



May 10, 2022

Virtual Environmental Minutes

Environmental Committee Chairman

Robert (Bob) Morrow, Detroit Stoker Company

Introduction – **Alex Stoddard, CIBO**

Alex opened the meeting with introductions of those who were online. The Boiler Operations & Maintenance Conference will be held virtually towards the end of June. The Industrial Emissions Conference will be held live and in person at the Hilton Garden Inn in Crystal City, VA on August 2-3. Today's agenda includes a number of updates on air regulations. Tomorrow, the Energy Committee will meet online at the same time. Alex introduced **Bob Morrow, Detroit Stoker Company, Chair of the Environmental Committee**. Bob gave the antitrust statement for the meeting.

EPA Air & Water Regulations – **Nichole DiStefano, Mehlman Castagnetti**

This administration has made climate and energy a priority. In addition, disadvantaged communities are to be considered in all activities of all of the agencies. GHG reduction targets have been proposed as well as other initiatives. The “Build Back Better” bill is pretty much dead. So is the reconciliation bill. Thus, the administration is using the regulatory approach at the agencies to address prior administration and the Environmental Justice concerns. Additional regulations come with increased costs. These increased costs impact the poorer communities in a more significant way. With inflation raging, these additional costs can work against emissions concerns. All categories of emissions are being pursued. Some 40 new rules have been proposed, of which 22 are new policies. The agencies are challenged by the perceived lack of progress from the prior administration. However, additional costs become a problem. There is some recognition that the agencies have to work with industry to figure out how to address these concerns

EPA Air Update, Ozone Transport – **Ann McIver, Citizens Thermal**

.Lisa Jaeger, Bracewell LLP, noted that comments on the proposed rule are now due June 21. Lisa introduced **Ann McIver, Citizens Thermal**, as the next speaker. The 2015 ozone ambient standards are now coming to the point of having the non-attainment areas identified as of April 30th. Good neighbor SIPs were due in 2018. States made required submissions. These were reviewed for completeness. However, SIP approvals or disapprovals have been lacking. There have been some law suits against EPA pushing for decisions on these SIPs. EPA then proposed to issue a FIP to buy more

time. EPA then issued disapprovals for 19 states. EPA indicated that many states did not go into enough detail in identifying potential sources of emissions reductions. EPA proposed a “Good Neighbor Plan” on February 28, 2022. Comments are due by June 21. The proposed rule applies a 4 step transport framework. The first step is to identify downwind receptors that are expected to have problems meeting the NAAQS. Then upwind states are identified that can be linked to the problematic downwind states. Wind patterns in all directions are considered. That analysis identified 27 states that could contribute to downwind states using the 0.7 ppb significance criteria. For some states, non-EGU sources will be included. The proposed rule includes 5 source categories. The last step is to identify potential sources for control. Sources that emitted more than 100 tons/yr were included. The cost level was \$7500/ton in 2016 dollars. Pipeline transportation, cement and concrete, iron and steel, and glass making industries were also included. Boilers over 100 MMBTU/hr were evaluated to have the potential to emit over 100 tons/yr. These units are not included in trading programs with EGUs. Unit specific emissions limits will be imposed in May 2026 for NOx emissions for effected units. NOx CEMs will be required unless the unit is less than 70% of the imposed emissions limit. Units that are subject to Part 75 can continue under that requirement without additional modifications. Other units follow Part 60. Electronic reporting of compliance data will be through CEDRI. EPA is seeking comment on a number of issues associated with non-EGU units. There are 3 pages of topics where EPA is requesting comments. All costs are in 2016 dollars and do not include monitoring, record keeping, reporting or testing costs. When corrected to current dollars, the \$7500/ton is more like \$9500/ton. CIBO has commented in the past on CEMS, monitoring, testing, cost effectiveness, timing, and the use of a “one size fits all” approach to boiler emissions.

Lisa Jaeger, Bracewell LLP, noted that CIBO is a member of several coalitions that are preparing comments. CIBO typically has additional commits above and beyond these groups as there are a lot of technical issues to be considered. There are some legal issues as well. A note with the outline of these issues will be sent out to the membership asking for input on these issues.

EPA Update, Boiler MACT – **Tim Hunt, AF&PA**

Tim noted that we have been working on Boiler MACT for what seems like forever. CIBO and AF&PA have been working together on getting reasonableness into the MACT rules. Rulemaking began in 1996. The final rule was at least reasonable and achievable. Billions of dollars have been spent to add controls or switch units to come into compliance. The most recent proposal stems from a Court ordered remand to better explain the CO limit setting and the MACT floor setting. A rule was proposed in 2020. Comments were submitted. A revised rule was sent to OMB in March. Industry has pointed out the need for completing this rule. The rule making should be focused only on the remanded issues. EPA has stated that CO is a good surrogate for non-dioxin organic HAP. It has been a good indicator of good combustion conditions. It has been used since the 1980s. Both the chemistry and the data support this conclusion. The 130 ppm level was supported by data. Precedents support the use. Measurement error and unreliability at lower levels also support the number. It is expected that this level will hold up. The new source limit for HCl in solid fuel boilers was based on a unit that was inconsistent with the proposed rule. A second unit was selected, but its level was below the repeatable detection limit. A third unit has been proposed by AF&PA which will give a somewhat better limit. The PM limit for FBC units was a problem. AF&PA proposed another unit that gave a better results. The definition of “new source” needs to be addressed, as the units that were built after 2016, but before the proposed rule should not be considered as new units.

EPA Title V Permitting Issues/HAPs compliance – **Corey Sugerik, EPA**

Fundamentally very little is changing relative to Title V permitting according to Corey. The process is staying the same. The new HAP (1-bromopropane) would have to be included where applicable. Some states and tribal authorities will need to include this in their potential to emit analysis. As always, check with your state and local permit authorities for any particular requirements.

For this HAP, emissions come mostly from solvent degreasing operations. At the present time, no other new HAP are being discussed. The actual process for adding a new HAP is under review based on the experience with this new HAP since the beginning.

Update on SEC and \Climate Risk Rules – **Wendy Merz, Trinity Consultants, Inc.**

The SEC issued a proposed rule concerning GHG reporting requirements. The SEC has had guidance in place since 2010. That guidance pointed out that regulations, both in the US and internationally, could impact company finances and be considered material. With the advent of ESG investor advocacy, particularly major investment funds, there have been more demands for mandatory climate related financial disclosure. In Sept. 2021, the SEC began to issue letters to companies asking for more information on topics such as transition risk and other climate regulation risks. The drive is for standardization that will allow companies to be compared relative to climate risk. A rule was proposed in March of this year. Comments are expected by May 20. Requirements are based on existing ESG standards from existing climate organizations (TCFD). Climate related risks need to be identified and any management processes for addressing those risks need to be disclosed, along with any potential costs. Transition risks to a low carbon economy also need to be identified. Opportunities can also be identified, although this is optional under the SEC proposal. Strategies for addressing the risk should be reported. Scope 1 and Scope 2 emissions need to be reported. Scope 3 emissions are optional. Transition risks would include the potential impact of a carbon tax or a cap and trade system, should one of those be enacted. Changing market behaviors also need to be addressed. Company reputation may be impacted. Actual physical risks also need to be addressed. These would include water availability, wild fires, supply chain issues, etc. If the company uses an internal cost of carbon, the pricing development must be reported. If the company uses scenario analysis to assess risks, the process and results need to be reported. If the company has a transition plan, the progress in achieving that plan must be reported. The temperature increase scenarios (i.e. 1.5 C, 3 C, 5.5 C temperature increases) should include the potential impacts on the company under such situations. Scope 3 emissions are not required, but should be reported if they are material to the company. Each GHG should be reported separately, as well as in the aggregate. Large, accelerated filers must obtain independent 3rd party verification of their GHG emissions. Scope 1 emissions are direct emissions. Scope 2 emissions are indirect emissions from the use of fuels, electricity, etc. Scope 3 emissions are essentially emissions that are out of the company's control. These would include use of their products, supply chain emissions, and similar activities. The question becomes when Scope 3 is material. One criteria is when Scope 3 is 40% of the total GHG emissions. There are other more subjective criteria such as stakeholder considerations of material, outsourced activities, and sector specific guidance in similar companies. There are already a number of industries that have been identified where Scope 3 reporting is required. There is a phase in schedule for Scope 3 reporting starting next year. The time frame assumes that the rule is in place by the end of the year.

May 11, 2022

Virtual Energy Minutes

Energy/Sustainability Committee Chairman
Robin Mills Ridgway, Purdue University

Introductions – **Alex Stoddard, CIBO**

Alex opened the meeting with a review of the agenda. We will be covering the natural gas and electricity markets as well as the social cost of carbon. **Robin Ridgway, Purdue University**, is chair of the committee and will moderate the meeting. The BOMP Conference will be held online during the June 21, 22, 23, 28 & 29. The IEC will be held in person at the Hilton Garden Inn in Crystal City, VA on August 2 and 3. Robin provided the antitrust statement.

Policy Resolution – **Frank Maisano, Bracewell LLP**

Frank noted that the House of Representatives is split fairly evenly and the Senate is also evenly divided. That makes it difficult to get anything really done. The US President is being pressured by inflation. This has led to the amplification of the “blame game”. Cherry picked facts and slogans are being used to paper over the failures of the current administration, relative to energy. This administration has been so focused on climate change issues that they do not understand the energy reality on the ground. While the Covid Pandemic has been many things, it was an economic impediment. As the economy recovered, the administration realized that they could take credit for the economic recovery that took place. In spite of some of the inflation warnings, additional spending bills were proposed. The oil companies lost \$80 billion in 2020. There was no hue and cry to help them at the time. With the recovery, the oil companies earned \$16 billion in 2021. These are now being criticized as price gouging. Now, there are shortages of everything, including workers. This makes it much more difficult to increase oil and gas production, even with \$100/bbl oil. The Russian invasion of Ukraine has made the situation even worse. The summer driving season is coming up and people are looking to get out of the house after 2.5 years of Covid restrictions. Even the solar industry is struggling with the advent of new rules under NEPA. LNG exports will need more terminals that will need permits and approvals that are getting more and more difficult to obtain. The climate activists are using every possible tool to attempt to restrict approvals. LNG exports are not driving up the price of gas in the US. Pipelines are needed to move gas from Pennsylvania to New England. The state of New York needs to get out of the way. Hydrogen can be used. There are a number of smaller projects underway. It should be used where it makes sense. Participation in DOE's hydrogen hubs might be a good approach to get started on this fuel. Critical minerals are a sleeper issue that needs more attention. Renewable energy needs substantial amounts of critical minerals. China has been aggressive on locking up resources of these minerals and can be a much more difficult supplier. When Russia invaded Ukraine, the nickel market had to shut down for a week to stabilize the markets. Deep sea mineral collection could be one potential source for these materials. Small nuclear looks like it could also be a contributor to the energy picture.

DOE Update, Natural Gas Markets – **Corrina Ricker, US DOE Energy Information Administration**

Natural gas prices will increase in 2022 and decrease in 2023 as production increases. Consumption will increase in spite of the higher prices. Net exports will increase. The current average Henry Hub

price for May is \$7.70/MMBTU. The average for 2022 is anticipated to be over \$7/MMBTU. The price is expected to decrease to \$4.74/MMBTU in 2023. Stocks are currently below the 5 year average. Cooler temperatures this past winter started to drive up prices before the Russian invasion. Demand has increased across all sectors, but was particularly high in the residential sector followed by the electric sector. Coal shortages have also played a role, as several mines have closed and coal stocks are below average. Working natural gas inventories remain below the 5 year average until 2023. Average temperatures tend to drive the short term forecast. Colder winters and/or hotter summers drive demand for natural gas. Longer term forecasts tend to be driven by production. Typically, a base case, as well as a high and low case, are carried out. In the low production scenario, gas prices increased significantly.

DOE Update, Natural Gas Upstream – **Naser Ameen, US DOE Energy Information Administration**

Natural gas production has been rising over the last decade. Production increased by 2.5 bcf/day. Higher prices will tend to drive increased production. Production is forecast to increase even more over the next 2 years. There are some additional factors that could impede increased production including labor shortages, sand shortages, gathering and pipeline shortage, and other higher input costs. Production zones included Haynesville, Permian, and Appalachian regions. Appalachian gas tends to be more landlocked and dependent up gathering and pipeline constraints. Gas is often produced in combination with oil. Right now, oil rigs are still below the levels seen in 2014 before the price of oil collapsed. Additional gas rigs are expected, particularly in the Appalachian region. Gas production is in expected to increase to 107 bcf/day. The impact of the pandemic caused a lot of workers to leave the industry. Input costs are increasing. There are supply chain issues in terms of obtaining equipment, particularly steel for well rigs. Capital restraints can limit the amount of investments in new wells. Pipeline constraints limit moving the gas to markets. Getting approvals for pipelines is getting more and more difficult. Price volatility also impacts investment decisions.

DOE Update, Electricity Market – **Lori Aniti, US DOE Energy Information Administration**

Electricity consumption decreased in 2020 with the pandemic. Average annual electric growth is forecast to be less than 1% annually. Coal generation continues to decline. Gas generation picks up and then levels off. Renewables continue to increase. Renewables are projected to double by 2050. If renewable run into cost issues, natural gas continues to grow, even out to 2050. Renewables are not anticipated to penetrate the industrial sector significantly. The EIA is putting together hydrogen models. Lori asked for comment on the use of hydrogen in industry. In response, it was noted that infrastructure was lacking for industrial use. Solar is expected to make a significant contribution during the day. In the northeast and PJM, solar makes much less of contribution. Natural gas will be needed to meet electric demand. Price forecasts for commercial and industrial markets are around 11 cents/Kwhr and 7 cents/Kwhr respectively. Regional prices vary considerably. New England has the highest prices. Long term prices seem to be relatively flat.

Natural Gas Regulatory Concerns – **Paul Cicio, Industrial Energy Consumers of America**

As manufacturers, we are transitioning from an era of low cost energy to higher cost energy. Transmission costs have increased significantly while electric consumption has remained flat. A Transmission Competition Advocacy coalition has been formed to promote competition for transmission projects. Currently, only 3% of such projects are competitively bid. FERC order 1000 was supposed to promote competition, but has been side stepped. FERC issued a new order on April 21 that actually steps backward. Comments are due on July 18 and reply comments are due August 17.

A public relations campaign is being organized to show that such competition is anti-inflationary. Chairman Glick is up for renomination. The group is contacting all Senators to show the increase in cost of transmission in their states. The Senate Energy Committee has to approve the nomination. The other big issue is gas prices and LNG exports. The concern is that substantial volumes of exports will eventually create a global price for gas as opposed to a US price. China has been picking up contracts for LNG. Net production is gas available for consumer use. Current exports take up 27% of net supply. Agreements are in place that could take that figure up to 77% of net supply. EIA projects 3.2 bcf/day increase in supply. Additional exports are projected to take up 2.4 bcf/day. As an example, exports in Australia led to tighter supply and demand conditions. The price of gas went up to reflect pricing in Southeast Asia. As we are approaching tight supplies in the US (for various reasons), the price level will increase to reflect additional demand. Natural gas storage is currently 16% below the 5 year average. Pipeline capacity additions have been decreasing. That means that there is not enough pipeline capacity to move additional gas even if it was produced. Manufacturers are not able to get long term contracts for gas, while exporters have been able to get such contracts in order to obtain commitments from international buyers. Natural gas producers are not investing as much in production for a variety of reasons. A request has been made for a conference at the FERC to discuss this issue. Of course, our commitment to our NATO allies cannot be questioned. DOE has the theoretical capability to monitor storage levels and restrain the amount of exports to bring the levels back to the appropriate 5 year level. Natural gas and electric market reliability and costs are at stake. LNG buyers are often government controlled entities, which provides these buyers with more purchasing power.

Social Cost of Carbon – Charles Franklin, American Chemistry Council

A major consideration is what it will take to maintain a strong economy, particularly with the use of natural gas. Carbon and climate will permeate government decision making going forward. The social cost of carbon is intended to be used to provide a monetary figure to address the potential future costs of climate impacts. It is being used by government agencies to justify various policies and regulations. It is not a new issue, but now is being used to generate gross benefits for climate policies. There are a number of different models and approaches for coming up with a number. Valuation and discount rates have a big impact on the number. The current discount rate is 3%. The administration started with \$51/ton in 2020 with \$5 - \$10/yr increases going forward. Climate and EJ policy is impacting every government agency. Every review and approval process that involves the government is being used to push these policy positions. Everything from government funding to product reviews and approvals are being impacted. Project siting, permitting, and approvals have a major impact on manufacturing. There have been lawsuits challenging the use of social cost of carbon that will probably go all the way to the Supreme Court. While ACC supports the consideration of carbon impacts as part of regulatory cost/benefit analysis. However, the interim guidance does not really promote good policy decisions. The ACC is pushing for federal engagement with industry. A “one size fits all” policy does not provide a recipe for good decision making.