

SOUTHLAND RESOURCES, INC.

SEARLES MINE No. 7, P-3927, R-5

ALABAMA SURFACE MINING COMMISSION

SURFACE MINING PERMIT APPLICATION

PART III

Prepared by:

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PART III - OPERATION PLAN

A. General Operation Information

1. Describe the type and method of coal mining procedures and major equipment to be used. (780.11)

See Attachment III-A-1

- | | |
|---------------|--------------------------|
| 1 Track-hoe | 1 Blast hole drill |
| 2 Rock trucks | 1 Fuel and service truck |
| 2 Dozers | 2 Loaders |

2. Describe the sequence and timing of increments to be mined (as shown on permit map) over the total life of the permit. (780.11)

See [Permit Map](#) and [Cut Layout Map](#).

The timing increments are as follows:

<u>Increment No.</u>	<u>Acres</u>	<u>Dates</u>	
		From	To
1	151.0	Mining in Progress	12 Months After
3	88.0	Mining is complete.	Reclamation in progress
6	15.0	Currently bonded	Life of Mine
7	20.0	Currently bonded	Life of Mine

The sequence of mining operations will be generally as follows:

- 1) Construction of sediment control structures
- 2) Clearing and grubbing
- 3) Topsoil removal, if required
- 4) Overburden drilling and blasting
- 5) Overburden removal
- 6) Coal Recovery
- 7) Grading
- 8) Revegetation

OPERATION PLAN

The surface mining method of area and contour mining will be used at this mine site. Preparation will consist of removing timber, topsoil removal (if required), drilling and blasting of overburden, overburden removal, coal removal, regrading, topsoil replacement (if required), and revegetation. See [Cut Layout Map](#).

Revision No. 5 proposes adding Slurry Impoundment No. 8 in order to store fine coal refuse produced at the Jim Walter Resources No. 4 Mine Prep Plant, P-3260, Kellerman Prep Plant, P-3199 and Covol (JWR, P-3260) Mine No. 4 Prep Plant. Detailed Design Plans for Slurry Impoundment No. 8 will be submitted nearer completion of coal removal in the pool area of Slurry Impoundment No. 8.

Increments No. 1, 3, 6 & 7 are bonded. Coal removal is complete in Increments No. 3 and 7. Increment No. 6 is for incidentals only

INCREMENT NO. 1

Increment No. 1 will be bonded and mined as follows:

Mining in Increment No. 1 will be performed using two (2) spreads of equipment.

Spread No. 1

Mining with equipment in Spread No. 1 will continue mining in Increment No. 1 along an existing open highwall (cut 1-31) as shown on the attached [Cut Layout Map](#). Mining will advance to the northeast, with material spoiled to the southeast into the previously mined cuts until the completion of mining in this area.

Spread No. 2

Mining with equipment in Spread No. 2 will continue mining in Increment No. 1 along an existing open highwall (cut 1-40) as shown on the attached [Cut Layout Map](#). Material from cut 1-40 will be spoiled to the east into the previously mined cuts. Mining will advance to the west, with material spoiled to the east into the previously mined cuts until the completion of mining in this area.

The Brookwood, Milldale and Carter will be mined in Increment No. 1.

**SPOIL, COAL MINE WASTE AND NON-COAL MINE
WASTE REMOVAL, HANDLING, STORAGE, TRANSPORTATION
AND DISPOSAL STRUCTURES AND FACILITIES**

Introduction

This permit application proposes adding Slurry Impoundment No. 8 in order to store fine coal processing waste (slurry) produced at the Jim Walter Resources No. 4 Mine Prep Plant, P-3260, Kellerman Prep Plant, P-3199 and Covol (JWR, P-3260) Mine No. 4 Prep Plant. All refuse material handling will be accomplished by pumping through "drisco" polyethylene pipe. Some sections of existing permitted slurry pipeline routes to other slurry impoundments will be used along with new sections that will be required to complete the slurry delivery system to Slurry Impoundment No. 8. The new sections of slurry line will be permitted under a forthcoming P-3260 revision.

CONSTRUCTION SPECIFICATIONS FOR SLURRY IMPOUNDMENT NO. 8

The impoundment for coal processing waste will be designed and constructed using the following as minimum criteria:

Coal processing waste will not be used in the construction impoundments without written approval from the regulatory authority.

All trees, shrubs, grasses, and other organic material will be cleared and grubbed from the site, and all combustibles will be removed and stockpiled before coal-processing waste is placed at the impoundment site.

All surface drainage that may cause erosion to the impoundment area will be directed away from the area. Diversions designed to divert drainage from the upstream area away from the impoundment area will be designed to carry the peak runoff from a 100 year - 6 hour precipitation event. The diversion will be maintained to prevent blockage. Adequate outlets for the discharge from these diversions will be controlled by energy dissipators, riprap channels, and other devices where necessary to reduce erosion, prevent deepening or enlargement of the stream channel, and to minimize disturbance of the hydrologic balance. Also, all diversions delivering runoff from disturbed area must pass through an approved sediment basin.

A detailed design plan for Slurry Impoundment No. 8 will be prepared and submitted to MSHA and the Regulatory Authority upon completion of mining in the final pit created in the SW/NW & SE/NW of Section 32, Township 32 South, Range 7 West. The impoundments will be four (4) sided. One (1) side will be of natural, virgin material remaining from removal of coal up to a fault running in a northwest to southeast direction. The three (3) remaining sides of the slurry impoundment will be massive spoil fills placed during mining by the Drummond Company, Inc. and Southland Resources, Inc. The spillway system will be a concrete trapezoidal channel.

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ATTACHMENT III-A-3**

Hydrologic studies will be performed with the appropriate design storm of (Probable Maximum Precipitation, 31" of rainfall – 6 Hour Event).

All disturbed areas will be sowed with both perennial and annual grasses in order to insure erosion is minimized.

All impoundments will be inspected for erosion, etc. at 7-day intervals, except when more frequent inspections are required by on-site conditions. A formal inspection will be made annually until the removal of the structure or until the release of the performance bond by the Alabama Surface Mining Commission.

The impoundment including spillway will be maintained by repairing any damage such as erosion, or spillway damage until removal of the structure or release of the performance bond.

All impoundments will be examined weekly for erosion, or other hazardous conditions and maintenance performed as necessary. Formal inspections will be made on an annual basis, including any reports or modifications, in accordance with 880-X-IOC-.20(1(j)) of the Alabama Surface Mining Regulations.

Upon completion of mining, successful reclamation and effluent standards being met, each impoundment will be dewatered in an environmentally safe manner (such as siphoning, pumping, etc.) and reclaimed to approximate original contours by the following procedure: The dewatered basin area will be covered with a minimum of 4 feet of the best available non-toxic, non-combustible material. The area will be seeded with some combination of the following: Fescue, Bermuda, rye grass, canary grass, and willows. After seeding, the area will be mulched.

A qualified registered professional engineer or other qualified professional specialist, under the direction of the professional engineer shall conduct regular inspections during construction and upon completion shall inspect each basin for certification purposes.

ABANDONMENT PLAN FOR PROPOSED SLURRY IMPOUNDMENT NO. 8

Slurry pumping will be ceased when the slurry elevation reaches the design elevation setforth in the detailed design plans. Actual abandonment plans will be submitted as a part of the detailed design plans.

5. Describe measures to be taken to ensure that all debris, acid-forming and toxic-forming materials and materials constituting a fire hazard are disposed of in accordance with 816.89 and 816.103; include contingency plans to prevent sustained combustion of such material. (780.18).

Attachment III-A-5 addresses items or facilities added by this permit revision R-5.

Acid Forming Material

Acid forming material to be pumped to Slurry Impoundment No. 8 will be addressed in the detailed design plans that are forthcoming. Acid forming material (fine coal processing waste) from each plant that will pump to this impoundment will be addressed separately. There will be no coal stockpile areas at the location of Slurry Impoundment No. 8.

Other Materials

All other facilities added by Revision R-5 deemed to be acid-forming and toxic-forming material will either be covered with a minimum of four (4') feet of the best available non-acid, non-toxic and non-combustible forming material or covered and neutralized in accordance with their approved plan.

Any material such as oil, grease, rags etc. that may present a fire hazard will be properly disposed of in an approved landfill.

Contingency plans to prevent sustained combustion of materials constituting a fire hazard such as coal and coarse refuse included compaction of said material by loader, truck and/or dozer to minimize oxidation and prevent combustion.

Any non-coal waste such as office type garbage, debris, concrete, construction/demolition material, etc., will be disposed of at approved off-site landfills, which meet all applicable local, state and federal requirements.

7. Give a description of steps to be taken to comply with applicable water quality laws, regulations and health and safety standards. (780.18)

Water Quality Laws - All disturbed surface drainage from the proposed mining area will be routed through an approved sediment structure for monitoring and treatment purposes. Monitoring and Reporting will take place as set forth in the approved Monitoring Plan (III-D & III-E) and NPDES requirements. When necessary, drainage will be chemically treated for pH or Iron with hydrated lime or caustic soda. Other treatment such as floating silt fences or flocculation bricks may be administered for Total Suspended Solids. These measures will be taken to remain in compliance NPDES requirements. Health & Safety Standards - Applicable approvals will be received prior to the construction of any sanitary absorption lines for bathhouses and offices. MSHA guidelines and regulations will be followed in all operations.

Certification and training of all mine personnel will be current and updated by attending MSHA classes at the Walker Technology School, in Sumiton, Alabama.

All dust, noise, and other required control test will be current and performed by certified MSHA personnel.

All records are maintained at the mine and are available for inspection.

B. Engineering Plans.

All cross sections, maps and plans related to operations, reclamation and structures must comply with Section 780.10. Plans, appropriate calculation and conclusions shall be presented in a clear and logical sequence and shall take into account all applicable factors necessary to evaluate the proposed plan or design.

1. Existing Structures. (780.12, 786.21)

- (a) Describe each existing structure to be used, its location, current condition, approximate dates of construction and evidence (including relevant monitoring data) showing whether or not the structure meets the performance standards of Subchapter K or Subchapter B, whichever is more stringent and demonstrate whether or not the use of existing structures will pose a significant harm to the environment or public health or safety.

Not Applicable

- (b) If an existing structure requires modification or reconstruction to meet the performance standards, attach a compliance plan that includes design specifications, construction schedule, monitoring procedures, and evidence that the risk of harm to the environment or public health or safety is not significant during modification or reconstruction.

Not Applicable

2. Ponds, impoundments, banks, dams and embankments. (780.25)

- (a) Submit a general plan which complies with Section 780.25 (a)(1) for each proposed sedimentation pond, water impoundment, and coal processing waste bank, dam or embankment to be located within the proposed permit area.

See Attachment III-B-2-A

- (b) Submit detailed design plans, which comply with Sections 780.25(a)(2)(3) and 816.46, for each sedimentation pond to be constructed on the increment you currently propose to mine. If the sediment pond is to remain as a permanent water impoundment, design plans shall also comply with Section 816.49.

See Attachment III-B-2-A

- (c) Submit detailed design plans which comply with Sections 780.25(a) (2&3) and 816.49, for each temporary or permanent water impoundment to be constructed on the increment you currently propose to mine.

See Attachment III-B-2-A

- (d) Submit detailed design plans, which comply with Section 780.25(a) (2&3) and 816.81-816.85, for coal mine waste bank to be constructed on the increment you currently propose to mine.

None Proposed

- (e) Submit detailed plans which comply with Sections 780.25 (a)(2&3) and 816.91-816.93 for each coal mine waste dam and embankment to be constructed on the increment which you currently propose to mine.

None Proposed

3. Diversions [780.29, 816.43, 816.44]

Are diversions of overflow or stream channel diversions proposed?

(XX) Yes () No

If yes, complete the following:

- (a) Is the diversion to be permanent? () Yes (XX) No

GENERAL ENGINEERING PLAN CERTIFICATION STATEMENT

I, Robert W. Usher, a registered professional engineer, hereby certify that the information, cross-sections, data, maps, etc., contained in this general plan in Attachment III-B-2-A is true and correct to the best of my knowledge and belief.

McGehee Engineering Corp.

Robert W. Usher, P.E.

AL Reg. No. 15917

Date

ADDENDUM TO THE GENERAL PLAN

This addendum to the general plan consists of adding 28 additional mining acres, showing the correct watershed for Basin 018 and adding Slurry Impoundment No. 8 for the purpose of storing fine coal processing waste (slurry) produced from the Jim Walter Resources No. 4 Mine Prep Plant, P-3260, Kellerman Prep Plant, P-3199 and Covol (JWR, P-3260) Mine No. 4 Prep Plant. The original watershed for Basin 018 was interpolated from 2' contour mapping obtained from Tuscaloosa County. Recent field investigation showed the original watershed boundary to be incorrect due only to interpolation, not from disturbance in the field.

Detailed design plans for Sediment Basin 018 were submitted to the Regulatory Authority on December 13th, 2011 and were approved December 16th, 2011. Mine/disturbed area added by this revision and a forthcoming new permit for proposed Searles Mine No. 9 were included in the watershed for the submitted detailed design plans. Basin 018 has been constructed and was certified to the Regulatory Authority on January 3rd, 2012. See the attached [Existing Watershed Map](#) showing the current watershed conditions. Also see the attached [Post Mining Watershed](#) showing the watershed conditions after mining and construction of Slurry Impoundment No. 8. Sediment Basin 018 was designed for the worst case condition of its watershed (post mining).

The detailed design plans for Slurry Impoundment No. 8 will be submitted at a later date nearer the completion of mining in the final pit area of P-3927. Upon written approval from ASMC and MSHA of the design plans of Slurry Impoundment No. 8, the embankment and spillway will be constructed in accordance with the approved detailed design plans and certified to both ASMC and MSHA prior to placement of any slurry in the impoundment. Surface runoff to Slurry Impoundment No. 8 and discharge from Slurry Impoundment No. 8 will eventually discharge through proposed Sediment Basin 018.

All refuse material handling will be accomplished by pumping through "drisco" polyethylene pipeline. Some sections of existing permitted slurry pipeline routes to other slurry impoundments will be used along with new sections required to complete the slurry delivery system to Slurry Impoundment No. 8. The new sections of slurry line will be permitted under a forthcoming P-3260 revision.

Geologic investigations of the area indicate alternating sequences of sandstone and shale with sandstone streaks and minor amounts of bituminous coal and underclay. The coal to be mined by Tuscaloosa Resources, Inc. will be the Guide, Brookwood, Milldale and Carter seams of the Brookwood Coal Group.

All surface drainage from the proposed mining area and Slurry Impoundment No. 8 drains into Cane Creek.

**GENERAL DESIGN DATA
(Before Slurry Impoundment No. 8 Construction & Diversion to be constructed under
proposed Searles Mine No. 9)**

EMBANKMENT	LOCATION	DRAINAGE AREA
Basin 008E	SW/SW, Sec. 32 T.19S., R.7W.	194.0 Acres
Basin 017E	SE/SW, Sec. 32, T.19S., R.7W.	42.0 Acres
Basin 018P	NW/NW, Sec. 32, T.19S., R.7W. NE/NE, Sec. 31, T.19S., R.7W.	126.0 Acres
Rock Filter 001E	SE/NW, NE/SW Sec. 32 T.19S. R.7W.	5.0 Acres

See the attached [Existing Watershed Map](#)

**GENERAL DESIGN DATA
(After Slurry Impoundment No. 8 Construction & Diversion to be Constructed Under
Proposed Searles Mine No. 9)**

EMBANKMENT	LOCATION	DRAINAGE AREA
Slurry Impoundment No. 8	SW/NW, SE/NW, NE/SW NW/SW, T.19S., R.7W.	29.0 Acres
Basin 008E	SW/SW, Sec. 32 T.19S., R.7W.	189.0 Acres
Basin 017E	SE/SW, Sec. 32, T.19S., R.7W.	42.0 Acres
Basin 018P	NW/NW, Sec. 32, T.19S., R.7W. NE/NE, Sec. 31, T.19S., R.7W.	152.0 Acres

See the attached [Post Mining Watershed Map](#).

All embankments are located on the Brookwood U.S.G.S. Quadrangle in Tuscaloosa County.