



Technical Focus, Energy & Environmental Committee Meetings

June 2016
Crystal City Marriott
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MINUTES

TUES-WED, June 7-8, 2016

TECHNICAL FOCUS GROUP SESSION

Jason Philpott, Eastman Chemical Company, Technical Committee Chairman

Strategies and Technologies to Comply with Water Laws and Regulations Impacting Industrial Energy

Eric Hallman, Cargill Inc., organized a program on Strategies and Technologies to Comply with Water Laws and Regulations Impacting Industrial Energy.

Mark Gareth, Environmental Consulting & Technology, reported on lessons learned with rule 316(b). Mark noted that the states and the EPA regions are exhibiting somewhat different approaches to this rule as the experience evolves. The 316(b) existing facilities rule impacts point sources with a design intake capacity of 2 million gal/day. Facilities with actual use greater than 125 million gal/day are subject to additional rules. The rule is implemented under the NPDES Director as part of the NPDES permitting process. Submittals are tied to applications for permit renewals. The rule has been 44 years in the making.

The current round of rulemaking- goes back to 1993 when the EPA was sued for not issuing a rule. There have been a number of law suits over proposed rules. There was also an internal fight between EPA and the Fish and Wild Life Services. The approaches to Best Available Technology (BAT) comes from the discharge permit rules. Note that NPDES uses BAT, whereas 316(b) uses BTA (Best Technology Available) for the same concept. EPA has tried to push this approach to the intake side of the plant. Large utilities have had experience with water intake issues. Many industrials and small users are not even aware of the fact that they have requirements. Regardless of flow if more than 25% of the flow is used for cooling water only, the rule still applies. Although the flow is less than 2 million gal/day, the Director can still include a facility under Best Professional Judgement.

The schedule is drawn out and needs to be managed. Some of the required studies needed to assess the facility can take a year or more to conduct. For the larger sources, up to 4 years of work will likely be needed to get a permit. By 2018, the various regions must provide a definition of BAT. The rule and its preamble are very clear that entrainment BAT should be determined prior to the impingement BAT in order to avoid a double retrofit. The entrainment requirement is pushing towards cooling tower use. If a cooling tower is used, the impingement requirement would be met.

The impingement rules tend to be very prescriptive. There are also a lot of state rules regarding these practices that also need to be considered. For facilities with withdrawals greater than 125



million gal/day, there are a lot of studies required that will push the facility towards closed cycle cooling. Social costs and social benefits have to be included. The studies have to be subject to peer review. For those facilities less than 125 million gal/day, the Director may still require a facility to justify why it should not be required to go to closed cycle cooling. The same level of studies is not required, but the Director can still determine that a cooling tower is BAT.

For the smaller facilities, the impingement BAT will be the more difficult challenge. The applicant must document the endangered species that are in the area. The Director must share both the application and the draft permit with the Services (including DOE and the Army Corps of Engineers).

The Services have claimed a major role in their review of the rule. There is a law suit over this part of the rule. The process is playing out very differently in different states based on the nature of the species in the area and the approach of the individuals at the Services. This is a major wild card in the permit process. The studies for entrainment are relatively sophisticated, controversial, and ill defined. Two years of entrainment characterization data are required. Engineering, operation, and the social costs of retrofits need to be determined. Monetization of social benefits for each type of retrofit must be done. Few agencies have the expertise to do all of this.

EPA added a peer review requirement to get around the lack of expertise at the state agencies. Thus, the agencies are looking to EPA for guidance and sign off decisions. The agencies have been slow to make key decisions. The application materials should be clear and concise about the permit requirements and the justification for the proposed technology to be BAT. The rule requires permit review every 5 years. It is possible to request relief from this requirement, but the submittal has to be done 2.5 years before the permit renewal is required. Another consideration is rule 316(a), which covers thermal pollution. Plants should be careful not to trigger 316(a) when applying technology under 316(b).

Mark Gareth, Environmental Consulting & Technology, also reported on what the Clean Water Act does to industrials. The CWA regulates waste water discharges and the condition of the Waters of the US (WOTUS). For discharges, the NPDES rules are defined. Water quality standards are defined. Procedures for setting limitations are determined. Dredging and filling activities are covered under WOTUS. Authority rests with the Army Corps of Engineers.

EPA has oversight over the states in determining the water quality based effluent limitations (WQBELs). The states are very deliberately developing their own procedures. EPA has pushed for a "sufficiently sensitive methods" policy. This means that the detection level for the analysis method has to be sufficient to match the water quality limit (i.e. a 1 ppm detection level would be inappropriate to a 5 ppb standard). States are under triennial review for their programs. Whole effluent toxicity testing is being required.

EPA policy is to evaluate thermal discharges. The Fish and Wildlife Services now have more input to the draft permits. Technology based effluent limitations (TBELs) are being developed by EPA with the goal of eliminating pollutant loadings and driving technology. These limits are applied independently of the WQBELs for specific industry sectors and waste streams. The recent Effluent Limitation Guideline for Steam Electric Plants are example of an industry specific standard. These guidelines are aimed at plants firing coal. The prescribed guidelines eliminate some waste streams and control others to aggressive limitations. There is a prescribed timeline for these limits. At one power plant on a cooling reservoir, a river was impounded with the goal of dissipating waste heat.



The reservoir is a major recreational resource. The facility was permitted by EPA in 1980 based on a 316(a) variance from the thermal standard. The state now has NPDES authority and EPA wants an explanation of the basis for the thermal limitations. EPA claims the variance has lapsed because the state did not go out for public comment each time the permit was renewed. In another example, a small utility with a group of older coal fired plants became subject to several air and water rules simultaneously (the “regulatory train wreck”).

The ELGs are driving process change while air regulations are being changed complicating the evaluation process. For a proposed new facility, a very specific analysis was required for discharge at the proposed plant, which is jeopardizing the entire permit process. The Corps of Engineers has a “no net loss policy”. The Corps has jurisdiction under WOTUS. Thus the definition of WOTUS is critical to their jurisdiction. The discretionary power provides for conflicts during permit application (state, EPA, Corps, and Services).

The approach to site development basically requires an “avoid, minimize, and mitigate” approach. Real constraints should be considered early in the process. It is common to have the state and the Corps disagree on jurisdiction. Project rework is a real potential and impacts on timing and cost are very common. Dredging and filling turn out to be very common. Putting in an intake for cooling water requires dredging. This brings in the Corps.

The CWA is not generally the primary regulatory vehicle overseeing water withdrawals. EPA periodically considers developing “WQSS” for instream flow. Regulation has typically been by application of water rights. Many states have developed water allocation programs. These programs are often a significant limitation on facility development. There is another requirement called “7 Q 10” target set by the USGS. This is a low flow target that is set by determining the 7 day low flow level over a 10 year period. This target sets a limit on withdrawals so as to maintain flow during low flow periods.

Eric Hallman, Cargill Inc., pointed out that water is important not only to industrial facilities, but also to the communities where the plant is located. Water is getting more attention by the agencies, by the communities, and by the eNGOs. Given the variability in both the regulatory environment and the operating environment, water has the potential to be much more complicated and time consuming than the air problems that we have encountered in the past.

New York State came up with a tiered approach to 316(b) permitting. The larger plants were tackled first. The state shared their reports with the Corps of Engineers in working towards the permit approval. Their first permits have just been successfully issued. The largest ones were done first because there were fewer of them. In Michigan, one plant had an NPDES permit up for approval. The 316(b) requirements were included in the permit requirements. The flow was 11 million gal/day. A substantial engineering package was required for that permit renewal. In some cases, the permit application may have been delayed.

There is a permit shield policy which states that once a “complete” permit application has been submitted, the plant cannot be shut down for not having a permit. However, this could change in 2018, as there are more requirements on the permit agencies as well as the permit applicants. The state creates a “fact sheet” that summarizes the permit and the decisions made to get the permit. It is important to obtain a copy of the fact sheet (or its equivalent) and to comment or correct it, if



necessary. The fact sheet becomes a part of the permit. It is also important to understand the priorities that may be dictated to the state. Federal actions may have put pressure on the state to put priorities on certain industries. Your industry may not be included, making it more difficult to obtain your permit.

At another facility on a lake, the lake pH naturally rises in the summer time. It sometimes gets high enough that the discharge limit for cooling water is violated. (The pH of the water is not changed in once through cooling.) The state suggested adding acid to the cooling water. Relative to thermal issues, there is now someone in EPA HQ that is reviewing the large thermal discharges (>250 million gal/day). A mixing zone can be defined, but is determined by the flow and temperature of the receiving body and the discharge. At one plant, a cooling tower had planned to use river water for makeup. The cooling tower blowdown increases the concentration of what is in the input water. In this case, there was mercury in the river water, so the blowdown was over the limit. The plant had to go to a well and storage source of water in order to avoid the problem.

Water issues in the future will be more costly than the air issues that we have been used to dealing with. Testing alone can cost over half a million dollars.

Ann McIver, Citizens Thermal, shared a water balance diagram for her plant. The original balance was done for average conditions. However, standards generally need to look at worst conditions. Therefore, maximum flow conditions need to be considered.

There is a once through steam system that sends steam to customers. An extraction steam turbine generates some electricity before the steam flow. There is a water softening system that creates a sludge that is filtered. There is some water loss in the filter cake that goes to a farm field. The softened water is for the boiler input. Some 42 million gallons can come into the plant. The plant does not run at full flow. During low flow conditions, water is recirculated in the plant to maintain head on the pumps. Essentially all of the water has to be accounted for in order to demonstrate that the water was not being used for cooling water in order to get under the permit requirement level. In some permits, the level of detail in the water balance requested by the agency was increased, again to determine what the uses of the water actually were in the plant. Another point is that the mixing zone is given in rectangular coordinates. The actual plume is never rectangular. It is a good idea to keep the water balance at the plant up to date. Often times, the water balance is out of date. The actual discharge today may be much lower than what the plant was designed for years ago. It is preferable to get a temperature limit on the water discharge rather than a mixing environment from a model.

Jason Philpott, Eastman Chemical Company, noted that the topic for the September meeting has been selected (energy). We are looking for ideas for future meetings. One suggestion was on CEMS. There are several parts to CEMS systems that can be provide topics for a session. There might be some cross over between energy and water in terms of the energy requirements of the water system. Processing costs for water also need to be identified. Control upgrades and optimization provide another potential set of topics. Another possibility might be recently declassified technology that might be available from the government. Byproduct reuse might be another suggestion for a session. Real time optimization fits in with controls, optimization, and efficiency. Bringing this together with utility rate plans could be another presentation. Data mining/analytics is another technology that can be realized today with the cloud and modern computing. Corporate metrics for energy efficiency can be another topic for a workshop to share benchmarking ideas.



Boiler water treatment, water monitoring, condensate collection, and chemical cleaning. **Bob Bessette** suggested that we compile the list and have sent out to the technical committee to get additional suggestions and comments.

GOVERNMENT AFFAIRS SESSION

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

Anthony Reed noted that the Hill still has a few legislation items that are moving along. There is a bill on the floor on ozone that proposes to change the time frame from 5 years to 10 years for ozone NAAQS. Another bill recently passed on the Toxic Substances Control Act (TSCA). That being said, the respective national party conventions are coming up. Each party has its own delegate process. There are “super delegates” on both sides. For the Democrats, they are not bound. For the Republicans they are tied to state primaries. Although the delegate count is now such that Trump and Clinton have garnered enough votes, there may be some political backlash about the process. One of the concerns has been the shift in voter sentiment towards the extremes. The polarized electorate and the disappearing middle is making for an interesting election. Trump and Clinton are the most disliked candidates in the history of the country. Polls show that their dislikes are 10% greater than their likes. The map doesn't favor the Republicans. There are a lot of Republican states, but not a lot of electoral votes. Thus, a lot will depend upon who actually gets out and votes. The House will likely stay Republican. The Senate could be up for grabs. With the dislike for the presidential candidates, more party effort will likely be directed to the Senate.

Kevin Ewing, Bracewell LLP, gave the lunch time address. Climate issues manifest themselves in a number of ways. One of the potential problem areas is climate disclosure. Publicly traded companies are required to provide certain information to the public in their quarterly, annual, and 10-K reports. These are described in the legislation from the 30s. In the 80s and 90s public pressure started to build for social disclosure rather than just financial disclosure. By 2000, activist shareholders were becoming more of a problem at annual meetings and other public forums. In 2010, the SEC put out new guidance on such disclosure. Climate disclosure involves a number of actors including the SEC, staff, activist shareholders, academics (studies), state attorneys general, media, plaintiff's bar, Congress, and the Sustainability Accounting Standards Board (SASB). All of these entities are putting pressure on companies for more disclosure on the risks associated with climate change.

These entities used to be rather isolated. More recently, there has been more alignment and coordination between and amongst these groups. Regulation SK is the primary rule on disclosure. The original rules were a result of the 1929 stock market crash and were primarily concerned with the loss of money. A “concept release” has been issued by the SEC with comments due in July.

In a recent Court decision on a gun control issue, the SEC staff has issued a formal declaration that they will not abide by the Court order. This is highly unusual. Academic studies are being carried out trying to justify the importance of social issues. One such study looked at the relationship between disclosure on social issues and financial performance. Strong disclosure on material social issues did correlate reasonably well with good financial performance. Strong disclosure on weak social issues had no correlation. Strong disclosure on material issues and weak disclosure on weak social issues had the strongest relationship.



The Martin Act was passed in the early 1900s to combat hucksters swindling investors. It was declared constitutional back then for that purpose. The State of New York is trying to use the powers of the Martin Act to argue that companies that act in their financial self-interest on a social issue might, in turn, impede progress on that social issue should be guilty of fraud. Several companies are under investigation. The Sustainability Accounting Standards Board is trying to set up standards for disclosure on social issues, including climate change. This group has taken on increasing importance as the SEC is considering adopting the proposed standards being proposed by the SASB.

ENERGY SESSION

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

Brittany Pemberton, Bracewell LLC, gave the antitrust admonition. **Ann McIver, Citizens Thermal**, reviewed the make-up of the Board of Directors. **Bob Corbin, CIBO Member Consultant**, introduced the new member of **Environmental Consulting & Technologies (William (Bill) Campbell, III)**. **Frederick (Fred) P. Fendt, The Dow Chemical Company**, pointed out that the social pressures outlined in the lunch time address point out the need for our companies to explain and demonstrate the social benefits of our products and services. As such, Fred has proposed a "sustainability committee", although the name may need to be changed. Bob Bessette pointed out that for the Industrial Boiler MACT, CIBO was able to establish a link from the cost of Boiler MACT to the loss of jobs. This was done with publicly available data. As a result, we got a final rule that was much more reasonable than the original proposal. CIBO is one of the few organizations that can help put together a similar dialogue for sustainability.

Brittany Pemberton, Bracewell LLC, reported on the NAM sustainability discussion. Sustainable manufacturing includes life cycle evaluation and circular production of goods and services. There are trillions of dollars at risk. Retailers are demanding that suppliers report to green committees. A green reputation is becoming more important. Green regulations pose a risk for continued business. Young workers want to work for companies that embrace sustainability. The National Association of Manufacturers is taking the approach of putting forth a story that explains what we do and how it benefits the world.

The EPA only looks at one side of the story. By forcing their rules on manufacturers, they themselves are being unsustainable, in that jobs are lost as industries are shut down. The NAM has established a number of principles for sustainable manufacturing. The Dept. of Commerce has its own definition of sustainable manufacturing. The National Council of Manufacturing has worked this down further. Life cycle modeling looks at the entire process from extraction of raw materials to final disposition or recycling.

Another approach is a circular economy where everything is recycled or reused. There is a potential nexus of energy and water for energy use. The goal is to try to assure that there is a sufficient and reliable supply of water. Another goal would be to find out how to minimize the amount of water used for energy and energy used for water. The current energy bill (S. 2012) is in conference. Election year politics have entered into the picture as the House had some provisions that the president has threatened to veto. There are some provisions to incentivize combined heat and power (cogeneration).



Bob Bessette, CIBO, suggested that we go around the room with ideas for sustainability. The first suggestion was that the financial aspects have to be sustainable. The next one pointed out that jobs should be included. Resources need to be considered. A process that is repeatable and continual. Cost justifiable is a key point. One negative comment was that CIBO can't really define sustainability. Energy efficiency is important. While we may not be able to define sustainability, we can contribute to sustainability. The 3 legged stool model was mentioned (energy, economics, and environment). Energy efficiency and economics are important. You can't make anything without energy or money, for that matter. The economy part of the 3 legged stool needs more emphasis. The foot print idea could be a basis for recognizing the value of energy and resources. Economic impact and regulatory impact need to be considered. Being able to maintain the resources that we use is important.

Regulations are getting carried away on small items. The bigger picture needs to be considered and needs to be reasonable. Customer perception determines what is sustainable. Sustainability from one source is the ability to keep operating. The NAM definition can be used. CIBO can play a role in helping our members deal with sustainability issues by supporting the dialogue. CIBO could be a resource for our members become more sustainable. A balance between nature and industry is important. Protecting our future and the future of our families. It's hard to be against energy efficiency. However, it's been 20 years since we issued the energy efficiency guidelines.

Using fossil fuels is, by its nature, not sustainable. CIBO should stick to its main goals. People like the products we make. We need to sustain our operations in order to make our products. Sustainability is a buzz word. Sustainability is achieved through good products, environmentally friendly, and economically achievable. Sustainability is a process that can be repeated infinitely. Thus, the universe is not sustainable. After that we need to get back to telling our story favorably. Our products are sold around the world and need to be continued. We need to balance between utilization of resources and environmental issues. One of the parts of the three legged stool is that the regulation is forced upon us, whereas the energy and the economy try to exist in a free market. **CIBO** will try to put this material together for the Annual Meeting. The Theme will be, "Navigating the Road to a Sustainable Future".

Tom Wenning, DOE ORNL, reported on DOE's energy tools. Nearly all of the efforts in DOE's Assistance programs and energy systems software is aimed at DOE's Advanced Manufacturing program. The Better Buildings, Better Plants program is a voluntary initiative aimed at improving energy efficiency. There are two levels of membership. There are currently there are 180 companies in the program. A number of our companies are part of the program. The program offers national recognition, in plant training, networking opportunities, access to experts, and priority access to DOE energy efficiency resources, including industrial assessment centers, CHP deployment, Superior Energy Performance, and ISO 50001.

Current DOE tools include software, tip sheets, fact sheets, and standards. There are tools for steam systems, fans, pumps, and compressors. There are also tools for base lining standards and help towards getting to ISO 50001. This information is available on the DOE web site. There is an energy foot print document that shows the energy flows in the US. The Energy Performance Impact tool allows for facility reporting and tracking. There is a guide for ISO 50001 compliance. The steam systems scoping tool can calculate steam systems. There is a modeler tool that is online only. The process heater tool PHAST can work with process heaters. There is an energy use tool that diagrams the energy use in the plant. There pump and fan calculation spread sheets. Motor Master is a database type tool for motors.



One of the issues with these programs is that some of the tools are older and they may not work on the newer Windows operating systems. These tools are in the process of being revamped to make them more reliable. Pumps, fans, compressor, process heaters, and steam will be done. A core calculation Engine will be developed so that these programs can be run on one system. A common platform would allow for automatic updates. The end goal is to create open source software. The MIT license allows use provided there is attribution. This effort is expected to take 3 years. Going forward, there will be awareness and user training, in plant training, and certified practitioner. The DOE would like to get industry feedback and involvement with the tools development.

ENVIRONMENTAL COMMITTEE SESSION

Chuck Hallier, Cargill Inc., Environmental Committee Chairman

Robert (Rob) Kaufmann, Koch Companies Public Sector, LLC, Environmental Committee, Vice-Chairman

Mark Dreux, Arent Fox LLP, reported on the Risk Management Program Development being put forward by EPA and OSHA. OSHA and EPA have set in motion changes to these rules. EPA has put forth some proposed changes to the RMP rule.

They considered 19 different areas and reduced that down to 6 proposed changes. There are also 3 other changes that will impact us. The 3rd party compliance audit. If there is an incident that results in a hospitalization or worse, this triggers a 3rd party audit. An independent auditor make sense. However, EPA is requiring the need for a PE on the team. The definition of independent means that the auditor only does audits. Other consulting 3 years before and after is not allowed. The auditor has to write a summary of the owner's comments. There is also a need for a summary of changes made to any draft of the audit report. The auditor has to submit a certification that the auditor was completely independent and that everything is accurate.

All of this has to be done in 12 months. The findings response report must be sent to the owner. The owner has 90 days to respond. A copy of the report has to be sent to EPA. Copies of all drafts and originals have to be kept for 5 years. An incident report is required for an accident release that is not a catastrophic release. An incident report has to find a root cause analysis. The way the rule is written is that the cause is to be blamed on management. A "near miss" has to be reported. The definition still has to be agreed upon. For 3 industries (pulp and paper, petroleum, and chemical), a hazardous analysis has to be done (but not necessarily implemented). The stated goal is towards inherently safer technology. Risk reduction is the intended result.

Some of the language is vague, which makes it difficult to comply with. Emergency response is broken down into responding and non-responding facilities. Responding facilities handle emergency response on their own. A full drill is required every 5 years. Local coordination is required. The other 4 years require a table top drill. Sharing of information requires chemical information, investigation reports, and other materials to be made available. Certain information has be made available to the public. For a catastrophic incident, more information is to be reported and public meeting has to be held within 30 days. EPA is proposing that each covered process has to be audited every 3 years. Emergency response provisions are likely to be included.



EPA has also proposed to change the term employee to include supervisors that have operational responsibility. This will add an additional layer of training and certification for supervisory staff. Corporate officers have to certify all of the reports. There is no attorney client privilege. Many of the requirements are duplicated by OSHA.

Gary Merritt, Inter-Pwer/AhlCon partners, L.P., reported on the proposed changes to the RCRA rules. There is an ongoing case by USWAG against EPA on the rule. EPA has submitted a motion to redefine a CCR disposal site. If the site does not meet the criteria, the site can be classified as an open dump. EPA is seeking to revamp with some provisions, vacatur of some parts, and remand of some parts. The vacatur has to do with a height restriction on a vegetation requirement. They want to remand Appendix IV. They forgot boron on their list and have to remand that section to get boron put back in. Concerns continue to be applicability, impact on non-EGUs, the potential open dump determination, the loss of an exemption, and the impact of addressing the boron.

On the water side. EPA has proposed changes to the NPDES program. EPA wants to clarify processing requirements, fact sheet requirements, public notices, timely permit issuing, documentation, and certification requirements. There are a lot of proposed changes for a minor revision (over 100 pages). Storm water management is going to become another major issue. Cities and municipalities are creating storm water districts, which will likely generate fees for managing the storm water.

Scott Darling, Alcoa, Inc., gave an update on the Midwest Ozone Group (MOG) activities. CIBO is collaborating with MOG with regard to the 2015 ozone NAAQS. The MOG goal is to do some comprehensive modeling that encompasses all of the various rule impacts, including motor vehicles, in order to provide data to the EPA and the Northeastern states on ozone. There is a Transport Rule being proposed that is expected in the fall.

The first steps are to identify the problem areas and the significant contributors. One of the problems is that EPA is basing a lot of their concerns on maintenance areas. The approach has been to look back at some attainment areas that were in non-attainment before so as to get more baseline emissions. They are also using the 2011 inventory, which does not take into account reductions that have occurred since then. The 2014 inventory would show significant reductions equivalent to what EPA is proposing. The majority of the problem is the I-95 corridor, which is mostly motor vehicle emissions. The EPA and the Northeastern states are claiming that the problem is mostly power plants in the mid-West.

Rohit Sharma, Lyondell Chemicals, noted that there was a workshop in the Southwest. There are "significant events" (wildfires, storms, etc.) that can cause an increase in ozone. These events can be submitted to EPA to get approval that emissions were not the cause of an exceedance. EPA has been reluctant to approve such submittals, sometimes taking 8 - 10 years to approve. Many of the incidents are located on the west coast. This is particularly true for international emissions (ie transport from China). There were a lot of people that had similar criticisms of EPA. EPA needs to address these issues, but will not likely move on their own. They will need to be pressured by the states, industry, and others.

Bob Bessette, CIBO, reported on the situation with the Ozone Transport Commission (OTC). The OTC knows that they have a problem with motor vehicle emissions for the I-95 corridor. Replacement catalytic converters are expensive. Politically, this is a difficult situation. Thus, the



need to have scientific data to show that the contribution from ICI boilers is minimal gets to be more critical.

Amy Marshall, AECOM, reported on the NOx Emissions updates to the ICI boiler modeling inventory. The goal was to identify the proper inventory of units to be used in the modeling efforts. In the Boiler MACT database, there were 1742 units that were projected to have limits. Of these, 462 units were larger than 250 MMBTU/hr. Data was collected on 391 units, of which 194 were larger than 250 MMBTU/hr. Of these 15% of the units were shut down. A substantial number were converted to gas. Looking at the larger units, some 78% were found in the EPA NEI data that were used for CSAPR modeling. If the unit or facility was shutdown, the emissions were changed to zero. For units that switched to gas, the emission rate was adjusted downward using EPA emission factors. As a result, the emissions were reduced by 80% for the ICI units.

Amy Marshall, AECOM, also reported on the Boiler and CISWI rules. The BMACT rule went final last November. The compliance date was Jan. 31, 2016. Units have 180 days to demonstrate compliance. The plant has 60 days to submit the Notice of Compliance (NOCS). Performance testing is usually required. The operating limits are supposed to take into account the worst conditions. Check the requirements to make sure that all of the procedures are done correctly. The NOCS is due 60 days after the compliance test, not 60 days after the compliance date.

For monitoring, it is important to include whether the averaging is done on a 720 hour basis or a 30 day basis. Continuous monitoring systems need performance evaluations. Also, include whether O2 trim or O2 CMS is being used. Startup issues have included the startup time and ESP startup. Record keeping and reporting requirements are very complex. There is a lot of information required plus the new method of reporting online.

The CEDRI system has a lot of bugs, causing problems with the submittals. The test is supposed to be run at full load. However, often times, summer loads are much lower. Putting off the test until summer time can cause operating restrictions later on, since the performance test sets the operating limit for the unit. There are also potential conflicts between the requirements of the BACT test and the existing permit limits for other species (ie the worst fuel requirement).

Compliance data goes into CEDRI (Compliance and Emissions Data Reporting Interface). This data will likely be reviewed by the regulating authority. In addition, it will likely go to the Webfire database and become accessible by the public.

For Boiler GACT, the compliance date was March 2014. There are some issues that EPA was working on that are still to be finalized. For CISWI, there is a reconsideration on 4 issues. These include the definition of CEMS data during startup and shutdown.

The CISWI rule does not allow work practices for compliance during startup and shutdown. This causes some problems because the CEMS data still gets included in the overall averages. A revision is now expected that will take 24 hours on startup and 24 hours on shut down out of the averaging requirement. The startup definitions are being revised to be similar to the Boiler MACT. More data has become available for the PM limit on kilns. The fuel variability factors for coal has been recalculated. The definition of a kiln is now consisted with the Portland Cement MACT. Some corrections for various reference errors and typos have been issued.



Lisa Jaeger, Bracewell LLP, reviewed the litigation and reconsideration for BMACT. There is nothing new to report on these particular cases since March. The NHSM case is over. The only outstanding issue is other treated wood, which is still due from EPA. In the BMACT rule, the reconsideration rule is still in litigation. The EPA has still not reissued on the UPL. EPA is likely waiting for a court ruling on the overall issue before revising its approach. The Area Source rule had no changes. The CISWI rule had its reconsideration issued on June 2. A review of that material will be prepared. Oral arguments were held on March 12. A decision is pending. There are 9 industry petition issues and 11 environmental petition issues. On the reconsideration, the Sierra Club has sued EPA (with others). There are 7 issues, of which CO limits, work practice standards, and startup/shut down emissions are key. The SSM cases are still being briefed. The affirmative defense issue is still in consideration.

On Utility MATS, the Supreme Court sent the rule back to consider cost. EPA issued an appropriate and necessary finding. The DC remanded the rule to EPA without vacatur. The State of Michigan has sought Supreme Court review of this decision.

On the GHG standards for utilities, the EPA denied 5 petitions for reconsideration and upheld 1 petition (biogenic carbon). The rule was petitioned to the DC Circuit and denied. The Supreme Court stayed the rule and further held that the stay would be in effect through any further cases brought up to the Supreme Court on the issue. The North Dakota case is in abeyance.

The ozone standard has been challenged and is in briefing. The 2008 standard implementation has been challenged by the environmental groups. This case is also in briefing. A key issue is the consideration of what counts for "reasonable progress". In the past, upwind contributions could be allowed for reasonable progress. In the 2008 rule, the upwind contributions were removed. Six states have filed a notice of intent to file suit against EPA over putting more states in the ozone transport region. The Environmental Integrity Project has filed a petition to list ammonia as a criteria pollutant. EPA has not acted on this. The group filed suit (with others) against EPA for unreasonable delay.

The 316(b) rule is being briefed. The environmentalist claim that the rule is late and incorrect. Industry issues include applicability threshold too low, lack of authority, and the roles for the USFWS and NMFS, data collection below 125 million gal/day, and "new units" at existing facilities are unlawful. Waters of the US (WOTUS) is being contested everywhere in the US. There are jurisdictional issues (District Court vs Circuit Court). In the meantime, the Supreme Court stayed the rule. In a separate decision, the Supreme Court held that a wetlands determination by the Army Corps of Engineers is appealable as a final determination. The EGU ELG case is now moving.

The coal ash rule will finish briefing this month. EPA has moved for voluntary remand in April. The Court has ordered a suspension of briefing, but has yet to grant the EPA petition. Issues include the open dump prohibition, no notice and comment on several points, the 12,400 ton conditions for beneficial use, the 2 year closure requirement, and inactive sites. The EPA motion seeks remand with vacatur on the 6" vegetation restriction and the exemption for inactive surface impoundments. The motions seeks remand without vacatur on adding boron to the list, clarification on non-groundwater release, and other deficiencies.