**CIBO BOMP/IEC Conference Sessions**

**July 14, 2020**

**“Shirtsleeve Sessions”**

 **Introduction**

 **Gary Merritt, NSG/IPAC, Conference Co-Chair**

**Gary Merritt** opened the session, pointing out that this is the first time we are managing this session on a virtual basis. This session is focused on owner issues. The supplier session will be held this afternoon. **Bob Bessette** of CIBO gave the antitrust admonition. Session notes will be taken without attribution. Rob Mead of Ingredion Incorporated will be the moderator.

 **Owners’ Only Session –**

Moderator: **Rob Mead**, Ingredion Incorporated

Attendees were identified. The basic question to be addressed was, “What keeps you up at night?” Other questions to be considered were: What are your short term and long term energy concerns? What would you like to get out of this year’s conference? Do you have any energy and environmental projects planned this year? And, do you have any questions for the Suppliers?

**What keeps you up at night?**

One concern was the Central Atlantic Pipeline. While the Supreme Court allowed the pipeline to run through the mountain ranges and parks, the two principals, Duke and Dominion, decided not to go ahead with it due to increasing cost considerations. Several owners noted that their plants were dependent on gas. Some have coal backup, but there has been substantial pressure to avoid using coal.

There is also pressure to get off fossil fuels, including natural gas. Renewables can only do so much. Some plants can burn biomass. However, large plants that need both thermal and electrical energy would have a difficult time with the variability of renewable energy. A back up for gas delivery was suggested as a prudent approach (ie LNG, compressed gas, etc.).

One new concern was the possibility of a new class of particulate standards for ultrafine particulates, perhaps a PM 1 standard. There is nothing concrete at the moment, but fine particulates garner attention as being the ones that actually get into the lungs.

Some owners still have CFBs that can burn a variety of fuels (coal, oil, gas, others). There is pressure to go to all gas. There are some conversion issues. Decisions have to be made about load level and retention of capability to use back up fuels.

One owner had some issues with variable speed drives on their gas fired boilers. Capital projects are getting more and more expensive. Many plants have already harvested the “low hanging fruit”. That leaves the more expensive projects to be pursued.

With the pressure on compliance, instrumentation and controls take on additional importance. Pushing the envelope on firing systems creates the need for very high reliability on instruments and control systems. Longer term, the sustainability goals will be difficult to achieve at existing plants.

Another concern is the November elections. Changes, both locally and nationally, can have a major impact on an existing plant. In some locations, renewable natural gas (derived from biomass for example) might be mandated. Permitting continues to be a significant time consuming issues.

**What are your short term and Long term energy concerns?**

Short term concerns include gas supply and coal supply. Bankruptcies in the coal and shale gas industries are impacting supply chains. Longer term, the question becomes what is the next fuel after natural gas. Another concern is that off sets from converting from coal to gas will expire in around 5 years. That implies that gas fired boilers could trigger the need for air monitoring and additional controls (SCRs, wet ESPs, oxidation catalysts, etc.). An Army base that installed new gas fired boilers had to install all of this equipment. The recent proposed rule on cost/benefit analysis by EPA was highlighted as one of significant importance for future regulations.

**What would you like to get out of this year’s conference?**

The general sense of the group was that “learning” was the key benefit for these conferences. This includes learning about what others are doing and experiencing, learning about what others are seeing in the future, and learning about the effectiveness of these virtual meetings. Several attendees noted that learning about the operations side if they were environmental oriented or learning about the environmental side if they were operations oriented.

**Do you have any energy and environmental projects planned this year?**

Member projects for the next year or two include permit applications, new PEMs systems, new DSI installations, replacement gas boilers for retired coal units, Regional Haze planning, system planning, energy efficiency studies, commissioning of RICE units, and on site solar installations. Several members were down to their last coal fired unit. Many capital projects have been delayed due to the pandemic.

**Do you have any questions for the Suppliers?**

Questions for the suppliers include fuel supply, pipeline availability, back up for gas, anything on hydrogen from natural gas, the impact of the CSAPR remand on small EGUs, anything new, instrumentation reliability, issues with large valves (automation), and efficiency improvements. There was one request to temper the marketing claims, especially for newer applications and retrofits. Relative to guarantees and performance, it was requested that these figures be put up front in any proposal response.

 **Suppliers’ Only Session –**

Moderator: **Kristine Davies**, Trinity Consultants, Conference Co-Chair

 **Introduction:**

**Kristine Davies** of Trinity Consultants opened the session indicating the suppliers would be addressing questions similar to those the owners addressed earlier during the day, like, what keeps you up at night. **Bob Bessette** of CIBO gave the antitrust admonition. She noted Carl Bozzuto would be taking session notes without attribution and asked if he could provide a summary of the Owners Session.

 **Owners’ Session Summary**

**Carl Bozzuto** CIBO Consultant summarized the results of the owners meeting. The basic question to be addressed was, “What keeps you up at night?” Other questions to be considered were: What are your short term and Long term energy concerns? What would you like to get out of this year’s conference? Do you have any energy and environmental projects planned this year? And, do you have any questions for the Suppliers? See details above.

 **What keeps you up at night?**

The same questions were posed to the suppliers. Concerns included uncertainties, input from owners on what is coming up in the next year or two, technologies of interest to owners, financial concerns, service work during COVID, customer access during COVID, activity on alternative fuels, projects put on hold, government offices that are shut down relative to permitting, the impact of rescheduling delayed projects, election uncertainties, cascading business effects, ACE rule impacts, digital optimization, and the mental health of employees. For some companies, retaining talented immigrant employees can be a problem. Equipment can suffer from neglect during this pandemic, to the point where breakdowns in the future can be anticipated. One consideration was remote services. Computer data coupled with a conversation with the customer is being used to help customers solve issues. The use of cameras at a customer site has experienced some resistance. Monitoring diagnostics have been in use in the turbine industry and are seeing more use for other pieces of equipment. Typically, the customer has control of the data that is being transmitted. Resiliency will probably take on a more important role in the future.

**Do you have any energy and environmental projects planned this year?**

Projects that are going ahead are the absolutely necessary “must do” maintenance projects. New equipment projects are typically being pushed into the next year. The biopharma industry is needing new equipment. Chemical plants have some “must do” projects, while paper mill projects are being delayed or cancelled. There are a few places where wind power is available. The wind power firms are pushing electric boilers (1 Mw) in these regions. Companies and industries that are benefitting from the pandemic (hand sanitizers, face masks, etc.) have expansion plans.

**What would you like to get out of this year’s conference?**

Hearing what the customer needs is the major benefit of participation in this video conference. Understanding the perceptions of the other participants is also important. The general direction of the customers would be desirable.

**What are your short term and Long term energy concerns?**

Along those lines, the customer concern about “the next fuel after natural gas” as a longer term issue could be a driver for the future.

**Do you have any questions for the Owners?**

One question about the “return of manufacturing” to the US was brought up relative to the future. This question is complex considering the need for supply chains and resilience.