

ADDENDUM TO FACT SHEET FOR NPDES PERMIT WA0030830

Pacific Coast Coal Company

December 28, 2012

This is an addendum to the fact sheet for NPDES permit number WA0030830. The permit was issued to the Pacific Coast Coal Company (PCCC) on January 11, 2008. PCCC immediately appealed the terms of the permit after issuance. The Department of Ecology (Ecology), the Washington Attorney General's Office, and PCCC settled the appeal by agreeing to some changes to the permit. Subsequent to the settlement, the appeal was dismissed by the Washington Pollution Control Hearing's Board.

The settlement included several changes to the permit. The changes are highlighted in grey in the modified draft permit. Some errors in the fact sheet are documented below to explain the changes and record issues to consider for the next permit version. The text of the Appeal Settlement Agreement is attached to this addendum. Background information relative to the modifications is discussed in this addendum.

DESCRIPTION OF MODIFICATION TO THE PERMIT:

1. Settlement language: *Effluent limits in Tables 1 and 2 are amended to state that effluent turbidity shall not exceed 25 NTU and background monitoring is eliminated.*

Comment: The 2008 permit was issued with a turbidity limit of 5 NTU over background. PCCC and Ecology agreed that a pond discharge limit of 25 NTU was achievable and protective of water quality standards. This is one half of the 50 NTU limit in Ecology's 2010 Sand and Gravel General Permit and is stricter than the 25 NTU benchmark in Ecology's 2010 Construction Stormwater General Permit. It precludes upstream discharges from creating artificial background measures, reduces uncertainty of how to assure representative sampling, and simplifies the monitoring requirements for the Permittee.

2. Settlement language: *Average monthly Phosphorous limits will be based on a six-month average, provided that eutrophication does not occur in Lake Sawyer.*

Comment: Phosphorous was established as contributing to excess algae growth in Lake Sawyer in a 1991 Total Maximum Daily Load (TMDL) study. The 2008 permit carried over the phosphorous limits derived for the permit issued in 1992 (41 µg/L monthly average and 82 daily maximum). These were based on EPA methods intended to meet an average of 50 µg/L in the streams leading to the lake. Ecology agreed with PCCC's contention that their data shows their long-term average for all outfalls is below 30 µg/L. Ecology concurs that seasonal plant decomposition may contribute to short-term elevated measures. Ecology agreed to use a six-month running average to allow for monthly fluctuations from plant decomposition and retained the daily maximum limit applied previously.

PCCC's phosphorous limits will be at the low end of values recommended in Ecology's *Stormwater Management Manual for Western Washington*. That manual describes treating runoff to reduce by 50% the phosphorous levels in a range from 100 to 500 µg/L (Volume V – Section 3.3) by one half. The manual characterizes runoff from different human land uses ranging from 170 to 630 µg/L (Volume 1 – Section 1.7.3, Table 1.1). The mine has an average monthly limit of 41 µg/L. If it meets this limit over a six-month average, it will be on the low end of the targets set for municipal stormwater treatment systems. Wetlands such as Mud Lake are known to discharge phosphorous from plant decay during parts of the year, and treatment ponds may have similar patterns. Phosphorous limits set in the permit for the mine are probably about as low as can be achieved using settling ponds with chemical/physical coagulation and settling.

The PCCC appeal asserted this limit was derived arbitrarily. In the permit issued in 1992, it was derived by applying the statistical methodology for deriving permit limits in EPA's *Technical Support Document for Water Quality-based Toxics Control* (EPA/505/2-90-001). The limit was derived with the same statistical approach used for toxic pollutants. The calculation used the Phosphorous level of 50 µg/L in streams leading to lakes recommended in EPA's *Quality Criteria for Water 1986* (EPA 440/5-86-001) as an average four-day concentration not exceeded more than once every three years. The phosphorous limit was set in a conservative manner to meet EPA's recommendation for an average of 50 µg/L overall. PCCC's request to allow six-month averaging of the monthly average value is reasonable to meet the EPA recommendation. The long-term average will continue to fall below 50 µg/L.

3. Settlement language: *Tables 3 and 4 are eliminated so that effluent limitations and monitoring for outfalls A and A¹ are eliminated. The monitoring for these outfalls is eliminated from Table 6.*

Comment: The appeal settlement agreed to eliminate monitoring at these outfalls. Areas contributing to these ponds and outfalls are forested. Monitoring of the discharge from these outfalls is unnecessary because there is no source of contamination for stormwater runoff from the contributing area. General condition in the permit still requires these discharges to meet water quality standards, and Ecology will require monitoring if operations disturb the areas contributing to these outfalls. The outfalls are retained on the permit cover page. Permit condition G4 requires PCCC to report planned changes sixty days in advance that would change the discharge from these outfalls.

4. Settlement language: *Table 5 is amended so that the manganese triggering limit is changed from .050 mg/L to .113 for the Reichert Well, .135 for the PCCC Well, .092 for 12-4, and .050 for Pit 2. Table 5 is further amended so that the pH triggering limit is changed to a range of 6.5-9.0 for 12-4 and Pit 2.*

Comment: These limits were set in the 1992 permit based on monitoring by Ecology before the mine opened. They are retained because they reflect pre-mining conditions. WAC 173-200-050 (3)(b)(i) states that when natural ground water quality exceeds the criterion, the limit is equal to the background. Data from before mining and since the mine

opened has ranged outside of the criterion in the ground water regulation and within the limits in the previous permit. The limits derived based on Ecology's monitoring prior to the mine opening are returned to the permit.

5. Settlement language: *Metals monitoring in Special Condition S2 is changed to once per month, applicable to the parameters chromium, copper, zinc, lead, and arsenic.*

Comment: This change was agreed to clarify that PCCC only be required to sample once per month after a 0.5-inch rainfall. They should collect samples from the first such rainfall event during any month. This increases sampling rates from the previous permit from quarterly to monthly.

Based on more than 15 years of monitoring at PCCC, the only metals that appear at high enough concentrations to require surface water limits are copper, zinc, and maybe chromium. Ecology's Industrial Stormwater General Permit requires monitoring of zinc and copper in stormwater runoff because they are common elements found in stormwater from industrial sites. Monitoring for the other metals can possibly be dropped in the next permit issuance.

Copper is used in brake pads, wiring, and other common products. The permit limits for copper are justified, and monitoring is necessary.

The chromium limit is based on the hexavalent form. PCCC is measuring total chromium, so PCCC is reporting the combined hexavalent and trivalent levels of chromium. Ecology advises the Permittee to measure and report hexavalent chromium instead of total. After reviewing hexavalent chromium monitoring data, Ecology will determine whether monitoring, effluent limits, or both, are necessary.

6. *Tables 1 and 2 are further amended to reflect that the "TPH" parameter is replaced with visible sheen monitoring" of oil and that the interim and final limits are "no visible sheen." Table 6 is amended as follows:*
 - a. "TPH" parameter is replaced with visible sheen monitoring" of oil.
 - b. Sampling for outfalls F and G is combined.

Ecology agreed with PCCC that monitoring for visible oil sheen was acceptable in place of chemical analysis of Total Petroleum Hydrocarbon.

Discharge from ponds F and G are combined in one pipe, Ecology agreed monitoring the combined flow provided representative sampling of this discharge.

7. Special Condition S8 is amended to require the overflow pipe from the thickener tank to Pond G be upgraded or removed prior to the start of mining at the site.

This change eliminates potential discharge of process water prior to any coal processing.

8. Special Condition S8 is amended to state that the wheel wash be upgraded 30 days prior to the use of the wheel wash.

Ecology agreed to this change because it provides for upgrade to the wheel wash when necessary. Changes to the permit clarify that wheel wash water can be discharged into the ground as allowed in Ecology's *Storm Water Management Manual for Western Washington*.

TECHNICAL ERRORS, OMMISIONS, APPEAL ISSUES

The fact sheet omitted technical calculations and had factual errors as it was written.

1. Calculations of the water quality-based permit limits were omitted from the original fact sheet appendix. These calculations are included as part of this addendum.
2. Water quality standards and limits for copper and zinc are dependent on receiving water hardness. Actual field values for hardness were reported at outfall 002 (Mud Lake Creek at SR 169) of 87 mg/L as the lowest recorded for all receiving water in the 1992 permit. Comments from Black Diamond in the 2008 permit included recording hardness of 92 mg/L in Ginder Creek. Data collected by PCCC from Mud Lake Creek upstream of the discharge averages hardness of 84. The final effluent limits for copper in the 2008 permit were derived based on "a default value of 30..." (page 17 of the fact sheet). This calculation is a technical error and should have used actual hardness levels in the receiving water that was available. Copper limits based on the hardness value of 84 mg/L are included as part of this addendum. The final copper limits are revised from 5.5 to 14.5 µg/L based on actual measured hardness in the receiving water.
3. The calculations for the 2008 permit limits mistakenly used mg/L instead of µg/L for examining zinc. Exceptionally high zinc sample values in 2001 suggest a potential to exceed the water quality standard for zinc. This method for determining the need for a limit is intended for small sample sets. PCCC has collected enough zinc data to directly determine, rather than estimate, if the permit should include a zinc limit. The average zinc level based on data from 1993 to 2010 is 21 µg/L. The average monthly limit calculated for this addendum is 50 µg/L. The maximum daily is 100 µg/L. For the last 10 years, zinc concentrations have not exceeded the maximum daily limit. Ecology should examine the need for a limit at the next permit issuance. The limits are included in this fact sheet for consideration in future permits.
4. 'Table 1 - Wastewater Characterization' erroneously lists the units for copper concentrations from 1993 to 2005 in mg/L. The units are actually µg/L. Ecology records for wastewater characterization go back to 2000, earlier data is omitted for these corrections. Corrections to fact sheet table 1 for copper are shown in this addendum.

Corrected Table 1: Wastewater Characterization

Stormwater discharge to surface water was characterized for the years 1993 to 2005 are summarized below:

Outfalls	001	002	003	008
Parameter				
Copper µg/L mg/L	<0.5 to 25 0.23-25	<0.5 to 82 0.6-15.0	0.5 - 4.0	0.5 - 7

5. PCCC's appeal questioned the intent of permit conditions S7, S8, and S9. These conditions require an engineering report and impose a compliance schedule to design a stormwater treatment system that stores all water up to the 10-year, 24-hour storm. (Impound of 3 inches of rainfall from 300 acres requires 75 acre-feet of storage.) As stated in PCCC's appeal, the mine discharges treated stormwater based on the original approved design of ponds that treat and discharge stormwater continuously while rain is falling. Storing all of the rainfall on the mine to this level would require a carefully engineered reservoir and dam system that is neither reasonable nor safe. Storage of that amount of water threatens the downstream area with potential for catastrophic flooding.

PCCC's stormwater ponds were designed to treat storm flows up to the 10-year, 24-hour storm when the mine's treatment system was approved by the Federal Office of Surface Mining, King County, and Ecology. The requirements to re-engineer the treatment system in S9 and S7 are contrary to approved designs and would require the mine to design a system potentially unsafe to downstream property owners. The compliance issues to consider for PCCC's stormwater treatment system at this time is monitoring and proper maintenance of the treatment system as it was designed originally. No new design or engineering reports are useful or necessary.

6. Page 14 of the fact sheet discusses deriving a performance-based limit for Phosphorous. The units for that calculation erroneously used µg/L instead of mg/L. This calculation was not used for the permit limit.
7. Appendix C – Technical Calculations lacked the calculation of the permit limits and determination of what pollutants should be limited. The calculations are included here.

PUBLIC NOTICES

Ecology will publish a public notice of this modification in a major local newspaper of general circulation serving the area in which the discharges occur. Ecology will provide a 30-day period following the date of public notice during which time interested persons may submit their written comments on the proposed modification.

RESPONSE TO COMMENTS

For permit modifications, only the changes to the permit are subject to the public review and comment. This response includes all comments submitted and notes those that are directly related to the changes to the permit.

Aaron Nix, City of Black Diamond Director, submitted comments in a letter on behalf of the City:

2. In section S8, the permit is clear that No discharge of coal processing water to surface water is authorized. We strongly support this condition as we understand the potential ramifications of discharge of these industrial process wastes into the natural environment. As this condition has been placed on the project, the City has some concern with regard to assuring that these waste waters are disposed of appropriately. It is unclear from the permit materials as well as the conditions placed on the permit of how these byproducts will be appropriately disposed and accounted for. The City strongly suggests that a waste tracking

process be in place, confirming that these waste streams are accounted for and reach an appropriate destination for treatment and approved discharge.

Response: The City comment No. 2 addresses the changes to permit condition S8 for removing a discharge pipe. The permit modification changes the timing for removing the coal process water discharge pipe to Pond G. Instead of 30 days after permit issuance (long past now), it changes to before any future coal processing. Discharge of the coal process water to surface water is not allowed by the permit, this change just addresses the removal of the pipe. The spoils generated during the washing process are made up of native minerals (silica and clay). Page 6 of the 2008 fact sheet wrote:

“Coal Processing.

The coal wash system recirculates wash water. The wash water is sent to a clarifier (thickener tank) where it is treated and recirculated back as wash water. Process wash water from coal separation is collected in a thickener tank where chemical flocculants are added before water is recycled back into the coal wash system. The overflow for the tank currently has a conveyance structure leading to pond G and coal fines and waste have, in the past, made it to pond G from the thickener tank. This has been done at least once during tank cleanout. As pond G is an unlined stormwater pond and PCCC has no authority to discharge process water, the pipe must be pulled out and PCCC must reroute overflows during routine maintenance so that it does not discharge to surface or ground waters of the state.”

The intent of the permit was to eliminate this wastewater source. Requiring a waste tracking process is outside the scope of the permit modification. The coal washing process solid waste is suitable to use as reclamation fill.

Other comments from Black Diamond address issues outside of the scope of the modification. They are relevant to the next permit renewal:

1. The sensitivity of our natural resources as it pertains to Phosphorus loading is well known. The City actively engages with our constituents in obtaining water quality information that is utilized in evaluating the health of this system as it pertains to phosphorus as well as other activities that strive to improve these conditions. We strongly encourage the applicant to work with the City in the future to help us assure the protection of these resources and look forward in engaging in these matters.

City comment No. 1 addresses concern with phosphorous loading. The comment is beyond the scope of the permit modification. Ecology is working towards posting PCCC's phosphorous monitoring data on the web for public review. PCCC submitted a full set of monitoring data as part of their recent permit application.

3. The City appreciates the opportunity to be able to review the SWPPP as identified in condition S14 (A2). Based on research conducted by staff and the ability of the applicant to pursue chemical treatment operations in cleaning up surface waters discharged to the Water's of the State, the City has some concern on the types of chemicals that will be utilized as there are some, especially cationic polymers, that can be very toxic to aquatic life and emphasizes, what ever chemical is utilized, that appropriate dosing be utilized and discharge monitored to ensure no impacts from these discharges. In the past, Ecology has required other permittees that utilize these reagents to conduct biological assays, including daphnia and trout studies prior to discharge. If chemicals will be utilized for treatment of surface water run-off, the City requests that they are made aware of what is being used and that Ecology require appropriate testing prior to discharge. We assume that these management practices will be included with the approved SWPPP, if utilized, and would appreciate the opportunity to review and provide comment prior to its approval.

City Comment No. 3 appears to request the SWPPP for Pacific Coast Coal. The 2008 permit had no requirement for PCCC to submit the SWPPP to Ecology. PCCC did submit their Drainage and Sedimentation Control Plan. That document meets much of the SWPPP requirements in the permit. Ecology provided a copy of that document to Mr. Nix. Requiring reporting about chemical settling agent use should be addressed in the next permit version. It is beyond the scope of this permit modification. Any future permit should require PCCC to submit their SWPPP or equivalent.

4. In the bypass procedures identified in item S4 (B2), bypass of treatment facilities will be permitted if the "bypass is unavoidable to prevent loss of life, personal injury, or severe property damage." There is the possibility that untreated discharges may be allowed in some instances. As impacts from these actions are likely, the City requests that when and if these bypasses are permitted by the Department, appropriate evaluation of the bypasses' impacts to the natural environment be evaluated and appropriate mitigation be implemented and monitored to account for these impacts. The City believes that this needs to be conditioned into the permit in order to limit degradation of resources and investments made by downstream property owners.

City Comment No. 4 addresses bypass in permit condition S4. This condition is unchanged by this permit modification. It is standard language taken from federal regulations and is used in all Washington NPDES permits to limit the use of bypass as an excuse for effluent violations. Stormwater dischargers rarely request bypass authorization because they can perform necessary maintenance during the dry season. Stormwater pond users are authorized to use overflow structures during extreme storm events to prevent catastrophic failure.

Bill Peterson, a resident near the mine, submitted the following comments:

In the quest to identify pollutant discharges in the vicinity of John Henry mine. This discharge, flowing into Lake 12, within the Peterson Family Park. I have been concerned since the Tacoma pipeline was installed in it's re-alignment location of a fault that drew in water like a vacume when exposed and now it discharges water, high in iron, so much so that a deep sediment is left behind.

The fault I am referring to continues well within the boundaries of Pit#1.

Our deep post water well (referred to as Peterson well #2, in the E.I.S. for the coal mine). Also shows a major change in the testing of heavy metals tests conducted by Pacific Coast and Coal.

With Iron bacteria, Iron level is now at 110.0 mg/l and lead at .56 mg/l. The normal level of iron was approx. .50 mg/l and lead was never an issue along with iron bacteria.

It appears that the pit liners referred to in the EIS for the change to land fill was overlooked and may have put ground water at risk.

While doing research I also noticed a lot of information about low water levels as result of the pit, but nothing mentioned about high water levels.

Between the lack of pit liners, high water levels at pit #1 and #3 faults headed this way, there may be a possibility this is a sediment impact zone.

I am all for a public hearing, if not just to understand what is to be accomplished here, for I am still a bit in the dark.

Sincerely,

Bill Peterson
27230 SE Green River Gorge Rd
Black Diamond, WA 98010

Response: These comments address issues outside of the scope of the modification. Pit 1 is currently a large, deep impoundment of water at the head of Mud Lake, which then drains into the Lake Sawyer basin. The only change to the permit related to Pit 1 is setting the pH triggering limit to a maximum of 9.0 from 8.5. That limit was set at 9.0 based on groundwater data collected prior to the mine opening. The mines groundwater monitoring data shows that the pH at the Pit 2 monitoring well ranged from 7.6 to 8.8 from 1993 to 2010. Iron averaged 0.12 mg/L with a maximum of 0.65 mg/L. Lead averaged 0.01 mg/L with a maximum of 0.04 mg/L. The maximum water level of Pit 1 is 752.0 feet. The Peterson property is located above 800 feet elevation. Pit 1 and most of the mine drains towards Lake Sawyer, away from the Peterson property. Ground water in the area is highly variable. The change to the pH triggering limit at Pit 2 monitoring well will not impact the situation at the Peterson well.

Mike Connaboy, Environmental Coordinator for PCCC, submitted the following comments:

Summary of Permit Report Submittals

This table contains submittal dates from the expiring permit, as well as several reports that were already provided to Ecology under the expiring permit. This table should be updated to reflect the terms of the new permit.

Response: The modification is limited to the Settlement Agreement and technical corrections.

Special Conditions

S1. Discharge Limitations

B. Stormwater and Mine Dewatering Discharges to Surface Water

Effluent Limitations – Ecology presents four tables of proposed effluent limits for the discharges from PCCC’s sediment ponds, two of which (Tables 3 and 4) are noted as being removed by prior permit revision. Furthermore, Tables 1 (Ponds B, F, and G) and 2 (Ponds H1, H2, and I) are identical and list interim limits with dates that have passed. PCCC has no issue with the limits established, but would suggest that:

- Tables 1 and 2 be combined into a single table covering discharges from Ponds B, F, G, H1, H2, and I.
- The past interim limits be removed.
- Tables 3 and 4 be removed.

Response: The modification is limited to the Settlement Agreement and technical corrections. Material shown in the draft in ~~strikeout~~ will be deleted from the draft modified permit when it is issued. Tables 3 and 4 will be deleted.

S2. Monitoring Requirements

A. Surface Water Monitoring Schedule

Ecology specifies that samples be collected within 24 hours of a storm event greater than 0.5” of rainfall, not to exceed two per month. PCCC objects to this requirement for the following reasons:

- This requires PCCC personnel to be available to conduct sampling on a few hours notice throughout the month, at least until the maximum two samples are obtained. As PCCC has only one full-time employee, this presents an undue hardship, requiring availability 7 days a week, including weekends and holidays. PCCC requests that Ecology remove the storm event requirement and return to the random sampling schedule that existed prior to the implementation of the expiring permit in 2008.

- Sampling only during storm events biases the sampling program towards higher runoff periods, while deliberately not sampling discharges during the more typical, lower-volume periods.

Table 6 “Surface Water Discharge Monitoring Schedule” specifies that PCCC sample Ponds B, F&G, H1, H2, and I for the following parameters: flow, dissolved oxygen, oil sheen, pH, turbidity, phosphorous, chromium, copper, zinc, lead, and arsenic.

PCCC questions the mandated sampling for chromium, copper, zinc, lead and arsenic for the following reasons:

- PCCC has been sampling for these parameters for an extended period under the expiring and earlier permits. All five parameters have been sampled at these same locations since 2008. As detailed in water sampling spreadsheets provided to Ecology by PCCC, a total of 34 samples were taken for each parameter at each pond through September 2012, with no exceedances of established limits. Indeed, the majority of samples for arsenic, chromium, and lead were below the method detection limit, including 100% of the arsenic samples.
- Other mines are not required to sample for these parameters, as shown by examination of both the individual permit for TransAlta Centralia Mining (WA-0037338) and the Sand and Gravel General Permit.
- As noted in both this draft and the expiring permit, Ecology may change the sampling frequency after two years of data collection. PCCC has been sampling these parameters at various locations since 1993, and the record demonstrates that none of these parameters are present at levels of concern in the surface water discharges from the minesite. PCCC therefore formally requests that Ecology reduce or drop completely the requirements to sample for these parameters.

Should Ecology retain monitoring for chromium, PCCC requests that total chromium be sampled (by EPA Method 200.7), rather than testing for hexavalent chromium (by Method 218.6) as specified in Table 6. Analyzing for hexavalent chromium costs 67% more than total chromium, and is unnecessary given the low levels of chromium present in the surface water discharges.

- Hexavalent chromium cannot, by definition, be greater than total chromium. In fact, hexavalent chromium is quite rare and is found primarily in industries that use chromium in their manufacturing process.
- Testing for total chromium was allowed under earlier permits, with a requirement that the sample be tested for hexavalent chromium only if total chromium levels exceeded the hexavalent limit. The detection limit for total chromium is well below the allowable level of hexavalent chromium, and as noted earlier there have been no exceedances of chromium limits ever recorded at the mine.

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- Hexavalent chromium cannot, by definition, be greater than total chromium. In fact, hexavalent chromium is quite rare and is found primarily in industries that use chromium in their manufacturing process.
- Testing for total chromium was allowed under earlier permits, with a requirement that the sample be tested for hexavalent chromium only if total chromium levels exceeded the hexavalent limit. The detection limit for total chromium is well below the allowable level of hexavalent chromium, and as noted earlier there have been no exceedances of chromium limits ever recorded at the mine.

Response: The modification is limited to the Settlement Agreement and technical corrections. The Fact Sheet Addendum discussed chromium monitoring. If the Permittee collects sample data to show that Hexavalent chromium is at low levels, the limit and monitoring can be removed from the permit.

B. Groundwater Monitoring Schedule

The proposed new permit duplicates the groundwater sampling requirements and schedule from the expiring permit, with monthly sampling for water level, pH, conductivity, and visible sheen; quarterly sampling for arsenic, iron, and manganese; and semi-annual sampling for lead, chromium, and mercury.

- As detailed in the groundwater spreadsheets provided to Ecology, the only exceedances of triggering limits were for manganese at Pit 2. There have been no exceedances of triggering limits at any monitoring location for any other parameter throughout the 18 year period.
- Again, as noted in the permit, Ecology may change the sampling frequency after two years of data collection. PCCC has been monitoring groundwater at these same monitoring locations since mining commenced in 1986, and has provided Ecology with spreadsheets summarizing the data collected from 1993 through 2010. The data demonstrates that the parameters monitored are relatively constant with at most seasonal fluctuations, and that there has been no impact by mining operations to groundwater at any location. PCCC therefore formally requests that Ecology reduce or drop completely the requirements to sample for these parameters.

Should Ecology elect to retain groundwater sampling, PCCC requests that the sampling frequency be reduced to quarterly for water level, pH, and conductivity; and annually for arsenic, iron, manganese, lead, chromium, and mercury.

Response: The modification is limited to the Settlement Agreement and technical corrections.

S7. Engineering Report (Facility Plan)

As noted in the November 2012 Addendum to the Fact Sheet, this condition was part of the 2008 permit and was appealed by PCCC as it would have required retention of all stormwater up to the 10-yr, 24-hour event, in direct conflict with the design of the existing, approved stormwater treatment system. PCCC has provided Ecology with the Sediment and Drainage Control Plan

from the mine's permit with the Office of Surface Mining. Given this, condition S7 should be removed from the proposed permit.

Response: The modification is limited to the Settlement Agreement and technical corrections. Ecology agrees this requirement is unrealistic. The Permittee may submit an engineering report in response to this condition that explains why the requirements are not feasible.

S8. Upgrade of the Current Wastewater Treatment System

The first part of this condition was amended to require upgrade or removal of the overflow pipe from the thickener tank to Pond G prior to the resumption of mining.

- PCCC requests that this clause be further amended to read “prior to operation of the preparation plant”, as the resumption of mining is independent of operation of the plant, and will likely precede it by some period of time.

The second part of this condition was amended to require upgrade of the wheel wash to meet the requirements of BMP-C106 in the latest version of the Stormwater Management Manual for Western Washington 30 days prior to the resumption of the use of the wheel wash.

- Given the changing design specifications of various BMP's with each revision of the Stormwater Manual, PCCC requests that this clause be further amended to make clear that the wheel wash met the design requirements at the time of construction and it will not be subject to constant re-design requirements should specifications change in the future.

Response: The wheel wash lacks a pre-settling basin prior to discharge to the ground according to inspection notes. The intent of the modification was to bring the wheel wash up current standards, including a lined pre-settling basin prior to discharging the wash water into the ground.

S9. Compliance Schedule

This condition was also part of the 2008 permit and presented a schedule for PCCC to design and implement a new wastewater treatment system. As noted in the Addendum to the Fact Sheet, it was appealed by PCCC as it would have required retention of all stormwater up to the 10-yr, 24-hour event, in direct conflict with the design of the existing, approved stormwater treatment system. Given that Ecology is in agreement that PCCC's existing stormwater treatment system is sufficient and appropriate, condition S9 should be removed from the proposed permit.

Response: The modification is limited to the Settlement Agreement and technical corrections. Ecology agrees this requirement is unrealistic. The Permittee may submit an engineering report in response to this condition that explains why the requirements are not feasible.

END of RESPONSE to COMMENTS

Your Right to Appeal

You and others have a right to appeal this permit modification to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of the final permit. The appeal process is governed by chapter 43.21B RCW and chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2) (see glossary).

To appeal, you must do the following within 30 days of the date of receipt of this permit:

- File your appeal and a copy of this permit with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this permit on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in chapter 43.21B RCW and chapter 371-08 WAC.

ADDRESS AND LOCATION INFORMATION

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board 1111 Israel RD SW STE 301 Tumwater, WA 98501	Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903

This permit modification was written by Gerald Shervey.

Appendix C - Technical Calculations

This spreadsheet calculates the reasonable potential to exceed state water quality standards for a small number of samples. The procedure and calculations are done per the procedure in *Technical Support Document for Water Quality-based Toxics Control*, U.S. EPA, March 1991 (EPA/505/2-90-001) on page 56. Hardness value of 84 mg/L used to calculate hardness-dependent metals criteria.

Parameter	State Water Quality Standard		Max concentration at edge of...		LIMIT REQ'D ?	Effluent percentile value	Max effluent conc. measured (metals as total recoverable)								
	Metal Criteria Translat or as decimal	Metal Criteria Translat or as decimal	Acute	Chronic			Acute Mixing Zone	Chronic Mixing Zone	Pn	Coeff Variation	# of samples	Multiplier	Acute Dil'n Factor	Chronic Dil'n Factor	
	Acute	Chronic													ug/L
outfall 001															
Arsenic TC	1.00	1.00	360	190	53.0	53.0	NO	0.95	0.94	50.0	0.60	47	1.06	1	1
Chromium (Hex)	0.982	0.962	15	10	14.6	14.3	YES	0.95	0.94	14.0	0.60	47	1.06	1	1
Copper	0.996	0.996	14.4	9.8	26.4	26.4	YES	0.95	0.94	25.0	0.60	47	1.06	1	1
Iron	1.00	1.00	10000	1000	895.	895.5	NO	0.95	0.94	840.0	0.60	46	1.07	1	1
Zinc	0.996	0.996	99	90	370.	370.2	YES	0.95	0.93	340.0	0.60	42	1.09	1	1
Outfall 002															
Arsenic TC	1.00	1.00	360	190	54.3	54.3	NO	0.95	0.93	50.0	0.60	43	1.09	1	1
Chromium (Hex)	0.982	0.962	15	10	13.9	13.6	YES	0.95	0.93	13.0	0.60	43	1.09	1	1
Copper	0.996	0.996	14.4	9.8	16.2	16.2	YES	0.95	0.93	15.0	0.60	43	1.09	1	1
Iron	1.00	1.00	10000	1000	535.	535.6	NO	0.95	0.93	490.0	0.60	42	1.09	1	1
Zinc	0.996	0.996	99	90	413	413	YES	0.95	0.93	380.0	0.60	42	1.09	1	1

Limits Calculation Spreadsheet: This spreadsheet calculates water quality based permit limits based on the two value steady state model using the State Water Quality standards contained in WAC 173-201A. The procedure and calculations are done per the procedure in *Technical Support Document for Water Quality-based Toxics Control*, U.S. EPA, March 1991 (EPA/505/2-90-001) on page 99. Hardness value of 84 mg/L used to calculate hardness-dependent metals criteria.

Permit Limit Calculation Summary									Waste Load Allocation (WLA) and Long Term Average (LTA) Calculations							
PARAMETER	Acute Dil'n Factor	Chronic Dil'n Factor	Metal Criteria Translator	Metal Criteria Translator	Ambient Concentration	Water Quality Standard Acute	Water Quality Standard Chronic	Average Monthly Limit (AML)	Maximum Daily Limit (MDL)	WLA Acute	WLA Chronic	LTA Acute	LTA Chronic	LTA Coeff. Var. (CV)	LTA Probability Basis	Limiting LTA
			Acute	Chronic	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	decimal	decimal	ug/L
Chromium Hexavalent	1.00	1.00	0.982	0.962		15.00	10.00	7.6	15.3	15	10.00	4.8	5.3	0.60	0.99	4.8
Copper	1.00	1.00	0.996	0.996		11.34	7.86	7.2	14.5	11	7.86	3.6	4.1	0.60	0.99	3.6
zinc	1.00	1.00	1.00	1.00		98.73	90.16	49.4	99.1	99	90.16	31.7	47.6	0.60	0.99	31.7

**POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON**

PACIFIC COAST COAL COMPANY,

Appellant,

v.

STATE OF WASHINGTON,
DEPARTMENT OF ECOLOGY,

Respondent.

PCHB No. 08-016

SETTLEMENT AGREEMENT

Respondent, State of Washington, Department of Ecology (Ecology), represented by Robert McKenna, Attorney General and Laura J. Watson, Assistant Attorney General, and Appellant, Pacific Coast Coal Company, appearing pro se, hereby submit this Settlement Agreement (Agreement) to the Pollution Control Hearings Board (Board) as a full and final settlement of the above-referenced appeal, and request that the Board dismiss the appeal with prejudice.

I. BACKGROUND

1. On January 11, 2008, Ecology issued National Pollutant Discharge Elimination System Waste Discharge Permit No. WA-003083-8 (Permit) to Pacific Coast Coal Company. The Permit authorizes the Permittee to discharge stormwater and dewatering water into Mud Lake Creek, Ginder Lake, and Lake 12 subject to the terms and conditions of the permit.

2. On February 11, 2008, Pacific Coast Coal Company appealed the Permit to the Board.

3. Ecology and Pacific Coast Coal Company have agreed to resolve the appeal of the Permit through the settlement outlined below.

II. SETTLEMENT AGREEMENT

The parties desire to resolve the dispute herein and avoid the cost and time associated with further litigation. The parties therefore stipulate and agree as follows.

A. SCOPE

This Agreement constitutes the entire agreement between the parties to this appeal, and settles all issues raised by Pacific Coast Coal Company in its appeal of the Permit. This Agreement applies only to the Permit issued on January 11, 2008 and does not in any way affect Ecology's authority to place different conditions in future permits issued to Pacific Coast Coal Company or Pacific Coast Coal Company's successors.

B. RESOLUTION OF APPEAL

The parties agree to modify the Permit as follows:

1. Tables 1 and 2 are amended to state that effluent turbidity shall not exceed 25 NTU and background monitoring is eliminated. Tables 1 and 2 are further amended to reflect that the "TPH" parameter is replaced with visible sheen monitoring" of oil and that the interim and final limits are "no visible sheen." *See Attachment A at 1 for text of conditions.*

2. Phosphorous limits will be based on a six month average, provided that eutrophication does not occur in Lake Sawyer. *See Attachment A at 1, footnote a in Table 1 and Table 2.*

3. Tables 3 and 4 are eliminated so that effluent limitations for outfalls A and A¹ are eliminated.

4. Table 5 is amended so that the manganese triggering limit is changed from .050 mg/L to .113 for the Reichert Well, .135 for the PCCC Well, .092 for 12-4, and .050 for Pit 2. Table 5 is further amended so that the pH triggering limit is changed to a range of 6.5-9.0 for 12-4 and Pit 2. *See Attachment A at 2 for text of amendments.*

1 5. Metals monitoring in Special Condition S2 is changed to once per month,
2 applicable to the parameters chromium, copper, zinc, lead, and arsenic. *See Attachment A at 3*
3 *for text of condition.*

4 6. Table 6 is amended as follows:

- 5 a. “TPH” parameter is replaced with visible sheen monitoring” of oil;
6 b. Monitoring requirements for outfalls A and A¹ are eliminated;
7 c. Sampling for outfalls F and G is combined.

8 *See Attachment A at 4 for text of amendments.*

9 7. Special Condition S8 is amended to require the overflow pipe from the
10 thickener tank to Pond G be upgraded or removed prior to the start of mining at the site. *See*
11 *Attachment A at 5 for text of amendments.*

12 8. Special Condition S8 is amended to state that the wheel wash be upgraded 30
13 days prior to the use of the wheel wash. *See Attachment A at 5 for text of amendments.*

14 **C. PUBLIC NOTICE AND COMMENT**

15 The permit modifications described in Paragraph II.B. are of a type subject to public
16 notice and comment requirements. Pacific Coast Coal Company understands that Ecology
17 cannot finalize any modifications to the Permit until the close of the public notice and
18 comment period. Appellant understands that Ecology is obligated by law to consider and, as
19 appropriate, modify the permit in response to the comments. Appellant further understands
20 that third parties may have the right to appeal modifications to the Permit.

21 **D. WAIVER OF APPEAL RIGHTS**

22 Pacific Coast Coal Company understands that it has the right to contest the terms of the
23 Permit by presenting evidence at a Board hearing. Pacific Coast Coal Company voluntarily
24 waives its right to a hearing upon signature and acceptance of this Agreement by
25 representatives for Pacific Coast Coal Company and Ecology. However, if as a result of
26 comments received through the public comment process, the Permit is modified in ways not

1 provided for in this settlement, Pacific Coast Coal Company reserves its right to appeal such
2 permit modifications.

3 **E. RELEASE OF LIABILITY**

4 Pacific Coast Coal Company and its heirs, assigns, or other successors in interest, agree
5 to release and discharge the Department of Ecology and its officers, agents, employees,
6 agencies and departments from any damages and causes of action of any nature arising out of
7 the Permit that gave rise to this appeal.

8 **F. DISMISSAL OF APPEAL**

9 The parties consent to the submission of this Agreement to the Board and request that,
10 based upon a full and final settlement having been reached, the Board dismiss this appeal with
11 prejudice. Both parties further agree to bear their own costs and attorneys' fees associated with
12 this appeal.

13 **G. EFFECTIVE DATE**

14 This Agreement shall become effective upon issuance of the Board's order dismissing
15 this appeal.

16 **H. SIGNATORIES AUTHORIZED**

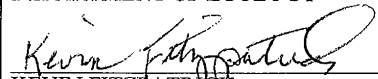
17 The undersigned representatives for Ecology and Pacific Coast Coal Company certify
18 that they are fully authorized by the party whom they represent to enter into the terms and
19 conditions of this Agreement and to legally bind such party thereto.

20 **I. EXECUTION**

21 This document may be executed in counterparts and may be executed by facsimile, and
22 each executed counterpart shall have the same force and effect as the original instrument.
23
24
25
26

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PACIFIC COAST COAL COMPANY

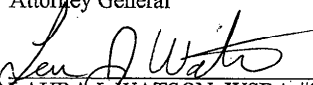

KEVIN FITZPATRICK
Section Manager
Water Quality Program
Northwest Regional Office

DAVID J. MORRIS
General Manager

Dated: September 15, 2008

Dated: _____

ROBERT M. McKENNA
Attorney General


LAURA L. WATSON, WSBA #28452
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Attorneys for Respondent
(360) 586-4614

Dated: 9/16/2008

SETTLEMENT AGREEMENT

5

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1 STATE OF WASHINGTON
2 DEPARTMENT OF ECOLOGY

3
4 KEVIN FITZPATRICK
5 Section Manager
6 Water Quality Program
7 Northwest Regional Office

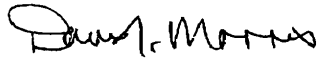
8 Dated: _____

9 ROBERT M. McKENNA
10 Attorney General

11 LAURA J. WATSON, WSBA #28452
12 Assistant Attorney General
13 Attorneys for Respondent
14 (360) 586-4614

15 Dated: _____

PACIFIC COAST COAL COMPANY



DAVID J. MORRIS
General Manager

Dated: September 15, 2008

26 SETTLEMENT AGREEMENT

5

ATTORNEY GENERAL OF WASHINGTON
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Attachment A

1. Table 1 and 2 are amended to state:

Table 1. Surface Water Effluent Limitations for Outfalls B, F, and G.

EFFLUENT LIMITATIONS: OUTFALLS B, F and G		
Parameter	Average Monthly^a	Maximum Daily^b
Phosphorous	41 µg/L	82 µg/L
pH	6.5 to 8.5	
Turbidity	Turbidity in the receiving water shall not exceed 5 NTU over background when background turbidity is 50 NTU or less, and shall not exceed background turbidity by more than 10% when background turbidity exceeds 50 NTU.	
Dissolved Oxygen	Minimum 9.5 mg/L	
Parameter	Interim Limit Until September 30, 2010 (Maximum Daily)	Final Limit (Maximum Daily)
TPH Oil Sheen	15 mg/L No visible oil sheen	5 mg/L No visible oil sheen
Chromium (Hex)	16 µg/L	15.3 µg/L
Copper	16 µg/L	5.5 µg/L
^a The average monthly effluent limitation is defined as the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. For phosphorus, the average limit will be based on a six month average, provided that eutrophication does not occur in Lake Sawyer.		
^b The maximum daily effluent limitation is defined as the highest allowable daily discharge. The daily discharge means the discharge of a pollutant measured during a calendar day. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For other units of measurement, the daily discharge is the average measurement of the pollutant over the day. The pH shall not be averaged.		

Table 2. Surface Water Effluent Limitations for Outfalls H1, H2, and I.

EFFLUENT LIMITATIONS: OUTFALLS H1, H2, AND I		
Parameter	Average Monthly^a	Maximum Daily^b
Phosphorous	41 µg/L	82 µg/L
pH	6.5 to 8.5	
Turbidity	Turbidity in the receiving water shall not exceed 5 NTU over background when background turbidity is 50 NTU or less, and shall not exceed background turbidity by more than 10% when background turbidity exceeds 50 NTU.	

Dissolved Oxygen	Minimum 9.5 mg/L	
Parameter	Interim Limit Authorized Until September 30, 2010 (Maximum Daily)	Final Limit (Maximum Daily)
TPH Oil Sheen	15 mg/L No visible oil sheen	5 mg/L No visible oil sheen
Chromium (Hex)	16 µg/L	15.3 µg/L
Copper	16 µg/L	5.5 µg/L
^a The average monthly effluent limitation is defined as the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month. <i>For phosphorus, the average limit will be based on a six month average, provided that eutrophication does not occur in Lake Sawyer.</i>		
^b The maximum daily effluent limitation is defined as the highest allowable daily discharge. The daily discharge means the discharge of a pollutant measured during a calendar day. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For other units of measurement, the daily discharge is the average measurement of the pollutant over the day. The pH shall not be averaged.		

2. Table 5 is amended to state:

Table 5. Triggering Limits for Groundwater Monitoring

Station Name	REICHERT WELL	PCCC WELL	12-4	PIT 2
Parameter				
pH	6.5 to 8.5	6.5 to 8.5	6.5 to 9.0	6.5 to 9.0
Arsenic	0.050 mg/L 0.050 ug/L	0.050 mg/L 0.050 ug/L	0.122 mg/L 0.122 ug/L	0.05 mg/L 0.050 ug/L
Lead	0.050 mg/L	0.050 mg/L	0.050 mg/L	0.050 mg/L
Chromium	0.050 mg/L	0.050 mg/L	0.050 mg/L	0.050 mg/L
Mercury	0.002 mg/L	0.002 mg/L	0.002 mg/L	0.002 mg/L
Manganese	0.050 .113 mg/L	0.050 .135 mg/L	0.050 .092 mg/L	0.050 mg/L
Visible Sheen	No sheen	No sheen	No sheen	No sheen

3. Special Condition S2 is amended to state:

The Permittee shall monitor in accordance with the following schedule:

A. Surface Water Monitoring Schedule

Samples shall be collected within the first 24 hours of runoff from a storm event that is greater than 0.5 inches of rainfall, not to exceed two per month. If such an event does not occur during a month, there is no requirement to submit stormwater data for the month. *For chromium, copper, zinc, lead, and arsenic, samples need not be collected more than once a month.*

The Department may, based on a review of the data, change the frequency of monitoring after two years of data collection. Sampling locations include at each pond following treatment or at the outfall of the pipe prior to discharging to waters of the state.

4. Table 6 is amended to state:

Table 6. Surface Water Discharge Monitoring Schedule at Each Location
Ponds B, F, G, H1, H2, and I, A, A⁺, and combined sampling at ponds F and G.

Parameter	Units	Sample Point	Minimum Sampling Frequency	Sample Type	Lab EPA ⁵ Method	Detection Limit
Flow	gpd	ALL	Following 0.5-inch rainfall event	Measured/ Estimated ²	NA	NA
Dissolved Oxygen	mg/L	ALL	Following 0.5-inch rainfall event	Grab		
Temperature	°C	B F G H1 H2 I	Weekly - July, August, September	Grab		
TPH <i>Oil Sheen</i>	mg/L	ALL	Following 0.5-inch rainfall event	Grab <i>Visual observation</i>	413.1 ¹	0.2 mg/L
pH	Standard Units	ALL	Following 0.5-inch rainfall event	Grab	³	³
Total Phosphorous	(µg/l)	ALL	Following 0.5-inch rainfall event	Grab	365.4	10 µg/L
Chromium (Hex)	µg/L	ALL	Following 0.5-inch rainfall event	Grab	218.6	0.3 µg/L
Copper	µg/L	ALL	Following 0.5-inch rainfall event	Grab	200.7	2.0 µg/L
Zinc	µg/L	ALL	Following 0.5-inch rainfall event	Grab	200.7	2.0 µg/L
Lead	µg/L	ALL	Following 0.5-inch rainfall event	Grab	200.9	0.7 µg/L
Turbidity—Point of Discharge	NTU	ALL	Following 0.5-inch rainfall event	Grab	⁴	⁴
Arsenic	µg/L	ALL	Following 0.5-inch rainfall event	Grab	200.9	3 µg/L
Turbidity	NTU	Receiving Water ⁶	Following 0.5-inch rainfall event	Grab	⁴	⁴

¹ The method is total petroleum hydrocarbons with an MDL of 0.1 mg/L using Gas Chromatography and Flame Ionization Detector (FID) and Method WTPH-Dx Diesel (WTPH-D) from Washington State

Parameter	Units	Sample Point	Minimum Sampling Frequency	Sample Type	Lab EPA ⁵ Method	Detection Limit
Department of Ecology Method WTPH-D. The quantitation level (QL) for TPH-DX is 0.5 mg/L (5 x MDL).						
² If continuous, appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted industry standard for that type of device. Frequency of calibration shall be in conformance with manufacturer's recommendations or at a minimum frequency of at least one calibration per year.						
³ pH shall be tested using Standard Method 4500.						
⁴ The MDL (minimum detection level) for turbidity is 1 NTU using a turbidimeter and EPA Method Number 180 or equivalent method from 40 CRF Part 136 or <i>Standard Methods for the Examination of Water and Wastewater</i> , 18 th Edition, 2130. Alternatively, a grab sample shall be analyzed by a laboratory accredited under the provisions of Accreditation of Environmental Laboratories, Chapter 173.						
⁵ Or equivalent.						
⁶ At background locations 005, 007, 009, in Mud Creek above the influence of the discharge and downstream. Background samples and downstream samples shall be taken within one hour of each other.						

5. Special Condition S8 is amended to state:

The Permittee shall upgrade the current wastewater treatment system to separate process wastewater from the coal processing plant from entering Pond G. This upgrade or removal of the overflow pipe from the thickener tank to Pond G shall be completed within thirty (30) days of the effective date of this permit occur prior to resumption of mining at the site.

PCCC shall upgrade its current wheel wash recirculation structure with a lined impoundment meeting specifications in BMP C106: Wheel Wash in the *Stormwater Management Manual for Western Washington*, Volume II by October 1, 2008 30 days prior to resumption of the use of the wheel wash.

PCCC shall upgrade its storage capacity of its current stormwater treatment system to minimize overflows of storm water. No discharge of process water to surface water is authorized.