

MEMORANDUM

FROM: Lee Gribovicz, WRAP Air Quality Project Manager
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SUBJECT: O&G GHG Technical Workgroup Call #4 Meeting Notes

Summary

On January 23, 2009 the Technical Workgroup (TWG) for the Exploration & Production and Natural Gas Gathering & Processing Greenhouse Gas (GHG) Accounting Protocol project held their fourth project call. The agenda for this call and all materials covered this date are posted on the WRAP Calendar notice which can be reached via the "Meetings and Calls" link of the WRAP Project Website at: <http://www.wrapair.org/ClimateChange/GHGProtocol/meetings.html>.

The main item of interest this date was the PowerPoint presentation by the SAIC/Environ Contractor Team to review the first draft of the Task 1 "Background & Scoping Paper". This draft paper was to be released to the TWG after the call, and final comments are to be sent to the Team by COB February 4th. In addition, there was a brief discussion of the February 12-13th Santa Fe meeting preliminary agenda, and the meeting logistics. Participants on the call this date included:

<u>Name</u>	<u>Organization</u>	<u>Name</u>	<u>Organization</u>
Tom Moore	WRAP	Lee Gribovicz	WRAP
Mike Schneider	New Mexico Env Dept	Byard Mosher	Calif Air Resources Board
Stirling Bates	British Columbia	Tim O'Connor	Environmental Defense Fund
Chris Trumpy	British Columbia	Jim Meyer	Environmental Defense Fund
Jill Gavender	The Climate Registry	Tom Singer	Nat Resources Defns Council
Jennifer Knowlton	Yates Petroleum	Karin Ritter	American Petroleum Institute
Roger Fernandez	EPA Natural Gas Star	Miriam Levon	American Petroleum Institute
Jim Tangeman	Williams Production	Reid Smith	British Petroleum Company
Arun Naik	Shell O&G Company	Coleen West	Canadian Assc Ptrlm Prdcrs
Mark Nordheim	Chevron Corporation	Craig Bock	El Paso Explr & Production
Terry Snyder	Santa Barbara Co. APCD	Mark Fesmire	New Mexico Oil Commission
Steve Messner	SAIC	Chris Minnucci	SAIC
Sandra Miranda	SAIC	Alison Pollack	Environ International
Amnon Bar-Ilan	Environ International	Rob Greenwood	Ross & Associates

Task 1 "Background & Scoping Paper" Review

The SAIC/Environ Team had prepared a PowerPoint slide show for this discussion and Tom Moore distributed this presentation to the TWG Members via his January 22nd Email. This date Staff from the Technical Contractor team went over this PowerPoint presentation in detail, describing the seven Chapters of this paper.

Chapter I provides an overview of the key processes and trends in the O&G E&P industry. There are Sections for Onshore and Offshore production, Onshore and Offshore drilling, Oil Sands and Oil Shales. The chapter contains a brief discussion of trends and emerging issues for the industry. Chapter II provides more detail of the emission sources and the gasses they emit. It contains a discussion of the E&P downstream boundary cutoff which is at the point of custody transfer into a transportation pipeline

Chapter III discusses regional variation in production and exploration of oil and gas, with a focus on the types of production including: Coal Bed Methane (CBM), Tight Sands, Gas Shales and Oil Shale/Oil Sands. Regions covered in detail include California, the Intermountain West and the Great Plains of the United States and Canada. There is more general discussion of the remainder of North America, including Mexico.

Chapter IV describes the sources of GHG emissions estimation methodologies and the types of source categories covered by each methodology. It describes the criteria for quantitatively ranking the methodologies. This date Steve Messner informed participants that Chapter IV will not be quite complete in the first release of the paper and will require updates in the following few days.

Jim Meyer of Environmental Defense wanted to know why we were looking at regional variations, and if there wouldn't be "High Tier" emission estimation methods across the full spectrum of E&P activities. Amnon Bar-Ilan answered that there will be some sources which are consistent across regions, but that the types of production activities will be much different in California for example, than they will be in New Mexico.

Byard Mosher of California wanted to know why we were looking at estimation techniques only, and not including testing or monitoring methodologies as well. Steve Messner didn't feel that the Scope included such monitoring techniques, but it was clarified that Byard was mostly thinking of monitoring for fugitive type emissions. It was concluded that we should look closer at what is in the Scope for Chapter IV, and be prepared to discuss this further in Santa Fe. EPA's Roger Fernandez noted that he has information on high flow rate samplers that can be used in this type of application.

Steve Messner indicated that the first four chapters sort of focused on what must be accomplished for identifying the Task 2 High Tier emission quantification methodologies, but that the next three chapters shift attention to what is needed for the Task 3 TCR Protocol. He noted that while mandatory reporting generally identifies specific sources to be considered, the TCR voluntary protocol tends to ask sources to simply report all your emissions. And the next chapters started to compare language in the TCR voluntary protocols against that of mandatory reporting.

Chapter V begins to lay groundwork for the Task 3 Protocol development by identifying TCR General Reporting Protocol (GRP) rules that may cause ambiguity or misunderstandings when applied to the E&P sector. The four types of boundaries defined in the GRP are 1) Organizational Boundaries (defining the entity), 2) Operational Boundaries (classifying emissions sources as inside or outside organizational boundaries), 3) Facility Boundaries (defining the facility) and 4) Geographic Boundaries (locating emission sources with respect to national and sub-national jurisdictions). The

chapter will contain Section 1, a background discussion of common E&P sector ownership, leasing, and contractor arrangements; Section 2, a background description of GRP boundary rules, with examples from E&P sector and Section 3, identification of E&P sector situations where the boundary rules require further explanation.

While Chapter V contains basically a *Clarification of the GRP*, Chapter VII moves to Contractor recommendations for *Modification of the GRP*. The chapter focuses on seven GRP areas including: small source emissions, Scope 3 emissions, base year adjustments, definition of facility, Non-Kyoto gases, historical and transitional reporting, confidentiality, and efficiency metrics.

The presentation describes three major recommendations, the first being to make reporting of contractor (Scope 3) emissions mandatory. SAIC finds that contractor emissions represent a large portion of O&G E&P emissions, thus they should be included. However since operators won't have Organizational Control of these contractors, SAIC also recommends allowing use of simplified estimation methods when TCR-approved methods are unavailable (5% threshold). And they further recommend providing intermediate options for aggregating O&G wells between the individual well level and the state-province level.

Chapter VIII describes challenges posed by the E&P industry to the TCR General Verification Protocol (GVP). These include: the 5% materiality threshold, which is a problem for fields or regions with high fugitives and lower combustion emissions; potential problem for fields (e.g. offshore) with high flaring volumes; inherent uncertainty (including use of established Emission Factors); and the fact that older fields may have limited metering in certain key processes, resulting in general estimates of fuel going to a variety of combustion devices. For contractor emissions there is often no way to verify these sources.

The SAIC/Environ Team asked for **SPECIFIC COMMENT** in several areas. For Chapter III, they solicited comments on:

- How are regional variations to be accounted for in selecting high-tier source categories?
- What basic geographic unit (County, Basin, Field, State) might be considered in accounting for regional variations?

For Chapter IV, they solicited comments on:

- Are the ranking criteria selected appropriate and are there additional criteria to use in evaluating methodologies?
- Are there sources of methodologies not considered in this analysis?

For Chapter V, they solicited comments on:

- Are there other E&P sector situations that we missed that may cause confusion when the GRP boundary rules are applied to them?
- Are there other (non-boundary) GRP rules and options (e.g., those discussed in Chapter VI) that need further explanation in E&P protocols?
- Is the downstream boundary (point of custody transfer) appropriate?

And for Chapter VI, they solicited comments on:

- Do Members agree or disagree with our recommendation to make reporting of contractor emissions mandatory (please include reasoning)?
- Do Members agree or disagree with our recommendation to continue to allow aggregation of wells to state or province, but to also provide additional intermediate options?
- Are there other aggregation options Members would recommend?
- Do Members believe there are other areas where GRP rules should be modified for E&P sectors that the team missed (provide the identity of these areas and explain why modifications are needed)?

As mentioned earlier, the draft Task 1 “Background & Scoping Paper” was to be sent to TWG Members by the end of this day (January 23, 2009), and comments must be delivered to Sandra Miranda at SAIC (sandra.miranda@saic.com) by close of business on February 4th.

February 11- 12th Santa Fe In-Person Meeting

We discussed the draft agenda for the February 12-13th face to face meeting in Santa Fe. Basically that meeting will review comments on the Task 1 “Background & Scoping Paper”, review the Outline for the Task 2 “High Tier Emissions Quantification Methods Paper”, and plan for the Task 3 “Voluntary Reporting and Verification Protocol” preparation.

The meeting will be held at the Eldorado Hotel & Spa, 309 West San Francisco Street, Santa Fe, New Mexico. The hotel and transportation logistics available at the WRAP Calendar meeting notice at: <http://www.wrapair.org/cal/calendar.php?op=view&id=868> . The deadline for reservations in the room block has passed, but if anyone still needs reservations, they can contact Tom Moore for help.