

QUESTIONS FOR ECOLOGY—PUBLIC HEARING, OCTOBER 13, 2009 TRANSALTA BART AND MERCURY AGREEMENT

These questions are submitted as part of the public hearing on October 13, 2009. Due to the large number of questions and the limited time available at the hearing for questions, Earthjustice proposed to submit the following questions in writing to the Department of Ecology with an agreement from Ecology to respond in writing and that both questions and answers be posted on the TransAlta/Centralia plant page of Ecology's website so that the public would have the full benefit of the exchange. This agreement was reached at the public hearing on the evening of October 13, 2009. Therefore, Earthjustice respectfully submits the following questions.

BART

Q. The low-NO_x burners on the two Centralia units are the only low-NO_x burners in the country added over the past decade for sub-bituminous combustion that do not meet EPA's presumptive .15 lb/MMbtu NO_x limit. Ecology's technical support document explains this by stating: "It is unknown why the LNC3 technology installed at the Centralia Plant fails to meet the presumptive BART limit." Why aren't the burners functioning in line with industry standard practice, and why isn't Ecology requiring additional low-NO_x burner retrofitting to insure that the .15 lb/MMbtu presumptive BART NO_x limit can be met, at a minimum?

A: As described in the BART Support document, Ecology does not know why these burners do not meet the presumptive BART level expected by this technology. The failure of the low-NO_x burners to meet the presumptive BART emission rate is not through poor design, maintenance, or other failure on behalf of the facility. It is a common occurrence that control technologies don't meet performance specifications when installed due to specific configurations or combustion dynamics of individual units.

The presumptive BART rates in 40 CFR Part 51, App. Y are not emission rates required to be achieved under BART by coal-fired power plants. The presumptive BART is only EPA's expectation that using the specified control technologies would meet a given emission rate. BART instead is the limitation reflecting the selection of an emission control technology based on a multi-factor analysis weighing a number of factors. These factors include non-air quality impacts, visibility impacts, cost of the equipment, and remaining expected plant life.

Q. Why isn't SCR BART? What is the foundation for these decisions?

A: As discussed above, BART is the technology selected on the basis of a multi-factor analysis. In the case of the Centralia plant, SCR is not BART due to the extreme installation cost. The costs are so high because of the difficulties in constructing an add-on SCR system due to space constraints from existing pollution control equipment at the plant. To make the SCR system fit and preserve the existing electrostatic precipitator (ESP) systems for particulate control, construction would need to occur on top of the first ESP system at approximately 7 stories above the ground.

These complications greatly increase the cost of installing SCR NO_x technology, driving the costs above cost-effectiveness levels that are acceptable under a BART analysis.

Q. When did TransAlta first begin bringing in Powder River Basin (“PRB”) coal? Wasn’t that in late 2006?

A: The plant has used some level of imported coal for at least 20 years. To our knowledge, the most common source of that coal has been mines in the Powder River Basin.

Q. TransAlta announced it was doing that (bringing in PRB) in Nov. 2006 and that it had used up most of Centralia coal inventory in 2007. Is that correct according to Ecology’s understanding?

A: To our knowledge, all remaining stock of Centralia coal had been exhausted sometime in 2007.

Q. The Flex Fuel project is simply to burn all PRB coal correct? When did TransAlta start calling it the flex fuel project? When first proposed?

A: The flex fuel project is intended to allow the facility to operate as close to its design rate as possible while utilizing alternative coals such as PRB coals. The first documented use of the term Flex Fuels (or Flexible Fuels) with the Ecology Air Quality Program was as part of the January 2008 BART submittal. Prior to that time the project was identified to the Air Quality Program in a September 2007 request for new source review applicability as the ‘Boiler Efficiency Project’.

Q. Why weren’t emissions from TransAlta’s auxiliary oil-fired boiler included as part of the BART determination process?

A: The auxiliary boiler is a 170 MMBtu/hr, oil-fired unit permitted to operate on #2 distillate oil (with less than 0.5% sulfur by weight) for a maximum of 600,000 gallons per year. The SO₂ emissions from fuel oil combustion in this unit are included in the coal boiler SO₂ emission limitation. The potential to emit of NO_x from this unit is 7.2 ton/year and SO₂ of 77 ton/year. State Notice of Construction and PSD BACT determination experience has indicated that with this limited operating time and low emissions, there are no cost-effective retrofit NO_x controls.

Q. The agreement provides that Ecology is forgoing any future regulatory opportunities renouncing any additional authorities to further control NO_x until 2018, why? What about reasonable progress obligations?

A: We need to first clarify what the settlement agreement says, then explain why. The language in Section III.A.1.j of the Agreement only relates to determinations of BART in the future. The language of Section III.A.2. only defers imposition of reasonable progress requirements before 2018. Such reasonable progress requirements may be imposed as part of the 2018 update to the state Regional Haze SIP unless the company requests and SWCAA issues a regulatory order limiting the NO_x emissions from the coal units to less than 0.22 lb/MMBtu before Jan. 1, 2017.

We've agreed to this provision because we've just made a determination of what BART looks like for this facility. We believe there are other large sources impacting Class I areas that were not subject to BART just because of the dates they were constructed; we would likely look to these in the next several years for reasonable progress before turning back to the Centralia facility. But we understand the magnitude of the Centralia facility's emissions are such that we may need to revisit additional control technologies in the future if we are unable to meet our reasonable progress obligations.

Q. It appears from Ecology's website that other BART determinations have been made, most of which require no change to NO_x emitters. To what extent were those determinations dictated by this one?

A: The BART determinations for the other 6 Washington state plants that are subject to BART were made independently from the decisions for the TransAlta plant in accordance with the Federal Regional Haze rules and guidelines.

Q. What will be the result for haze pollution in Class I areas with business as usual at most NO_x-emitting locations? How much will visibility improve at Mt. Rainier? At Olympic? At Goat Rocks? Does Ecology consider this reasonable further progress? Do the FLMs?

A: The degree of improvement resulting from BART controls has not yet been determined. The Western Regional Air Partnership (WRAP) has performed visibility impact modeling that includes the effects of both proposed BART determinations and other emission reduction programs such as low sulfur motor vehicle fuels. This modeling does show that visibility would improve at all Class I areas in Washington except one, and we have not yet determined why that occurs. The modeling results are available through WRAP's website.

It is important to note that in general sulfates have a far greater impact on visibility in Washington and other western Class I areas than NO_x.

Ecology has not yet determined the reasonable progress goals for 2018 at Washington's mandatory Class I areas. This work is ongoing and will be available for review when the complete Washington Regional Haze SIP is available for public review and comment early in 2010. We cannot speculate on whether the Federal Land Managers will consider our yet-to-be-determined reasonable progress goals to be adequate.

MERCURY

Q. Did Ecology consider the incremental economic benefit to the local community associated with mercury control equipment installation, maintenance and operation that would bump TransAlta from 50% reduction up to 90% reduction, as required by some other states?

A: Ecology worked with TransAlta to reduce mercury emissions at the Centralia plant because mercury is a significant air toxic. As we have already explained, the mercury emitted by the Centralia plant is not in a form that would deposit locally; it likely travels hundreds or thousands of miles away. It would therefore be impossible to estimate local impacts.

It is important to note, as Ecology has already explained, that the sorbent injection technology required for mercury control is the same technology that will be used by facilities subject to a 90% emissions limitation. It is also important to note that many of the facilities that are reporting 80-90% emission reductions are those that were previously uncontrolled; because the Centralia plant has an SO₂ scrubber, it was already achieving a 25-30% reduction in mercury emissions as a co-benefit. Finally, many of the 80-90% plus mercury reduction requirements apply to new facilities only, with lower or no requirements for existing facilities.

Q. Do you know why is TransAlta unwilling to make that investment in the local community?

A: It is Ecology's opinion that TransAlta has invested in the local community by agreeing to install the state-of-the-art mercury controls.

Q. With respect to the compliance option in Section III(B)(4) of the agreement, please provide more detail on why it was inserted. In particular, why it is phrased to allow for expenditure of \$3 million on "routine operations and maintenance" unrelated to mercury control. Why \$3 million? What is included in that figure?

A: The compliance option in Section III.B.4. of the agreement provides a cap on operation and maintenance expenditures associated with sorbent injection for mercury control. Ecology believes this provision to be directly linked with the costs of running the mercury control system. The cap on costs is necessary because frequently there is a limit to the additional benefit in mercury control provided by an incremental increase in sorbent injection costs. Based on our understanding of the costs involved, a cap of \$3 million is a reasonable expenditure to yield the level of mercury control expected from this technology.

Q. TransAlta's 2007 Sustainability Report provides that 70% mercury control is achievable. Why then, is 50% considered adequate here?

A: Ecology does not read the 2007 Sustainability Report as stating that 70% mercury control is achievable for all of TransAlta's coal-fired facilities. This '70%' value is based on preliminary testing at one unit at one Alberta plant. The text of this section of the report is talking about

corporate performance not plant specific performance. Thus the statement “[b]y testing new technology at our Sundance plant, we believe we’ll be able to reduce our overall mercury emissions by another 70 per cent by 2010” is a corporate expectation, not a plant-by-plant emission-reduction expectation.

Mercury control efficiencies from sorbent injection are highly dependent on plant configuration and whether there are existing controls for other pollutants installed at the plant. Based on Ecology’s understanding of the Centralia plant, a 50% reduction in mercury emissions appeared an appropriate goal for sorbent injection due to 1) the uncertainty of flue gas contact time with the sorbent in the Electrostatic Precipitators, 2) the uncertainty of finding chemicals that could be added to the coal or injected into the boiler to enhance the production of particulate and oxidized mercury, and 3) the fact that the Centralia plant is already getting some mercury emission reductions from the existing SO₂ scrubber.

Q. Why did Ecology agree to support banking mercury credits, especially when Ecology did not support credits and trading previously in formulating Washington’s mercury rules? Why now, especially in the face of CAMR being struck down?

A: While Ecology opposed the trading program that would have been established by the federal Clean Air Mercury Rule (CAMR), Ecology does not necessarily oppose all trading programs. While no scheme for banking or trading of mercury credits currently exists, Ecology believes that a facility such as Centralia should be provided some incentive for taking substantial early and voluntary action in the event of a future federal trading program.

GENERAL

Q. TransAlta’s 2008 report provides that this agreement with the State was reached in 2008. Is that correct? Why was it not released to the public until September of 2009?

A: We agreed to key components of the agreement in 2008. However, our agreement was subject to review and consultation by our federal partners (the Federal Land Managers and EPA). The federal consultation concluded shortly before we released the language of the actual agreement in September 2009. However, we discussed the agreement at a public meeting on March 31, 2009.

Q. Provision regarding coal ash, Section III.B.11. Please provide more detail/elaboration regarding the precise intent and meaning of this section. What specifically are Ecology’s obligations under this provision? What is meant by “beneficial use” and “recycling”? Is this like the 60 minutes episode with the golf course built on coal ash?

A; Ecology is not aware of the “60 Minutes” episode referred to. Section III.B.11. is intended to recognize that as a result of using sorbent injection from mercury control, some of the ash from the Centralia plant that is currently sold for use as a cement additive could be contaminated. Ecology’s obligations are limited to those outlined in the provision, which are to support measures needed to manage disposal of ash that becomes contaminated as a result of the mercury

controls. The terms “beneficial use” and “recycling” are defined in Ecology’s solid waste handling standards, Chapter 173-350 WAC. These definitions are listed below:

"Beneficial use" means the use of solid waste as an ingredient in a manufacturing process, or as an effective substitute for natural or commercial products, in a manner that does not pose a threat to human health or the environment. Avoidance of processing or disposal cost alone does not constitute beneficial use.

"Recycling" means transforming or remanufacturing waste materials into usable or marketable materials for use other than landfill disposal or incineration. Recycling does not include collection, compacting, repackaging, and sorting for the purpose of transport.

Q. Where does TransAlta currently send its coal ash? If landfills, are the landfills lined? If yes, how? If not, why not? Is there any wet storage and if so how is it stored? Will there be wet storage in the future? What is Ecology’s obligation with respect to wet storage? (note TVA disaster last Christmas).

A: The agreement with TransAlta does not address how ash is currently handled at the Centralia plant, with the exception of supporting efforts to manage ash disposal in the event some of the ash is contaminated as a result of the mercury controls described in the answer above.

Bottom ash generated at the Centralia plant is currently being stockpiled on site and at the adjacent TransAlta Centralia Mining (TCM) site, pending use in reclamation road-building or disposal in a new landfill being constructed, both of which are within TCM’s mine area. TCM is using bottom ash in road-building within the mine area under a deferral of local solid waste permit requirements to the federal Office of Surface Mining (OSM) and Reclamation’s reclamation permit. The use of bottom ash in road construction is subject to review by OSM to ensure that the extent of use is limited to necessary and justifiable volumes for reclamation purposes.

Ecology’s understanding is that the preponderance of fly ash generated at the Centralia plant is marketed to a broker for use as an additive in the concrete industry.

TCM is constructing the landfill with a compacted soil liner which satisfies the design criteria of Washington State’s Solid Waste Handling Standards, Chapter 173-350, Washington Administrative Code.

To Ecology’s knowledge, there is no wet storage of ash at either the Centralia plant or TCM.

Wet storage of ash would be subject to the Solid Waste Handling Standards, WAC 173-350, particularly the standards for surface impoundments in section 330. If the volume of a surface impoundment that could be released by the failure of a containment embankment were to exceed ten acre-feet, then the impoundment would also be subject to review and approval by Ecology’s Dam Safety Section.

Q. What is the purpose of all of the language in the agreement regarding unenforceability, e.g. Section III.B.13 or Section III.A.2.? Why were these provisions included and agreed to by Ecology? What is Ecology's understanding regarding enforcement of this agreement?

A: Sections III.B.13. and Section III.A.2. do not constitute unenforceability provisions, as the question presupposes. Rather, Section III.B.13. is an election of remedy provision that states that Ecology's sole remedy in case of noncompliance by TransAlta is to terminate the mercury provisions of the agreement, including Ecology's obligations under the mercury provisions. Rescission (or termination) of a contract is a common alternative remedy to specific performance under that contract. Rescission is the remedy that Ecology chose should TransAlta fail to satisfy its mercury reduction obligations.

Section III.A.2 states that Ecology will not require additional NO_x reductions from the Centralia Power Plant prior to submission of its 2018 SIP and that, if TransAlta commits to a lower enforceable limit prior to January 1, 2017, Ecology will not require additional NO_x reductions for the Centralia Power Plant in the 2018 SIP. Ecology agreed to these provisions because we've just made a determination of BART for this facility; we believe there are other large sources impacting Class I areas that were not subject to BART that are minimally controlled. We would look to these other facilities in the next several years for reasonable progress before turning back to the Centralia plant. But we understand the magnitude of the Centralia plant's emissions are such that we may well need to revisit additional control technologies after 2018 if we are unable to meet our reasonable progress obligations.

Ecology's understanding regarding the enforceability of the agreement is that we can enforce BART in court through the settlement agreement and can terminate the mercury provisions of the agreement if TransAlta does not meet its obligations, thereby authorizing Ecology to move forward with regulatory mercury measures applicable to the plant.

Q. What is Ecology's understanding of its own obligations under this agreement generally?

A: The agreement details Ecology's obligations.

Q. What about the provisions regarding the federal government and mercury rules?

A: The parties anticipated that EPA would move forward with a mercury rule that would apply to the Centralia Power Plant. Therefore, the agreement specifies that the mercury provisions remain in effect only until the federal government adopts a mercury rule, or the state adopts a rule subject to federal requirements.

Q. Does Ecology consider this an enforceable contract?

Yes.

Q. How does that affect future regulation?

A: For BART, Ecology has agreed to an immediate, lower enforceable limit on NOx and has agreed not to require additional NOx controls prior to submission of the 2018 SIP. For mercury, Ecology has agreed that it will not move forward with a state-only rule unless TransAlta breaches its obligations under the mercury provisions of the agreement or there is a superceding federal regulation on mercury, in which case the mercury provisions become null and void.

Q. How does the Agreement affect Ecology's obligations if EPA disapproves the BART determination?

A: The agreement remains in effect even if EPA disapproves the BART determination. Therefore, Ecology's obligations under the agreement would not be affected. However, TransAlta has discretion to terminate the entire settlement agreement if EPA disapproves the BART determination. If that occurs, Ecology's obligations under the agreement would cease.

Q. What are Ecology's next steps? What is the timeline? When does Ecology expect to file the agreement and proposed consent decree with the court? Which court? Under what authority? What and how much notice will be given to the public of this step in the process? Will Ecology give commenting parties advance notice of the filing? If yes, how much advance notice? If not, why not?

A: Ecology will review all public comments received and will determine whether to propose changes to the agreement based on those comments. Once the public process is complete and any final negotiations with TransAlta have occurred, Ecology and TransAlta will enter into the settlement agreement. After further consideration, the parties have decided not to enter the agreement as a consent decree.

Submitted by:

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