



west virginia department of environmental protection

Division of Water and Waste Management
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Charleston, WV 25304
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Joe Manchin III, Governor
Randy C. Huffman, Cabinet Secretary
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**ORDER
ISSUED UNDER THE
WATER POLLUTION CONTROL ACT
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 11**

TO: Consolidation Coal Company
St Rt. 7 and US 19
PO Box 100
Osage, WV 26543

DATE: April 23, 2010
ORDER NO.: M-10-071

INTRODUCTION

The following findings are made and Order issued to Consolidation Coal Company (hereinafter "Consol") pursuant to the authority vested in the Director of the Division of Water and Waste Management under Chapter 22, Article 11, Section 1 et seq. of the Code of West Virginia.

FINDINGS OF FACT

In support of this Order, the Director hereby finds the following:

1. Consol operates various underground mines and associated wastewater treatment facilities in West Virginia including Blacksville No. 2, WV/NPDES Permit No. WV0064602 and Loveridge, WV/NPDES Permit No. WV0040711 which are actively mined and operated in Monongalia County, West Virginia.
2. The discharges from the outlets authorized by the permits flow into Dunkard Creek or a tributary thereof (hereinafter "Dunkard Creek") and have been occurring for many years providing most of the constituent flow for the immediate receiving waters and providing the water which historically supported the aquatic ecology of the streams. The discharges are primarily a result of the pumping of the Blacksville No. 2 and Loveridge mine pools.
3. Beginning with WVDEP Order 133 dated October 26, 2004 and last amended by WVDEP Order 133C dated September 30, 2008, Consol agreed to certain conditions at several mine sites including chloride and benthic monitoring requirements, submittal of plans and status reports, presenting an oral and written detailed progress report and waiving its right of

Promoting a healthy environment.

appeal. Order 133C also approved Consol's Phase I Plan, except insofar as it provides Consol with time to pursue applications for site specific water quality criteria for chlorides. WVDEP made no commitment to approve, disapprove, or take any particular action or discretionary actions regarding Consol. The Order also specified that Consol shall not include applications for site specific water quality criteria or any other kind of variance in its Phase II Plan.

4. During the investigation and analysis of conditions associated with the September 2, 2009 fish and mussel kill on Dunkard Creek, WVDEP discovered, confirmed and/or determined other stream impairment conditions within the Dunkard Creek watershed.
5. On December 18, 2009, Consol was compelled by WVDEP Order No. M-09-070 to take corrective measures to initiate compliance with all terms and conditions of its WV/NPDES Permits. Consol took the following measures in accordance with the Order:
 - a. On December 28, 2009, Consol submitted its "Short Term Corrective Action Plan and Compliance Schedule".
 - b. On December 28, 2009, Consol submitted its Managed Discharge plan for the discharge from the AMD treatment plant through the 003 outlet at Blacksville No. 2.
 - c. On January 25, 2010, Consol completed Phase 1 of its flow reduction plan effectively reducing approximately 10% of the flow from its St. Leo treatment facility outfall 016.
 - d. On April 15, 2010 Consol submitted draft engineering details and proposed compliance schedule for wastewater treatment at Blacksville No. 2 and Loveridge mines. The chosen treatment method utilizes reverse osmosis and evaporation/crystallization.
 - e. Consol has implemented and continues to monitor for certain parameters at designated outlets. Parameters include chlorides, TDS, total selenium, BOD, ammonia nitrogen and specific conductance.
 - f. Consol has constructed and implemented real time, continuous in-stream monitoring stations on Dunkard Creek upstream of Blacksville No. 2 outlet 003 (hereinafter "upstream monitoring point") and downstream of Blacksville No. 2 outlet 005 (hereinafter "Blacksville point of compliance"). Specifically, the point of compliance is located on the WV Fork of Dunkard Creek, 200 feet upstream of the mouth of the confluence with the Pennsylvania Fork of Dunkard Creek. Specific conductance and chloride are monitored at these sites, as well as temperature at the downstream point. This data has been submitted to WVDEP.
 - g. To date, Consol has not reported any exceedences of in-stream interim limits for chloride and specific conductance.
 - h. Consol has implemented weekly monitoring for golden algae (*prymnesium parvum*) at sixteen (16) locations within Dunkard Creek and submitted the results to WVDEP.
 - i. On February 1, 2010, Consol submitted its "Proposed Pilot Wastewater Treatment System" for Blacksville No. 2. In February 2010, Consol began mobilization, installation, start-up, training and testing of two pre-treatment evaluation studies and subsequent reverse osmosis treatment of a portion of the discharge from the Blacksville No. 2 mine, which is designed to reduce chloride from the discharge.
 - j. Consol has made monthly status reports and progress presentations to WVDEP.

6. Consol has represented to WVDEP its concern for worker safety from the accumulation of water in Blacksville No. 2 and Loveridge mines, and the necessity to remove water from these mines to alleviate this concern to facilitate continued mining operations.
7. On or about March 19, 2010, Consol installed a larger discharge pump at the Beaver Pond which supplies water to be discharged through Blacksville No. 2 Outfall 003 in an effort to coordinate treated discharge volumes with favorable stream assimilation conditions.
8. From December 18, 2009 to date, golden algae (*prymnesium parvum*) monitoring conducted by Consol within Dunkard Creek has revealed a range of the golden algae from low density populations occurring at several of the sampling locations immediately after the issuance of Order M-90-070 to no evidence of the golden algae during the winter and early spring.
9. Consol has limited capability for subsurface storage of water at Loveridge and Blacksville No. 2 should it become necessary to temporarily cease discharging.

ORDER FOR COMPLIANCE

And now, effective at midnight the 30th day of April 2010, Consol is hereby ORDERED by the Director as follows:

1. Consol shall immediately take measures to initiate compliance with all terms and conditions of its WV/NPDES Permit.
2. On or before June 18, 2010 Consol shall fully achieve implementation of measures necessary to reduce the discharge at the St. Leo facility (Loveridge outfall 016) by 50%. Specifically, Consol shall supplement Phase I of its Short Term Corrective Action Plan and Compliance Schedule by implementing Phase II of the St. Leo effluent reduction plan necessary to eliminate an additional 40% of the current St. Leo discharge.
3. From the effective date of this Order until October 31, 2010, Consol shall monitor for chlorides, TDS, total selenium, and specific conductance from samples taken twice each month at permitted outlets on Dunkard Creek for WV/NPDES WV0064602 and WV/NPDES WV0040711 (outlet 016) and report the same monthly to WVDEP. The report shall be received no later than the 20th day of the following month.
4. From the effective date of this Order until October 31, 2010, Consol shall continue monitoring efforts for golden algae (*prymnesium parvum*) at a frequency of once a week until such time as golden algae is detected/observed in any sample, at which time the frequency shall increase to twice a week. This monitoring shall occur at the sixteen pre-determined sites selected by Consol and approved by WVDEP. Results of algal densities shall be reported by email immediately upon receipt to WVDEP. Results of this monitoring shall be provided within four (4) days of obtaining/taking the sample.
5. From the effective date of this Order until October 31, 2010, Consol shall maintain and operate its continuous monitoring stations at the Blacksville No. 2 upstream monitoring point, the Blacksville No. 2 downstream point of compliance on Dunkard Creek as well as

the Loveridge point of compliance, subject to paragraph 11 of this Order for Compliance, and provide temperature, chlorides, and specific conductance data reported in 15-minute intervals. Reports shall be received by the 20th day of the following month by WVDEP.

6. Consol shall continue to evaluate its monitoring equipment at all monitoring points to insure continued accuracy.
7. Consol shall continue to implement its managed discharge strategy associated with mine dewatering, water treatment, and water monitoring.
8. Consol shall continue to operate and maintain its pilot reverse osmosis treatment system at Blacksville No. 2 through August 30, 2010.
9. Consol shall develop and maintain an accounting system necessary to track the volume and disposal of all reject water generated by the reverse osmosis pilot treatment project. Consol shall take measures to ensure the proper disposal of all reject water and also record the name of handlers, sampling data, records of receipt for disposal, bills of lading and other pertinent information necessary to account for proper disposal. The information shall be formatted to ease thorough review and shall be available to WVDEP upon request. This information shall also be submitted to WVDEP monthly.
10. Consol shall make a full submittal of application(s) for and obtain any local, state or federal permits necessary to remove the stream obstruction located at the beaver pond, a short distance downstream of the St. Leo discharge.
11. Upon the effective date of this Order, Consol shall establish a monitoring point downstream of outlet 016 of WVNPDES Permit No. WV0040711 (hereinafter "Loveridge point of compliance"). This point of compliance shall be located in the Unnamed Tributary of the South Fork of the West Virginia Fork of Dunkard Creek at the County Route 9 bridge at Saint Leo, located downstream of Outlet 016. For a period not to exceed 90 days beginning with the effective date of this order, Consol shall monitor this location for temperature, chlorides, and specific conductance at a minimum frequency of 3 times a week. On or before July 30, 2010, Consol shall install permanent real time, continuous in-stream monitoring equipment with instantaneous readings for temperature, chlorides, and specific conductance at the Loveridge point of compliance.
12. Beginning the effective date of this Order and continuing until October 31, 2010, Consol shall simultaneously monitor for total dissolved solids, chloride and specific conductance at the Blacksville point of compliance and the Loveridge point of compliance a minimum of three times per week while discharges are occurring. The monitoring data shall be submitted monthly to the WVDEP, and received no later than the 20th day of the following month.
13. On or before June 15, 2010 Consol shall evaluate the feasibility of stream flow augmentation by water wells located on Camp Run and submit a written report and recommendation to WVDEP for review. This evaluation and report shall include an analysis of the quantity and quality of the wells and any potential detrimental effect that may be caused for other groundwater users in the area.

14. In order to prevent or minimize conditions not allowable in waters of the State, real time in-stream interim limits are hereby established. Beginning the effective date of this Order and ending October 31, 2010 the following in-stream chloride and specific conductance levels shall not be exceeded at the Blacksville point of compliance and beginning July 15, 2010 and ending October 31, 2010 at the Loveridge point of compliance subject to the flow value reflected below. This flow value shall be taken from the upstream monitoring point in Dunkard Creek at Blacksville No. 2.

Stream Flow (GPM)	Chloride (mg/L)	Specific Conductance (μ S/cm)
500 to 1500	230	2,100
> 1500	860	5,400

All values shall be measured at the points of compliance by instrumentation pursuant to Finding of Fact 5f and paragraph 11 of this Order for Compliance. Upon the availability of thirty (30) days of in-stream monitoring information obtained while discharges are occurring or other available information, WVDEP may re-evaluate the in-stream specific conductance values reflected above by its own initiative or at Consol's request. Monitoring data shall be submitted to WVDEP no later than the 20th day of the following month.

15. In addition to all other terms and conditions of this Order, Consol shall comply with the following measures regarding the discharge from Loveridge Outlet 016 at St. Leo:
- a. On or before May 31, 2010, evaluate and report to WVDEP the potential transfer of all or a portion of the remaining discharge at Loveridge Outlet 016 to the Harvey Run slurry impoundment necessary to achieve compliance with the instream interim limits and all other terms and conditions of this Order.
 - b. Evaluate the feasibility of stream flow augmentation at or near the St. Leo discharge and submit a written report and recommendation to WVDEP for review within sixty (60) days of the effective date of this Order. This evaluation and report shall include the drilling of a minimum of four groundwater wells and an analysis of the quantity and quality of the water produced by the wells and any potential detrimental effect that may be caused for other groundwater users in the area.
 - c. Evaluate the feasibility of lowering the pH of the St. Leo discharge for the purpose of discouraging the growth of golden algae and submit a written report and recommendation to WVDEP for review within sixty (60) days of the effective date of this Order.
 - d. Evaluate the feasibility of reducing the flow rate of the discharge from Loveridge Outlet 016 to Dunkard Creek and submit a written report and recommendation to WVDEP for review within sixty (60) days of the effective date of this Order.
16. If the stream flow in Dunkard Creek falls below 500 GPM at the Blacksville upstream monitoring point, Consol shall immediately cease discharges from Blacksville No. 2, WV/NPDES Permit No. WV0064602, Outlet 003 and Loveridge, WV/NPES Permit No. WV0040711, Outlet 016. Once stream flow in Dunkard Creek at the Blacksville upstream monitoring point returns to a level greater than 500 GPM, Consol may resume discharging from the above-referenced outlets, subject to paragraph 14. WVDEP shall be immediately notified by email upon resumption of discharges.

17. Upon approval and extending through the term of this Order, Consol shall implement the draft engineering details submitted to WVDEP on April 15, 2010. These engineering details included a proposed compliance schedule for its chosen wastewater treatment technology for its Blacksville No. 2 and Loveridge mines which is capable of achieving compliance with final effluent limits and water quality standards in the Dunkard Creek watershed by May 31, 2013. This submittal also included such information for Consol's additional Monongahela River facilities addressed in WVDEP Order 133C. Upon approval, the proposed details and compliance schedule shall be incorporated into and become part of this Order, as if fully set forth herein until such time the terms and conditions of this Order may be superseded by alternative conditions.
18. Consol shall continue to conduct golden algae (*prymnesium parvum*) density analysis at current locations. Should monitoring reveal that algae densities have reached or exceeded 10,000 cells /ml at any monitoring location, Consol shall immediately cease discharges from Blacksville No. 2, WV/NPDES Permit No. WV0064602, Outlet 003 and Loveridge, WV/NPDES Permit No. WV0040711, Outlet 016 and immediately notify WVDEP by email. Within seven (7) days of any cessation of discharge pursuant to this paragraph, Consol shall submit for approval a proposed Plan of Action which may allow for the resumption of discharging from these outlets. This plan shall be submitted to the address in paragraph 20 of this Order for Compliance.
19. Consol shall collect, handle and properly execute all monitoring requirements in accordance with the recognized protocol established in the latest edition of 40CFR Part 136.
20. Monthly written progress reports and any other submittals made pursuant to this Order for Compliance paragraphs three (3), five (5), nine (9), twelve (12), fourteen (14), fifteen (15), and eighteen (18) shall be sent to:

WVDEP
Director, Division of Mining and Reclamation
601 57th Street, S.E.
Charleston, WV 25304

Copies of all submittals shall be sent to:

Chief Inspector
Environmental Enforcement – Mail Code #031328
WV-DEP
601 57th Street SE
Charleston, WV 25304

21. Email notification made pursuant to Order for Compliance paragraphs four (4), sixteen (16) and eighteen (18) shall be sent to:

thomas.l.clarke@wv.gov
scott.g.mandirola@wv.gov
loren.b.wiles@wv.gov
michael.a.zeto@wv.gov

22. This Order shall become effective on April 30, 2010 at midnight and terminate on October 31, 2010 or sooner if superseded by alternative conditions and/or a mechanism to implement all necessary terms and conditions.

OTHER PROVISIONS

1. Compliance with the terms and conditions of this Order shall not in any way be construed as relieving Consol of the obligation to comply with any applicable law, permit, other order, or any other requirement otherwise applicable. Violations of the terms and conditions of this Order may subject Consol to additional enforcement action in accordance with the applicable law.
2. The provisions of this Order are severable and should a court or board of competent jurisdiction declare any provisions to be invalid or unenforceable, all other provisions shall remain in full force and effect.
3. This Order is binding on Consol, its successors and assigns.
4. This Order shall terminate upon Consol's notification of full compliance with the "Order for Compliance" and verification of this notification by WVDEP except as provided by Paragraph 22 of the Order for Compliance.

RIGHT OF APPEAL

Notice is hereby given of your right to appeal the terms and conditions of this Order which you are aggrieved to the Environmental Quality Board by filing a NOTICE of APPEAL on the form prescribed by such Board, in accordance with the provisions of Section 21, Article 11, Chapter 22 of the Code of West Virginia within thirty (30) days after receipt of this Order.

This Order shall become effective April 30, 2010 at midnight.



Scott G. Mandirola, Director
Division of Water and Waste Management