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Technical Focus, Energy & Environmental Committee Meetings

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M I N U T E S

TUES-WED March 3-4, 2015

TECHNICAL FOCUS GROUP SESSION
Jason Philpott, Eastman Chemical Company, Technical Committee Chairman

Integrating the Industrial Operations for Profit

Tom Casten of Recycled Energy Development provided a case study on an EPA Boiler MACT compliance project at Eastman Business Park. By improving the efficiency of plants, CO2 emissions can be reduced. The Eastman Business Park was built by George Eastman in 1890. It is the largest industrial park east of the Mississippi. It provides utility services for 134 buildings on 1200 acres. A number of tenants make use of the various facilities on the site. Silver is still being recovered at the site, including silver from X-rays that are being recycled from the medical industry.

The plant is an original cogeneration plant with higher pressure boilers and back pressure turbines. Chillers are also used for AC. Coal, oil, and natural gas are the fuels for the plant. When gas is the fuel, condensing economizers can be used to recover some of the latent heat of vaporization. Back pressure steam turbines can be used to provide "by product" electricity. The steam turbine heat rate is 3600 BTU/kwhr. The power is a byproduct of satisfying the steam demand for the plant. The marginal heat rate (or "economic" heat rate) is the difference in fuel used and the fuel that would be needed to make steam. Steam demand is variable.

Gas turbines use 4 times the air needed for combustion leading to high oxygen concentration in the gas. The oxygen is available to burn additional fuel. This fuel can be used to match steam load. Since the steam is what is needed, supplementary firing helps to reduce the stack loss on the boiler. CO2 emission controls that is based on historical emissions ignores the useful energy output. The ideal regulation would be based on CO2 emissions to provide the same goods and services.

When steam is the requirement, multiple gas turbines with lower electric power efficiency are desirable, since more heat is available to make steam. There is added capital investment and a higher cost of fuel (gas vs coal). For the coal fired boilers with back pressure steam turbines, the marginal heat rate is about 4,300 BTU/Kwhr. Switching to gas in the same boilers actually increased the marginal heat rate slightly. New gas boilers with back pressure turbines brings the marginal heat rate down to 4,100 BTU/Kwhr. As gas turbines with HRSGs are added the marginal heat rate improves. At 3 gas turbines, the marginal heat rate is down to 3,100 BTU/Kwhr.

The economic analysis indicated that the 2 gas turbine level provided the best economic return at a marginal heat rate of 3,200 BTU/Kwhr. These heat rates are based on Lower Heating Value (LHV). The cost of capital dominates the economic calculations. Carbon allowances in RGGI are now at $5 -

7/tonne. However, the plant does not come under RGGI as the power output is less than 10% of the plant. If the CO2 reductions were properly valued, the 3 gas turbine solution would rank higher.

Barriers to cogeneration include subsidies to other fuels and renewables, inability to sell capacity, environmental regulations that don't recognize efficiency, failure to recognize trade-offs, reluctance to allow third party outsourcing, and cost of capital. One of the most serious issues is that the third party returns depend upon the continued demand for steam from the industrial users. That steam demand could drop for many exogenous reasons that is beyond the control of the third party.

Mike Zebell of Environmental Resource Management reported on integrated industrial operations for profit as it relates to energy assessments. The key to realizing the value from energy assessments is having the measurements available to provide the information that is needed. The energy audit requirement in Industrial Boiler MACT has been justified on the basis that using less fuel leads to emitting less HAPs. The resulting report is a regulatory requirement that must be kept on site and made available for inspection. The document can also be subpoenaed by "interested third parties."

Elements of the audit include visual inspection, determination of the equipment boundaries, a list of "cost effective" efficiency measures, and a list of potential projects with a 1 - 2 year payback. For those plants where energy is a significant cost in their product, most of these types of projects have already been implemented. For those plants where the cost of energy is small, there are often some opportunities. The rule requires the facility to identify the major uses of energy and compare these users against a 20% threshold. For large plants with multiple users, it is often the case that there is no 20% user. Since the end use has the possibility to be included, care needs to be taken to avoid disclosing "business confidential" information.

Data requests include boiler drawings, plot plans, energy billing information, heat and mass balances, and similar energy use information. In one plant, the cogen plant is base loaded at 120 Mw with 4 coal fired boilers. The steam conditions are 1250 psig at 900 F. Stack temperature is 230 F on a CFB. Computerized control systems with state of the art predictive controls were used. Auxiliary power was less than 10%. The boiler blowdown system had heat recovery. No single device used more than 20% of the energy. Plant steam use is at 175 psig. There are 6 back pressure turbines for electric generation. Thus, in this plant, only the boiler system would be considered. There are package boilers for peak steam requirements at 220 MMBTU/hr.

The types of energy efficiency projects that can be considered include steam turbine upgrades, sootblowing optimization, electronic damper controls, variable speed drives, CFD modeling, and auxiliary power review. The top performers know the quantity and quality of steam to each use and have metrics for the energy amount and cost of their products. Good metering and measurement systems are key to this approach.

The site visit should be documented. A discussion of the operation including oxygen trends, should be included. Other types of information should be limited in the regulatory report. Common themes include fuel management systems, drives, sootblowing, and ESP power management. Insulation on piping, tramp air, and leaks need to be addressed. For older units, air preheat and economizers can be considered. Tracking the condensate and steam traps are other common procedures. For most plants, reliability is critical. Communications between the steam user and the steam supplier is important. Flexibility in operation is key to addressing load swings.

Brian Bird of HDR reported on how some of these improvements can be accomplished. One thing that is consistent is that every site is different. Alternatives must be evaluated in context of the owner's existing culture. Factors include reliability, risk tolerance, complexity, cost of lost production, management approach, cost-of-service, incentives, regulations, permits, HR, legal, ethical, and political implications. A disciplined approach is needed to vet alternatives against current operations. Measurement and evaluation metrics are key to addressing these types of questions. Screening potential project concepts helps to weed out those projects that are not economical or practical early on. System performance and full cost analysis (including taxes and insurance) are needed to provide an adequate evaluation of a proposed project.

Classic scenarios are cogeneration and outsourcing. The existing operations need to be quantified to establish a valid base case. Coincident thermal and electrical demands need to be identified. A load duration curve is a good tool for this type of analysis. These should be done for both steam and electric demand. For cogeneration candidates, combustion turbines, reciprocating engines, back pressure steam turbines, and extraction/condensing steam turbines can be considered.

Each site has different characteristics. Fuel supply and electric interconnections need to be addressed. Appropriate due diligence is required as there are generally requirements for both gas pipelines and utility connections that will add cost to the project. Redundancy and backup provisions need to be addressed. Balance of plant systems need to be accounted for. A high level screening analysis should be conducted to reduce the number of concepts that need to be evaluated. A refined analysis should then be carried out based on life cycle cost evaluation.

Plant life considerations impact this evaluation. A longer project life will reduce the cost of money in a net present value assessment. Outsourcing may be a consideration. Plant operations or plant assets can be outsourced. Contract terms and conditions take on added performance. Continued ownership and operation is the base case. If "all is well", there is not much incentive to outsourcing. Outsourcing operations delegates a significant amount of control to the third party. The owner retains a significant portion of political, legal, and environmental risk. Third party contracts typically include guarantees along with bonus penalty provisions for performance and availability. For outsourcing of plant assets, the third party takes on the operational and environmental risks. Boundary conditions need to be established. The specifics of regulatory treatment needs to be coordinated and addressed.

For purposes of defining a "major source" under EPA rules, the entire facility needs to be considered. For a specific boiler, the emission limits are set once the source determination has been made. For the plant, capital outlays are reduced, as this becomes the responsibility of the third party. However, these costs need to be recovered somewhere. Thus, cost of service needs to have some incentives for the transfer to show benefits.

Financial value, staffing, legacy costs, management, control, asset life, level of service, reliability, cultural, environmental, and legal issues all need to be considered. Contract incentives need to be put in place to drive the appropriate service to the original plant. While the asset may have been transferred, the perception is likely to be that the entire plant is still the responsibility of the original owner. Thus, problems will often result in a "black eye" for the original owner regardless of the contract terms and conditions. An evaluation matrix can be useful tool to help with the evaluation of these considerations.

GOVERNMENT AFFAIRS SESSION
Anthony Reed, Archer Daniels Midland Co., *Government Affairs Committee Chairman*

Jake Kuhns, Cargill Inc. and Salo Zelermyer & Andrew Arsht of Bracewell & Giuliani LLP

Salo Zelermyer of Bracewell & Giuliani LLP pointed out that since last year, we have been preparing to focus on key issues in order to meet with more Congressional staff in order to educate them on our issues. The need for thermal energy will be the first issue to be presented. **Jason Herbert** has moved on to Congressional staff. **Andrew Arsht** is his replacement.

Since the elections in November, the administration has moved into "legacy mode". Climate change is one of the president's legacy issues. For example, in hydraulic fracturing, the focus is now on methane emissions, as opposed to water, seismicity, property rights, etc. Methane is a greenhouse gas. On the House side, there have been few changes in House leadership. Today's lunch speaker is from the House Science Committee. The House Energy and Commerce Committee retained **Fred Upton** as chair. A health initiative is on the agenda on the commerce side. This could be important for potential tradeoffs on energy. The Clean Power Plan will be reviewed under the power subcommittee oversight. Hearings have already been held. Part of the budgetary process includes appropriation riders, which serve to restrict funds for certain regulations. It is expected that the House will propose a number of riders to the budget process. As the Clean Power Plan is part of the climate legacy, it is expected that the administration will fight to retain this issue. The Natural Resources Committee is looking at public lands. A new subcommittee has been formed on this subject. Also, endangered species oversight is anticipated. The House Ways and Means Committee is chaired by **Congressman Paul Ryan**. An early activity has been the revision to the scoring factors that impact the budget. In the Senate, Senator Inhofe is now the chair of the Environment and Public Works.

Surface transportation authorization expires in May. Reform of the Toxic Substances Act might also be considered. On Energy and Natural Resources, **Senator Murkowski** is the new chair. The Finance Committee will be looking at tax reform, which is a very complicated issue. Tomorrow, there is anticipated to be a vote to override the veto of the Keystone Pipeline bill. A 2/3 majority is needed, or 67 votes. There is still yet another review underway. Since the environmental community has painted the Keystone Pipeline as a climate issue (promoting the use of heavy oil), the President will apply pressure to uphold the veto.

The LNG export bill in the Senate would give the DOE 45 days to act upon FERC recommendations to approve exports of LNG. **Secretary Moniz** has testified that DOE can live with this requirement. Renewable fuel standards reform bills are being proposed. These tend to be complicated. DOE is rolling out energy efficiency standards. Ten standards were issued last year. Twelve standards are anticipated this year and 16 standards are planned for 2016. These will attract attention.

EPA has indicated that methane regulations will be proposed this summer. The Bureau of Land Management plans to issue regulations on gas flaring. **Secretary Moniz** has initiated a Quadrennial Energy Review. Energy infrastructure will be the topic of the first report. EPA is conducting a hydraulic fracturing study. The ozone NAAQS standard is a major issue. This is a high priority issue for oversight in Congress.

Jake Kuhn of Cargill Inc. pointed out that one of the positives in Congress has been the return to "regular order" on the debate and discussion of bills. This approach has returned the Congress back to a more "normal" condition in which both sides of the aisle can get their views aired and put in the record.

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

Jason Philpott led the discussion on the CIBO energy policy paper. This one page summary addresses the importance of affordable and reliable energy, particularly for industry. It takes energy to make or do anything. The summary was prepared by **Bracewell & Giuliani LLP** taking into account all of the comments received from members. The final summary (version 9) was distributed to the group. As a follow up to this summary, there could be one page summaries on combined heat and power, energy efficiency, renewable energy mandates, environmental mandates impact on energy (including climate regulations), scope of industrial products, environmental mandates impacts on jobs/economy, and uses of steam.

One suggestion was a list of things that could not be done or could not be done as efficiently without steam. An additional suggestion was to link these to a product. Streamlining the permit process was another concept to be considered. A list of utility projects that got cancelled due to permit issues might be obtained from EPRI. Industrial projects could be more of a problem as some projects never see the light of day. Permit issues also impact energy efficiency projects.

A goal might be to get one of these summary papers for each quarter with the next one possibly on energy efficiency. This might include NSR considerations that hold back efficiency projects as well. Cogeneration could be another topic. By the end of the year, we might consider some of the impacts of environmental regulations, especially those that hold back otherwise sensible projects.

Bob Bessette, CIBO, summarized the planned meeting at the Senate Capital Visitor's Center for Wednesday afternoon. **Senator Inhofe**, Chair of the Environmental and Public Works Committee, will make a presentation on the importance of thermal energy. **Senator Lisa Murkowski**, Chair of the Energy and Natural Resources Committee, and Congressman Fred Upton, Chair of the House Energy and Commerce Committee, are also invited. **Bob Bessette** will be talking about the cost of energy efficiency. **Greg Bertelsen of the NAM** will be talking about regulations and the cost of energy. **Neil Elliott of the ACEEE** will be talking about energy efficiency and industrial decision making. **Paul Bailey of America's Power (ACCCE)** will talk about the impacts of shuttering a major portion of the US Utility Coal Fleet. All of the committees in both the House and the Senate have been invited.

ENVIRONMENTAL COMMITTEE SESSION
Stephen (Steve) Gossett, Eastman Chemical Company, Environmental Committee Chairman
Robert (Rob) Kaufmann, **Koch Companies Public Sector, LLC**, Environmental Committee, Vice-Chairman

Jay Hofmann of Trinity Consultants, Inc. gave an update on some of the NAAQS regulations, in particular PM2.5 and SO2. For PM2.5, there were only a few select areas that are proposed to be in non-attainment. Several of those have objected. The 2014 data was not available for the latest EPA

proposal. The 2011 - 2013 data were used. The preliminary 2014 data appears to be trending downward. Florida is being considered as unclassified, but the 2011 - 2013 data that was shown to be under the 12 micrograms/m3. The SO2 1 hour NAAQS continues to be somewhat controversial. EPA determined that there were not enough monitors for SO2. The data requirements rule has not been finalized.

Initially, the 2009 - 2012 data will be used to designate nonattainment areas. Then, some areas with large sources may be designated from modeling calculations. Then, there will be some that will be reviewed if they have new monitors. There is a requirement for 3 years of monitoring data. Then the final designations will be made considering both monitoring and modeling. The first phase designations have been proposed. Again, only a small number of areas have been so designated. States may be allowed to use 3 years of actual emissions data and actual stack heights in their modeling to get to a more realistic calculation of the worst 1hour case.

EPA has gone into some detail into how to account for longer averaging times for emissions compared to the 1 hour N AAQS standard. In the meantime, the EPA has already started the review for the next 5 year standard revision. Ohio has objected to their recent designations on the basis of 2014 data. One approach to the 1 hour limit problem is to set a high upper limit for one hour emissions along with another limit that cannot be exceeded more than 5 times per year in addition to the annual average. This approach is based on probability estimates that an emissions spike that would be averaged in a 30 day standard would be coincident with a worst day (i.e. low or no wind) ambient condition.

Scott Darling of Alcoa, Inc. reported on the ozone standards. The Midwest Ozone Group (MOG) is a utility organization that looks at proposed EPA ozone regulations. There is an EPA Ozone Regulatory Impact Analysis done in Nov. 2014. This analysis looked at the requirements for 70 ppb, 65 ppb, or 60 ppb NAAQS standard for ozone. These would primarily be NOx controls on all fossil fueled units. Some of the plants are mislabeled in the report. Thus, all of the owners should check the report to determine if their units are included (likely) and identified correctly.

The proposed standard is thought to be in the 65 - 70 ppb range, but EPA has agreed to take comments for both 75 ppb and 60 ppb. CASAC has recommended that the level be 60 - 70 ppb, but said that they leaned towards 60 ppb. A 65 - 70 ppb standard would come from non-EGU industrial plants. The heaviest areas are Southern California and the I-95 corridor. MOG assessments have shown that the one day that Maryland exceeded the ambient standard, the exceedance was due to Maryland power plants and Maryland automobiles, not the Midwest coal plants.

EPA does take into account the Clean Air Plan and the new Tier 3 automobile standards. Even at 70 ppb, Texas, Louisiana and the I-95 corridor were deemed to need added NOx controls. At the 65 ppb level, the Southeast and the Northern plains are the only areas that would not need controls. Non-EGU plants will need to supply most of the reductions.

While 70 ppb could be doable, the 65 ppb standards hit most of the country pretty hard. For the 60 ppb standard nearly the entire country would be in nonattainment. Alpine GeoPhysics does a lot of modeling work for MOG. CIBO member boilers in the region will be tagged for the modeling so that potentially some "what if" scenarios can be done to determine the impacts.

It was recommended and approved to continue to work with MOG for this purpose.

Lisa Jaeger of Bracewell & Giuliani LLP reported on regulatory activity relative to New Source Standards, 111(d), and other standards. The major rules that are in the courts are the 4 Boiler MACT cases, the MATS cases, the 316(b) case, the affirmative defense case for malfunctions, and the chromium MACT case. At EPA, the various reconsidered issues will get finalized and then the severed issues will get combined with those and 3 more law suits will proceed.

In the cooling water intake case (316(b)), the case has been transferred to the 2cd Circuit Court (NY). There has been a joint motion to include the Fish and Wildlife Services and the National Marine and Fisheries Services as defendants and their biological opinions. EPA will not engage in settlement discussions. EPA has asked the Court to extend the deadline for filing its record. As a result briefing will not occur until the fall.

On the startup, shutdown, and malfunction issue, there a number of cases in the courts. Affirmative defense was in a number of MACT rules. Having been struck down in an earlier rule, the EPA has been charged to remove affirmative defense from all the other rules.

There are a number of GHG/Utility cases that are in play. The Nebraska case has been dismissed. The case was filed under the Federal Power Act. In West Virginia, Section 321 requires EPA to consider jobs and economic impact. EPA has requested dismissal. A settlement agreement, writ of prohibition, and EPA authority have been challenged. The challenge is that the proposed rule is beyond EPA's authority. Briefing is due March 9th. Oral arguments will be held April 16th. One of the claims is that Sections 111 and 112 are duplicative. A lot of activity is expected this summer including the proposed FIP and the state compliance plans.

The chromium MACT floor case has been briefed. The social cost of carbon is being challenged in a number of EPA rules. The CSAPR rule was remanded to EPA by the Supreme Court. Oral arguments on remaining issues were held on Feb. 25th at the DC Circuit Court.

The MATS case is before the Supreme Court. Oral arguments will be held on March 25th. The issue is about considering cost. The cost for MATS was estimated at $9.6 billion. The direct benefits were only a few hundred million. Indirect benefits were claimed by EPA. A regulatory process case was at the Supreme Court. This case had to do with whether or not agencies can revise rules without notice and comment.

On RCRA, a coal ash final rule has been proposed, but the rule is still not in the Federal Register. The definition of solid waste final rule was in the FE in January. Recyclers must meet 4 mandatory legitimacy criteria to be excluded.

The effluent limitations guidelines are planned to be finalized by September. There are a number of final rules that are expected this year including waters of the US, NHSM, ozone NAAQS, and the GHG rules.

Amy Marshall of AECOM and **John deRuyter of E. I. DuPont de Nemours & Co.** provided a regulatory update on the suite of Boiler MACT rules. There were 3 main issues for reconsideration: start up and shutdown, CO limits, and PM CPM's requirements. There were various technical corrections. The affirmative defense case was lost and that is being removed from the rule.

The startup definition was modified to include the concept of useful thermal energy. Under this definition, startup ends 4 hours after the point when the boiler or process heater makes useful thermal energy (such as heat or steam) for heating, hot water, process heat, or electricity. Useful thermal energy means energy that meets the minimum operating temperature and/or pressure required by any energy use systems that use energy provided by the affected boiler or process heater.

Startup work practices include the use of clean fuels. Clean fuels have been augmented by fuels that can meet the MACT standards without controls. The work practice standard that goes with the original definition has now provided an exemption for certain control systems that had temperature and moisture limitations. These must be started as soon as practical.

For the work practice that goes with useful thermal energy, all controls must be operating within the 4 hours and the PM control system must be started within one hour of firing solid fuel. This is a problem for most PM systems. A variance can be requested, but the request must go through the Federal Register. A startup and shutdown plan must now be developed and maintained. Record keeping for each startup and shut down is required, except for Gas1 fuels (which have no numerical limits). Hourly operating data is required.

CIBO comments on the variance request include directing the request to the state agency and not the EPA. The EPA thinking seems to be that clean fuel can be used during the startup period and then switch over to solid fuel. Many units do not have enough clean fuel capability to operate throughout the entire start up process until one hour before the final limit. A stoker could start up with an oil soaked rag on a bed of solid fuel. In this situation, there would be no way to have the PM system ready within 1 hour. Comments will be submitted to point out these needs.

There was a suggestion that dried biomass should be included in the list of clean fuels for startup. Regarding the record keeping and reporting, there were some comments on why the data has to be reported. The comments should reflect that records should be kept but not reported. Similarly, only deviations should be reported. The requested daily, 30 day rolling average reporting should be dropped. The Area Source rule has some technical clarifications. There is an Energy Star exemption from the energy assessment. The useful thermal energy definition was added. There was no change to the startup/shutdown work practice.

The CISWI reconsideration included CEMS data requirements during startup and shutdown. On shutdown, the oxygen concentration will be high. The need to correct to 7% oxygen was eliminated.

Lisa Jaeger of Bracewell & Giuliani LLP reported on the litigation status of the BMACT rules. The cases have been fully briefed. Oral arguments are to be scheduled.

On BMACT, the UPL argument was addressed by EPA. The use of CO as a surrogate was challenged. EPA has addressed that issue before and has responded on this as well. The use of subcategories was challenged, but this has upheld before. Gas co-fired biomass units were excluded from the floor. There is precedence for this. Industry has argued that the CO limit is arbitrary and should be a work practice standard. Industry has claimed that the energy assessment is beyond the scope of MACT and is illegal.

Industry has challenged the EPA position that malfunctions don't really exist (i.e. only startup and shutdown). There should be a work practice standard for malfunctions. Industry has challenged the

fact that EPA did not address the health based emission limits. Industry has also challenged the pollutant by pollutant standards for oil and stoker coal units.

On the Area Source rule, eNGOs argued that GACT standards must be "generally available" controls. This has to do with the EPA record. They also argued that the temporary boiler exemption is illegal. The MACT requirements state that EPA must identify 90% of the sources for HAP. The original list came out in 1990. The list has been modified over the years. These modifications have been challenged. Work practices for coal were challenged as not being consistent with the statute. The Title V exemption for synthetic minors was challenged as being illegal. Industry asserted that the energy assessment is beyond the scope of the law and that malfunctions must be accounted for in the standards.

In CISWI, EPA did not write rules for every type of unit (burn-off ovens). These units were only deferred due to lack of data. The eNGOs claimed that the rule treats modified CISWI units as existing CISWI units. The UPL arguments were also challenged. The 30 day averaging for units with CEMS was challenged as meaning lower standards. There is also a claim that EPA should have set beyond the floor standards.

Industry challenged that EPA did not include waste variability in the best performing small remote incinerators. Pollutant by pollutant standards for small remote incinerators was challenged. Emissions averaging should apply across CISWI units. EPA has authority to do work practice standards. Startup, shutdown, and malfunction periods should be accounted for in the standards. Industry challenged the requirement of record keeping for units burning non-waste materials to prove that they are not burning waste materials.

As a reminder, the definition of modification in the CISWI rule is different from the other rules. In CISWI, the definition is the cumulative cost of modifications over the life of the unit compared to the cost of a new unit corrected to present day costs.

For the NHSM rule (definition of wastes vs fuels), the supplemental rule is pending, which would allow treated wood and construction debris as fuels. EPA had claimed that they achieved the requirement to write standards for 90% of the HAP emissions. The eNGOs disagreed and sued to get a justification. The court required EPA to make an accounting subject to notice and comment. That should go final in May.

Gary Merritt of Inter-Power/AhlCon Partners, L.P. reported on the water rules and the coal ash update. Comments were submitted on the Waters of the US rule. If retained as is, nearly all locations of the country become waters of the US. The EPA has re-branded this rule as the "Clean Water Rule".

The effluent guidelines expansion segregates water treatment requirements for parts of the plant. The rule is to be finalized by Sept. 30, 2015. The 316(b) rule has been finalized for cooling water intake. A court challenge is underway. States issue the NPDES permits, but most states are simply referencing the rule. Storm water management has entered Phase II. This would allow municipalities to charge industries for storm water management.

On the coal ash rule, the final rule has come out under subtitle D (i.e. Non-hazardous). The rule has established additional criteria for ash impoundments and closures. However, EPA is deferring its final

decision on the Bevill Regulatory Determination (i.e. they could go back to try to overturn the Bevill Amendment). The rule applies to EGUs, but does not apply to manufacturing facilities, universities, and hospitals. The rule does not apply to beneficial use, subject to EPA's definition of beneficial use. The rule does not apply to mine placements. The un-encapsulated use of ash for non-roadway use must be under 12,400 tons. Fugitive dust must be managed. An internet site must be maintained by the facility to post reports.

Ash that goes to an approved sanitary landfill is not covered under the rule. Since the rule only applies to EGUs, if states adopt the rule, care must be taken to make sure that state does not include units that are not EGUs. The rule has not been published in the Federal Register yet, so the comment period has not started. Citizen's suits at the federal level are allowed for this rule. EPA claims that they cannot enforce the rule, but that states and citizen law suits would be the means to enforce the rule.

Liner requirements include a clay base plus a liner. A double membrane liner is not allowed. There are minimum design and operating requirements. Impoundments must prepare and post a hydrological plan that includes handling a 24 hours storm over the 25 year life of the impoundment. Groundwater monitoring is required. Post closure monitoring will require a minimum of 30 years of ground water monitoring. Landfills must complete closure within 6 months of final ash deposition.

This rule and the effluent guidelines are driving towards eliminating wet ash handling systems.

Next Technical Focus Group/Environmental & Energy Committee Meetings
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