

Environmental Permitting of a Lignite Mining Operation



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Environmental Permits

- **Surface Coal Mining and Reclamation Permit**
- **Water Permits**
 - Stormwater Construction Permit
 - Industrial Stormwater Permit
 - State Construction Permit
 - Coal Mining and Exploration Discharge Permit
- **Air Permit (Possible)**
 - Minor Source vs. Major Source
 - Rock Crushing
 - Coal Syn Gas
 - Power Generation

Surface Coal Mining and Reclamation Permit

- **Statute: A.C.A. 15-58-101 et seq. (The Arkansas Surface Coal Mining and Reclamation Act)**
- **Arkansas Pollution Control and Ecology Regulation 20**
 - **463 Pages**
 - **Equivalent to Federal Regulation**
- **General Requirements**
- **Permitting Process**
- **Permitting Schedule**

General Requirements

- **Environmental Resources Investigations**
- **Operations Plan**
- **Reclamation Plan**
- **Special Categories of Mining**
- **Bonds and Insurance**

Environmental Resources Investigations

- **Detailed Geologic Investigation**
- **Detailed Hydro geologic Investigation**
- **Prime Farmland Investigation**
- **Climatological Information**
- **Site Vegetation Delineation**

Soil and Over Burden Investigation

- **Site Mapping**
 - **Site Property Boundary**
 - **Proposed Mining Area Boundary**
 - **Water Supply Intakes**
 - **Contiguous Property Owners**
 - **Adjacent Building and Uses**
 - **Revegetation Reference Areas**
 - **Cemeteries or Burial Grounds**
 - **Public Roads**
 - **Man Made Features on Site**
 - **State Parks, Historic Places, Etc**

Operations Plan

- **Right of Entry and Mineral Rights**
- **Methods of Coal Mining**
- **Anticipated Annual and Total Coal Production**
- **Major Equipment to be utilized**
- **Overburden and Topsoil Handling and Storage**
- **Site Facilities**
- **Coal Storage Handling and Storage Areas**

Operations Plan, Cont.

- **Water and Air Pollution Control Facilities**
- **Blasting Plan**
 - Types and amounts
 - Warning Signs and Site Access Control
 - Recordkeeping Requirements
 - Blasting Monitoring Equipment
 - Pre-blast Surveys
 - Storage Areas
- **Fish and Wildlife Plan**
- **Spoil and Waste Disposal Plan**
- **Signs and Markers**







Reclamation Plan

- **Detailed Schedule**
- **Cost Estimate**
- **Backfill, Soil Stabilization, Compaction and Grading Plan to Original Contours**
- **Topsoil and Revegetation Plan with Five Year Review**
- **Determination of Probable Hydrologic Consequences of Reclamation**

Reclamation Plan, Cont.

- **Groundwater Monitoring Plan**
- **Surface Water Monitoring Plan**
- **Post Mining Land Use**
- **Run-off Control Plan**





Special Categories of Mining

- **Underground Mining**
- **Experimental Practices Mining**
- **Steep Slope Mining**
- **Mountain Top Removal**
- **Prime Farmland**
- **Augering**

Bonding and Insurance

- **Reclamation Bond:** A reclamation bond must be posted prior to issuance of a permit and the bond must be in force during the full term of the permit.
- **Liability Insurance:** Minimum insurance coverage for bodily injury and property damage shall be \$300,000 for each occurrence and \$500,000 aggregate.

Permit Process

- **Pre-application Conference with prospective applicant**
- **Surface and groundwater Monitoring within the permit and adjacent areas for a minimum six-month-period**
- **Applicant submits requests for licenses, permits, or clearance to Additional State and Federal Agencies including SHPO, AGFC, Etc.**
- **Applicant submits permit application**
- **ADEQ Determines if Application is Administratively Complete**
- **Public Notice is given of an Administratively Complete Application**

Permit Process, Cont.

- **Full Permit Application Review**
- **Director documents written findings which affirm that permit application is eligible for approval**
- **If new information is submitted, Director shall reconsider decision to approve permit application**
- **Director issues permit**



Questions?