

IN THE STATE OF OREGON

BEFORE THE OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

IN THE MATTER OF:

**Air Contaminant Discharge Permit
for the Proposed Coyote Island Coal
Terminal**

)
)
) **PETITION FOR**
) **RECONSIDERATION PURSUANT**
) **TO OAR 137-004-0080 BY:**
)
) **Sierra Club, Columbia Riverkeeper,**
) **Oregon Physicians for Social**
) **Responsibility, and Climate Solutions**
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INTRODUCTION

Sierra Club, Columbia Riverkeeper, Oregon Physicians for Social Responsibility, and Climate Solutions (collectively, Petitioners) respectfully ask the Oregon Department of Environmental Quality (DEQ) to reconsider its decision to issue an Air Contaminant Discharge Permit (ACDP) to Ambre Energy, dba Coyote Island Terminal, LLC (Ambre), for the proposed Coyote Island Coal Terminal.

This Petition for Reconsideration is brought pursuant to ORS §§ 468.110, 183.480, 183.484, and OAR 137-004-0080, authorizing appeals of final agency orders in other than contested cases by adversely affected and aggrieved persons. As provided in OAR 137-004-0080, a person entitled to judicial review under ORS § 183.484 of final orders in other than contested cases may file with the agency a petition for reconsideration of such final orders. Petitioners are entitled to judicial review under ORS § 183.484 because they submitted comments during the public participation process, and are otherwise adversely affected and aggrieved by DEQ’s order issuing the ACDP for the Proposed Coyote Island Coal Terminal. Petitioners are therefore authorized under OAR 137-004-0080, OAR 340-011-0009, and OAR 340-218-0210 to file the instant Petition for Reconsideration with DEQ, and Petitioners retain the right to also seek judicial review pursuant to ORS § 183.484. OAR 137-004-0080 allows any person entitled to judicial review under ORS § 183.484 to petition for the reconsideration of the order within 60

days after the date of the order. The ACDP was issued on February 11, 2014. Thus, Petitioners' Petition for Reconsideration is timely.

In summary, Ambre's Coyote Island Terminal would have serious air quality impacts that the current permit does not account for, including NO_x and PM_{2.5} emissions that exceed the NAAQS by more than 500% and 1000% respectively. The ACDP does not include the required conditions and is therefore not practically enforceable. The Ambre terminal is also a major source and thus should instead seek a federal Prevention of Significant Deterioration (PSD) permit rather than an ACDP permit from DEQ.

On November 1, 2012, DEQ announced it was accepting comments on Ambre's ACDP application for the Coyote Island Coal Terminal and that it would hold three public hearings to answer questions and receive comments. During the ensuing comment period, Petitioners submitted two rounds of comments to DEQ: first on December 20, 2012; and later on August 12, 2013. These comments pointed out several flaws in the permit application and asked DEQ to delay its decision on Ambre's permit until the federal processes were concluded. Further, these comments noted that if DEQ decided it must take action, DEQ should deny Ambre's ACDP application and issue an order prohibiting construction of the source until the required PSD permit was issued.

DEQ has since provided a response to public comments and issued the ACDP on February 11, 2014, over Petitioners' objections. DEQ's response to comments is inadequate, non-responsive to several points Petitioners made, and does not justify the issuance of an ACDP. Petitioners are therefore petitioning DEQ to reconsider this decision.¹

GROUND FOR RECONSIDERATION

I. DEQ should reconsider the issuance of the ACDP because the facility will cause violations of the NO_x and PM_{2.5} NAAQS.

Emissions from the Coyote Island Coal Terminal will cause nitrogen oxides (NO_x) and particulate matter that is 2.5 micrometers and smaller (PM_{2.5}) to exceed the levels set by EPA to protect public health and welfare (the National Ambient Air Quality Standards, or NAAQS). These projected violations of the NAAQS require DEQ to revoke the ACDP for the Coyote Island Coal Terminal and issue an order prohibiting construction of the project.

A. Air quality standards for NO_x and PM_{2.5} protect human health and the environment.

NAAQS are concentrations that EPA sets for "criteria pollutants" under the Clean Air Act to protect human health and welfare.² Thus, the NAAQS represent upper-limit

¹ OAR 340-011-0009 incorporates the Attorney General's Uniform and Model Rules of

² 42 U.S.C. § 7409.

concentrations of air pollutants that EPA has deemed are requisite, as a policy matter, to protect public health and welfare. The heart of the Clean Air Act is to ensure that all areas of the United States at least achieve and maintain these minimal levels of air quality.

Oregon regulations provide that if proposed new sources may interfere with attainment and maintenance of air quality standards, DEQ has grounds to prohibit the construction of such sources.³ It is the declared policy of the Oregon Environmental Quality Commission (EQC) to achieve “full compliance with ambient air standards at the earliest possible date.”⁴

The ambient air quality standards for particulate matter (PM), PM10, and PM2.5 are found in OAR 340-202-0060. The PM2.5 standards are equivalent to the 2006 NAAQS.⁵ The areas impacted by the Coyote Island Coal Terminal have been designated as attainment/unclassifiable for the 2006 PM2.5 NAAQS.⁶ In 2012, EPA revised the annual PM2.5 NAAQS, and area designations are expected to occur in August 2014.⁷ The ambient air quality standards for NO₂ are found in OAR 340-202-0100.⁸ The entire state of Oregon has been designated as unclassifiable/attainment of the 2010 NO₂ NAAQS.⁹

In addition to Oregon’s own regulations requiring that DEQ expeditiously achieve compliance with the NAAQS, Oregon also has a duty under Section 110 of the Clean Air Act to implement, maintain and enforce the NAAQS.¹⁰ This obligation includes the duty to regulate the construction of new sources to “assure that national ambient air quality standards are achieved. . . .”¹¹ Moreover, Oregon has a duty to prohibit air pollution emissions in the state that will contribute to poor air quality in neighboring states, such as Washington.¹²

The Clean Air Act uses the PSD program to: (1) protect public health and welfare; (2) protect special areas; (3) allow economic growth while preserving clean air resources; (4) protect one state from pollution in another state; and (5) ensure careful evaluation of

³ OAR 340-202-0050(2).

⁴ OAR 340-202-0050.

⁵ 71 Fed. Reg. 61144 (Oct. 17, 2006).

⁶ See <http://www.epa.gov/pmdesignations/2006standards/final/region10.htm>.

⁷ See

<http://www.epa.gov/airquality/particlepollution/designations/2012standards/state.htm>

⁸ DEQ issued a Notice of Proposed Rulemaking on July 15, 2013, indicating that it is amending OAR 340-202-0100 regulations to include the 1-hour NO₂ NAAQS in effect since April 12, 2010. This NAAQS is attained when the 3-year average of the 98th percentile of daily maximum 1-hour NO₂ concentrations does not exceed 100 ppb (or 188 ug/m³). 75 Fed. Reg. 6474 (Feb. 9, 2013).

⁹ 77 Fed. Reg. 9532 (Feb. 17, 2012).

¹⁰ 42 U.S.C. § 7410.

¹¹ 42 U.S.C. § 7410(a)(2)(C).

¹² 42 U.S.C. § 7410(a)(2)(D)(i)(I).

“all the consequences” of a decision to increase air pollution.¹³ Under the PSD program, the state must impose all measures necessary to prevent significant air quality degradation in areas designated as “attainment or unclassifiable.”¹⁴ Ultimately, the concentration of air pollution allowed by a NAAQS – in this case 100 ppb (or 188 ug/m³) of NO₂ and 35 ug/m³ of PM_{2.5} – must not be exceeded.¹⁵

These ambient concentration limits are in place for good reason. NO_x are highly reactive gasses that can cause respiratory problems such as asthma attacks, respiratory tract syndrome, bronchitis, and decreased lung function. In addition to public health concerns, NO_x emissions cause nitrogen deposition, which may cause soil acidification, water acidification, and eutrophication. These problems, in turn, reduce water quality and may render water unfit for aquatic life or human consumption. NO_x also contributes to visibility impairment, global warming, acid rain, formation of ground-level ozone and formation of toxic chemicals. NO_x is also a precursor chemical to fine particulate matter. The Columbia River Gorge National Scenic Area is particularly impaired by NO_x pollution. The Columbia River Gorge National Scenic Area ranked 6th in the country for poorest visibility for Scenic Areas. Over the past 17 years, the Forest Service has documented that visibility impairment occurs on at least 95% of the days that have been monitored. The impacts of NO_x on Oregon’s protected parks and wilderness areas, including the Columbia River Gorge, has been well documented in DEQ’s regional haze rulemaking process, and by studies by Dan Jaffe, a scientist at the University of Washington.¹⁶

PM is similarly harmful. PM is a broad class of substances that exist as particles of different sizes.¹⁷ Some of the smallest particles are formed in the atmosphere from NO_x, sulfur oxides and volatile organic compounds reacting to form nitrates, sulfates and other small particles.¹⁸ EPA has determined that pollution ceilings for PM_{2.5} are necessary because of “evidence from numerous health studies demonstrating that serious health effects are associated with exposures to elevated levels of PM_{2.5}.”¹⁹ Those effects include premature death.²⁰ PM_{2.5} exposure also causes “increased hospital admissions,

¹³ 42 U.S.C. § 7470.

¹⁴ 42 U.S.C. § 7471.

¹⁵ 42 U.S.C. § 7473(b)(4).

¹⁶ Jaffe, D., et al. *Atmospheric Pollution Research*, 5 (2014), 344-351, available at <http://www.atmospolres.com/articles/Volume5/issue2/APR-14-040.pdf>

¹⁷ *Natural Res. Def. Council v. EPA*, 706 F.3d 428, 429 n. 2 (D.C. Cir. 2013) (citing National Ambient Air Quality Standards for Particulate Matter, 62 Fed. Reg. 38,652, 38,653 (July 18, 1997).

¹⁸ *Id.*

¹⁹ PM_{2.5} Implementation Rule, 72 Fed. Reg. 20,586 (Apr. 25, 2007).

²⁰ 72 Fed. Reg. at 20,586-87 (“Epidemiological studies have shown statistically significant correlations between elevated PM_{2.5} levels and premature mortality.”); 75 Fed. Reg. 22,896, 22,900 (Apr. 30, 2010) (EPA has determined that, “Both ozone and PM_{2.5} are associated with serious public health problems, including premature mortality...”); *Am. Farm Bureau Fed’n v. E.P.A.*, 559 F.3d 512, 515 (D.C. Cir. 2009)

emergency room visits, absences from school or work, and restricted activity days,” due to aggravated cardiovascular and respiratory problems.²¹ Sadly, the populations most at risk are the sick, the elderly, and children.²²

B. Emissions modeling indicates the Coyote Island Coal Terminal will exceed the NAAQS for NOx by 539-701% and the NAAQS for PM2.5 by more than 1000%.

As AMI Environmental Inc.’s (AMI) 2013 Report indicates, 1-hour NO₂ concentrations resulting from the proposed activities at the Coyote Island Coal Terminal will exceed the 2010 NO₂ NAAQS.²³ Similarly, as AMI’s 2012 Report indicates, 24-hour PM2.5 concentrations resulting from the proposed activities at the Coyote Island Coal Terminal will exceed the 2006 PM2.5 NAAQS.²⁴ Therefore, DEQ should not have issued an ACDP authorizing Ambre to build and operate the facility.

AMI conducted its 2012 Report in response to DEQ’s request for comments on Ambre’s permit application. The 2012 NOx modeling illustrated the impact of NOx emissions from both locomotives, while moving coal train cars through the coal transfer process, and tug boats, while assisting the barges as they are filled with coal. However, in the subsequent draft ACDP Ambre claimed it would use an electric pulley system to move train cars through the coal transfer process. Therefore, in its 2013 Report AMI repeated the NOx modeling based solely on the NOx emissions from tugs.²⁵ As with its 2012 Report, AMI used an EPA approved modeling method and pollutant measurements from DEQ’s 2011 Air Quality Annual Report as background concentrations.²⁶ AMI’s 2013 Report demonstrated that **NOx from the tugs alone will cause air quality to exceed the NOx NAAQS by between 539% to 701%**, depending on which Tier 3 NOx

(“Studies have demonstrated that both fine and coarse PM can have negative effects on public health and welfare. For example, each is associated with increased mortality (premature death) rates and morbidity (illness) effects such as cardiovascular disease and decreased lung function.”).

²¹ *Id.*

²² *Id.*

²³ AMI Environmental, AERMOD Modeling of 1-hour NO₂ Impacts of Tug Boat Emissions at the Port of Morrow (June 2013) (attached as Exhibit 1). The underlying modeling data files were provided to DEQ via Federal Express to arrive prior to the August 12, 2013, 5pm comment deadline.

²⁴ AMI Environmental, AERMOD Modeling of Air Quality Impacts of Proposed Morrow Pacific Project (October 2012) (attached as Exhibit 2) at Figure 10 and Table 9 (Operation with closed barges and open trains modeling scenario results in project only concentrations of 388.6 ug/m³. Impacts extend across the border into Washington State).

²⁵ Exhibit 1 at 3.

²⁶ Exhibit 1 at 5. However, the NAAQS are violated even assuming no background pollution.

modeling methodology is used.²⁷ AMI's 2012 Report demonstrated that **PM2.5 impacts from the fugitives from the coal cars while they are at the facility and no longer attached to the locomotives alone will cause air quality to exceed the 2006 24-hour PM2.5 NAAQS by 1,079%.**²⁸

In response to AMI's 2012 Report, DEQ explained in its Air Permit Review Report that "secondary emissions" from train and tug boat engines need not be considered in either the emissions inventory to determine the applicability of permitting programs, or in any impacts analysis.²⁹ However, DEQ mischaracterized Petitioners' comments to lump all emissions from train and tug boat engines together. Instead, Petitioners commented that emissions from locomotives and tug boats should be considered primary emissions only when they are being used NOT to bring material to and from the source, but rather as part of the industrial process. DEQ's response essentially ignores this comment. Furthermore, evidence in the record demonstrates the fugitive emissions from the coal cars on site are disconnected from the locomotives, and physically connected to the facility's electric powered positioning system, as mandated by the permit— which are clearly primary emissions – will cause violations of the 2006 PM2.5 NAAQS.

DEQ also stated in its Air Permit Review Report that when modeling is required, "DEQ has requirements for developing a modeling protocol to ensure that the modeling is performed in accordance with EPA models and guidelines."³⁰ Both the 2012 and 2013 AMI Reports comply with all relevant requirements. DEQ failed to identify or articulate any specific concerns about the AMI modeling, or to request further information. DEQ's only input was to specifically recommend that AMI use both Tier 3 methods for NOx modeling. AMI did this.³¹

C. Air pollution from vessels participating in the stationary industrial process should have been included as emissions subject to ACDP regulations.

There is substantial evidence in the record that the Coyote Island Coal Terminal will cause violations of the 2010 NO₂ NAAQS due to tug boat emissions.³² DEQ did not respond to Petitioners' comment that air pollution emissions from tug boats participating as a stationary source in a stationary industrial process must be included in the emissions

²⁷ Exhibit 1 at 8.

²⁸ Exhibit 2 at 20. *See also* Fox Report, Exhibit 3 at 2 – 9.

²⁹ *See* DEQ, *Review Report* 15 (available at <http://www.oregon.gov/deq/docs/CoyoteIslandTerminalReviewReport.pdf>).

³⁰ *Id.*

³¹ Exhibit 1 at Appendix B & C.

³² In the Response to Comments, DEQ references modeling from Golder and Associates. We have requested to see this information via a Public Records Act request. However, as of today's date, the DEQ has not yet fulfilled Petitioners' Public Records Act request to see the materials in the administrative record.

subject to the ACDP regulations. Thus, Petitioners repeat their citations to authority on this point. Vessels are considered mobile sources when they are transporting material to and from a source, but when they are performing a necessary part of the industrial process at the source, they must be considered primary emissions from the stationary source. The tugs used at the Coyote Island Coal Terminal will be used to physically attach the barges to the facility. Therefore, the emissions from these tugs should be considered as part of those calculated from the on-shore facility.

Oregon regulations exclude “secondary emissions” from those emissions that must be considered in permitting.³³ “Secondary emissions” are defined as “emissions that are a result of the construction and/or operation of a source or modification, but that do not come from the source itself.”³⁴ “Secondary emissions may include, but are not limited to: emissions from ships and trains *coming to or from the facility*[.]”³⁵ Thus in Oregon, emissions from tugs that are not “coming to or from the facility” are not “secondary emissions.”

Oregon regulations are different from federal regulations on this point. Oregon regulations include only those pollutants emitted as the source is “coming to or from the facility,” as “secondary emissions.” Federal regulations, on the other hand, specifically require **all** mobile source emissions to be “secondary emissions.” Yet even under the more broad federal standard for secondary emissions, EPA still regulates vessels as stationary sources when they are physically attached to a stationary source or when they become stationary by attachment to the sea floor or a dock. For example, when vessels are physically attached to an Outer Continental Shelf (OCS) drilling facility, the vessel is regulated as an OCS source, which itself is a vessel that is attached to the sea floor and considered a stationary source for PSD purposes.³⁶ The stationary source determination is based on whether the “vessel or barge is anchored within the project’s area or tethered to a piece of equipment that is attached to the seafloor, [*sic*] and is performing any activity that supports the construction or operation of the project.”³⁷ OCS vessels are regulated under the PSD program because EPA is permitting the activity that creates emissions and not the ship as a mobile source.³⁸ Regulation begins when the vessels become stationary by anchoring to the seafloor because they are no longer operating as a vessel. After the detachment, the ships return to “vessel” (i.e. mobile source) status.

³³ OAR 340-200-0020(91)(c).

³⁴ OAR 340-200-0020(100).

³⁵ OAR 340-200-0020(100)(a).

³⁶ See 40 C.F.R. § 55.2; *In Re: Shell Gulf of Mexico, Inc. OCS Permit No. R10OCS/PSD-AK-09-01 & Shell Offshore, Inc. Permit No. R10OCS/PSD-AK-2010-01 Noble Discovered Drillship*, 2012 WL 119962 (E.P.A.), 34, n. 16.

³⁷ *Environmental Protection Agency (EPA) Fact Sheet: Outer Continental Shelf Air Permit Approval – Cape Wind Energy Project*, 13, available at: <http://www.epa.gov/region1/communities/pdf/CapeWind/CapeWindFactSheetFinalVersionJune10.pdf>.

³⁸ *In Re: Shell Offshore* at 10.

Federal regulations also treat vessels as stationary sources when they emit in port in furtherance of the on-shore facility's purpose. EPA has required that in-port emissions of ships that service a stationary source facility be included in the PSD evaluation of the facility.³⁹ More specifically, EPA has stated that during the transfer of liquefied natural gas (LNG) from a vessel to a port, vessel emissions should be included in the applicability determinations of preconstruction and operating permits because of the plain language in the Clean Air Act.⁴⁰ EPA found that the Clean Air Act's definition of "stationary source" gives the agency authority to consider emissions from external combustion engine vessels in New Source Review (NSR) and Title V preconstruction and operating permits.⁴¹ Furthermore, at least one other project in Oregon has regulated vessels as stationary sources when docked or moored in port because of connection to the onshore facility. The Oregon LNG Terminal and Oregon Pipeline Project included emissions associated with vessels berthed at port in the summary of terminal emissions when determining PSD applicability analysis for the project.⁴² Activities at Coyote Island Coal Terminal are based from a stationary dock facility.⁴³ As a result, emissions from the loading, unloading and transloading process should be considered stationary source emissions because the activities are an integral part of the Coyote Island Coal Terminal's stationary function.

Oregon regulations also indicate that emissions sources on tugs and barges should be considered stationary sources. Under state regulations, stationary sources do not have to be permanently stationary. In Oregon, "stationary source means any building, structure, facility, or installation at a source that emits or may emit any regulated air pollutant."⁴⁴ In *In Re: Shell Offshore*, EPA's Environmental Appeals Board found that Alaska's very similar definition of stationary source ("any building, structure, facility, or installation") includes, in certain situations, vessels.⁴⁵

³⁹ See e.g., Memorandum from the Director of the Division of Stationary Source Enforcement to Thomas Devine (April 5, 1978), in EPA Title V Policy and Guidance Database, 1, available at <http://www.epa.gov/region07/air/nsr/nsrmemos/m4578.pdf> (finding that emissions from ships servicing a petroleum refinery in its normal operations must be included in the facility's PSD evaluation).

⁴⁰ See Letter from Michael Cathey to Diana Dutton (October 28, 2003), in EPA Title V Policy and Guidance Database, 7-8, available at <http://www.epa.gov/region7/air/nsr/nsrmemos/20031028.pdf>.

⁴¹ *Id.* at 8 (citing 42 U.S.C. § 7602(z)). EPA considers only the emissions from activities in support of the port's function – i.e. those related to the transferring and processing at the port – as stationary emissions of the port for Title V purposes.

⁴² See Oregon LNG Terminal and Oregon Pipeline Project FERC Review, 4, available at https://s3-us-west2.amazonaws.com/oregonlng/oregonlng/pdfs2/RR9_Comment-ResponseMatrix.pdf.

⁴³ DEQ, *Review Report 2-15*, available at <http://www.oregon.gov/deq/docs/CoyoteIslandTerminalReviewReport.pdf>.

⁴⁴ OAR 340-200-0020(141).

⁴⁵ *In Re: Shell Offshore, Inc., Kulluk Drilling Unit and Frontier Discoverer Drilling Unit*, 2007 WL 3138040, 8 (citing Alaska Admin. Code tit. 18 § 50.302(a)(1)).

Moreover, under other Clean Air Act programs, vessels are regulated as stationary sources. For example, under the Clean Air Act's NSR requirements, "emissions from the stationary source activities of vessels at docksides are considered primary emissions of the marine terminal and are regulated as such."⁴⁶

DEQ's failure to consider air pollution emissions from the tug boats at the facility, while they are engaged in assisting in the industrial process of moving coal from one form of transport to another, as primary emissions from this source lacks any evidence or support in the record or elsewhere. The failure is particularly egregious where, as here, the pollution emissions will result in NO₂ pollution concentrations far above levels that EPA has determined are safe. The EQC's attempt to demonstrate that its implementation of the Clean Air Act is adequate fails if DEQ permits a new facility to construct and operate even where extreme exceedences of the NAAQS will be caused by the source. Neighboring states similarly have a right to be concerned that their air quality will be negatively impacted by Oregon's failures to implement the regulations promulgated by the EQC to protect air quality.

Finally, coal transfer, which will produce emissions beyond those from the tug engines, requires regulation through the ACDP. EPA has established that fugitive emissions from coal transfers must be taken into consideration when making a Title V major source determination for permitting requirements.⁴⁷ EPA extended this finding to all forms of "coal unloading" including dumping or unloading from trains, barges, mine cars or conveyors.⁴⁸ The ACDP acknowledges that the coal conveying equipment is part of the source and that their emissions must be considered in the permitting. *See, e.g.*, Final Permit Condition 12. Once the coal cars are disconnected from the locomotives and physically attached to the Facility's electric powered positioning system, the coal cars simply become part of the Facility's coal conveying system. There is no rational distinction between the coal cars connected to the electric powered position system and the other coal conveying equipment such as conveyor belts. Therefore, DEQ must treat them similarly. Because the coal cars will cause violations of the PM_{2.5} NAAQS, DEQ must deny the permit.

II. DEQ should reconsider the issuance of the ACDP because the facility is a federal major source that requires a PSD permit.

Due to fugitive coal dust emissions, the Coyote Island Coal Terminal is a federal major source of particulate matter and thus requires a PSD permit rather than an ACDP. Coal dust is dangerous, containing a number of harmful elements that cause public health concerns, including: antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead,

⁴⁶ Outer Continental Shelf Air Regulations, 57 Fed. Reg. 40,792,40,793 (Sept. 4, 1992).

⁴⁷ *See* Letter from Steven Herman to Barbara Cubin (September 11, 1997) in EPA Title V Policy and Guidance Database, 2-4, available at <http://www.epa.gov/region07/air/title5/t5memos/ddapplic.pdf>.

⁴⁸ *Id.* at 3.

manganese, mercury, selenium, uranium, tin, boron, copper, vanadium, molybdenum, and zinc, among other components. The Applicant and DEQ wrongly calculated fugitive coal dust emissions. Correct calculations demonstrate that the facility will emit more than 250 tons of particulate matter each year, putting the facility above the PSD major source threshold.⁴⁹

As demonstrated in the analysis by Dr. Phyllis Fox, fugitive emissions from coal dust erosion off of coal in train cars awaiting transfer are high enough to qualify the facility as a federal major source.⁵⁰ The Fox Report explained, in detail, why DEQ's assumptions about fugitive emissions at this facility are wrong, and, in fact, understate total emissions significantly.

For instance, Dr. Fox noted that the wind speed input in the AP-42 equation DEQ utilized excludes peak wind gusts and that the equation used is for flat, stationary coal piles. Moving coal piles that are not flat operate differently. Studies done on coal rail cars note the constant jostling that exposes new coal dust. When revising the equation to account for the movement of the cars, about 2.4 acres or about two football fields of fresh exposed coal will be available for wind erosion 83% of the time.⁵¹ Utilizing a wind gust speed of 64 mph, and assuming that the coal trains are disturbed twice per day on the site, the particulate matter emissions are 540 tons/year.⁵² Additionally, Dr. Fox found that DEQ used faulty estimates on the efficacy of topping agents or surfactants which DEQ implies that it "may" require. DEQ's assumed 85% control for topping agents (which, even if applied, have been criticized as being based on "junk science") is actually zero upon arrival at the Port after a journey of several hundred miles, and may actually increase coal loss due to "saltation."⁵³

Dr. Fox thus concluded the particulate matter emissions from wind erosion of uncovered railcars at the site exceed the major source threshold of 250 tons per year.⁵⁴ Thus, the Coyote Island Coal Terminal qualifies as a federal major source of particulate matter. As such, it requires an ACDP that complies with PSD requirements before it can be constructed or operated.

In DEQ's response, it notes that "Most of the activities are not affected by wind because they occur inside enclosures. The barge loading operation and open railcars are only partially enclosed."⁵⁵ DEQ's assumption is incorrect, as the railcars are completely

⁴⁹ Fugitive emissions are included in the source's potential to emit when determining whether it is a federal major source. OAR 340-200-0020(55).

⁵⁰ Fox, Phyllis, Phd. PE, Fugitive Particulate Matter Emissions from Coal Train Staging at the Proposed Coyote Island Terminal (July 19, 2013) (attached as Exhibit 3).

⁵¹ Exhibit 3 at 3-4.

⁵² Exhibit 3 at 6-7.

⁵³ Exhibit 3 at 7-10.

⁵⁴ Exhibit 3 at 4, 6-9.

⁵⁵ See DEQ, *Review Report* 16-17 (available at <http://www.oregon.gov/deq/docs/CoyoteIslandTerminalReviewReport.pdf>)

open, as reflected in Dr. Fox’s analysis. In DEQ’s response to comments, it explained it used the 24-hour average maximum wind speed “because the coal at the site will be subject to the average and not the maximum wind speed during the course of a year.”⁵⁶ However, not only is such rationale inherently illogical,⁵⁷ but it also conflicts directly with the EPA-guidance document DEQ cites for support of its calculations.⁵⁸ As the EPA Office of Air Quality and Standards’ *Compilation of Air Pollutant Emission Factors* explicitly states, “because erosion potential has been found to increase rapidly with increasing wind speed, estimated emissions should be related to the gusts of highest magnitude.”⁵⁹ The EPA Office of Air Quality and Standards recommends using a “fastest mile” calculation.⁶⁰ While the Fox Report notes that “fastest mile” is no longer reported in the local climatological data, it instead substituted in a “maximum 3-second wind” value, which it concluded more accurately approximated “fastest mile.”⁶¹ As such, DEQ should reconsider its decision to use 24-hour average maximum wind speed.

Furthermore, in DEQ’s response to comments, it explained that it calculated emissions based off only one wind erosion event per rail car. As the Fox Report contends, this assumption reflects the arrival of two trains per day and fails to account for any subsequent movement around the site.⁶² Because movements such as from the staging area to the unloading shed are seemingly unavoidable, DEQ’s use of only one disturbance event significantly underestimates the emissions from coal cars.

III. DEQ should reconsider the issuance of the ACDP because the permit does not include all the necessary conditions and must be revised to be practically enforceable.

A. Legal Background

An ACDP must be practically enforceable. Oregon regulations require that an ACDP include, “testing, monitoring, recordkeeping, and reporting requirements necessary **to ensure compliance** with the Plant Site Emission Limits (PSEL) and other

⁵⁶ DEQ, *Response to Public Comments 17*, available at <http://www.oregon.gov/deq/docs/rpc.pdf>.

⁵⁷ The coal would be subject to *both* maximum wind speed (during brief gusts) and average wind speed (over the course of a year).

⁵⁸ DEQ, *Review Report 9*, available at <http://www.oregon.gov/deq/docs/CoyoteIslandTerminalReviewReport.pdf> (“The potential particulate matter emissions from the facility were calculated based on AP-42 Section 13.2.5.2 (11/2006), Page 13.2.5-13, wind erosion from flat area covered with coal dust.”).

⁵⁹ US EPA Office of Air Quality and Standards, *Compilation of Air Pollutant Emission Factors* 13.2.5.2, available at <http://www.epa.gov/ttn/chief/ap42/>.

⁶⁰ *Id.*

⁶¹ Exhibit 3 at 6.

⁶² *Id.* at 6–7.

applicable emissions limits and standards.”⁶³ An ACDP cannot ensure compliance without practical emissions limitations. Therefore, without practical emissions limitations, the ACDP fails to meet its regulatory requirements.

While the ACDP issued by DEQ is neither a Title V permit nor a synthetic minor source permit, principles directly applicable to such permits are useful in evaluating the enforceability of all ACDPs. It is well established that Title V permits and synthetic minor permits must be practically enforceable.⁶⁴ For example, if a proposed facility is physically capable of emitting major levels of pollutants, it can only avoid major source constraints if there are mechanisms “in place to make certain that the emissions remain below the relevant levels.”⁶⁵ In the case of this ACDP, DEQ recognized that if the facility exceeds the limits in its permit, the emissions could cause environmental harm.⁶⁶ Oregon’s policy is “[t]o restore and maintain the quality of the air resources of the state in a condition as free from air pollution as is practicable, consistent with the overall public welfare.”⁶⁷ If, as DEQ acknowledged here, harm could result from an emissions exceedence, then the ability to enforce an ACDP is just as important as the ability to enforce the limits keeping a facility from being considered a major source. Therefore, like Title V permits and synthetic minor permits, ACDPs must be practically enforceable.

Moreover, this ACDP is “federally enforceable.”⁶⁸ Courts have made clear that in order for a state-issued operating permit to be considered “federally enforceable,” the restrictions within the permit must be practically enforceable.⁶⁹ Practically enforceable limits assure that emission limitations and other permit conditions will be complied with, and inform the public as well as the source itself of the facilities obligations under the permit.⁷⁰ Surely, the EQC would not have created the ACDP program if it did not intend for sources to comply with the permit limitations. Without practically enforceable limitations within the ACDP, there is no way to ensure that a facility will comply.

Very broadly speaking, “practically enforceable” also means that the permit will be effective.⁷¹ EPA Guidelines describe practically enforceable permits as those that

⁶³ OAR 340-216-0060 (1)(b)(C) (emphasis added).

⁶⁴ See e.g., *Nat’l Min. Ass’n v. U.S. E.P.A.*, 59 F.3d 1351, 1363 (D.C. Cir. 1995); *In Re Peabody W. Coal Co.*, 12 E.A.D. 22, 7 (EAB 2005).

⁶⁵ *Weiler v. Chatham Forest Products, Inc.*, 392 F.3d 532, 535 (2d Cir. 2004).

⁶⁶ DEQ, Coyote Island Terminal LLC Information Meeting Resources: Information on the Air Contaminant Discharge Permit, Slide 7 available at <http://www.oregon.gov/deq/Pages/CoyoteIslandMeetingResources.aspx>.

⁶⁷ ORS 468A.010(1)(a).

⁶⁸ DEQ, *Review Report 10* (available at <http://www.oregon.gov/deq/docs/CoyoteIslandTerminalReviewReport.pdf>).

⁶⁹ *Nat’l Min. Ass’n v. U.S. E.P.A.*, 59 F.3d at 1363.

⁷⁰ See US EPA Region 9, Title V Permit Review Guidelines: Practical Enforceability (Permit Review Guidelines) (1999), available at <http://www.epa.gov/region9/air/permit/titlev-guidelines/practical-enforceability.pdf>.

⁷¹ See *Nat’l Min. Ass’n v. U.S. E.P.A.*, 59 F.3d at 1363.

“establish[] a clear legal obligation for the source and allows compliance to be verified.”⁷² In a nutshell, practical enforceability requires: “(1) a technically-accurate limitation and the portions of the source subject to the limitation; (2) the time period for the limitation (hourly, daily, monthly, and annual limits such as rolling annual limits); and (3) the method to determine compliance, including appropriate monitoring, recordkeeping, and reporting.”⁷³ EPA has also explained that the appropriate hierarchy for specifying monitoring to determine compliance is: (1) continuous direct measurement where feasible; (2) initial and periodic direct measurement where continuous monitoring is not feasible; (3) use of indirect monitoring, e.g. surrogate monitoring, where direct monitoring is not feasible; and (4) equipment and work practice standards where direct and indirect monitoring are not feasible.⁷⁴ Permits should also specify: (1) when and what tests should be performed, (2) under what conditions tests should be performed, (3) the frequency of testing, (4) the responsibility for performing the test, (5) that the source be constructed to accommodate such testing, (6) procedures for establishing exact testing protocol, and (7) requirements for regulatory personnel to witness the testing.⁷⁵

Other critical aspects of a practically enforceable permit are: (1) the emission limits must be clearly written, (2) the average time must be included, (3) the reference dilute concentration must be included (e.g. as determined at 15% O₂), and (4) the source must be required to comply with the limit at all times unless exceptions are specifically allowed.⁷⁶ Finally, the following terms contain so much ambiguity and are so susceptible to subjective interpretation, they should not appear in a practically enforceable permit: (1) normally, (2) as soon as possible, (3) significant, (4) should or may, (5) use best engineering practices, and (6) take reasonable precautions.⁷⁷

B. Ambre’s ACDP fails to meet the minimum enforceability requirements.

The ACDP for the Coyote Island Coal Terminal fails to meet these minimum requirements for a practically enforceable permit because: (1) it only uses emission factors to determine compliance with the PSEL; (2) it fails to specify the necessary monitoring requirements; (3) it fails to specify all required recordkeeping provisions; and (4) it uses language that is so vague as to be unenforceable.

⁷² See Permit Review Guidelines.

⁷³ Office of Air Quality Planning and Standards, Options for Limiting the Potential to Emit of a Stationary Source Under Section 112 and Title V of the Clean Air Act (1995), available at <http://www.epa.gov/region7/air/title5/t5memos/ptememo.pdf>. See also Conn. Agencies Regs. § 22a-174-1 (the State of Connecticut also statutorily defines practically enforceable limitations; its definition is substantially similar to EPA’s).

⁷⁴ EPA, New Source Review Workshop Manual: Prevention of Significant Deterioration and Nonattainment Area Permitting 1.3 (1990), available at <http://www.epa.gov/NSR/ttnnsr01/gen/wkshpman.pdf>.

⁷⁵ New Source Review Workshop Manual at H-6.

⁷⁶ See Permit Review Guidelines.

⁷⁷ See Permit Review Guidelines.

1. The ACDP only used emission factors to determine compliance.

DEQ did not consider any options to determine compliance other than equations using non-site specific emission factors. As noted above, EPA has created a hierarchy of appropriate types of monitoring which are critical to practical enforceability. When feasible, direct and continuous monitoring is preferred over all other types of monitoring. Despite the fact that direct and continuous monitoring of at least the wet scrubbers is feasible with regard to the Coyote Island Coal Terminal,⁷⁸ the ACDP only requires the use of emissions factors to comply with the PSEL. The use of emissions factors is the least effective way to ensure compliance with the permit, as the math is based on guesses of what might happen rather than what is actually happening. DEQ has not explained why direct and continuous monitoring for discrete emissions sources, such as wet scrubbers, is not feasible. The result is an ACDP that is not practically enforceable.

2. The ACDP fails to specify the necessary monitoring requirements.

The ACDP is not practically enforceable because many necessary requirements are missing. The missing requirements are described below:

- In section 3.1(a) the ACDP states that the permittee must monitor the fugitive emissions conditions outlined in section 2.3. But section 2.3 does not include any monitoring requirements. The ACDP does not indicate when, what or how often monitoring should occur. The ACDP must include these monitoring requirements so that it can be practically enforceable.
- In section 5.2(b) the ACDP requires that at least one of the three required observation periods be done while the chute is retracted, but does not require one of the tests to be completed while the chute is down. It is important to ensure that there are no excess emissions occurring when the chute is up and down. For this reason, the ACDP should require at least one test when the chute is retracted and one test when the chute is down.
- Section 5.2 fails to specify what test must be used to monitor visible emissions. EPA requires a permit to specify what type of test should be used for monitoring. Though section 5.2(a) hints that the appropriate test may be EPA Method 9, the ACDP must clearly state whether this test or some other test is required. Furthermore, Method 9 would not be effective. To begin with, Method 9 does not work at night. Accordingly, even though DEQ has added a provision requiring monitoring during

⁷⁸ Several companies sell continuous emissions monitors for wet scrubbers. See http://www.arb.ca.gov/training/handout/401/401_cem_engineering_design.pdf (slide 47); http://www.burnsmcd.com/Resource_/PressRelease/1580/FileUpload/article-technicalpaper-PMCEMSMonitoringParticulateMatter.pdf (p. 3); <http://www.altechusa.com/news.php>; and <http://www.epa.gov/ttn/atw/129/hmiwi/iv-b-66.pdf> p. 15).

daylight hours, the source will be unmonitored approximately half the time. Worse, Method 9 does not work when it is raining or snowing. Thus, monitoring using Method 9 would result in very little monitoring and, as a result, would lack practical enforceability.

- Section 5.1(c) requires that all tests in the section must be performed when coal is being handled within the emissions source. The ACDP fails to specify how much coal must be handled during a test. The permittee could thus choose to do its tests only during the lightest days of the week, which would lead to inaccurate information. The ACDP should include a requirement that tests be conducted during times of operation with maximum capacity. Similarly, section 5.2(b) requires that a test be done while coal is being loaded into a barge without specifying how much coal should be loaded for a test. The ACDP should specify that these tests be conducted during times of operation with maximum capacity.
- A practically enforceable permit must include a requirement that the source be constructed to accommodate the required monitoring. The ACDP does not include such a requirement for any of its monitoring requirements. The ACDP should include this requirement.
- The ACDP fails to include any requirement for regulatory personnel to witness monitoring. DEQ claims its personnel will witness monitoring.⁷⁹ The ACDP must include requirements for regulatory personnel to witness monitoring.

3. The ACDP fails to require all necessary recordkeeping.

A critical aspect of a practically enforceable permit is that the requirements may be verified. Proper recordkeeping in accordance with ACDP conditions allows DEQ and the public to verify that monitoring requirements and emission limitations are being complied with. The ACDP fails to require any recordkeeping for 5.1(b). The ACDP should require recordkeeping of the monitoring in 5.1(b) so that these requirements can be verified and are therefore practically enforceable.

4. The language in the ACDP is so vague as to be unenforceable.

The ACDP contains the following impermissibly vague terms and phrases:

- Section 2.3(b) requires that fugitive dust be “adequately” controlled at all times, but fails to define adequate. “Adequateness” is completely subjective and therefore it cannot be practically enforced. The ACDP

⁷⁹ See OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY, COAL EXPORT FOR WEB – DEQ PERMITTING Q & A, available at <http://www.deq.state.or.us/er/docs/CoalExportProject/CoalQAAQPermits.pdf>.

must define what adequate means in the context of controlling fugitive dust emissions.

- In section 3.1(c) and (j), the ACDP requires “routine” inspections but fails to define routine. Without definition, the permittee cannot know how frequent its inspections must be, and the inspections – performed at some unknown interval - may not prevent the migration of coal materials offsite. The ACDP must define the frequency of “routine.”
- Section 8.1(b), requires the permittee to notify DEQ during non-business hours if excess emissions are of “a nature that could endanger public health.” The permittee cannot be expected to define what could endanger the public health. If the permittee wrongly determines that an emission does not endanger the public health, the public health will be endangered until DEQ business hours resume. For this reason, the ACDP must clearly define when excess emissions would be of a nature that could endanger public health so that the permittee is clearly aware of when it must report excess emissions.

IV. Ambre is required to get an ACDP for its Port Westward facility.

In addition to the permitted Coyote Island Coal Terminal discussed above, Ambre also plans to utilize an existing dock at Port Westward where coal will be transferred from barges to ocean-going vessels (OGV) for transport to Asia. This transloading facility will be operated by Pacific Transloading, LLC, another subsidiary of Ambre Energy. This transfer will use transloading equipment and systems specifically designed for Pacific Transloading and will be conducted by a stevedoring company.

The transloading operation at Port Westward requires an ACDP because emissions will, at the very least, result in an air quality concern consistent with the air quality concern presented by the Coyote Island Coal Terminal. The facility is likely a federal major source of air pollution. The floating transloader is a stationary source when it is docked at the port because it will be anchored in one spot and attached to land.⁸⁰

At this time, specific complete emission information is not available for the Port Westward facility and it is impossible to determine the facility’s exact potential to emit for all pollutants from the Environmental Review (ER) prepared for the Coyote Island Coal Terminal. However, the ER estimates the coal transloader’s annual potential emissions from coal dust at 0.015 tons per year (30 lbs. per year) for PM₁₀ and 0.0022

⁸⁰ The transloader and the tugs supporting the transfer of material from one barge to an OGV are stationary sources when used as proposed for the same reasons the tugs at the Port of Morrow’s emissions should be considered part of the stationary source’s primary emissions.

tons per year (4.4 lbs. per year) for PM_{2.5}.⁸¹ These emissions are understated because the ER likely includes the facility's passive controls, which should not be considered when determining permit applicability, since they should only be considered if required by a permit.

Even if the emissions estimates in the ER are correct, the Port Westward facility requires an ACDP. First, as discussed above, the annual potential emissions estimates in the ER are likely significantly reduced to take passive control systems into consideration. The real amount of potential emissions from coal dust at the facility is likely much higher. Next, even if the actual amount of potential emissions does not hit the 100 ton or 10 ton per year ACDP thresholds, the facility is still likely a source of air quality concern.⁸² DEQ determined that the Coyote Island Coal Terminal requires an ACDP because it is a source of air quality concern. The Port Westward facility will process the same amount of coal.

Moreover, AMI modeled NOx ambient impacts from the Port Westward Operations with two different scenarios. Both scenarios showed NOx impacts 1,923% over the 1-hour NOx NAAQS using the Tier 2 methodology.⁸³ While Tier 2 results do not necessarily prove a NOx NAAQS violation by themselves, they certainly show that Port Westward's operations are a "source of air quality concern." In addition, the fact that the Tier 1 analysis shows cross state impacts above the NAAQS also makes Port Westward a source of air quality concern.⁸⁴

CONCLUSION

For the foregoing reasons, and in the accompanying exhibits, Petitioners believe that DEQ has inadequately responded to the concerns raised in comments on the proposed issuance of an ACDP for the Coyote Island Coal Terminal. DEQ should have denied Ambre's application for an ACDP and issued an order prohibiting construction of the source until the required PSD permit was issued. DEQ was required to deny the permit because modeling indicates the project will result in NAAQS violations and DEQ cannot issue a permit that will result in exceedances of the NAAQS. Moreover, the facility is a federal major source and requires a valid PSD permit. Furthermore, the ACDP does not include the required conditions and is therefore not practically enforceable. Finally,

⁸¹ Environmental Review for the Coyote Island Terminal Dock at the Port of Morrow (August 2012), 347, available at http://morrowpacific.com/wp-content/uploads/large_files/ER%20Update-DSL%20Redacted-Volume%20I-RS.pdf

⁸² A Standard ACDP is required for all sources with the potential to emit more than 100 tons of any air pollutant in a year. OAR Chapter 340, Division 216, Table 1, Part C. An ACDP is also required for any source that "would have actual emissions, if the source were to operate uncontrolled, of ... 10 or more tons of any single criteria pollutant." *Id.* Table 1, Part B. Moreover, an ACDP is required of any source for which DEQ has determined that "an air quality concern exists." *Id.*

⁸³ Exhibit 2 at 16.

⁸⁴ Exhibit 2 at 17 – 18.

DEQ should have required Ambre to apply for and receive a PSD permit for its operations at Port Westward.

Petitioners urge DEQ to reconsider its decision to issue an ACDP to Coyote Island Coal Terminal. Petitioners request that DEQ revoke Ambre's permit to remedy the issues contained within this Petition.

Sincerely,



Aubrey Baldwin for

Aubrey Baldwin
Eartrise Law Center
Lewis & Clark Law School

On behalf of Sierra Club, Columbia Riverkeeper, Oregon Physicians for Social Responsibility, and Climate Solutions

cc:

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