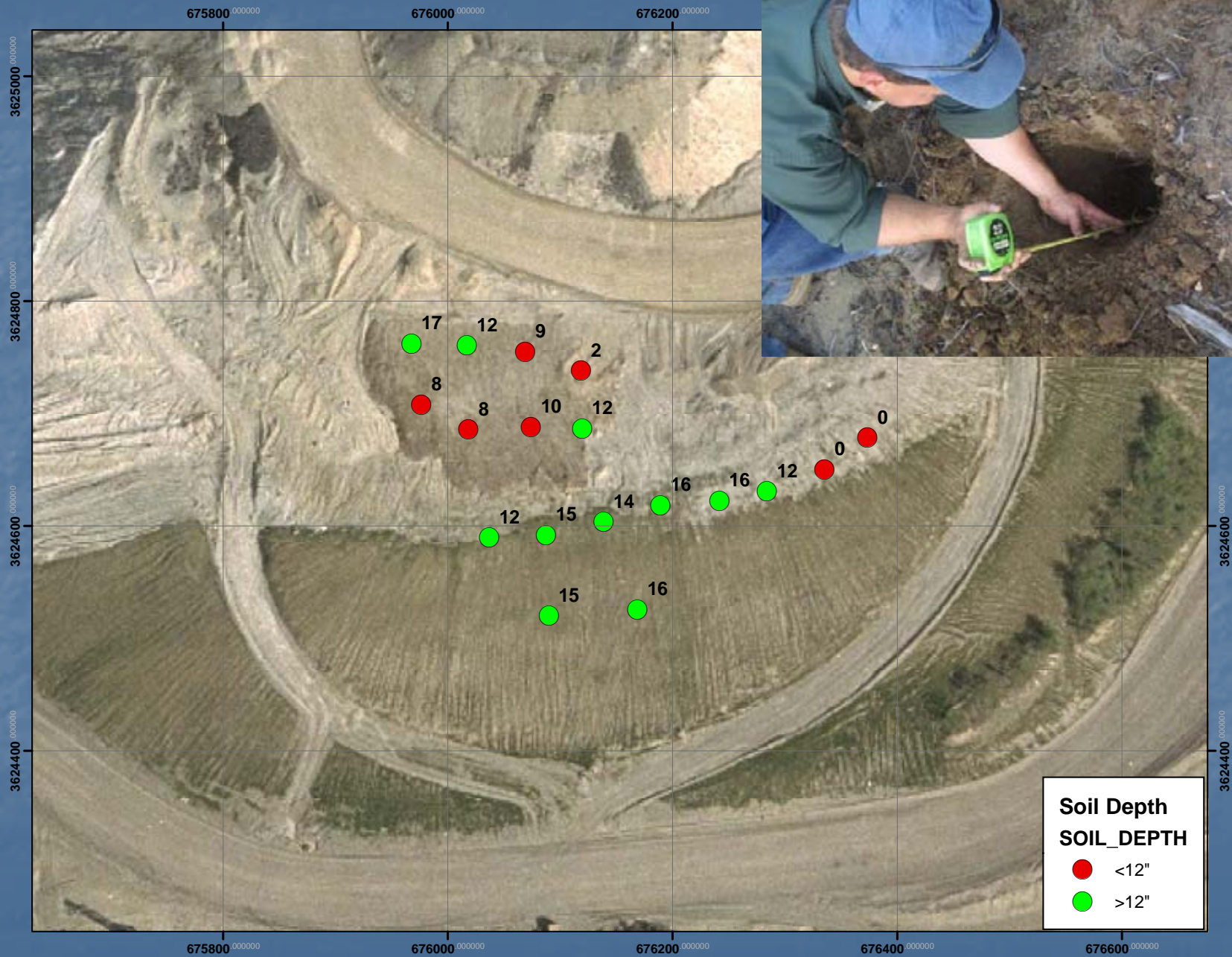
Blue Pit – 2002



Inspection and Enforcement



Evaluate Permit Conditions



Health and Public Safety



Conduct Monitoring



Address Operational Challenges



Evaluate Reclamation Success



Enforcement Actions



Questions