



*Citizen's Guide
to
Coal Mining and Reclamation
in
Indiana*

Indiana Department of Natural Resources
Division of Reclamation
14619 W State Road 48
Jasonville IN 47438-9517
1-812-665-2207
1-800-772-6463
(Toll-free only in Indiana)



U.S. Department of Interior 25th Anniversary Gold Award Solar Sources, Inc. Sky Point Mine, Lynnville, IN

In 2002, as part of its 25th anniversary celebration, OSM presented awards to the most outstanding examples of coalmine reclamation since the adoption of Surface Mining Control and Reclamation Act (SMCRA) in 1977. The Solar Sources, Inc. Sky Point Mine was recognized as the very best example of coalmine reclamation in the United States during the past 25 years. It was selected for its exemplary soil replacement and restoration of the site to productive farmland. Sky Point is the finest example of restoration to original contour and uniform soil replacement to be found under a variety of mining conditions. The main effort by Solar Sources at Sky Point was the restoration of topography, soil, water and drainage conditions conducive primarily to an agricultural purpose as well as being capable of supporting multiple other land uses. Many new permanent water impoundments were created on the reclaimed areas. These areas provide recreation, livestock watering and wildlife habitat. Crop production from the farmlands exceeded the target yields required for the mine. Solar Sources; diligence in soil replacement, fertility and revegetation was above and beyond the basic requirements of SMCRA. It has paid off in landowner satisfaction, excellent crop production and the best example of mine reclamation in the nation.



Mission Statement

We, the employees of the Division of Reclamation, are dedicated to professional public service through effective administration of Indiana's mine reclamation laws. We are committed to ensuring optimum management of natural resources and public protection both during and after mining.

TABLE OF CONTENTS

Mission Statement

I. INTRODUCTION

History of Mining in Indiana	1
Indiana Coal Facts.....	2
The Role of the Division of Reclamation	3
Regulatory Program	3
Restoration Program	4
Administrative Services	4

II. REFERENCE GUIDE FOR PUBLIC INVOLVEMENT

Permit Application Preparation.....	5
Permit Application Review Process	6
County Library List, Table 1	8
Pre-blast Survey	9
Request for State Inspection	9
Bond Release	9
Rulemaking	10
Summary	11

III. SURFACE MINE PERMIT APPLICATION REVIEW PROCESS

Permit Application Process.....	12
Pre-Mining Inventory and Maps....	13
Land Use	13
Mining Prohibitions	14
Violation Inventories	14
Mine Operations Plan	14
Topsoil Removal and Storage	15
Blasting	15
Overburden Removal and Placement.....	16
Water.....	17
Coal Processing Waste.....	17
Mine Reclamation Plan.....	17
Grading and Soil Replacement	18
Post-Mining Land Use	18
Productivity.....	19

IV. UNDERGROUND PERMITS AND SUBSIDENCE CONTROL

Modern Underground Mining.....	20
Underground Mine Permit Application Process and Requirements	21
Subsidence Control Plan	21
Surface Owner Notification	21
Subsidence Damage	21
Mine Subsidence Insurance	22

V. PERFORMANCE BOND

VI. INSPECTION AND ENFORCEMENT ACTIONS

Notice of Violation	25
Cessation Order.....	25
Fines.....	25
Permit Suspension or Revocation ..	25
Bond Forfeiture.....	26
Federal Oversight.....	26

VII. FUNDING FOR THE DIVISION OF RECLAMATION

QUESTIONS AND ANSWERS.....

GLOSSARY.....

I. INTRODUCTION

History of Mining in Indiana

Bituminous coal was first discovered in Indiana along the Wabash River in 1736. Coal mining began in Indiana in the middle 1800's using the underground mining method. Today, abandoned underground coal mines underlay extensive areas of Indiana. By the early 1900's, with the development of steam-powered equipment, surface mining soon became the dominant method of coal removal in the State. Indiana coal mine operators pioneered surface mined land reclamation in the United States. In 1926, a few of them joined together to form the Indiana Coal Producers Association. They voluntarily decided to replant (*revegetate*) parts of their spoil banks (which were piles of removed rock and soil) through reforestation to either have a cash crop or to hide the spoil. Not all early mine operators joined the association and reclamation remained sporadic. As a result, the State of Indiana passed a law in 1941 that required the planting of trees on spoil banks. Indiana was the second state in the nation to implement a reclamation law.

By 1967, Indiana law had realized major revisions that included provisions for the planting of farm crops, hay and grasses on mined land; requirements that certain acid-forming rocks and other materials be buried; and areas reclaimed for agriculture were to be accessible by farm machinery. Operators had to plan in advance for how the land would be used after mining was completed. Standards were established for the creation of lakes and the leveling of peaks and ridges caused by rock and soil removal. It was the first law in the nation to have rules that required the grading of mined land to specific contours. A performance bond was placed on land to be mined and was not released until reclamation was completed and revegetation was successful.

On August 3, 1977, the United States Congress passed the Surface Mining Control and Reclamation Act (SMCRA). It established stringent national standards for coal mining and reclamation and created the federal Office of Surface Mining, Reclamation and Enforcement (OSMRE) as part of the Department of Interior. SMCRA established the Abandoned Mine Reclamation Fund to reclaim mined lands that had been inadequately restored or abandoned before passage of the Act of 1977. It is supported by coal mine operators who pay a reclamation fee per ton of coal mined.

Because of the diverse mining conditions in the United States, Congress intended that, upon approval of a state's proposed law and regulations by the Secretary of Interior, the state should be the primary regulator rather than OSMRE. Under the law, the Secretary of the Interior must approve any state program that meets or exceeds the federal standards. State standards must be at least as effective as the federal standards and ensure that citizens are protected to the same extent that they would have been under the federal standards. This procedure allows individual states to gain primary control (*primacy*) over the regulation of surface mining.

On July 29, 1982, the Indiana Division of Reclamation (DOR) gained primacy and began to administer state mining law that had incorporated federal SMCRA requirements. OSMRE oversees the DOR administration of the approved regulatory program. OSMRE inspectors, who work with the Division to solve issues, make periodic inspections.

In addition to the mining and reclamation laws, operators must comply with a host of other local, state and federal laws and programs across the country to maintain a permit to mine coal in Indiana. Federal laws include:

- Clean Air Act
- Clean Water Act
- Federal Coal Mine Safety and Health Act
- Endangered Species Act
- Fish and Wildlife Coordination Act
- National Historic Preservation Act
- Archaeological and Historic Preservation Act
- Executive Order 11593 (relates to the protection of both historic and pre-historic sites)

Indiana Coal Facts

The United States is to coal what Saudi Arabia is to oil. The U.S. holds the largest recoverable coal reserves of any single nation. The U.S. coal reserves are so large that they will last more than 275 years at our current rate of consumption. Coal provides about 50% of the total amount of electricity used in the United States each day and 94% in Indiana.

The Illinois Coal Basin, of which Indiana is a part, is one of the largest coal fields in the United States. Estimates are that Indiana has 9.7 billion tons of commercial coal reserves.

Historically, Indiana has been one of the top ten states in national coal production with about 34 million tons mined annually. Almost 90% is extracted using surface mining methods, while the balance is mined using room and pillar underground technology.

In recent years, Warrick, Sullivan, Pike, Daviess and Greene have emerged as the top coal producing counties in Indiana. They are closely followed by Clay, Knox and Gibson.

Predictions are that Indiana mining will shift back to underground mining. Some 90% of Indiana's remaining recoverable reserves can be feasibly mined only by using underground mining methods. With a resurgence of underground mining, the counties of Sullivan, Gibson, Posey and Knox may become the most active since they have the most reserves.

The Role of the Division of Reclamation

The Indiana Department of Natural Resources / Division of Reclamation is responsible for regulating the mining of coal and the restoration of lands disturbed by coal extraction. The DOR is divided into two program areas: regulatory and restoration.

Regulatory Program

This program oversees active coal mining operations and the reclamation of the land by the coal company after the extraction of coal. The DOR has a unique and difficult dual responsibility: 1) regulating the coal mining industry in a way which strikes a balance between protecting society and the environment from the adverse effects of surface coal mining operations while 2) providing the national need for coal as an essential source of energy.

The Regulatory Program involves two primary areas:

- inspections/enforcement
- technical services/permitting

Responsibilities of the Inspections and Enforcement Section include reviewing permit applications, amendments, revisions and land use changes. A reclamation specialist is a highly trained professional responsible for enforcing 1) the permit process which authorizes when and where mining can take place, and 2) compliance with all mining and reclamation rules at the mine site. Reclamation specialists monitor mining activities from the time the permit is issued until the last acre is reclaimed and the final bond is released. An active mine is inspected regularly to ensure that the mine is obeying the regulations that protect both people and the environment from the potential adverse effects of mining. Emphasis is placed upon how the mine operates and controls:

- topsoil
- surface and subsurface protection of water systems
- regrading and revegetation
- blasting
- potential damage to land and structures caused by underground mine subsidence
- toxic material handling

A structural engineer, who evaluates complaints of blasting damage, is one of the specialists in the Blasting Section. This section monitors compliance in all areas related to coal mine blasting including Blaster's Certification Program, permit reviews, inspections, seismograph monitoring and special studies. The blaster at a mine must pass a test to be certified by the DOR. All blasts must be under the direct supervision of a certified blaster. A blaster, certified by the Division, is responsible for the storage, handling, placement and use of explosives at a coal mine.

The Technical Services Section provides assistance to all other Division sections. Their main responsibility is reviewing the technical aspects of permit applications for an area to be mined, such as:

- geology
- hydrological impacts
- mine drainage control
- soil conditions and land capability
- wildlife habitat
- underground mine subsidence control
- land use and revegetation
- prime farmland productivity restoration

Technical Services staff have expertise in agronomy, geology, hydrology, archaeology, natural resources management, and mining engineering.

Restoration Program

The Restoration Program addresses areas which were disturbed by coal mining prior to 1977, have been improperly reclaimed, and for which there is no continuing reclamation responsibility under SMCRA. Abandoned areas are reclaimed using federal or State funds dedicated for reclamation purposes. In the event that the Regulatory Program obtains forfeited bond money from a non-complying operator, the Restoration Program reclaims the site. The purpose of

reclamation on these sites is to alleviate safety, health and environmental hazards while improving productivity and enhancing the landscape.

This program includes three sections:

- planning
- project management
- designing/engineering

The Planning Section obtains federal funds through annual construction grants for restoration of the abandoned sites that are eligible under the established OSMRE priority system. Funding comes from the coal mine operators who pay a fee for each ton of coal mined at active surface mines and underground coal operations. OSMRE collects and administers all funds through grants to the State.

The Project Management Section is responsible for acquiring rights of entry from the landowners of the abandoned site. The program and the plans for the site are explained to the landowners. In order for the reclamation work to be done, landowners give the DOR right of entry to their property. When the restoration of the site is completed, DOR releases its right of entry.

The Engineering Section surveys the site to be reclaimed, examines soil and water conditions, and determines the type of reclamation needed. Reclamation plans and specifications are then prepared for the site.

Bids on the project are then requested. Contractors, pre-qualified to do reclamation work in Indiana, submit bids to perform the work specified in the reclamation plan.

Project managers regularly inspect the work of the contractor. Project managers monitor the progress closely to ensure that reclamation activities proceed as prescribed in the plans and specifications. For a more complete description of this program, please refer to the Division of Reclamation Citizen's Guide to Indiana's Abandoned Mine Lands Program.

Administrative Services

With staff in Indianapolis and Jasonville, this section is responsible for: administrative grants obtained from the federal government; for administrative, personnel and procurement services; budget and revenue; assorted special projects; and information technology.

II. REFERENCE GUIDE FOR PUBLIC INVOLVEMENT

Permit Application Preparation

Public participation in the granting of a coal permit is assured by SMCRA. Appropriate procedures are provided for public participation in the development, revision, and enforcement of regulations, standards, reclamation plans or programs established by the Secretary of Interior or by any state, including the State of Indiana. Citizens have a right to participate at every phase of the permit application and mining process.

While citizen participation is not, and cannot be, a substitute for governmental authority, the involvement of citizens in all phases of the regulatory scheme help ensure that the decisions and actions of the regulatory authority are based upon complete and full information.

Indiana law provides for citizens access to all the information and records relating to permits, inspections, bonds and all other information which the DOR uses to make decisions. There is only one exception. Information submitted by a coal operator that might jeopardize the competitive position of a coal operator with other operators is protected from public availability. For example, information about the commercial characteristics of the coal seams to be mined.

The information in the coal company permit applications must be compiled and analyzed by various professional scientific specialists before the Division of Reclamation can accept the permit.

A professional geologist, who has been certified by the State of Indiana, must identify the components of the overburden (the rock and soil above the coal seam).

A registered professional engineer must design the construction of all structures before the permit is submitted. After construction is complete, the structure must then be certified as "built as designed."

The laboratory analysis (listing of the contents) of rock, coal and water must be complete and signed by laboratory personnel before DOR can accept the results and before the permit can be submitted.

Coal mining applicants must show that they have adequate public liability insurance by supplying certified insurance documents from companies licensed to insure in Indiana.

Concerns related to cultural and historic resources, including archaeological resources that may be impacted by mining activities are addressed with various levels of investigation at the permit site. Any Archaeological investigation must be completed by a qualified professional

The Indiana Secretary of State provides Certificates of Existence for each applicant certifying the corporation has filed its most recent annual report required by law.

An Indiana Certified Blasting licensee must have designed all of the operational blasting plans submitted by the permit applicant. This provides continuity in the design of the blasting operation and ensures that blasting regulation requirements will be met.

Public concerns come from places other than the regulatory authority and public hearings. Agencies charged with specific public responsibilities have an opportunity to comment on each permit application. Each permit application is subject to an opportunity for comments from:

- U.S. Department of Fish and Wildlife
- U.S. Department of Labor
- Department of the Army (Corps of Engineers)
- U.S. Mine Safety and Health Administration
- Indiana Bureau of Mines and Safety
- Indiana Department of Environmental Management
- Indiana Division of Fish and Wildlife
- Indiana Division of Forestry
- Indiana Division of Nature Preserves
- County Agriculture Agents
- County Commissioners

Permit Application Review Process

When a properly completed permit application (*administratively complete*) is accepted for review, the coal mine operator will publish a public notice in a local newspaper. This notice must appear once a week for 4 (four) consecutive weeks. The fourth notice marks the beginning of a 30-day period for public comment. Also, anyone who has property that is either inside or next to the permit area will receive in the mail a notice from the coal mine operator. This allows citizens the opportunity to request an informal conference or public hearing about the permit application. A request for an informal conference must be in writing and sent to the DOR. In the letter, you should explain how the permit might adversely affect your interests and briefly summarize the issues to be raised at the conference.

Following the publication of the notice in the newspaper, any interested party has the right to review the application and make written comment to DOR. The application can be reviewed at a library in the county where the mine will be located (See **Table 1 on page 8**) or at the DOR field office in Jasonville. Written comments should be specific to the application and provide as much information as possible concerning omissions, inaccurate representations, or other areas of concern. All comments received will be addressed during the technical review of the application.

During the public comment period, A request for an informal conference or public hearing can be made to DOR. Requests should be made in writing to:

Director of the Division of Reclamation
14619 W State Road 48
Jasonville, IN 47438-9517

Requests must identify the reason(s) for making the request. The purpose of an informal conference or public hearing is to provide information to the Division concerning the application. The conference or hearing provides a second avenue of public input during the permitting process. It is possible that the person in charge of an informal conference or public hearing will allow the submission of written comments as part of the process. A decision to accept additional written comment is made on a case-by-case basis and is based on the anticipated nature and content of the additional written comment. As with written comments submitted during normal public input, comments received in an informal conference or public hearing will be considered during the technical review of the application.

After the public comment period has ended, the Director will determine whether the application must be modified to conform to rules and law. Any required modifications will be detailed in a letter from the DOR Director. A copy of the letter will be filed in the public library in the county where the proposed coal mine is to be located and at the DOR field office in Jasonville. In both places, the letter will be available for public inspection. When the coal mine operator responds to the letter of required modifications, the DOR Director will release the DNR written permit application decision findings document. It will respond to citizen comments received during the public review period. A newspaper advertisement will announce the decision of the DOR Director.

If an interested party feels that a concern has not been addressed sufficiently and that the approval or denial of an application has been inconsistent with the requirements of IC 14-34, formal objections to the decision can be filed. These objections will be heard before an administrative law judge (ALJ) who, on the basis of the record before the Director, will render a recommended decision concerning the appropriateness of the decision to the Natural Resources Commission. Citizens may file written objections and provide oral testimony to the Commission, who will render the final DNR order on the permit application.

If an affected party continues to disagree with the permit decision, a judicial appeal to an Indiana court may be filed.

Citizen participation during a permit amendment, significant revision, or renewal is the same as those for a permit application.

**County Library List
Table 1**

Clay

Brazil Public Library
204 North Walnut Street
Brazil, IN 47834

Daviess

Washington Carnegie Public Library
300 West Main Street
Washington, IN 47501

Dubois

Jasper Public Library
1116 Main Street
Jasper, IN 47546

Fountain

Covington Public Library
620 5th Street
Covington, IN 47932

Gibson

Princeton Public Library
124 South Hart Street
Princeton, IN 47670

Greene

Margaret Cooper Public Library
95 SE First Street
Linton, IN 47441

Knox

Knox County Public Library
502 North 7th Street
Vincennes, IN 47591

Lawrence

Lawrence County Cont. Public Library
1323 K. Street
Bedford, IN 47421

Martin

Shoals Public Library
Fourth and High Streets
P.O. Box 909
Shoals, IN 47581

Monroe

Monroe County Public Library
303 East Kirkwood Avenue
Bloomington, IN 47401

Owen

Spencer-Owen County Cont. Public Library
10 South Montgomery
Spencer, IN 47460

Parke

Rockville Public Library
106 North Market Street
Rockville, IN 47872

Perry

Tell City-Perry County Public Library
909 Franklin Street
Tell City, IN 47586

Pike

St. Barrett Memorial Public Library
1104 Main Street
Petersburg, IN 47567

Posey

Alexandrian Free Public Library
115 West Fifth Street
Mount Vernon, IN 47620

Spencer

Spencer County Public Library
210 Walnut Street
Rockport, IN 47635

Sullivan

Sullivan County Public Library
100 South Crowder
Sullivan, IN 47882

Vanderburgh

Evansville-Vanderburgh County Public Library
22 South East 5th Street
Evansville, IN 47708

Vermillion

Clinton Public Library
313 South 4th Street
Clinton, IN 47842

Vigo

Vigo County Public Library
One Library Square
Terre Haute, IN 47807

Warrick

Boonville-Warrick County Public Library
611 West Main
Boonville, IN 47601-1573

Pre-Blast Survey

The purpose of the pre-blast survey is to determine the condition of a dwelling or structure and document any pre-blasting damage and other physical factors that could reasonably be affected by the proposed blasting. At least 30 days before the initiation of blasting at a mine site, the operator must notify in writing all residents living within one-half mile of the permit area on how to request a pre-blast survey.

Additionally, regulations provide that any resident or owner of a man-made dwelling or structure within 1 (one) mile of the permit area is entitled to request a survey. A coal operator places a notice in a local newspaper in the county in which blasting will occur for 4 (four) consecutive weeks informing residents within one mile of the permit area of the opportunity to obtain a pre-blast survey. The coal operator must also mail a blasting schedule to every resident within one-half mile of the blasting area. It is the responsibility of the coal operator to conduct the pre-blast survey or contract the work out. *The Division encourages residents eligible for a pre-blast survey to take the time to request one.* Requests can be made either to the coal mine operator or to the Division of Reclamation. There is no fee for a pre-blast survey.

Request for State Inspection

Indiana regulations provide that citizens can request that a coal mine inspection if they believe that any condition or practice at a mine is in violation of the law. Such requests, generally known as citizen complaints, should be filed in writing and be as specific as possible in describing the condition believed to be in violation. Specific information is needed to assure that the state inspector can accurately determine the nature of the complaint and fully investigate the situation. Complaints or requests should also contain the name of the coal mine operator, the permit number, and an address and telephone number where the citizen can be contacted. Citizens have the right to accompany the Division on inspections resulting from their complaints. Citizen complaints will be held confidential if requested. Citizens who choose to participate in the inspection waive confidentiality.

Complaints filed by telephone will be investigated by the Division at its earliest opportunity. The results of the investigation may be found in regular inspection reports filed at the county library. Complaints filed by telephone that allege significant imminent environmental harm or an imminent danger to the health and safety of the public as defined by law, or which the Division believes requires an immediate response will be investigated as soon as possible. In these cases the state inspector may arrange to meet the citizen to investigate. The inspector will also ask that a written complaint be filled out and signed by the citizen making the complaint.

All citizen complaints are investigated. Inspections in response to written requests will be conducted within 10 days of receiving the request and a written report detailing the results of the investigation will be provided to the citizen within 10 days of the inspection. Requests or complaints filed by telephone and not followed up in writing will be investigated at the earliest opportunity during the course of regular inspections and a reply by phone to the citizen will be provided.

Bond Release

As with other areas of the Division's work, citizens are able to provide input during all phases of bond release.

An operator must formally apply for the release of all or part of the bond or deposit. As part of this procedure the operator must:

- publish a newspaper advertisement once a week for 4 (four) consecutive weeks announcing the bond release request
- show the precise location of affected land
- provide the number of acres being requested
- provide the amount of bond filed and the portion being sought for release
- provide the type and dates of reclamation work performed
- provide a description of the results achieved by the reclamation.

Upon publication in the newspaper of the fourth advertisement about the bond release request; within 30 days, any person with a valid legal interest who might be adversely affected by the request, can file written objections with the Division or request a public hearing or informal conference.

The DOR must conduct, in a timely manner, an inspection and evaluation of the reclamation work involved. The Division will notify the landowner, agent or lessee of the inspection. The DOR encourages citizen participation in the bond release inspection. The Division will evaluate compliance with the approved plan including:

- restoration of the approximate original contour
- soil replacement thickness
- crop productivity records
- number of living trees or shrubs present per acre
- erosion control
- water quality
- plant coverage and type
- impoundment designs

The Director may release the whole bond or part of it, when the coal mine operator demonstrates that the reclamation covered by the bond has been performed as required and public notice requirements have been met. When an operator completes the backfilling, re-grading and drainage control of a bonded area as specified in the reclamation plan, as much as 60% of the bond may be released. After vegetation has been established on the re-graded mined lands, as much as 25% of the bond may be released. Release of the last portion of the bond happens when an operator has successfully completed all the remaining mining and reclamation requirements. Citizens can provide input at any stage of bond release.

Any landowner, coal operator or other potentially adversely affected party can request a review and hearing on the DOR bond release decision before a Department ALJ. If a party continues to disagree, judicial review can be sought.

Rulemaking

Any person may petition the DOR Director or the Natural Resources Commission to initiate a proceeding for the adoption, amendment or repeal of any rule that enforces Indiana Code 14-34. The petitioner must set forth facts that necessitate the promulgation, amendment or repeal of that rule. The petition must specify the proposed rule that is to be adopted, amended or repealed and indicate if the petitioner desires a hearing. Within 90 days of receipt of the petition, the Natural Resources Commission shall either grant or deny the petition.

Summary

The Division of Reclamation values hearing from citizens. What you have to say about a permit application is very important to us. It is important for you to know that your comments and concerns will receive the careful examination they deserve and be considered to the fullest extent allowed by the law. DOR encourages citizens to use the opportunities explained in this guide book to be better informed about surface coal mining and the DOR. By having such knowledge, you will be able to better present and protect your interests. If you have any questions about coal mining or DOR, you are welcome to contact:

Division of Reclamation
Indiana Department of Natural Resources
14619 W State Road 48
Jasonville, IN 47438-9517
1-800-772-MINE (6463)
(Toll-Free only in Indiana)
1-812-665-2207
1-812-665-5041 FAX
www.in.gov/dnr/reclamation

III. SURFACE MINE PERMIT APPLICATION REVIEW PROCESS

Permit Application Process

In Indiana, all coal mining operations are required to obtain a permit from the Department of Natural Resources / Division of Reclamation. This applies to all coal mining activities regardless of mining method or size of operation.¹

There are three major components to every permit application. They are:

- pre-mining environmental inventory
- mine operation plan
- mine reclamation plan

As part of a permit application, the coal mine operator must publish in the newspaper in the county where the mine will be located, a notice that they have applied for a mining permit and the proposed permit is available for public review. This notice must appear once a week for 4 (four) consecutive weeks. This begins the opportunity for the public to file written comments and either request an informal conference or a public hearing regarding the pending application. The public may present comments on the proposed permit and provide site-specific information, which the DOR in turn will review and consider when making a decision about the application.

Permit decisions are subject to challenge from any potentially adversely affected party, including a private citizen or the coal mine operator. This must be done by filing a petition for review with the DOR within 30 days the coal mine operator being notified that the permit was approved or denied.

Pre-Mining Inventory and Maps

A company's first step in compiling their mining permit application is to gather data and map the site in a pre-mining inventory including information on:

- subsurface land boundaries and ownership
- boundaries of the proposed mining activities
- locations of all structures
- pre-mine land use
- soils and land capability
- major plant communities and wildlife habitat
- public roads within 100 feet of the permit area
- boundaries of parks, public lands, historical, culturally significant archeological sites and cemeteries

Additional maps locate and describe:

- geological test borings and core samples
- monitoring stations for water quality
- dams, embankments, impoundments
- surface and groundwater
- coal seam depth, thickness and outcrops

- active, inactive, or abandoned underground mines and surface openings
- waste disposal areas
- pre-mining land slopes
- oil, gas, and water wells
- sequence of the land to be mined

The operator must consult with the U.S. Natural Resource Conservation Service (formerly the Soil Conservation Service; SCS) to determine if the permit contains prime farmland. If a soil survey does not exist, creating one will be necessary. In the permit application, the operator must provide for a demonstration of their technical capability to restore prime farm land to 100% of its pre-mining productivity. Non-prime agricultural land must be restored to 90% of its original productivity.

An analysis of the soils and topography will determine the capability of the land to support a variety of uses. Cropland productivity prior to mining must be measured in terms of crop yield.

Land Use

In the pre-mining inventory, the operator must include the existing land uses and a description of the condition and productivity of the land to be mined. A map of how the land is being used at the time of the permit application must be included. The operator must describe the historical uses of the land, if the use of the land has changed within five years of the proposed mining operation.

When conducting the pre-mining inventory, a post-mining land use must be considered and proposed and designed into the mine operation and reclamation plan. Typical land uses that landowners and operators work towards are cropland (prime farmland and non-prime farmland), pastureland, forest, residential, industrial or commercial, recreation, fish and wildlife habitat, and developed water resources. Permit applicants are required to seek landowner comments on any change in land use.

The Division makes an exhaustive check of the proposed permit area to see if any of it has been designated unsuitable for mining by petition or Congressional designation. Each permit application must describe and evaluate cultural and historic resources and any natural or archaeological features either within or adjacent to the proposed permit area.

Mining Prohibitions

There are certain areas where mining is not allowed, except where an operator can show a valid existing right to mine did existed before August 3, 1977 (implementation date of the Surface Mining Control and Reclamation Act). Unless such valid existing rights are established, mining is prohibited:

- within 300 feet of an occupied dwelling (unless allowed by the owner)
- within 300 feet of any public building, school, church, community or institutional building, or public park
- within 100 feet of a cemetery
- within 100 feet of a public road (except where an opportunity for a public hearing has been provided and the Division finds that the public interest will be protected)
- within the boundaries of areas designated as:
 - ▶ National Parks
 - ▶ National Recreation Areas

- ▶ National System of Trails
- ▶ National Wilderness Preservation System
- ▶ National Wildlife Refuges
- ▶ Wild and Scenic Rivers
- within the boundaries of any national forest without approval by the Secretary of the Interior
- on publicly owned parks or any place on the National Register of Historic Places that would be adversely affected, unless approved jointly by the Division and the agency with jurisdiction over the land in question

Indiana law provides for any person having an interest that is or may be adversely affected, the right to petition the DOR Director to have an area designated unsuitable for mining. Lands Unsuitable for Mining Petition must supply facts and supporting evidence. For more information on this process, citizens can contact:

Indiana Department of Natural Resources
 Division of Reclamation
 14619 W State Road 48
 Jasonville, IN 47438-9517
1-800-772-MINE (6463)
 (Toll-Free only in Indiana)
 1-812-665-2207
 1-812-665-5041 FAX
www.in.gov/dnr/reclamation/

Violation Inventories

The Division reviews the compliance history of all the parties involved with the permit application by using the nationwide Applicant Violator System (AVS). A permit cannot be issued if any mining operation owned or controlled by the applicant is in violation of any state or federal surface mining laws until the violation is corrected or is in the process of being satisfactorily corrected. A permit cannot be issued to any applicant or operator that controls or has controlled mining operations with a demonstrated pattern of willful violations resulting in irreparable damage to the environment.

Mine Operations Plan

DNR must approve every aspect of the plan before mining can begin. The plan must include:

- description of the mining operation
- proposed life of the mine
- information to demonstrate that reclamation can be accomplished
- type of mining process and technique
- direction of mining
- access roads
- facilities for coal processing
- coal processing waste disposal sites
- structures
- water impoundments and land uses
- stream diversions

- water and air pollution control facilities
- overburden and topsoil handling storage areas.

Topsoil Removal and Storage

Before mining begins, operators must plan for the replacement of topsoil after the coal has been removed. Details about the removal, storage, replacement and protection of the topsoil from wind and water erosion are listed in the mine operation plan. Topsoil, which is removed in a separate layer from areas to be mined, is immediately replaced or stored at approved locations.

A topsoil substitute or supplement may be used where it is determined that selected overburden materials are equal or more suitable chemically and physically for sustaining revegetation than the existing topsoil. Examples of using a topsoil substitute would be if prior to mining the topsoil had been contaminated or if erosion had lessened the quality of the soil. Topsoil depth before mining must be determined to ensure proper replacement depth for growing row crops and other vegetation.

To comply with these requirements, operators usually operate in the following manner. Before mining begins, scrapers or other machinery remove the topsoil and directly replace it on graded overburden or stockpile it for replacement after mining. Seeding and mulching protect the topsoil from wind and water erosion. Marking stockpiles as being topsoil and protecting them with a cover of vegetation prevents the soil from mixing with any other stored material.

Careful handling of the topsoil and subsoil is crucial for reclamation because this is the medium on which the success or failure of plant growth on the reclaimed site is determined. The combined depth of replaced topsoil and subsoil on areas designated as prime farmland must be 48 inches.

Blasting

After topsoil and subsoil layers are removed, blasting may be necessary to loosen the rocky material (*overburden*) covering the coal seam. Operators drill holes in which they set explosives to fracture the overburden. The blasting agent commonly used is called ANFO, a mixture of Ammonium Nitrate (a common fertilizer) and Fuel Oil. Dynamite is not typically used to fracture the rock. After blasting, a dragline, trucks, shovels or other machinery remove the overburden and expose the coal seam. A Blasting Plan demonstrating how blasting will be conducted to comply with Indiana regulations to prevent damage must be provided. A certified blaster must either conduct or directly supervise the loading and detonation of all surface coal mine blasts.

The operator must submit a sample blasting notice and include the blasting schedule. A description of how that blasting notice will be distributed to the public must also be included. As part of the blasting plan, operators must submit a copy of the format that will be used to notify persons living near the permit area that they can obtain either a preblast or a condition survey. These surveys are identical, but the condition survey is conducted after blasting begins.

At least 30 days before the initiation of blasting, the operator must notify in writing all residents or owners of dwellings or other structures within one-half mile of the permit area how they can request a preblast survey. The operator must notify the local public that pre-blast surveys are available to anyone who lives in or owns a dwelling or structure within 1 (one) mile of the permit area. Notice is made by publishing the announcement, at least once a week for 4 (four) consecutive weeks, in a local newspaper in the county in which blasting will occur.

Survey requests received more than 10 days before the initiation of blasting will be conducted before blasting begins. Those received less than 10 days before the initiation of blasting will be conducted within 30 days of receipt. The rules allow that the structure owner be provided an opportunity to disagree with the results of the survey. At least 3 (three) copies of the preblast survey are required, one for the homeowner, one for the operator and one for the files of the Division of Reclamation.

Blasting may take place only between sunrise and sunset. Warning and all-clear signals must be given and must be audible within one-half (½) mile of the blast. Access to the blasting area is restricted during blasting operations.

There are limits on the location of blasting. Blasting may not be conducted within 300 feet of a school, church or hospital. It may not be conducted within 300 feet of a dwelling unless the owner of the structure grants permission for closer blasting.

Records of all blasts, including required seismograph recordings and reports, must be maintained for a minimum of three years. These records are available for public inspection at the mine site.

Flyrock shall not be cast from the blasting site more than one-half (½) the distance to the nearest dwelling or other occupied structure beyond the boundary of the bonded area or beyond the area of regulated access.

Indiana is the only state coal regulatory program in the nation that has a structural engineer on staff to investigate damage caused by blasting. If a citizen believes that blasting damage has occurred to a house or other structure, they may request an investigation by the DOR structural engineer. The structural engineer will determine if the damage is blasting related. Monetary claims of damage, however, are a private matter to be settled between the coal operator and the citizen. DOR will take enforcement actions for blasting violations.

Sometimes, upon request from a citizen, a seismograph, when available, can be installed on the property to monitor blast vibrations. Currently, Indiana has more seismographs than any state coal regulatory program in the nation.

If you have a complaint regarding blasting activities at a mine, write a letter stating these concerns to the Division. The letter should include the name of the mine, dates and times of the blasts in question (if possible), and your name, address and telephone number. A blasting specialist from the Division will then conduct an inspection of the blasting activities and respond to you within 10 calendar days of receipt of your letter.

Overburden Removal and Placement

After the loose soil materials and overburden are removed, the coal seam is finally exposed and ready for extraction.

The coal operator places the rocky material in the bottom of the pit once the coal has been removed. Overburden can contain layers with pyrite, which when exposed to air and water, can produce sulfuric acid. Mixing these layers and burying them with neutral materials in the pit prevents acid production by blocking exposure to oxygen.

To assure that a suitable root medium is available for cropland capability, during reclamation the subsoil layers are placed on top of the graded rocky overburden. Any toxic overburden identified in the pre-mining inventory must be treated or covered with an adequate layer of nontoxic, noncombustible earthen material.

Water

To prevent water pollution, all water affected by the mining operation must pass through approved water control structures before leaving the mine site. Any water leaving the site must be in compliance with all applicable State and federal water quality laws, including water discharge permits issued by the Indiana Department of Environmental Management. The mine operation plan must show the routing of water, location of sediment ponds, pond design, and embankment and spillway details. In order to assure plans are adequate to protect water quality, the mine operator must obtain approval for:

- design of sediment ponds
- chemical water treatment systems
- pond maintenance procedures
- water quality monitoring procedures
- water quality standards

Sediment ponds collect water from the mine site and must provide adequate sediment storage and detention time to allow the silt in the water to settle out and clarify the water to meet state and federal limits. If ponds fill with sediment during the mining process, dredging takes place.

The operator is required to furnish an alternative water supply, in conformance with Indiana water law, where an existing domestic water supply is used for drinking water including water used for domestic, agricultural, industrial or other legitimate use is affected by contamination, depletion or interruption due to surface mining activities.

Coal operators maintain siltation structures on the site until permanent revegetation has been established and water quality coming into the pond meets water quality limitations. Ponds not approved for retention after mining must be removed and reclaimed.

Coal Processing Waste

The operation plan must detail where coal will be stockpiled and what type of cleaning and processing will occur. The waste produced from the coal cleaning process can be potentially acid-forming and unable to support plant life. The coal operator outlines in the plan how to dispose of the coarse coal refuse (*gob*) and the fine coal refuse (*slurry*). The material must be adequately treated or covered with an adequate layer of nontoxic, noncombustible earthen material to neutralize and prevent production of acid water. Toxic materials must be placed in areas of the mine where contact with surface and groundwater is minimized. Chemical treatment and proper handling procedures ensure the prevention of postmine water quality problems and successful reestablishment of vegetation.

Mine Reclamation Plan

Placement of overburden by a mine operation greatly determines the success of reclamation. Carefully shaping the material assures proper grade, slope and contour design. Throughout the reclamation process, coal operators must meet detailed requirements. A mine reclamation plan will show how overburden will be graded, subsoil and topsoil replaced, and revegetated postmining land uses accomplished and pre-existing streams restored.

The operator must describe in the application all postmining land uses planned for the area.

Coal operators give a timetable for the completion of each step in the reclamation process. Operators also give an estimated cost of reclamation, including a statement as to how the operator plans to comply with the requirements of the law.

Grading and Soil Replacement

Operators must plan to provide rough grading of mined overburden within 180 days of coal removal and have no more than four ungraded spoil ridges behind the active pit; unless additional time is granted for a good reason such as adverse weather conditions. The replaced overburden must be shaped to the approximate original contour of the land so that it drains properly and pre-existing drainage patterns are replaced. Operators must grade materials from the initial pit or box cut to blend with unmined land.

Operators must complete the final grading in a timely manner; usually in time for the next growing season. This includes any subsoil or topsoil replacement and installation of erosion control measures such as terraces, diversions, grass waterways and drains.

After the subsoil is replaced on prime farmland, Division reclamation specialists check for proper quality and thickness. Should the subsoil replacement be rejected, the operator must cover the deficient area with an adequate depth of new subsoil. Then the Reclamation specialists will check topsoil for depth and proper replacement, again.

Operators must attempt to grade replaced soil in a manner that limits compaction. Rubber-tired scraper machinery is one method used to apply the topsoil. In addition, low ground pressure bulldozers spread the topsoil. Loosening the deep subsoil, ripping it to depths as much as 48 inches alleviates compaction of the replaced subsoil. Through the root penetration of planted grasses and legumes, soil compaction is alleviated.

Post-Mining Land Use

The operator must describe all land uses planned after mining and take care to restore the land to a condition capable of supporting the uses for which it was capable of supporting prior to any mining. Where feasible and desirable, a higher and better use than previously existed may be provided.

Land use is generally determined by taking into account the pre-mined soil capability, pre-mine land use, landowner preference, and local citizen and government priorities, policies and plans for use of the land. The Division must approve any changes from the pre-mining land use prior to implementation. In the reclamation plan are comments from landowners and State and local government agencies responsible for approving or authorizing land use. Included is a discussion of the capability of the reclaimed land to support a variety of alternative uses. To change how the land will be used following mining, the operator must file an alternative land use proposal in the reclamation plan portion of the permit application.

Productivity

Reclamation plans must give details on any chemical analysis of topsoil to aid vegetation establishment. Coal operators verify soil texture with spot checks and apply fertilizer or soil amendments as needed.

Most plans provide for a crop of wheat or oats followed by a grass-legume mix for several years on reclaimed land to prevent soil erosion and to restore soil structure. After this period and before their reclamation responsibility ends, vegetation is established that is consistent with the postmining land use plan. For prime farmland, operators must establish row crop production.

Field test plots are the most common method used to verify vegetative growth. A count of vegetation covering the ground is used on land uses other than row cropland.

A five to ten year vegetation liability period begins when all grading is completed and the land is planted to a crop capable of supporting the postmining land use. For prime farmland, the operator must show full restoration of 100% of the original unmined land productivity using typical crops (e.g. corn, soybeans, wheat) for three crop years before final release of reclamation responsibility. Forestland use must show growth of 450 trees per acre for a three year period.

Coal operators may construct permanent water impoundments from the final pit of the mined area or a sediment pond, if the alternative land use proposal has been approved or if a water land use existed prior to mining.

IV. UNDERGROUND PERMITS AND SUBSIDENCE CONTROL

Modern Underground Mining

Today, underground mining accounts for a relatively minor portion of Indiana production, with annual output of about 10% of the total coal mined in the State. The prevalent underground mining technique employed in Indiana is the room and pillar mining method. Modern room and pillar mining technology is vastly improved from historical practices and provides greater protection for the workers and to surface features while maximizing coal recovery.

The tunnels where the coal is removed are called "rooms." The coal blocks that are left behind to support the roof and the surface are called "pillars." Hence the name "room and pillar mining." A machine called a continuous miner rips the coal from the seam with a rotating head. Blasting is seldom used in underground extraction of coal in Indiana except for shaft development. Conveyors transport coal from the working face to the shaft or slope tunnel that transports it to the surface for processing and shipping.

Other methods of extraction exist which allow subsidence to occur in a controlled and predictable fashion. The most common planned subsidence mining technique used in the United States is called longwall mining. Secondary mining for partial pillar recovery is sometimes used for higher extraction.

Regardless of the mining technique, the Division of Reclamation regulates the environmental affects of underground mining. Other state and federal agencies, such as the Indiana Bureau of Mines and U.S. Mine Safety and Health Administration are responsible for safety of mine workers.

Underground Mine Permit Application Process and Requirements

Procedures for public notice, public participation, and application review for underground permit applications are identical to those for surface mining applications. Environmental protection and reclamation requirements are also virtually identical except that underground mining applications must also contain a subsidence control plan and special provisions for prior notice to surface owners affected by the coal extraction.

Subsidence Control Plan

In addition to environmental and reclamation requirements, such as filling shafts which extend from the coal to the land surface, underground applicants must devise a detailed subsidence prevention or control plan. It must be based on detailed local geological analysis, engineered safety factor calculations and the sensitivity of protected surface features, such as buildings, impoundments, roads and utility transmission lines.

As a supplement to the complex engineering and design, underground miners must provide information on the coal removal technique, percentage of coal extraction, pillar and room dimensions, geologic layers above and below the coal, mapping of proposed mined areas, groundwater systems, and an extensive inventory of land features and structures located above the underground mine, such as homes, outbuildings, roads, churches, public buildings, impoundments, utility transmission lines and any other structures. All of this data and technical analysis are woven together to produce state of the art plans specifically designed to protect citizens and the environment.

The required subsidence control plan is subjected to detailed scrutiny by the DOR subsidence specialist. This technical professional evaluates the supplied information to determine that sufficient mine stability is designed for room and pillar mines and that planned subsidence mining is designed to occur in a planned and predictable fashion and will be conducive to restoration of the land surface. Underground miners must provide back up plans for restoration of the surface land and features in the event that a subsidence results in damage in spite of extensive prevention provisions. The mitigation plan must demonstrate how the operator will restore the land and structures to a condition that will support the same uses that existed prior to subsidence. Operators are required to carry a non-cancelable liability insurance policy that covers possible subsidence damages.

Surface Owner Notification

Underground miners must alert surface owners of their intent to extract coal beneath their property by sending written notice directly to the surface owner at least 6 months prior to the beginning of mining beneath the property.

Subsidence Damage

Anyone suspecting subsidence damage, should first contact the mining company with their claim. If a satisfactory conclusion is not reached, contact the Division. If the company is found liable, the regulations require that action be taken by the company to restore the damaged areas. If structures are damaged by subsidence that results from active mining, the mining company will repair the structure. Prior to mining, the company may purchase lands and structures that it intends to undermine. Land damaged by subsidence must be restored to a condition capable of supporting the uses it was capable of supporting prior to subsidence.

Mine Subsidence Insurance

Underground mines have removed more than 900 million tons of coal in Indiana since the 1800's. Many of these mines were never surveyed, thus no maps exist to describe the extent of abandoned underground mines. Geologists estimate that up to 150 square miles of underground coal mines exist in the 26 coal producing counties in Indiana.

Conventional homeowners insurance does not cover damage caused by mine subsidence. However, insurance protection sponsored by the State of Indiana is available for homeowners through your insurance agent. This insurance is available in those counties most susceptible to mine subsidence damage from inactive underground coal mines abandoned before August 3, 1977.

In 1986, the Indiana Legislature established the Indiana Mine Subsidence Insurance Fund to provide insurance to property owners in the 26 Indiana coal producing counties. Property owners in the following counties are eligible for this insurance: Clay, Crawford, Daviess, Dubois, Fountain, Gibson, Greene, Knox, Lawrence, Martin, Monroe, Montgomery, Orange, Owen, Parke, Perry, Pike, Posey, Putnam, Sullivan, Spencer, Vanderburgh, Vermillion, Vigo, Warren, and Warrick.

Maps of abandoned underground mine works are available through the Indiana Geological Survey in Bloomington (812-855-7636). These maps are beneficial in determining whether you live in or near an area where underground mining activity took place.

Purchasing mine subsidence insurance is mandatory before reporting suspected mine subsidence damage. Coverage is designed only for abandoned underground coal mines. Remember, compensation or repair for damage which is caused by active underground mining is the responsibility of the mine operator.

You may add subsidence insurance to your property owners or homeowners' policy when it is purchased or renewed. For more information about coal mine subsidence insurance, contact your insurance agent or the Indiana Subsidence Insurance Fund at the Indiana Department of Insurance.

Consumer Services
Indiana Department of Insurance
311 West Washington Street, Suite 300
Indianapolis, IN 46204-2787
1-317 232-2395
1-800-622-4461
(Toll-Free only in Indiana)

1-800-332-IMSI (4674)
(Toll-Free only in Indiana)

www.in.gov/idoi/consumer_services/mine_subsidence.html

V. PERFORMANCE BOND

After the Division approves an application, but before a permit is issued, the operator must provide a bond guaranteeing performance payable to the State of Indiana, Department of Natural Resources. The bond covers the area of land described in the permit upon which the operator will conduct surface mining and reclamation activities. The purpose of posting the bond is to ensure that if the permittee does not complete reclamation, the State will have sufficient funds available to complete the task.

The amount of bond posted is based on the estimated cost of reclaiming mined land to the proposed land use after mining.

The Division may order the forfeiture of all or part of a bond for a permit area if the permittee does not conduct reclamation operations in accordance with the applicable reclamation plan, or does not fulfill one or more of the conditions under which the bond was posted.

Any operator that forfeits a bond for non-compliance is banned by law from obtaining another permit to mine coal.

VI. INSPECTION AND ENFORCEMENT ACTIONS

Reclamation specialists ensure compliance with the environmental protection performance standards during all phases of mining and reclamation operations. Blasting specialists work to make certain that all blasting is conducted correctly and legally.

A mine must comply with all permit conditions, all applicable Indiana and Federal statutes and regulations, and all provisions of the approved State program. An order to cease all or part of operations is issued if an operator is found to create an imminent danger to the health or safety of the public, or is causing, or can reasonably be expected to cause significant, imminent environmental harm to land, air or water resources.

Inspections of mining and reclamation operations occur frequently. The law requires that at least one inspection of a site be conducted every month. Inspections occur without prior notice to the mine operator.

Reclamation specialists examine the area surrounding a mine looking for problems that may be occurring on the mine. For example, sediment occurring in a stream near the mine could be traced to a violation of erosion control or water quality standards on the permit area.

If a State Inspection is made as a result of written information provided by a citizen, a written report will be sent to the citizen as well as the mine operator within 10 days of inspection, detailing any enforcement action being taken.

The response will include copies of the State inspection report and any notices of violation or cessation orders issued as a result of the inspection or an explanation if no action is required by the law.

If no inspection is conducted an explanation of the decision not to inspect will be provided to the citizen within 10 days of the Division having received the written complaint or statement.

Either action by the Division will be reviewed by the Director of the DNR upon written citizen request detailing how the requestor is or may be adversely affected by the action. Within 30 days, the review will be conducted and notice of a decision provided to the citizen and the company.

A citizen not satisfied with the Director's informal review may pursue a formal review within 30 days of the Division's enforcement decision or a citizen's suit.

Notice of Violation

The laws require reclamation specialists to issue a notice of violation to an operator whenever the inspector observes a violation.

The notice of violation (NOV) must list the nature of the violation, where it occurred on the mine site, the specified action the operator must take to correct the violation, and a reasonable time for correction of the violation.

The total time allowed to correct a NOV (including extensions) must not exceed 90 days from the date of issuance, unless special circumstance exist.

Cessation Order

A cessation order (CO) is issued in the following circumstances:

1. Where a mining activity causes imminent danger to public health or safety, or if significant, impending environmental damage occurs to lands, air, or water resources.
2. Where an NOV has not been corrected as directed in the time period required. CO's carry a mandatory \$750/day fine.
3. When a person is mining without a valid permit.

Fines

NOVs and COs carry civil penalty assessments. A reclamation specialist, in accordance with 312 IAC, calculates a civil penalty assessment for an NOV or imminent danger. An NOV carries with it a minimum mandatory penalty of \$750 a day for each day the violation remains unabated, up to 30 days.

The operator must pay the fine within 30 days of receiving the assessment. An operator may request a formal or informal review of a penalty assessment or the validity of the violation. The operator must place the penalty into an escrow account with DNR or formal appeal will not be granted.

As a result of the review, the fine can be affirmed, modified, or vacated. The affected party may appeal to the State.

A maximum fine of \$5,000 per day may be imposed per violation.

In assessing a monetary fine, the Division takes into account the operator's history of previous violations, seriousness of the violation, negligence, and good faith in achieving compliance. The Division may assess a monetary fine for each day from the date of issuance of the NOV or CO to the date set for correction of the violation. In addition, when a violation has not been corrected within the period designated in the notice or order issued, a penalty of not less than \$750 per day must be assessed. Payment of the penalty must be made within 30 days of the operator receiving the assessment.

When a NOV or CO is issued to a mining company, the NOV or CO must be filed along with an inspection report in the appropriate county library in which the mine is located. These documents become part of the public record.

Permit Suspension or Revocation

If the Director determines that a pattern of violations exists at a mining operation, the Division can issue a show-cause order to require the company to explain why its permit should not be suspended or revoked. The Division field office must post a show-cause order when issued. The law requires the show-cause order to be published in the local newspaper, if practicable.

Failure of an operator to file a timely answer to the show-cause order and request a hearing may result in a permit suspension or revocation and termination of the right to mine as set forth in the order.

The operator may request a formal hearing on the show-cause order within 30 days of its issuance. As required by law IC 4-21.5, the Department ALJ will hear the case.

Within 60 days of the hearing, the DNR Commission must decide whether or not to suspend or revoke a company's permit. Any decision may be appealed to the State courts by a party to the hearing.

If the right to mine is suspended, the operator must correct all violations and unlawful practices as specified in the suspension order. If a permit is revoked, the operator must complete reclamation or the bond will be forfeited.

The Natural Resources Commission affirms permit suspensions and revocations. Further information on the Natural Resources Commission may be obtained at the following address and telephone number:

Natural Resources Commission
Indiana Government Center North
100 N. Senate Avenue
Room N501
Indianapolis, IN 46204
317-232-4699
317-232-2977 FAX
www.in.gov?NRC

Bond Forfeiture

Should a permit be revoked and ordered reclamation is not performed, bond forfeiture proceedings are begun to provide the Division with funds to complete reclamation on that site. A hearing in front of an ALJ may be afforded on the bond forfeiture notification. The ALJ determination may be appealed to the State courts.

Forfeiture of a performance bond results in the DNR the bond money filed by the operator to guarantee completion of reclamation. The Division of Reclamation Abandoned Mine Lands Staff designs the reclamation, obtains a low bidder construction contractor and supervises the reclamation.

Federal Oversight

The U.S. Office of Surface Mining Reclamation and Enforcement (OSMRE) monitors the Division's Regulatory and Restoration programs. This office acts in an oversight capacity to the State's regulatory authority.

OSMRE monitors the program administration to assure adequate permitting, inspection, and enforcement operations. This monitoring is conducted on a continuous basis through sample reviews of State actions on permits, inspections, citizen complaints, etc. OSMRE will also respond to written complaints from individuals after reviewing State actions. At the end of each year, OSMRE issues an annual report for the results of their oversight of the Indiana DOR's performance implementation of the approved program.

Further information on OSMRE activities in Indiana may be obtained at the following address and phone number:

**Office of Surface Mining
Reclamation and Enforcement**
575 North Pennsylvania Street
Room 301
Indianapolis, IN 46204
317-226-6700

VII. FUNDING FOR THE DIVISION OF RECLAMATION

The Division of Reclamation receives funds from several sources. Each source is specified by State or federal legislation, and directed to specific program areas.

Reclamation Fund

This is the operating account for the overall administrative costs for the Division. The funding sources are federal funds and non-General Funds dedicated to the Division of Reclamation. Overall, approximately 65 percent of the Division of Reclamation operating budget is derived from federal funds.

Regulatory Program

Federal dollars provide 50 percent of the funding for the Regulatory Program. The remaining 50 percent of the Regulatory Program is funded by fee revenues on each ton of coal mined in the State of Indiana with a fee much like the federal system. Operators are assessed \$.05 1/2/ton surface and \$.03/ton underground for coal extracted in Indiana. This money is dedicated specifically to the IDNR-Division of Reclamation and intended exclusively for the operation of the Indiana reclamation program.

There are several accounts dedicated to reclamation of mined lands as part of the Indiana Regulatory Program.

Abandoned Mine Land Fund

This fund is used specifically to pay contractors for cleaning up coal mine sites abandoned prior to August 3, 1977. These funds are annual grants from the U.S. Department of Interior, Office of Surface Mining, resultant of a nationwide fee on each ton of coal mined. It is collected by the federal [OFFICE OF SURFACE MINING RECLAMATION AND ENFORCEMENT \(OSMRE\)](#). Every operator pays a fee on every ton of coal mined - \$.0315/ton of surface mined; \$.135/ton of underground mined; and \$.09/ton of lignite. Indiana does not have any lignite deposits, but does have significant surface and underground coal reserves. The funds are collected by OSMRE and remain dedicated to the state from which the material was removed dedicated to the restoration of abandoned sites in that state. Indiana has received nearly \$5 million dollars annually since implementation in 1982. This funding will increase to approximately \$11 million annually beginning in 2008. With exception of the administrative portion of this grant, all other dollars literally go into the ground improving the condition of abandoned mine sites; restoring productivity; and, eliminating hazardous public safety, and environmentally degrading conditions.

QUESTIONS AND ANSWERS

- 1) If I was growing corn on my property before the land was mined, will I be able to grow corn on it afterwards?

YES, if the land is classified as prime farmland and has not been exempted from prime farmland restoration standards due to grandfathering or negative determination. However, reclaimed lands may be more susceptible to drought and compaction stress requiring difficult management practices for successful corn production. For more information call the Indiana Division of Reclamation.

- 2) Can I see the coal operator's plan?

YES. Once the complete permit application has been submitted it is public information. Copies can be reviewed at local public libraries in the county where the operation is located or the Division of Reclamation office in Jasonville.

- 3) How much am I allowed to participate in the permit review process?

Public participation is encouraged throughout the permit review process. In fact, public participation is encouraged from the permit process through the actual mining of the coal and reclaiming of the land. If you have any concerns or questions at any point, you are asked to contact the Division of Reclamation.

- 4) How will I know if blasting is going to be used in a mining operation?

The permit application, available for public review at the library in the county where the mine will be located or at the DOR Jasonville office, will provide information on proposed blasting operations. Also, at least 30 days before the initiation of blasting, the operator must notify in writing all residents within one-half mile of the permit area plans to blast and how to request a pre-blast survey. The purpose of the survey is to determine the condition of the dwelling or structure prior to blasting and determine how blasting may affect it. In addition, a public notice must be published for 4 consecutive weeks informing anyone within 1 mile of the permit area of the operator's intentions to blast and how to request a pre-blast survey. Pre-blast survey requests received less than 10 days before the initiation of blasting will be conducted within 30 days.

- 5) How close to my home may coal operators blast?

No mining or blasting may be conducted within 300 feet of an occupied dwelling unless a waiver is obtained from the owner and it is approved by the DOR. Blasting vibration limits cannot be waived unless the mining company owns the dwelling and is waived by the occupant.

- 6) Can I request that someone inspect my home before a mine operator begins to blast?

YES. At least 30 days before the initiation of blasting at a mine site, all residents within one-half mile of the permit area should be notified by the operator on how to request a pre-blast survey. A notice is published for four (4) consecutive weeks informing residents within one (1) mile of the permit area that they may request a pre-blast survey. During the inspection, the condition of all structures on the property will be documented. The survey is free to the homeowner.

- 7) If a coal operator is going to mine through a road or mine underneath a road who should I contact if I have any problems?

Activity within the right of way of a public road is the responsibility of the local governing body. Usually, this is a city, county or township board or commission. Without approval from the local road authority, the DOR will not allow mining through a public road.

- 8) If I suspect that the air and water near my home is being adversely affected by a mine operation whom should I contact?

For air pollution, you should contact:

Indiana Department of
Environmental Management
Air Pollution Board
317-233-0178

For water pollution, you should contact the Division of Reclamation.

- 9) Where can I get more information?

The Division of Reclamation monitors all phases of the mining operation. Professional staff at the Jasonville Reclamation office are always available to answer general mining questions or questions about a specific mine in your area.

- 10) Can the DOR force a coal operator to comply with a lease agreement ?

NO. Individual citizens and lessors of land to be mined should be aware that State reclamation inspectors have no jurisdiction over terms of a coal mine lease that are not specifically addressed by Indiana mining law or regulations.

- 11) If a coal operator mines on my property, do I have to approve the reclamation of my land before bond is released on my land?

NO. Bond release is not dependent upon the approval of the individual landowner or concerned citizen; however, landowner comments are taken into account when determining whether the land meets the success requirements of law.

GLOSSARY

acid-forming materials: earthen materials that contain sulfide minerals or other minerals which, if exposed to air, water or weather processes, form acids that may create acid mine drainage.

acid drainage: water, usually red or orange in color, with a pH of less than 6.0 that is discharged from an active or abandoned surface coal mine and reclamation operation.

adjacent area: land located outside the affected area or permit area, where air, surface or groundwater, fish, wildlife, vegetation, or other resources protected by the State act may be adversely impacted by surface coal mining and reclamation operations.

administratively complete application: means an application for permit approval or approval for coal exploration where required, or approval for an exemption for coal extraction incidental to the extraction of other minerals, which the Division Director determines to contain information addressing each application requirement of this article and to contain all information necessary to initiate processing and public review.

affected area: any land or water upon or in which mining activities are conducted or located.

applicant: any person seeking a permit or exploration approval from the Division to conduct mining and reclamation operations.

approximate original contour (AOC): the surface configuration achieved by backfilling and grading of the mined areas so that the reclaimed area closely resembles the general surface configuration of the land prior to mining.

bond forfeiture: occurs when a company fails to perform mining and reclamation procedures in accordance with the reclamation plan approved as part of the

permit to mine. The bond is collected by the State and used to restore inadequately restored land to a productive status.

certified blaster: a person who has 12 months or more experience in blasting operations; has completed an approved training course in blasting technology; has successfully passed the blaster certification exam; holds a valid certificate issued by the Director.

civil penalty: penalty assessed against an operator for failure to operate within the terms of the approved permit to mine and any applicable conditions of the State and/or federal regulatory programs.

coal preparation plant: a facility or facilities which perform coal preparation to separate coal from its impurities.

coal processing waste (gob and slurry): earthen materials that are separated from the coal product during cleaning or processing.

coal seam: a bed or stratum of coal usually about 5 feet thick in Indiana.

compliance: conducting extraction and restoration activities in accordance with terms and conditions established by law.

IDNR: Indiana Department of Natural Resources.

DOR: Division of Reclamation; a division of the DNR. It regulates the mining and reclamation activities of coal mining companies and restores land abandoned by coal mining prior to 1972.

disturbed area: an area where vegetation, topsoil, or overburden is removed or upon which topsoil, spoil, or coal processing waste is placed by surface coal mining operations. Those areas are classified as disturbed until reclamation is complete and the performance bond is released.

effluent limits: limitations on the amount and quality of water leaving the permit area.

flyrock: rock and material that is loosened during a blast and is projected into the air.

gob: rock or other course material sorted out of the coal either during mining or processing.

groundwater: subsurface water that fills available openings in rock or soil materials to the extent that they are considered water saturated.

historic lands: historic or cultural districts, places, structures, or objects including archaeological and paleontological sites, national historic landmark sites, sites listed or eligible for the Indiana State Register of Historic Sites and Structures or the National Register of Historic Places, sites having religious or cultural significance to native Americans or religious groups, or sites for which historic designation is pending.

hydrology: science dealing with the waters of the earth, their distribution on the surface and underground, and the cycle involving evaporation, precipitation, etc.

imminent danger: existence of any condition or practice or any violation of a permit or requirement of the act in a mining operation which could reasonably be expected to cause substantial physical harm to persons outside the permit area before the condition, practice, or violation can be corrected.

land use: specific use or management-related activity, rather than the vegetation or cover of the land. The categories of land use are cropland, developed water resource, fish and wildlife habitat, forestry, industrial/commercial, pastureland (or land occasionally cut for hay), recreation, residential, and undeveloped land.

lands unsuitable for mining: area where mining may not be conducted.

mulch: vegetation residues or other suitable materials that aid in soil stabilization and soil moisture conservation, thus providing conditions suitable for seed germination and growth.

Natural Resources Commission (NRC): a statutorily established body with a wide range of authority and duties involving the development of major policies. These policies affect resource management and the establishment of standards guiding the regulatory programs of the DNR.

notice of violation: document used to inform the coal operator of noncompliance to a certain regulation.

OSMRE: U.S. Department of the Interior's Office of Surface Mining Reclamation and Enforcement. Federal agency that oversees the work of the state agencies enforcing the federal coal mining law.

operator: any person, partnership, or corporation engaged in coal mining who removes or intends to remove more than 250 tons of coal from the earth or from refuse piles within 12 consecutive calendar months in any one location.

overburden: all of the soil and rock that lie above the coal seam.

pH: a symbol for the degree of acidity or alkalinity of a solution. pH values from 0 to 6 indicate acidity and from 9 to 14 indicate alkalinity. A solution with a pH of 6 to 8 is considered neutral.

performance bond: surety bond, certificate of deposit, letter of credit, or a combination thereof, by which a permittee assures performance of all the requirements of IC 14-34 and those of the permit and reclamation plan.

permit: approval to conduct surface coal mining and reclamation operations issued by the Division under the State program.

permit area: the area of land and water within the boundaries of the permit which are designated on the permit application maps, as approved by the Division. This area shall include all areas which are or will be affected by the surface coal mining and reclamation operations during the term of the permit.

postmining land use: use of the land after mining. The mined land must be reclaimed to the use approved by the DOR in the permit application.

pre-blast survey: the purpose of the pre-blast survey is to determine the condition of a dwelling or structure and document any pre-blasting damage and other physical factors that could reasonably be affected by the proposed blasting.

primacy: Term for a state's authority to regulate coal mining and SMCRA. Indiana's Division of Reclamation gained authority to administer federal mining and reclamation law on July 29, 1982.

reclamation: actions taken to restore mined land as required by regulations to a postmining land use approved by the DOR.

reclamation specialist: staff members of the DOR who review permit applications, conduct inspections for bond release, and ensure enforcement of detailed performance standards of all phases of mining and reclamation.

regulatory program: any approved state or federal program.

revegetate: the act of planting reclaimed land with grasses, trees, crops, etc.

SMCRA: Surface Mine Control and Reclamation Act of 1977. Passed by Congress to establish minimum national standards for mining and reclamation.

sediment: matter that settles to the bottom of a liquid; matter deposited by water or wind (i.e. sand, silt, dirt, etc.)

show-cause order: presented to a company with a demonstrated pattern of violation to show cause why the mine should not cease operations.

siltation structure: a primacy sediment control structure designed, constructed, and maintained in accordance with regulations as a barrier, dam, or excavated depression which slows water runoff to allow sediment to settle out.

slurry: material left after washing coal prior to shipment. It is a fine coal refuse with the consistency of wet sand.

soil amenities: additives to the soil to enhance its productivity, such as fertilizer or agricultural lime.

spillway: a passage for surplus water over and around a dam or similar obstruction.

spoil: overburden material removed from above the coal seam during surface mining.

subsidence: the collapsing of underground mines that causes depressions or holes on the surface; damage to structures.

subsoil: layer of soil beneath the topsoil.

topsoil: upper layer of soil, usually darker and richer than the subsoil; surface soil.

This document is being provided as a public service and is intended to provide a general overview of the Division of Reclamation's regulatory program. Current Division policy is fully established in IC 14-36 et seq, IC 14-34 et seq and 312 IAC 25 et seq. Because it is impossible to fully delineate the requirements imposed by these provisions in a document of this limited scope, any inconsistencies with statute or regulation are due to a concern for brevity and clarity. Therefore, this document cannot and does not replace or modify any statutory or regulatory requirement nor serve as a formal or informal statement of Division policy.

FIELD OFFICE:

Indiana Department of Natural Resources

Division of Reclamation

14619 W State Road 48
Jasonville IN 47438-9517

1-800-772-MINE (6463)

(toll-free in Indiana Only)

1-812-665-2207

1-812-665-5041 FAX

www.in.gov/dnr/reclamation

MAIN OFFICE:

Indiana Department of Natural Resources

Division of Reclamation

402 W Washington Street
Room W291
Indianapolis IN 46204-2640

317-232-1556

317-232-1550 FAX