

Environmental, Energy & Technical Committee Meetings

December 6-7, 2011 Radisson Hotel, Reagan National Airport Arlington, VA (703) 920-8600

MINUTES

TUES-WED December 6-7, 2011

Technical Focus Group Session

Coal vs Gas Evaluations for Compliance

Eric Hallman, Cargill Inc., Moderator

Fundamentals of Financial Evaluations for Energy Projects **Ty Christy**, Christy Energy LLC

For projects there are two high level issues: the impact of pending and possible environmental and regulatory actions and the impact of the shale gas revolution on the delivered price of fuels. The environmental regulations include the Cross State Air Pollution Rule (CSAPR), Boiler MACT, Coal Ash, Cooling Towers, Utility MACT, GHG emissions, and revised NAAQS. The basic impact is higher capital cost, higher maintenance costs, higher operating costs, and higher electric supply costs. The impact of CSPAR and MACT on PJM was expected to cause 10 - 24 GW to close in the 2015 - 2016 time frame. The price impact was projected to be an additional 1.5 cents/Kwhr, as more gas is used to displace coal. The MISO impact was estimated to be over 12 GW of coal retirements with a price impact of 0.5 cents/Kwhr. With GHG regulations, another 2.5 cents/Kwhr increase is anticipated. MISO also estimated an additional \$33 billion of capital needed for new units to replace those that shut down for reliability reasons.

The shale gas development in the Marcellus and the Utica shale is radically changing the US energy supply and delivery systems. Pennsylvania used to import 75% of its gas. It now exports gas in every direction including back to the southeast. In 2015, Pennsylvania will produce 4 times its annual needs. This production does not include the Utica shale or any production from OH, WV, MD, or NY. Further, there are additional shale plays in the Devonian shale. In plays where liquids are produced with the natural gas, the liquids become the price driver. Under these conditions, the price of gas tends to decline as the gas becomes a by-product.

Gas companies are planning to export LNG to Asia and Europe due to higher prices in those regions. Oil and gas companies are also expanding the pipeline infrastructure. The availability of relatively low priced gas is driving chemical manufacturers to consider location near this gas production. Coal continues to show a relative flat price profile, but is currently elevated over its historical level due to Chinese demand. In thinking about gas vs coal, considerations include current and projected capital and operating costs, projected EPA mandated costs, projected costs for fuels, projected capital and operating costs of new equipment, and projected cost and availability of fuel for new equipment.



Practical Considerations in Project Evaluations **Ray Baker,** Energy Consultant

Game changers in project evaluations include environmental regulations, the current and future cost of natural gas, and the cost and quality of coal. With the production of shale gas, projections now look lower with more stability, something we have not seen since the 70s. Plant management wants to know the cost of steam and how it compares with other options going forward. Capital expenditures tend to be minimized as capital is scarce. Capital, operating, and maintenance costs need to be considered. Looking at the cost of steam, the numerator includes the variable costs (fuel, chemicals, labor, etc.) and fixed costs. The denominator is the steam demand.

Coal has a larger capital requirement and a larger footprint. In the past, this capital cost was recovered through the cost differential between the lower cost of coal and the higher cost of gas. As the price differential is reduced (gas trending lower and coal trending higher), the ability to recover costs is more difficult. Coal transportation considerations and ash disposal considerations need to be analyzed. There are risks associated with both of these activities. Load demand and capacity factor have a significant impact on the evaluation as higher capital cost projects need higher demand (larger denominator) to reduce the cost of steam.

Co-generation may make sense in areas with higher overall electric prices. However, small plants have a disadvantage with regard to economies of scale. Capital cost and fuel costs will tend to be higher for smaller plants. In one example, capital was required for all 3 options considered (coal with added environmental equipment, retrofit coal to gas, or new gas). Factors include shrinking demand, growing demand, high capacity utilization, and low capacity utilization. Plants with high utilization and growing demand might consider keeping the coal unit. Plants with high utilization and shrinking demand (due to efficiency improvements) might consider a retrofit to gas. Plants with a longer time horizon may consider new equipment. Availability and transportation of fuel is a significant issue, particularly in the winter.

Case Study for Looking at Coal vs. Natural Gas

J.A. (Fred) Cleveland, Eastman Chemical Company

There is the myth that industry has plenty of money. The kernel of truth is that sales volumes are large. However, the amount of capital that is available for expenditures that provide less than zero return on investment is extremely limited. For outreach, there is the need to frame the problem prior to explaining the solution. Outreach for everyone else (i.e. the non-technical audience) is explaining the situation in terms that people other than engineers can actually understand.

Strategic decisions for energy hinge on three dimensions: commodity positions (fuel costs, etc.), cost of options (capital and O&M), and environmental regulations (current & future). Eastman's Kingsport site is uniquely exposed as a US based domestic manufacturer (over 75% of production is in the US) located close to the coal fields in order to minimize fuel costs. . Of the 4 power houses with 17 boilers and 19 turbine generators, 14 boilers fire coal. They consume 4500 ton/day of coal, about the equivalent of 500 MW. The oldest boilers date back to the 1940's.

In Kingsport, Regional Haze and Boiler MACT are two key regulations, as Kingsport is next to the Great Smoky Mountain National Park. One particular power house was evaluated in 2007. At the

time, it was decided to add pollution control equipment. It was thought that this would be sufficient to meet the proposed regulations. However, in 2011, there are now additional, significant regulations that will impact the plant. The difficulty is that many capital expenditures would occur simultaneously. Considerations include adding scrubbers, retrofitting to natural gas, and buying a new combined cycle unit.

The capital cost was the lowest for the retrofit to natural gas. Next was adding scrubbers. The highest was the new combined cycle. The coal fields in the area are now in production decline. Central Appalachian coal production costs are expected to rise significantly by 2025. Diminishing reserves and lower productivity lead to higher mining costs and lower total production. The introduction of shale gas has provided a large source of fuel reasonably close to the plant. The key is the spread between the delivered price of gas and the delivered price of coal. The break-even projections were plotted for the two different cases (coal with scrubbers vs repower to natural gas). At this point in time, the majority of scenarios would favor gas. Of course, the money will not be spent until it is absolutely necessary.

Discussion: Citizens Thermal noted that 3 of their boilers will be converted to gas based on a natural gas contract price. As a regulated system, the cost will be passed on to their customers (of which there are only 200). The projected cost to the customers was 10% less than other options. Purdue University is starting up a gas fired boiler, but has not made any decisions on any new or retrofit projects. DTE Energy is evaluating options, but no decisions have been made. Penn State is converting 4 coal fired boilers to natural gas. Celanese has 10 facilities that burn a wide variety of fuels. They are doing an evaluation of these facilities and are awaiting the rules to be finalized. Recycled Energy is a developer and are looking at the rules to see if they can meet the regulations. Recast Energy owns biomass plants. They are awaiting the finalization of the rules. Tate and Lyle has some coal fired plants. They are looking at the revised NAAQS as well as Boiler MACT. B&W is doing a lot of boiler conversion studies to gas or biomass. Black and Veatch is doing similar studies. Most clients are waiting for the rules to be finalized. ADM has 19 CFBs burning coal. Some of their older PC boilers have converted to gas. Their biomass stokers will likely remain stokers. They have looked at a few new coal units, but there is too much uncertainty at the moment.

ADA is concentrating on Utility MACT for mercury, but are making plans to handle the industrial markets as well. AECOM has done a few fleet wide evaluations for customers. Eastman noted that the preamble to the new proposed Industrial Boiler MACT allows for some emissions averaging. This could be important to minimizing costs. The SO2 NAAQS are on a different time plan than MACT and needs to be considered. DuPont has 2 plants burning coal, one of which was upgraded for the last round of Boiler MACT. Decision analysis is being used to evaluate the various options for their plants. Koch Industries (Georgia Pacific) has many facilities in the US, including a facility in Green Bay that burns coal and sludge. Fuel flexibility is important to the forest products industries. They are also concerned about the SO2 NAAQS. NAAQS decisions may have to be made in 2012 - 2013, whereas Boiler MACT may not require finalization until 2015.

Grid reliability is also a concern. MIT just announced the release of their study, The Future of the Grid on Dec. 5th. C2HMHill has done a number of studies for the Air Force to bring their base boilers into compliance. They will start again with new proposal. New Page has a number of coal units and will start redoing their studies with the proposal of the new rules. Mississippi Lime Company supplies additives for coal fired units. IP has analyzed their boiler fleet several times in recent years, including many coal, coal/biomass, and biomass boilers. The recently released

proposal for Boiler MACT has lowered the limits for mercury and chlorides, which will likely add the need for additional equipment to meet compliance. Michigan State University is looking at retaining coal to the extent possible. They have renewed their air permits on coal. They are adding biomass to their CFB and hope to be able to add biomass to one of their PC units. Their SO2 modeling is showing a problem. They have not looked at how to address this yet.

SSOE has been doing energy audits, package boilers, and retrofit studies. Although municipal utilities have the theoretical capability of passing on their costs, politicians are reluctant to do so. Barr Engineering has been doing studies for conversions. The one hour SO2 issue is causing problems for clients. TRC Environmental has been doing feasibility studies for coal to gas and biomass. Issues in these studies are the solid waste definition rules (part of the MACT suite of rules). Environmental groups are starting to target shale developments. Forecasts of gas prices may not include the cost of environmental equipment that may be needed to meet future regulations. ERM is looking at conversions as well as CHP. SO2 modeling costs are going up. They have a concern about the sustainable price of gas based on their cogen experience of the late 90s and early 2000s.

Power Plant Management Services is looking at any and all alternatives to bring costs down (or minimize costs increases) to the units that they manage. Cleaver Brooks supplies package boilers burning gaseous and liquid fuels. They are looking at the impact of the Boiler MACT rule. B&V has observed that utilities are trying to move ahead with environmental concerns. This has been consuming resources that may be needed for industrial customers. AAI-JMP Engineering noted that clients are holding their breath waiting for "the other shoe to drop". Customers are prioritizing their expenditures in favor of products rather than infrastructure. Colver Power has 2 plants in Pennsylvania that burn waste coal. The question is whether or not they are classified as an incinerator. Classification may be in the eyes of the beholder. CSAPR will also force them into additional SO2 capture over and above the 90 - 95% removal they were originally designed for. Costs for additional SO2 control are coming out 50 - 100% higher than EPA estimates and increase to nearly 4 times the estimate if the ash can no longer be used for mine reclamation (depending on the ash rules and the type of additive needed to meet the rules). ICL supplies chemicals for mercury control and drilling fluids. Alcoa has 3 large coal fired units and is committed to coal, having made major capital expenditures on scrubbers in 2008. Rayonier is a pulp manufacturer burning mostly biomass and some fuel oil. The oil will probably be switched to gas. A few very old biomass boilers are being evaluated to be replaced with a new biomass boiler. Mostardi Platt has seen the NO2 NAAQS cause issues as well as SO2. The NO/NO2 split will become important in this modeling. Biomass firing is also attracting environmental protests.

ENERGY COMMITTEE SESSION

Frederick (Fred) P. Fendt, The Dow Chemical Company, Energy Committee Chairman Robin Mills Ridgway, Purdue University, Energy Committee Vice-Chairman

DOE Update, Robert (Bob) Bessette, CIBO

Robert D. (Bob) Bessette gave the anti-trust admonition. The old office of industrial technologies has been replaced. There is now an advanced manufacturing office. There is an R&D section and a technology development section. The office supports manufacturers in rapidly adopting energy efficiency technologies, practices, and management approaches. They intend to provide software tools, information, standards, training, and savings assessments. The people originally involved in

the development of some of these tools have been re-assigned elsewhere in DOE. They are pushing ISO 50001, recently published in June.

Energy Assessment Protocol, Mike Budin, TRC Environmental Corp.

Mike Budin is leading a sub-committee looking at the Energy Assessment requirements of Industrial Boiler MACT. The energy assessment is a beyond the floor standard for a one time energy assessment on the affected boiler and facility to identify cost effective energy conservation measures. The focus is on major energy using systems and energy management practices. A report must be written to EPA. Both Area Sources and Major Sources are subject to this requirement. The scope is based on the facility wide energy use with 3 levels being considered: <0.3 trillion BTU/yr, between 0.3 and 1.0 trillion BTU/yr, and greater than 1.0 trillion BTU/yr. The level of effort for each is 8 hrs, 24 hrs, and unlimited for the third level.

The energy use system clarification was given in the preamble to preclude purchased electricity from an off- site source, and off site energy using systems. The definitions in the rule did not change. The definition for Major Boiler Source and Area Source remained the same. Basically, the steam system and its facility uses are covered. A cost effective energy conservation measure is one that has a simple payback of 2 years or less. Energy management practices are practices and procedures designed to manage energy in the facility. An energy assessment includes visual inspection of the boiler, evaluation of the operating characteristics, an inventory or major uses, and maintenance procedures. Recommendations for improvements consistent with the definitions must be included in a comprehensive report. A compliance notification must be submitted.

There are some disconnects between the preamble and the rule. One is documentation of the cost effective measures for improvement. For the Area sources, the energy assessment does not have to be submitted. However, the Agency can request the report at any time. A qualified energy assessor needs to carry out the assessment. Certification is not required. For the protocol, we plan to deal with on-site boiler steam system and on-site steam consuming systems. The basis for the protocol will be the ASME Energy Assessment for Steam Systems (EA-3-2009) with its associated guidance document. The outline includes identifying the team members, identifying the goals and scope, identifying the target areas, and the initial data collection and evaluation. A facility visual inspection is required. A measurement plan is recommended followed by data assessment.

This is a one-time only assessment. All major source HAP facilities and all area sources with boilers over 10 million BTU/hr must conduct an assessment. The level of effort is determined by total facility heat input. It must be performed by a qualified energy assessor. This is an environmental permit requirement. For the 3 assessment levels, the focus of the audit is on energy use systems accounting for 50% or more for of energy at small facilities, energy use systems accounting for 33% of the energy at in between facilities, and energy use systems accounting for 20% or more of the energy used at the larger facilities.

Heat is Power, Kelsey Walker, TAS Energy

Heat is Power is an organization aimed at capturing heat that would otherwise be lost or wasted and utilizing it to make emission free electricity. Renewables get incentives, but waste heat recovery gets

no benefits. Most people do not understand or realize that there are a lot of sources of low level heat that can be recovered for electricity production. While engineers understand this, communication to policy makers tends to be a problem.

The Heat is Power group is focused on power generation. The goals are to provide consistent communication, inform and educate the public and policy makers, promote legislation, promote coalition building, and promote networking and business development. Member companies include GE Energy, TAS Energy, Calcinetix, Electratherm, Echogen, Ener-G-Rotars, and others.

A bill was introduced into the House to include the 10% CHP credit in the House. Senator Bingaman is drafting similar legislation for the Senate. California has added waste heat to their self generation program offering credits for organic rankine cycle power. Some 16 states have incorporated waste heat into their renewable portfolio standards. A number of other advocates have included waste heat as well as CHP for industrial energy.

ENVIRONMENTAL COMMITTEE SESSION

Maxine D. Dewbury, The Procter & Gamble Company, Environmental Committee Chairman Robert (Rob) Kaufmann, Koch Companies Public Sector, LLC, Environmental Committee, Vice-Chairman

The minutes of the September meeting were approved as written.

Boiler MACT Status and Rules - John deRuyter, E. I. DuPont de Nemours & Company

On December 4, 2011, EPA announced their proposal for the revisions to the Industrial Boiler MACT rules. **Amy Marshall** of URS put together a rules comparison of the new proposal vs. the prior proposal vs. the original proposal. The big change is that there is no emissions limit for dioxin/furan in the Boiler MACT rule. A work practice standard has been proposed. For CO, a 10 day CEMS measurement can be used instead of a stack test for compliance. More sub categories have been put forth. Mercury and HCl got more stringent for solid fuels, but less stringent for oil. PM CEMS have been eliminated for solid fuels. Start up and shut down still has work practice standards. The definition of start-up or shut-down is now the period of time between zero and 25% load. Affirmative defense is still part of the malfunction provisions. With a 30 day average, there is somewhat less potential for a violation. In general, coal restrictions got somewhat worse, while liquid fuels improved somewhat. Biomass generally held. There were some improvements to the Gas 2 provisions.

For GACT, the situation improved somewhat. For curtailment, the provisions were expanded to include other events beside supplier cutoff. The CO limit for coal went from 400 ppm to 420 ppm. Mercury also improved. The CISWI rules were combined with the secondary materials rule (non hazardous waste).

CISWI units have to meet the limits during start up and shut down. CEMS for CO and PM are no longer required. There are 12 emission requirements for CISWI units. Limits for CO and PM have been reduced, along with lead. Mercury limits are now quite a bit better for CISWI units. There is no emissions averaging in the CISWI rule. Each unit is an entity unto itself.

On the definition of solid waste, EPA has asked for additional fuels that should be "defined" as fuels rather than wastes (such as waste coal piles). There was a small change to the language on the comparison of the proposed fuel to a "traditional" fuel (for the legitimacy criteria). In particular, the words "comparable contaminants" were changed to "groups of comparable contaminants" presumably to allow grouping heavy metals together rather than to look at each individual heavy metal.

Lisa Jaeger, Bracewell & Guililani, L.L.P., reviewed the MACT litigation status. Each of the MACT rules is in litigation. They are now all held in abeyance. There is some activity on the CISWI rule to allow the NHSW changes to become part of the litigation. There are basically 3 spin off cases. The first is "completion rule". The other two cases have to do with the delay notices. Petitions were filed in the District Court and the Circuit Court. The Circuit Court held the petition in abeyance in favor of the District Court. There are two pending motions, one for summary judgement (in favor of the Sierra Club) and one for dismissal (in favor of EPA). The Court originally denied the motion to dismiss. However, in October, the Court found another case in the New York Circuit Court that raised issues. The Court decided to reconsider its decision. The District Court directed the Sierra Club to provide a brief on its position. Sierra Club indicated that it would be satisfied with a remand back to EPA provided that EPA hold to its April, 2012 date for the final rule. For the most part, these spin off cases will become moot when EPA issues the final rules in April. Then the original petitions that are held in abeyance will come back into force and litigation will continue into 2012 and 2013. The Area Source Deadline case is still outstanding (from 2001). The completion case is also outstanding as the Circuit Court denied the Sierra Club request for summary vacature.

CSAPR - **Ann McIver**, Citizens Thermal **William** (**Bill**) **Campbell**, AECOM

In 1998, the EPA issued the NOx SIP call. States had to establish implementation plans to reduce NOx, including industrial boilers. In 2003, the CAIR rule was established. States utilized the CAIR rule as part of their SIPs. The CAIR rule was vacated and then subsequently remanded due to the needs of the states. In response, EPA issued the Clear Air Transport rule, which was changed to the Cross State Air Pollution Rule (CSAPR). CSAPR supersedes the CAIR rule and effectively eliminates, or repeals it.

The rule is a utility based rule, so that industrial units are not included. However, the NOx SIP call is still in effect. Units impacted by the SIP call still have an obligation. EPA is supposed to come out with guidance on this topic. The CSAPR rule becomes effective on Jan. 1, 2012. The rule has annual SO2 and NOx limits as well as ozone season NOx requirements. The goal of the rule is to prevent units from impacting a down- wind state's ability to meet is ambient air quality standards. The overall reductions are 73% for SO2 and 54% for NOx over current levels. The rule is being implemented by a Federal Implementation Plan (FIP). States will then submit SIPs to take over the program. There is a reduced cap and trade portion of this rule. Within a state, there is unlimited trading. Between states, trading is limited to 20% of a state's allowance. A penalty would be applied for causing a downwind to miss its limits. The penalty will not apply until 2014 to allow the system to get underway.

Revisions to 10 state budgets were done to correct mathematical errors. Industrial units are not covered under the rule. CAIR is eliminated and all allowances are expected to be retired. Acid Rain

allowances are still required. States are not clear on what Industrials should do. Round 2 of CSAPR will likely require inclusions of industrial units to address the 2006 ozone standards. North Carolina is waiting for EPA guidance. Tennessee is using their authority to set limits equivalent to the impact of the CAIR rule and provide industrials the appropriate allowances. No trading would be required or allowed. Ohio is planning to re-institute the NOx SIP rules and administer the allocation system themselves. All states are asking EPA for guidance. EPA did send a letter to the states with some options to choose from.

NAAQS Update - Rob Kaufmann, Koch Companies Public Sector, LLC

The modeling requirements for PSD under the new NAAQS rules are as important or perhaps more important. The SO2 and NOx NAAQS are out and will become effective in early 2012. The ozone standard has been deferred. The PM standards will likely be deferred. Designations for non attainment areas will follow. The proposed ozone standard was pulled back by the President. The current focus is now on implementing the 75 ppb standard established during the Bush administration. Designations have been proposed and will be finalized in the spring. The EPA has estimated 52 non attainment areas.

The Sierra Club initiated a law suit to force EPA to specify models for PSD evaluation. A second draft of the integrated science assessment has been released. This report claims the need for tighter restrictions. In addition, background levels of ozone are actually higher than originally thought (as high as 50 ppb). Thus, in setting a standard, there is less wiggle room between background and a proposed tighter standard.

On PM2.5, the schedule is uncertain. EPA hopes to provide modeling guidance by the end of the year. Model changes over the years have generally increased the predicted levels of substances, making it more difficult to model compliance. One example result was that assumptions were made assuming the emission levels proposed in the Boiler MACT. The modeled units could not show compliance with the SIL levels. Proposals for new standards are reductions from 15 micrograms/m3 to 11 - 13 micrograms/m3. Only 6 counties (mostly in California) fail to meet the 15 microgram/m3 standard. The number increases to over 100 counties with a 12 microgram/m3 standard. On SO2, the combination of modeling and monitoring is putting a big burden on the states. Comments have been submitted by various industrial groups. One is that AERMOD typically over predicts by a factor of 2 compared to measurements (when available). EPA is combining SO2 and NOx secondary standards (a first).

GHG Regulatory Developments - Maxine Dewbury, The Procter & Gamble Company

The "Tailoring Rule" was initiated to raise the threshold for reporting from 250 ton/yr to 25,000 ton/yr. This figure is based on the "potential to emit" level not the actual emission level. The final rule raised this level to 100,000 ton/yr. The significance is that a facility becomes a major source for all pollutants if it becomes a major source for one. Thus, if a unit becomes a major source for GHGs, it becomes a major source for all pollutants. Even more important, if a source is now major because of GHG emissions, tiny emissions increases over the Federal significance levels (e.g. 40 TPY for NOx or 10 TPY PM2.5) trigger Federal PSD permitting rather than state permitting which is allowed for facilities that are minor for PSD. The Tailoring rule was intended to be temporary. The levels were

intended to go down over time to get closer to those specified in the CAA. For units on the margin, units can request limits on GHGs to under 100,000 ton/yr in order to avoid having a potential to emit greater than 100,000 ton/yr. Permits for GHGs are being reviewed by EPA HQ. Comments from EPA include inadequate support for GHG limits, inadequate compliance modeling, inadequate justification for eliminating CCS as BACT and inadequate explanation of why "high efficiency" equipment installation is BACT.

Utility GHG NSPS rules were due in September. Refineries were due in December. Nitric Acid plants are in development. Next groups include chemicals, pulp and paper, and cement. It now appears that the Utility standard will come out in January or February. As a new source standard, it will only apply to new units). It may be fuel specific. Several states either claimed to not have authority to regulate GHGs or refused to regulate GHGs (i.e. Texas). FIPs have been established for these states. As of November, about 100 permits are in the queue for GHG permitting. EPA is looking for CO2 limits to be expressed in numerical terms and include compliance monitoring, start up/shutdown, and all sources of all GHGs.

RCRA Ash - Gary Merritt – Inter-Power/AlhCon Partners, L.P.

In response to an ash spill in Wisconsin, the ash was removed safely and without incident. The ash was classified as non-hazardous and the result was not challenged. The House bill stating ash is non-hazardous passed. Similar legislation is being prepared in the Senate.

Litigation Update - Lisa Jaeger, Bracewell & Guililani, L.L.P.

The NSPS case is on hold. The ozone "early action" case has had activity. The ENGOs have been trying to consolidate that case with the ozone NAAQS case. Now that EPA has pulled back the revised ozone rule, the cases are moving forward. The SO2 NAAQS case challenges both the standards and the modeling requirements. This case will likely be briefed in the spring. In climate change litigation, most of the cases are in briefing. These include mandatory reporting, endangerment, interpretive memo, and light duty vehicle. The nuisance case brought by Connecticut was sent back to the lower courts as the Supreme Court ruled that federal nuisance is subsumed under the Clean Air Act. Alongside this case, an island nation has sued seeking damages rather than injunction. There are two Supreme Court cases involving water law. One case has to do with navigability (which brings a water way in federal jurisdiction). The second case has to do with review prior to designation. This has to do with the Army Corp of Engineers making a designation of a wetland without review.

GOVERNMENT AFFAIRS SESSION

Anthony Reed, Archer Daniels Midland Company, Government Affairs Committee Chairman **Karen Neale**, Hummingbird Strategies, LLC

Anthony Reed has established a monthly conference call for government affairs. The date is Tuesday, Dec. 13th at 3 pm. **Chris Keuleman**, International Paper, reported on the Boiler MACT legislative front. The House activity passed a "bipartisan" bill with a stay of the rules for 15 months and a compliance date extension of up to 5 years. There were 41 democratic supporters of the bill.

The Senate has a similar bill. There are 40 co-sponsors with 12 democrats signed on. The key is to get at least 13 democrats, which would provide the 60 votes needed to provide cloture and a vote. Letters from more than 300 companies have been sent to Congress in support.

The reconsideration rules that were issued were a positive step, but there are still major concerns. There is an emerging battle in Congress over the tax bills. The Republicans are looking to leverage the Keystone decision and other environmental issues to make some kind of a year end deal. With the presidential election cycle now in full swing, everything is "on the table". The House legislation is likely to be part of the deal making (and could go either way depending upon the deal). Owners are requested to review the new rules and provide information about existing ability to comply.

The Boiler MACT and SO2 NAAQS compliance programs need to be synchronized. Karen Neale reported that HR 2273 on coal ash was approved in the House in October. A companion bill, S 1751, has been introduced in the Senate by Senator Hoeven and has 9 co-sponsors. Regulatory reform bills are being proposed in the House. HR 10 (Regulations from the Executive in Need of Scrutiny or REINS) is to be voted on this week. A companion bill S 299 has been introduced in the Senate. HR 3010 and HR 527 have been passed in the House for regulatory review and flexibility and impacts on small business. There is also a moratorium and jobs preservation act that has passed the House. Companion bills for all of these have been proposed in the Senate. Energy bills have been proposed in the Senate via Senator Bingaman. Bipartisan meetings have been restarted on energy. S. 1000 (joint program with utilities and industrials) may be included in a bill for manufacturing energy efficiency.

Lunch Speaker - Gina McCarthy, Assistant Administrator, Office of Air and Radiation, EPA

Gina McCarthy provided an update on the new proposed standards for boilers and solid waste incinerators (Boiler MACT and CISWI). This is still a proposed rule to be finalized in April. Incinerators are units that burn solid waste. Boilers use other materials for fuel content. The initial rule issued in the spring still needed a lot more data. The initial rule was stayed in May and a lot more data was received. With the proposed rule, the EPA is asking for more data. There is a 60 day review period for public comment. The more data that is received, the better the rule becomes. The 3rd major category is Area Sources. There are 1.5 million boilers in the US. About 1.3 million boilers are not covered by the rule. There are 201,000 units covered by the rules. Of those 195,000 are gas fired boilers, which have been addressed with a tune and work practices. The roughly 5,500 liquid and solid fueled boilers are the difficult ones with emission based limits.

The revisions were able to maintain the estimated health benefits. This was done by tightening the mercury and chloride standards while trading some flexibility on other standards. There are more sub categories. Dioxins and furans are now work practice standards. Flexibility has been increased for compliance monitoring. An alternative total selective metals emissions limit. Clean burning gases are being allowed. With regard to the dioxin/furan, the EPA recognized that the detection limits were a problem. If they set the standard to a level that could be continuously and reliably monitor, it would be considerably higher than what is being actually emitted. Therefore, they feel that work practices are completely justified for this substance.

For Area Sources, the tune up schedule was modified. For CISWI units, emission limits have been adjusted. For the Non Hazardous Secondary Materials (solid wastes), the EPA has attempted to clarify that certain materials are already included as either biomass or traditional fuels. They will

continue to work on the alternative fuels issues. The problem is very complex with the number of different boilers, different fuels, and different operating conditions. It is very difficult to get this right. The new rules are more right than they were especially due to the data and comments that were submitted by CIBO.

Robert (Bob) Wayland of EPA stayed to answer additional questions. With the number of subcategories, the number of units in any subcategory may be relatively small. This fact has a significant impact on the calculations for the floor limits. Moving one unit out of one subcategory to another will change the calculations. More data will be helpful in providing a better basis for the calculations. The dis-aggregation of the PM standards (to use only filterable data), was the primary cause of the mercury standard. In particular, separating the biomass units from the various coal units resulted in biomass units doing better and coal units being more restrictive. The dis-aggregation of PM came about in order to allow biomass units to avoid the use of continuous PM monitors. Some flexibility has been provided in the compliance options for these rules. These should be reviewed to see where units have a choice.

The compliance clock will likely be reset when the rule gets finalized. The start up and shut down provisions should be reviewed carefully. An attempt was made to align them with the utility rules. Another flexibility provision that was added refers to gas that is flared. If such a gas is rerouted to a boiler for energy recovery, it will be treated as a Gas 1 fuel (i.e. natural gas). The ability to get an extra year to comply has been modified for the Utility MACT rules. These should be reviewed for potential application to the Industrial Boiler MACT.

Next Technical Focus Group/Environmental & Energy Committee Meetings TUESDAY & WEDNESDAY, March 13-14, 2012

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