

November 29, 2006
Washington State Mercury Rules
Energy Sector Workshop

Attendees:

Dave McBride, Department of Health
Carl Samuelson, WDFW
Jeff Tayer, WDFW
Elizabeth Waddell, National Park Service
Lisa Riener, Quinault Nation
TransAlta – Ken Otomani, Roger Carter
Kirk Lilley, Preston Gates and Ellis, LLP
Energy Northwest – Ted Beatty, Laura Schinnell
Howard Schwartz, Northwest Power and Conservation Council (NWPCC)
Karen McGaffey, Perkins Coie
Keith Faretra, Puget Sound Energy
Potential IGCC in Wallula – Dave Arbaugh, United Power, and Tom Wood, Stoel Rives
Mike Tribble, Attorney General Office, Counsel for the Environment
CTED Energy Policy – Tony Usibelli, Liz Klumpp
SWCAA – Clint Lamoreaux, Paul Mairose
EFSEC – Allen Fiksdal, Kyle Crews, Attorney General Office, Irina Makarow, Jim Luce
Alexia Kelly, The Climate Trust, Portland
Ecology – Tom Todd, Sarah Rees, Elena Guilfoil, Kay Shirey, Attorney General Office,
Al Newman

Presentation – Health impacts of Mercury, David McBride, DOH

Presentation – Federal Clean Air Rule, Alan Newman, Ecology

Litigation Update – Federal Clean Air Mercury Rule, Kay Shirey

Ms. Shirey reported that in 2005, 14 states, led by the State of New Jersey, and several tribal nations (including the Lower Elwha Klallam Tribe, Lummi Nation, Nisqually Tribe, and Swinomish Tribe) appealed the Federal CAMR before the D.C. Circuit Court of appeals. Petitions for reconsideration of the rule were also filed. The court dismissed the petitions for reconsiderations, and the appeal is moving forward.

The appeal questions the CAMR having been issued under Section 111 of the federal Clean Air Act for implementation of the cap-and-trade provisions, whereas hazardous pollutants (including mercury) are regulated under Section 112. The appeal makes two major arguments:

- First, did EPA complete the correct procedure to move the rule from regulation under Section 112, and have it regulated under Section 111?

- Second, does the cap-and-trade program meet the requirements of Section 111?

The parties to the lawsuit have proposed a briefing schedule to the Court, but the Court has not yet approved it. If the schedule was to proceed as proposed, opening briefs would be due on December 8, 2006, and briefing would be completed by April 2007. Oral arguments would be expected in the summer of 2007.

The possible outcomes of the appeal were summarized as follows:

- 1) The Court rules that EPA did not follow the correct procedure to get the CAMR out from Section 112 and into Section 111. The court would remand the rule to EPA, and EPA would have the choice of jumping through the hoops of moving the rule from Section 112 to Section 111, or leaving the rule under Section 112 and establishing MACT standards.
- 2) The Court rules that EPA did follow the correct procedure to have the rule issued under Section 111, but the rule is not upheld. The rule would be remanded to EPA for EPA to rework.
- 3) The court could rule that the rule meets all of the requirements and is upheld.

Ms. Shirey clarified that the CAMR is not stayed pending the outcome of the litigation.

Presentation – Ecology draft proposal, Elena Guilfoil, Ecology

Other issues discussed regarding the federal and state proposals.

Liz Klumpp (CTED) asked for clarification about how New Source Review and mercury credit allocation are connected. Mr. Newman (Ecology) responded that New Source Review requires the application of a Best Available Control technology (BACT) review. This results in a federally enforceable emission limit being included in a Notice of Construction, or Prevention of Significant Deterioration permit that is issued for the plant. The mercury emissions resulting from this limit are typically lower than the emissions that would have otherwise been allocated. Allocation of credits is fluid because of exiting plants being retired, and new plants coming on line.

In addition to BACT, facilities must also meet the New Source Performance Standards that set a an emissions rate per gWhr. BACT can employ the same or a different metric, but emissions can not be greater than the NSPS. Typically, emissions rates set by BACT are lower than the mercury NSPS.

Mike Tribble (AGO,CFE) inquired whether a correlation would be observed between decreases in mercury emissions from power plants and mercury concentrations in fish. Tom Wood (Stoel Rives) indicated that Oregon DEQ had the same question posed in the Oregon mercury rulemaking process. In Oregon, because the power plants represent a small fraction of total mercury emissions (which include other sources such as cement kilns), it was determined that no change might be perceived in fish contamination when power plant emissions are reduced. Mr. Wood noted that the decreases in mercury

emissions mandated by the rule would also represent a “public health benefit” in and of themselves. Paul Mairose (SWCAA) noted that few facilities operate year round, which also leads to some form of benefit with respect to emissions, as emissions are permitted assuming 100% availability of the source for operation.

Tom Wood (Stoel Rives) asked whether banking of unused credits would be allowed through 2013 under the Ecology proposal. Ms. Guilfoil (Ecology) clarified that during the trading period (2010-2012) facilities can do what they want with unused credits – they can sell or bank the credits. Starting 2013 and forward, under the current proposal, credits can not be sold because trading would not be allowed.

Carl Samuelson (WDFW) asked whether any estimate of actual reductions in the state had been calculated in the long term, such as 50 years.

Howard Schwartz (NWPCC) asked about what happens to credits allocated to a facility when that facility ceases to exist. MS. Guilfoil clarified that the credits could be sold to others if intrastate trading was permitted. If no trading is permitted, the credits would revert to the state.

Paul Mairose asked for clarification about the relationship between EPA and the state in ownership of the credits. Ms. Guilfoil answered that if the federal trading program is in effect, the state owns the credits until they are allocated to a generating facility. The generating facility then becomes the owner of the credits and can hold or sell them as they please. In the non-trading scenario, the state owns the credits. If intrastate trading is not allowed by WA State, the state owns the credits. If intrastate trading were allowed, the rules would have to clarify ownership of the credits.

Alexia Kelly (Climate Trust) asked if the draft rule proposes penalties for noncompliance. Ecology staff explained that the federal rules do not have a monetary penalty for noncompliance, other than that a facility has to 1) buy extra credits to cover the emissions exceedance; 2) the facility get penalized by the federal trading market for the exceedance and receives three times less credits than the exceedance for the following year. The regulatory agency can also enforce a monetary penalty because of noncompliance of emission limits through the facility’s Air Operating Permit.

Policy Topic Presentation – Jim Luce.

Chair Luce noted that he was not speaking on behalf of the Energy Facility Site Evaluation Council, but only as its Chair. EFSEC is committed to issuing a single rule in coordination with Ecology with policy direction received from the Governor’s Office.

EPA’s model rule does not favor the development of new “clean coal” technologies but favors facilities already in existence. Various energy resource/policy organizations have identified that the Pacific Northwest will be short of generation resources. For example, Bonneville Power Administration has estimated that by 2012 there would be an 800 MW deficit. The organizations generally agree that the deficit would be filled by the following

resources: conservation, renewables, and additional baseload. Chair Luce summarized the other generation options that would be available if clean coal projects are taken off the table:

- Natural gas, though available, remains expensive. The impact of California's energy supply policies on independently produced power and long-term contracts is also uncertain.
- Pacific Northwest hydropower resources have seen a 1200 MW diminution in recent years due to fish protection measures under the Endangered Species Act. Hydropower resources are also at their maximum production, and cannot provide additional generation.
- The status of Liquefied Natural Gas project remains unclear.
- Additional nuclear generation is not in the state's future.
- New transmission (for example, the Northern Lights Project) is difficult to site and would not be able to bring sufficient generation reserves to the state.

All in all, the energy supply situation is difficult, and may bring significant costs to the economy in the long term.

Given the current Ecology proposal, only a single IGCC could be accommodated in the state. There would be insufficient mercury credits for a second IGCC project.

Consequences of Initiative I-937 are that 4500-5000 MW of renewable power (1700 actual MW) would need to be acquired by utilities; this power would also need baseload backup for integration.

Chair Luce proposed that, given the latitude of the federal rules in allowing states to manage how allocations are distributed, that the state consider requiring CO2 mitigation of facilities that receive mercury credits. PMEC would be required by law to mitigate emissions if sited. Other existing facilities covered by the mercury rule do not have that obligation.

Discussion of the policy ramifications:

Lisa Reiner (Quinault Nation) emphasized that mercury emissions in WA state are an important health issue, especially to those people that ingest it through subsistence diets.

Jim Luce stated that 83% of mercury emissions in the state are due to activities in Asia, and from sources that would not be regulated by the mercury rules. However, Liz Waddell (NPS) reminded the attendance that the Steubenville, Ohio, study showed impacts to areas closely surrounding emissions sources.

Sarah Rees explained that Ecology understands the resource implications of the proposal – the rule would have ramifications beyond requiring additional emissions controls.

On the issue of CO2 mitigation, Tom Todd (Ecology) asked when the mitigation would have to be implemented – at the time the facility receives the credits or at some later date. Chair Luce answered when credits were allocated.

Karen McGaffey (Perkins Coie) inquired about what level of CO2 mitigation could be anticipated for facilities not covered under the state’s CO2 mitigation law; Chair Luce answered that a level playing field would be preferable.

Policy Topic Presentations

Agencies participating in the rulemaking stakeholder group presented additional topics on which comment was being sought.

Liz Klumpp – CTED:

1. Intrastate trading and Intraregional trading
2. Three models for allocating credits
 - a. Input model – allocate on a basis of ounces of mercury emitted per heat rate unit being fed to the combustion process (fuel in, mercury out);
 - b. Percentage reduction model – allocate on a basis of reductions in emissions required (with the pending question: is the reduction over controls on the combustion processes only, or on the full life cycle of the coal beginning at the coal pile through combustion)
 - c. Output model – allocated based on a production standard of ounces of mercury released per MW produced (pending question: consider gross or net electricity production?)

Elena Guilfoil – Ecology

1. Considerations on timing for opting out of national trading program;
2. Allowing banking of credits for future use; going back into the trading program at some later date when all emission reductions have been achieved in the state.
3. How large should the public health set-aside be?

Discussion of Policy Topic Presentations:

Jeff Tayer suggested that different terminology could be used for the “public health set-aside” by just saying that the WA state cap is 140 lbs instead of 156.

Paul Mairose discussed the [possibility of including a 5-10 year re-opener in the rule to allow rule changes to the rule with more certainty.

Tony Usibelli initiated a discussion of the estimated of mercury credits would be in the national market. The cost of implementing emissions controls is approximately

\$30,000/lb of mercury removed; the cost of mercury credits is expected to be in the \$25,000 to \$30,000 per oz mercury. Allen Fiksdal asked if there could be a situation where the cost of the credit exceeded the cost of producing the electricity, and therefore makes the credit more valuable.

Roger Carter discussed TransAlta's needed flexibility to select means to attain reductions, including ceasing plant operations to control emissions and to meet the limit established by allocated credits.

Chair Luce asked, and Ecology clarified, that the federal government is bound by this federal CAMR.

Elena Guilfoil explained that the state has missed the November 2006 deadline for submitting a state rule, and that the state would be bound by a Federal Implementation Plan for 2010. November 2007 is the deadline for the 2011, period, so rulemaking has to be completed by September 2007.

Michael Tribble asked what basis was used to establish a public health set-aside of 10%, and why a lower or higher number was not chosen. Ecology staff explained that this seemed like a reasonable target, and it was similar to the target set in other states.

Michael Tribble asked what studies were used by EPA to conclude that a 70% reduction in mercury emissions was the right target. Elena Guilfoil explained that EPA believed a 70% reduction in 8 years was simply a reasonable target. There was no basis linked to the impacts of reductions to the environment to her knowledge of the federal rule.

Howard Schwartz asked if the rule was attempting to cap mercury emissions from coal generation nationwide by having a specific technology implemented. Ecology staff clarified that the caps were set based on generation that existed in each state during a baseline period. WA state has one existing plant and one propose plant. Other states that have more existing plants have more growth opportunity.

Michael Tribble asked what incentives were created for additional controls, and what would the incentive be in WA state specifically. Ecology staff felt that the incentive to have more efficient controls is to create excess credits that can be sold on the market. With respect to Washington state, an incentive would exist for TransAlta only if trading was allowed. Ecology could also implement RACT to have newer technologies implemented over time.

Paul Mairose clarified that the existing plant is 35 years old, and there is a limit with respect to how much it can be retrofitted to drive the incentive scenario.

Michael Tribble asked why the state favors the existing plant. Roger Carter explained that there are technology limitations in retrofitting old facilities. New facilities can implement more technology up front.

Michael Tribble asked why the state proposal does not give the current plant a cap in line with the IGCC emission limits. Sarah Rees explained that Ecology recognizes the uncertainty of implementing mercury controls, and the lead time and capital investments needed (\$250 million). The controls represent significant efforts for TransAlta; ultimately the state could choose to apply the same low limit to all facilities. Roger Carter added that a limit that is too low would jeopardize the life of the existing plant.

Michael Tribble asked why lower reductions couldn't be phased over a longer time frame (30 years, for example). Roger Carter explained that emission controls are typically installed in large "chinks" with significant investments needed. Fine-tuning from year to year is not viable.

Michael Tribble expressed that the state would want to avoid pushing new facilities into the surrounding region, with only one existing facility left in Washington.

Howard Schwartz asked if EFSEC and Ecology could decide to propose stricter standards post 2013, or change the allocation. Ecology staff clarified that only the federal cap is not negotiable if the state does not enter into nationwide trading.

Howard Schwartz asked if new plants entering the state would receive an emissions limit, or what remains available as an emission credit. Ecology staff clarified that a new facility would receive credits that are equivalent to the lowest of an emissions limit set by BACT or what remains in the state pool.

Feedback Forum

Elizabeth Waddell (NPS)

- NPS supports the philosophy of the Ecology proposal;
- Impacts of mercury go beyond public health; they are also an issue of concern for deposition in national parks;
- The issue is important. Even though Washington emissions are small in the big picture, the Steubenville study has shown that significant impacts occur because of local U.S. sources;
- Even if power plant mercury emissions are lower than emissions from other sources (such as cement kilns), it doesn't mean that power plant emissions should not be regulated, but that other sources also should be regulated.

Tom Wood (Stoel Rives)

- Mr. Wood has worked with this rule process in a number of other states;
- The most compelling argument favoring not joining the national trading program is the fear that hot spots could be created;
- Most Western states have decided to impose a mandatory cap like the one being considered by Washington;
- However, TransAlta's emissions will always be limited by a new mercury emission limit;

- Western coal burned in Western plants is not the same as bituminous coal burned in Eastern states; Western coal does not carry the concerns about mercury emissions solubility in water and wet deposition;
- It makes sense to move into the federal trading program, and limiting hot spots within the state by imposing emission limits on facilities;
- Washington state should allow development of clean generation;
- There is a diminishing return on requiring ever more stringent control on existing facilities;
- Regarding the public health set-aside, it must be remembered that few facilities have 100% availability, and usually only operate 90% of the time; this corresponds to a built-in 10% public health set-aside;
- The 10% public health set-aside currently built into the rule means that there is no room for a second IGCC proposal;
- State of Montana has adopted an emission limit with the federal cap-and-trade program; this incentivizes emissions reductions with room to bring in clean coal with strict BACT limitations.

Laura Schinnell (ENW)

- Energy Northwest supports the federal cap-and-trade program;
- Interstate/regional; interstate/OR+WA, intrastate trading are second preferences;
- ENW supports emission limits of oz Hg emitted for GWhr produced;
- The existing facility should not have preference in receiving credits from the supplemental set aside;
- New facilities should have a larger set-aside;
- Washington State should not adopt the federal rule as is, but should allow some participation in the national trading program.

Dave Arbaugh (United Power)

- United Power represents a second IGCC facility in WA state
- Cautioned agencies to proceed cautiously;
- Worried to see disagreement between regulatory agencies on this issue;
- The issue does not seem sufficiently developed for a thorough public discussion;
- The issue represents significant resource considerations;
- There is lack of coordination with the various documents being circulated for discussion; the documents do not reflect the various agency positions and other WA state policies;
- More discussion of the issue is needed.

Jeff Tayer (WDFW)

- Has the relationship between air quality rules and water quality rules been explored?
- Sarah Rees: there is no nexus at this time to require a water quality rulemaking on this issue.

Lisa Riener (Quinault Nation)

- It is an important public health issue;
- Some communities do not get to choose what they eat;
- Communities have subsisted on fish diets for over 10,000 years;
- It is not an economic issue;
- Public has still to be educated – need more outreach in Washington state regarding the ramifications of implementing a cap-and-trade program;
- This rulemaking prioritizes old facilities that can gain economically from it;
- Need a broader discussion as a public health issue.

Keith Faretra (PSE)

- The bridge to a low emissions future needs to include resource diversity, including IGCC;
- The proposed allocation does not allow IGCC to enter the market – encourages older facilities to stay in service;
- 16,000 aMW will be needed by 2016 – IGCC plays a role in this;
- PSE needs to consider the diversity of the energy portfolio and the cost to ratepayers;
- Not allowing trading is a barrier to IGCC;
- Cannot rely on renewables alone. Renewables are intermittent (wind); some are still not cost-effective (solar, tidal);
- The hydro system is maxed out;
- Reliability means a combination of IGCC and natural gas;
- The rule as proposed would hinder IGCC entering the market.

Sarah Rees (Ecology)

- Ecology is pushed to develop the rule because of the deadlines imposed by the federal rule, and how the federal rule operates;
- If the state wants to implement any deviations from the model federal rule, a state rule must be implemented.

Car Samuelson (WDFW)

- Need to look at consistency of the rule with other state policies;
- Look at rule within the context of reduction of PBTs;
- Cap-and-trade does not allow for such reductions;
- Consider that a percentage of emissions reductions through new technologies should be transferred to the public benefit share;

Alexia Kelly (The Climate Trust)

- Regarding adding an additional CO₂ standard to this rule, the climate trust has been providing CO₂ offsets for plants in Oregon since 1997;
- A cap and trade program for CO₂ emissions can be implemented;

Ken Omotani (TransAlta)

- TransAlta supports trading – it will allow for flexibility in the future;

- The likelihood of creating hot spots is limited because of the type of mercury that is emitted;
- TransAlta has issues with the timeline of “Phase 2” – they prefer the federal timeline; there is not technology available for capturing elemental mercury;
- Cost and reliability are still important concerns for control emissions technology that needs to be implemented.

Additional Questions & Answers

Q: How can you implement the federal cap-and-trade program without creating hot spots?

A: By using a mix of hard emission limits and federal cap-and-trading.

Q: If cap-and-trading is allowed, would state emissions remain under the 156 lbs/year cap?

A: Could end up with a situation where there are more plants than currently exist are established in WA and could exceed the 156lbs/year for the state.

A: Plants could also migrate from the East of the country to the West.

A: Regarding hot spots, elemental mercury does not deposit locally, but can migrate 1000 miles.

Q: What is the timeline after today’s meeting?

A: Comments will be taken back to agency management for discussion, and to get direction to home rule proposal. Deadline for action is to get a CR 102 out by April, so that rule can be finalized by September 2007. Another stakeholder meeting is planned for January 10, 2007.

Q: When is feedback from the Governor’s Office expected?

A: A meeting has been scheduled for December.

Q: What is the process if the federal rule goes away? Can an escape clause be written into the state rule to take the state rule off he books?

A: The state could decide to maintain the state rule; have to look into if an escape clause can be added to the rule, and if yes, what the language would look like.

A: Could find a different way to do RACT for mercury emissions form existing plants.