

## **MEETING NOTES**

### **Santa Fe Scoping Meeting: Greenhouse Gas Reporting Protocol for O&G E&P October 25, 2007**

On October 25<sup>th</sup>, 2007, four agencies jointly sponsored a Scoping Meeting in Santa Fe, New Mexico. The purpose was to obtain stakeholder input on developing a standardized greenhouse gas (GHG) reporting protocol for the Oil & Gas (O&G) Industry's Exploration & Production operations. The sponsoring agencies included:

- New Mexico Environment Department (NMED)
- Western Regional Air Partnership (WRAP)
- California Air Resources Board (CARB)
- California Climate Action Registry (CCAR)

#### **Overview of GHG Activities**

Pat Cummins, the Director of Climate Change Initiatives for the Western Governors Association, went over a summary of GHG activities currently ongoing. He noted that a couple of years ago WRAP started effort to develop an Emission Inventory for the O&G industry in the western US, and that they now are working on the third revision of that inventory. And the WRAP Board (Governors of the Western States & Tribes within those States) started to look more closely at Climate Change issues in the last year. In 2006 the Board sponsored the development of GHG inventories for the 13 western states. And there was interest in coordinating with the various GHG emission registries across the country. It was decided to band together and create one system; The Climate Registry (which now includes 39 US states, a couple of Canadian Provinces and the Mexican State of Sonora). And Pat noted that all 13 Canadian Province Premiers voted to join this registry at their meeting earlier this year. The Climate Registry will begin accepting data in January 2008.

In February, the states of Arizona, New Mexico, California, Oregon & Washington signed an agreement for the Western Climate Initiative. This program is now expanded to include Utah, with most of the remaining western states participating as observers. The Initiative will design a Cap & Trade to achieve reductions 15% below 2005 levels by 2020.

But Pat noted that before we can design such a program, we have to have the specific information on emissions. He noted that the Western Climate Initiative is looking at developing an offset system, whereby sources outside the program can get credit for reductions against emissions for whatever sources are included in the final design of the program.

#### **Overview of Meeting**

In addition to Pat, participants included Robyn Camp & Rachel Tornek of CCAR, Byard Moser of CARB, Mary Uhl of the NMED, and Tom Moore & Lee Gribovicz of the WRAP.

The purpose of this meeting is to get feedback and buy in from stakeholders on whether there a need for a protocol for the exploration & production sectors of the O&G industry, and if so, to guide the development of that protocol.

Reid Smith of BP noted that it had been recommended that because of uncertainty, the upstream sector not be part of any trading program. But Tom Singer of NRDC noted that this sector has a significant portion of the emissions from the industry. Pat Cummins noted that the offset provisions would be a good alternative for such a sector.

### **Background on GHG Protocol**

Robyn Camp then described a protocol. She said that a Protocol Elements includes a Framework document that defines a consistent, comparable, transparent and accurate GHG inventory, with 1) definitions, 2) scope & boundary requirements and 3) calculation procedures (emission factors, methodologies).

The Protocol Development Process has the following steps:

- Conduct literature review
- Produce a White paper
- for a Multi-stakeholder workgroup to develop a draft protocol
- Expert review
- Public comment
- Adoption/implementation

Regarding Voluntary vs. Mandatory Reporting, the Voluntary system can allow for flexibility and help to understand the carbon footprint. It requires 3<sup>rd</sup> party verification. Mandatory reporting is typically facility - or unit-based, has a consistent approach across all sources, and requires agency oversight.

Rachel Tornek then noted that Ongoing Protocol Development is taking place for the natural gas Transportation & Distribution (T&D) sector through the Western Resource Initiative and the California Registry (WRI/CCAR). Also CARB and NMED both have draft regulations for mandatory reporting from petroleum refineries.

### **CARB Regulation on GHG Reporting from Refineries**

Byard Moser described the CARB regulation for Petroleum Refineries that requires monitoring and annual reporting of GHG sources. It is designed to account for GHG from all electricity consumed, and where appropriate and feasible, it incorporates CCAR standards and protocols. It is designed to ensure rigorous and consistent accounting and provide reporting tools, and ensure that sources maintain data and records. He described the structure of the proposed regulations that include:

- SA1: General Requirements
- SA 2: Specific Facility Reporting Requirements
- SA 3: Calculation Methodologies
- SA 4: Verification

Sources include stationary combustion (refinery fuel gas and other natural gas burners), process emissions (catalytic cracking, process vents, asphalt production, sulfur recovery), fugitive emissions (wastewater treatment, oil/water separators, storage tanks, equipment fugitive emissions), hydrogen production facilities and flaring. The Exploration & Production sector is subject to reporting for combustion sources over the 25,000 metric ton CO<sub>2</sub> threshold. The methods and fuel sampling requirements are identical to refinery sector.

Copies of the Proposed Regulation for the Mandatory Reporting of Greenhouse Gas Emissions and the ARB Staff Report are available at:

[www.arb.ca.gov/cc/ceei/reporting/reporting.htm](http://www.arb.ca.gov/cc/ceei/reporting/reporting.htm)

### **Overview of Existing Protocol Resources**

Mary Uhl then noted that we now need to address the upstream Exploration and Production sector of the O&G industry. She went over the Resources available for working on a reporting protocol for this sector. Framework documents include:

- WRI/WBCSD GHG Protocol
- General Reporting Protocols (TCR, CCAR)
- API Compendium
- IPIECA Guidelines
- CA Energy Commission gap analysis of API & IPIECA
- Comments received on CEC analysis --

[http://www.nmenv.state.nm.us/aqb/ghg/ghgrr\\_protocols.html](http://www.nmenv.state.nm.us/aqb/ghg/ghgrr_protocols.html)

### **Issues that Cross Activity Sectors**

Robyn then led a discussion on the cross cutting issues for this effort. Regarding sources, she listed activities subdivided into 1) Indirect Sources (ie/ purchased electricity & etc.), 2) Mobile, 3) Stationary, 4) Process and 5) Fugitive Sources.

Regarding terms, she identified the following as needing definition:

**Geographic Boundaries:** for operations spanning state lines

### **Operational Boundaries:**

- What sources are required/optional?
  
- What is a facility?
  - Geographic?
  - Defined by reporter?
  - Defined by state?
  
- What degree of aggregation is required?
  - Entity?
  - Facility?

In response to sources required, it was suggested that we don't deal with "mining" of oil shale as being part of this sector.

There was discussion on contract services, and whether a company would be reporting for services such as drilling, liquids transportation, rental compression services, maintenance and etc. A company may have operational control at a particular well, but there are a myriad of contract service performed by other companies at that site. There are 3 or 4 contract employees at any O&G field, for every primary producer employee.

**Organizational Boundaries:** operational control, financial control and/or equity share?

In response to this question, it was suggested first that we had to agree on ONE system, so that all companies report on a common basis. Discussion indicated that most participants favored "Operational Control" as the most favorable reporting scheme.

### BREAKOUT SESSIONS

Breakout sessions were scheduled for 1) the Exploration & Production piece of O&G field operations, and 2) the Gathering & Processing piece of these operations. Because most participants were interested in the Exploration & Production session, it was decided to combine the sessions. The goal of the discussions was to identify issues that are unique to these activities, including:

- Further identification/definition of sources
- Boundary definitions
- Level of accuracy
- Available emission factors
- Ability to measure – direct measurement, calculations available, further research needed?
- Appropriate metrics? (CO<sub>2</sub>/MM BTU extracted? BOE produced? CO<sub>2</sub>/\$ spent?)
- Any other sector-specific issues

The center of discussion was Table 2-1 from the API Compendium, listing the “Potential Greenhouse Gas Emissions Sources by Sector”.

There was a discussion of sources at the well site, and it was suggested that the sources be broken into those emitting CO<sub>2</sub> and those emitting CH<sub>4</sub>.

Conversation started by noting that CO<sub>2</sub> sources include combustion activities, with compressor engines comprising far and away the biggest piece of that combustion. Regarding CH<sub>4</sub> the discussion moved on to how to define the well venting operations. The point was made that we need some sort of “de minimis” level where you would spend too much effort to quantify extremely small portions of the emissions totals.

### **Next Steps**

The next step would be to organize a workgroup that represents all stakeholders (technical experts, industry representatives, regulatory agencies, environmental organizations), that would wrestle with the specific questions necessary to develop the reporting protocol.

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