



STATE OF ALABAMA
SURFACE MINING COMMISSION

P.O. BOX 2390 - JASPER, ALABAMA 35502-2390
 (205) 221-4130 • FAX: (205) 221-5077

Permit Revision Number: R-7

REVISION TO PERMIT FOR
SURFACE COAL MINING OPERATIONS

Pursuant to the Alabama Surface Mining Control and Reclamation Act, Act No. 81-435, and duly promulgated rules of the Commission, revision is hereby approved for permit:

P-3923-64-19-S
 Xinergy of Alabama, Inc.
 2361 Cumberland Lake Drive
 Pinson, AL 35126
 (Coal Valley Mine)

License No.: L-795
 Pursuant to the permit map: 1 of 1
 Certified by: Jeffery G. Aldridge, P.E. # 33959
 Date: November 3, 2015

The permit is revised as follows:

1. Modify the Operation Plan to add a wet coal preparation plant.
2. Add Slurry Impoundment No. 1. No additional acres.
3. Add Rock Dump No. 1. No additional acres.
4. Transfer 97 acres from Increment No. 1 to Increment No. 6 for office area, coal stockpiles, powder bin site, prep plant site, Rock Dump No. 1, Slurry Impoundment No. 1, borrow area, access and Sediment Basins 028, 071, 072 and 073. This is all areas shown as Increment No. 6 except Sediment Basin 070 which is already in Increment No. 6.
5. Add Primary Road No. 11 to Increment No. 6 at the site of an existing road previously used for landowner access. No additional acres.
6. Transfer 163 mining acres, 2 road acres and 16 sediment basin acres (Basins 007, 009, 011, 012, 013, 014, 016 and 017) from Increment No. 2 to Increment No. 3.
7. Transfer 129 mining acres, 4 access road acres and 2 sediment basin acres (Basin 060) from Increment No. 1 to Increment No. 2.
8. Transfer 28 acres including Sediment Basin 068 from Increment No. 1 to Increment No. 5.
9. Show the actual access road to Sediment Basin 073. No change in acres.

ACREAGE SUMMARY:

*Increment 1 decreases to.....	412 Acres
*Increment 2 decreases to.....	135 Acres
Increment 3 increases to.....	248 Acres
*Increment 4 remains at.....	88 Acres
*Increment 5 increases to.....	242 Acres
*Increment 6 increases to.....	100 Acres
TOTAL ACRES REMAIN:	1,225 Acres

* Bonded to date

- CONDITION R-7-1: The permittee shall conduct Surface Coal Mining and Reclamation Operations in accordance with the plans, provisions and schedules in the permit revision application.
- CONDITION R-7-2: The permittee shall conduct operations in a manner to prevent damage or harm to the environment and public health and safety and shall notify ASMC and the public of any condition which threatens the environment or public health and safety.
- CONDITION R-7-3: Surface coal mining operations are restricted to those areas for which sufficient bond has been posted with ASMC. On the date of issuance of this permit revision, bond was posted only for increment(s) 1, 2, 4, 5 and 6 consisting of 977 acres as defined on the permit map.
- CONDITION R-7-4: No mining disturbance is to occur on any part of the permit on which legal "right of entry" has not been obtained. When such rights are "pending" the applicant shall submit acceptable evidence, to the Director, that such rights have been obtained according to ASMC Regulation 880-X-8D-.07.
- CONDITION R-7-5: No disturbance is to occur on any properties on which land use comments from legal owners of record are "pending" prior to the applicant providing acceptable comments.
- CONDITION R-7-6: No disturbance is to occur in the 300' setback area to any occupied dwelling prior to the applicant providing acceptable evidence to ASMC of its having secured a waiver of each subject area signed by the owner of the dwelling.
- CONDITION R-7-7: No mining disturbance shall occur within the 100' setback of any public road or the relocation of any public road prior to the applicant providing acceptable evidence, to the Director, of its having secured approval for a waiver from the appropriate jurisdictional authority and specific written waiver from ASMC.
- CONDITION R-7-8: No disturbance is to occur on any area that conforms to the U.S. Army Corps of Engineers (Corps) definition of wetlands until acceptable evidence is submitted, to the Director, of Corps approval.
- CONDITION R-7-9: This permit revision in no way authorizes the operator to cause material damage to or otherwise impair any lands, facilities, or improvements located on the surface above or adjacent to the mineral being mined in violation of the property rights of any owner of surface lands or facilities.

CONDITION R-7-10: Any water supply impacted by subsidence or other causes associated with underground mining will be replaced or restored by the permittee.

The ASMC, acting by and through its Director, hereby finds, on the basis of information set forth in the revision application or from information otherwise available, that --

FINDING R-7-1: The permit revision application is complete and accurate and the applicant has complied with all requirements of the Act and the regulatory program.

FINDING R-7-2: The applicant has demonstrated that reclamation as required by the Act and the regulatory program can be accomplished under the reclamation plan contained in the permit revision application.

FINDING R-7-3: The proposed permit area is:

- (a) Not within an area under study or administrative proceedings under a petition, filed pursuant to Chapter 880-X-7 to have an area designated as unsuitable for surface coal mining operations;
- (b) Not within an area designated as unsuitable for mining pursuant to Chapter 880-X-7 or subject to the prohibitions or limitations of Section 880-X-7B-.06 and Section 880-X-7B-.07 of this chapter; or
- (c) Is within an area under study or designated as unsuitable for mining but the applicant has demonstrated valid existing rights.

FINDING R-7-4: For mining operations where the private mineral estate to be mined has been severed from the private surface estate, the applicant has submitted to the Regulatory Authority the documentation required under Section 880-X-8D.07 and Section 880-X-8G-.07 of this chapter.

FINDING R-7-5: The Regulatory Authority has made an assessment of the probable cumulative impacts of all anticipated coal mining on the hydrologic balance in the cumulative impact area and has determined that the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area.

FINDING R-7-6: The applicant has demonstrated that any existing structure will comply with Section 880-X-2B-.01, and the applicable performance standards of Chapter 3 or 10.

- FINDING R-7-7: The applicant has paid all reclamation fees from previous and existing operations as required by 30 C.F.R., Subchapter R.
- FINDING R-7-8: The applicant has satisfied the applicable requirements of Subchapter 880-X-8J.
- FINDING R-7-9: The applicant has, if applicable, satisfied the requirements for approval of a long-term, intensive agricultural, postmining land use, in accordance with the requirements of 880-X-10C-.58(4) and 880-X-10D-.52(4).
- FINDING R-7-10: The operation will not affect the continued existence of endangered or threatened species, or result in destruction or adverse modification of their critical habitats, as determined under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.).
- FINDING R-7-11: The Regulatory Authority has taken into account the effect of the proposed permitting action on properties listed or eligible for listing on the National Register of Historic Places. This finding is supported in part by inclusion of appropriate permit conditions or changes in the operation plan protecting historic resources, or a documented decision that the Regulatory Authority has determined that no additional protection measures are necessary.
- FINDING R-7-12: For a proposed remaining operation where the applicant intends to reclaim in accordance with the requirements of Section 880-X-10C-.56 or 880-X-10D-.49, the site of the operation is a previously mined area as defined in Section 880-X-2A-.06.
- FINDING R-7-13: Surface coal mining and reclamation operations will not adversely affect a cemetery.
- FINDING R-7-14: After application approval but prior to issue of permit revision, ASMC reconsidered its approval, based on the compliance review required by Section 880-X-8K-.10(2)(a) in light of any new information submitted under 880-X-8D-.05(8).
- FINDING R-7-15: The applicant has submitted the performance bond or other equivalent guarantee required under Chapter 880-X-9 of the ASMC Rules prior to the issuance of the permit revision.
- FINDING R-7-16: For mining operations where a waiver is granted from the 100' setback from a public road according to 880-X-7B-.07, the interests of the public and affected landowners have been protected.

FINDING R-7-17: This permit does not constitute a determination that the operator has the legal right to cause material damage to or impair any surface lands or facilities above or adjacent to the mineral being mined, according to the Energy Policy Act of 1992, SMCRA Section 720(a)(1), 30 U.S. Code Section 1309a. In addition, by accepting this permit revision the applicant agrees that any water supplies impacted by subsidence be replaced according to the Energy Policy Act of 1992, SMCRA Section 720(a)(2) 30 U.S. Code Section 1309a.

All other terms and conditions remain in effect as well as all Findings in the original permit and any Findings appropriate for this revision.

EFFECTIVE DATE: November 18, 2015



Randall C. Johnson, Director

/ml

cc: I & E, Permit File

CUMULATIVE HYDROLOGIC IMPACT ASSESSMENT

Permit Number P-3923
Revision 7
Xinergy of Alabama, Inc.

NPDES AL0079821
Coal Valley Mine

The original Cumulative Hydrologic Impact Assessment (CHIA) was written for this permit before issuance, in 2009. Since that time, there have been 6 issued revisions to the permit. This permit was issued June 17, 2009.

<u>Revision</u>	<u>Nature of Revision</u>
1.	Transferring acreage, deleting unused basin
2.	Transferring acreage
3.	Adding 3 acres for spoil.
4.	Adding acreage for storage
5.	Transferring acreage
6.	Adding acreage, topsoil variance extended
7.	Add a Wet Coal Preparation Plant

As required under Federal Public Law 95-87, Section 510(b)(3), the Alabama Surface Mining Commission (ASMC) must find in writing the following proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area. The ASMC must assess probable cumulative impacts of all anticipated mining activities on the surface and ground water hydrology of the permit and adjacent areas as stated in Federal Public Law 95-87, Section 507(b)(11) and ASMC Rule 880-X-8E-.06 (1)(g)(2). The following assessment and findings are intended to fulfill the above.

I. GENERAL INFORMATION

This updated CHIA is a result of Revision #7 to the Xinergy of Alabama, Inc., Coal Valley Mine, ASMC P-3923. The Nature of Proposed Revision states the following:

1. Modify the Operation Plan to add a wet coal preparation plant.
2. Add Slurry Impoundment No. 1
3. Add Rock Dump No. 1

This mine is located in Western Walker County between Townley and Coal Valley. It is in parts of Sections 25, 26, 27, 35 and 36, Township 14 South, Range 9 West, parts of Sections 1 and 2, Township 15 South, Range 9 West, and parts of Section 6, Township 15 South, Range 5 West all in Walker County, Alabama.

Initially this permit consisted of approximately 1173 acres and at the current revision the permit consists of 1225 acres. There are 6 Increments associated with this permit, however Increments 2, 3 and 5 have not been bonded therefore not disturbed. Increment 6 consists of drainage

courses, diversion access and basin #70. The preparation plant, slurry impoundment and rock dump will all be added into Increment 6, however these additions are inside of Increment 1. See Map No. 1 for clarification.

Original geology, surface water hydrology and groundwater hydrology can be found in the initial CHIA.

II. CUMULATIVE IMPACT AREA

Since issuance of the Xinergy of Alabama Inc., Coal Valley Mine, an adjacent mine was issued. The Cedar Lake Mining, Inc., Coal Valley East Mine (ASMC P-3958) was issued June 27, 2013 (See Map No. 2 for location). At time of issuance it was 1149 acres and is located directly east of the Coal Valley Mine. All new facilities will ultimately drain to sediment basin 072 which drains into an unnamed tributary of Cane Creek of the Black Branch – Cane Creek sub watershed. Approximately half of the adjacent Coal Valley East permit is in the Black Branch – Cane Creek sub watershed as well. The CIA will encompass parts of the P-3923 and P-3958 that are within the Black Branch – Cane Creek sub watershed to surface monitoring site CS-001, downstream on Cane Creek. This area can be seen on Map No. 2.

i. Potentially Acid – and Toxic – Forming Materials

Currently a large pile of dirty coal (approximately 240,000 tons) is stockpiled on-site. This coal requires processing through a wet preparation plant for economic value. Material is considered potentially acid – and toxic forming when it has a pH of less than 4 or an acid base account of less than 0 tons CaCO₃/1000 tons overburden. Since there is no coarse refuse to sample, two test areas were sampled for acid-base account, and the results submitted. On two occasions these samples were submitted, with highly negative acid base accounts (ranging from -62.4 to -187.5).

ii. Surface Water

The original CHIA for this permit discussed surface runoff by an unnamed tributary to Edgil Branch and Edgil Branch, an unnamed tributary to Myers Branch and Myers Branch, an unnamed tributary to Wolf Creek, an unnamed tributary to Hurricane Creek and Hurricane Creek, and unnamed tributary to Horse Creek an Horse Creek and also Cane Creek. All drainage from the prep plant, slurry impoundment and rock dump will drain to a series of basins that discharge into Cane Creek at basin 072. Basin 72 is in HUC 12 sub watershed 031601090404 (Black Branch – Cane Creek). Drainage from basin 70 will co-mingle with drainage from basin 060 from the Coal Valley East (P-3958) permit, thus becoming the cumulative impact area. Surface water monitoring site CS-001 was established for baseline for the original Coal Valley permit. This surface water monitoring site was also used as a Post Mining Water Quality Estimate which estimates water quality during and post mining based on regression analysis taken from baseline. It can be seen that the estimates for iron and manganese are much higher than the actual data reported. Surface water quality data can be seen in Table No. 1 at the end of this assessment. Projections can be seen in Table No. 2 at the end of this assessment.

iii. Groundwater Hydrology

Groundwater quality and quantity are not anticipated to change due to this revision. There is no new acreage being added, or disruption of any bedrock that might be an aquifer. With proper care and reclamation of the area as described in the Rock Dump No. 1 Detailed Design Plans (Attachment III-B-2(D)) and the Slurry Impoundment No. 1 Detailed Design Plans (Attachment III-B-s(a)) submitted with this revision, groundwater should not be effected. An outline of reclamation procedures will be outlined in part IV of this document.

III. ON SITE TESTING

Based on the Acid-Base account analysis submitted with this revision, there is concern that the coal stockpile and resulting rock dump contain acid-and toxic forming materials. Xinergy will sample coarse refuse monthly and determine the amount of lime to be placed for neutralization by using a rolling average of the most current six months of results. The results of the acid-base account will be calculated, with the results submitted to the ASMC. Also, at least one sample from the neutralized areas of the rock dump will be sampled monthly to determine the effectiveness of the lime neutralization.

Additional surface water site monitoring has also been added to the downstream site on Cane Creek, CS-001. These parameters include pH, TSS, Fe, Mn, Al, Alkalinity, Sb, As, Cd, Cr, Cu, Hardness, Pb, Hg, Ni, Se and Zi. Additional information can be found in the approved Hydrologic Monitoring Plan for Revision 7.

The Alabama Department of Environmental Management's (ADEM) NPDES permit is currently under administrative extension, which allows the NPDES permit, while expired, to run under the last approved permit. The NPDES permit expired February 8, 2014. A renewal permit is currently under review by ADEM.

IV. RECLAMATION

For The Rock Dump No. 1 area, once the liming requirements per 1 foot lift are determined, the agricultural lime will be broadcast or spread along the surface of the upper lift and disc into the coarse refuse material. The final graded site will be covered with a minimum of one foot of compacted clay material and a minimum of four feet of the best available non-toxic, non-acid forming material. Final cover material thickness will be four feet, along with a clay cap or seal to prevent infiltration of rainfall.

Final cover material thickness for Slurry Impoundment No. 1 will be four feet thick. Spoil material available within the current permit boundary (located in the "Borrow Area") will be used. This material was previously shown to have an excess of 4738 tons per acre of CaCO₃.

V. CONCLUSION

If testing and reclamation are conducted as outlined in Revision #7 and this CHIA, then it has been determined that the proposed operations have been designed to prevent material damage to the hydrologic balance outside of the permit area.

Table No. 1

Xinergy of Alabama, Inc.
Coal Valley Mine
P-3923 Revision No. 7
Surface Water Monitoring Site CS-001
Downstream Cane Creek

Date	Flow	pH	TSS	Conductivity	Fe	Mn	Al
	MGD	s.u.	mg/L	uS/cm	mg/L	mg/L	mg/L
6/27/2008	0						
7/3/2008	0.989	8.07	9	940	0.05	0.08	
8/15/2008	0.294	7.69	1	1093	0.15	0.46	
9/29/2008	4.12	7.9	10	982	0.07	0.13	
10/23/2008	2.36	7.98	3	1122	0.13	0.17	
11/18/2008	0.329	8.17	5	1833	0.14	0.43	
6/2/2009	0.9417	7.99	1		0.13	0.08	
10/27/2010	6.592	7.93	4	2087	0.15	0.09	
2/17/2011	4.709	7.44	4	1835	0.11	0.08	
6/9/2011	6.592	7.84	8	2290	0.24	0.06	
8/31/2011	4.12	7.46	45	5580	0.17	0.07	
10/13/2011	3.296	8.27	7	2210	0.12	0.05	
3/15/2012	4.709	7.73	7	1633	0.03	0.08	
6/18/2012	2.06	8.15	6	1737	0.29	0.19	
7/29/2012	2.747	8	10	945	0.11	0.14	
10/18/2012	4.709	7.47	5	1301	0.15	0.09	
1/16/2013	21.19	7.9	7	705	1.03	0.1	0.6
4/8/2013	5.493	8.3	11	1785	0.19	0.08	
7/12/2013	3.955	7.84	3	1482	0.1	0.14	0.02
10/9/2013	4.709	8.14	1	2300	0.11	0.17	0.04
3/31/2014	5.493	8.06	10	1988	0.08	0.12	0.04
6/5/2014	4.12	7.79	6	2093	0.15	0.22	0.05
7/14/2014	3.878	7.9	9	2118	0.12	0.25	0.001
11/10/2014	4.709	7.99	5	2116	0.27	0.34	0.08
1/26/2015	4.12	7.13	7	2038	0.15	0.34	0.07
6/9/2015	3.662	7.79	6	1930	0.15	0.1	0.03

**Table No. 2
Surface Water Projections
P-3923**

STREAM STATION:	CS-001	0	MINING RATIO :	2.0764
DRAINAGE AREA (square miles) :	1.8		RECESSION INDEX :	35
MINING AREA (acres):	2392		PRECIPITATION :	56

	pH	TSS	Fe	Mn	SpC
X Coefficients	0.0119	0.4563	0.2091	-0.4768	-0.1280
Constants	7.9629	0.6589	1.0190	-0.7256	3.0540

PROJECTED DISCHARGE OF SEDIMENT BASINS BASED ON NPDES DISCHARGE LIMITS

	pH	TSS	Fe	Mn	SpC
	s.u.	mg/l	mg/l	mg/l	umhos/cm
During Mining	6.00	35	6.00	4.00	2000
After Mining	6.00	35	6.00	4.00	2000

LOW FLOW

Mining Condition	Flow cfsm	pH s.u.	TSS mg/l	Fe mg/l	Mn mg/l	SpC umhos/cm
Before	0.02	7.94	1	0.22	1.29	1897
During	0.05	6.98	18	3.09	2.54	1908
After	0.03	6.97	18	3.10	2.61	1937

AVERAGE FLOW

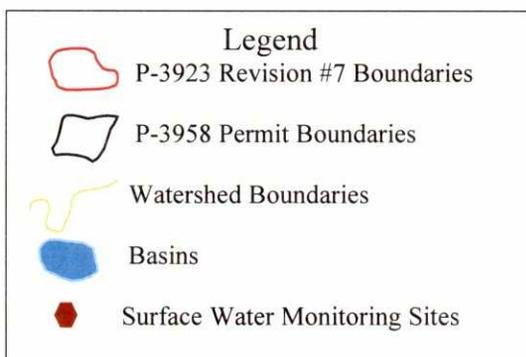
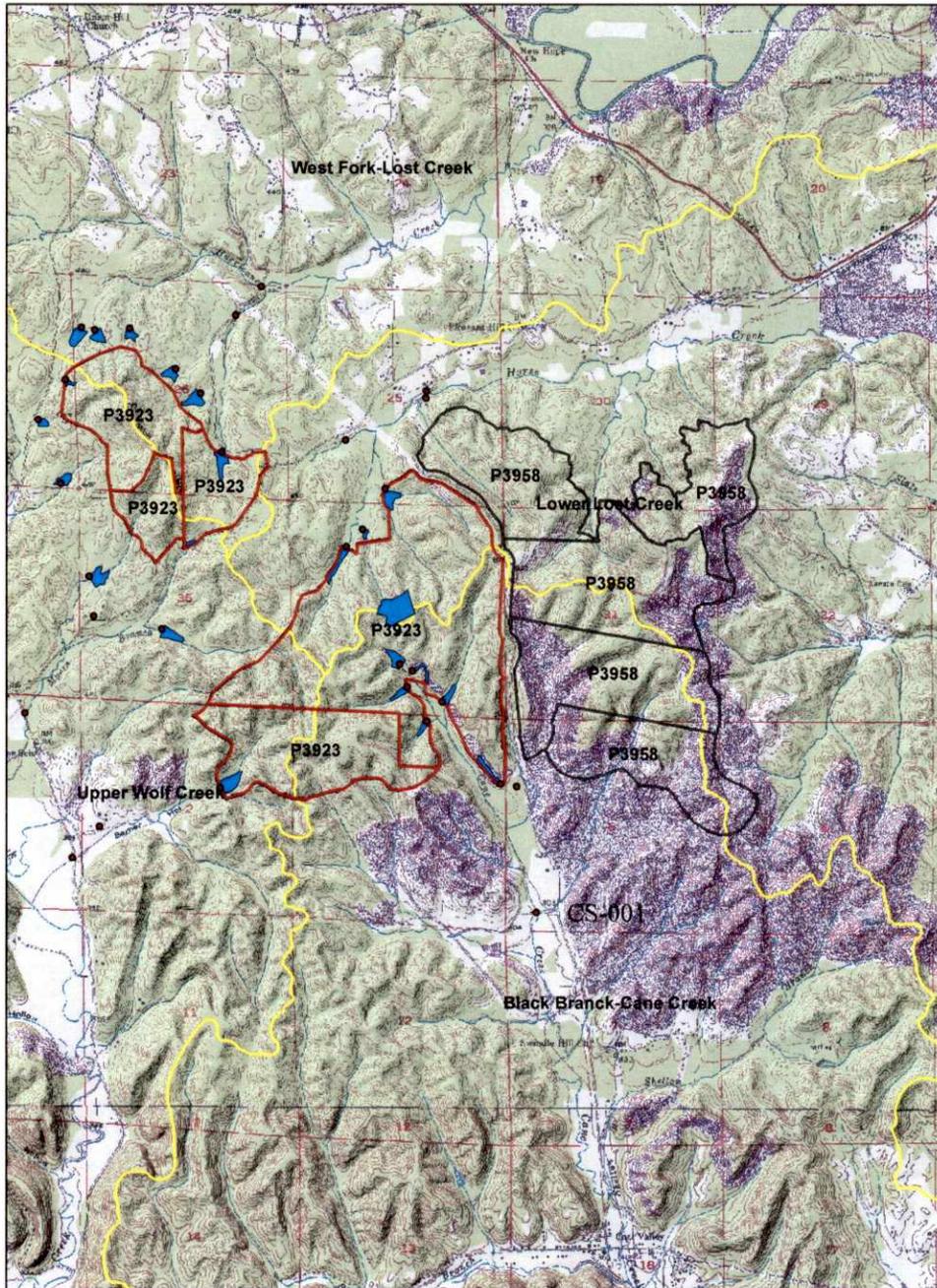
Mining Condition	Flow cfsm	pH s.u.	TSS mg/l	Fe mg/l	Mn mg/l	SpC umhos/cm
Before	1.55	7.97	6	0.09	0.15	1071
During	1.94	6.99	21	3.03	2.06	1519
After	1.70	6.99	20	3.03	2.07	1527

HIGH FLOW

Mining Condition	Flow cfsm	pH s.u.	TSS mg/l	Fe mg/l	Mn mg/l	SpC umhos/cm
Before	153.12	7.99	45	0.03	0.02	595
During	191.26	7.00	43	3.01	2.00	1287
After	168.37	7.00	41	3.01	2.00	1291

Map No. 2

42



Map No. 3 Cumulative Impact Area

