



**Oil & Gas (O&G) Exploration & Production (E&P) Greenhouse Gas Accounting Protocol Project  
 Technical Workgroup Call #6 – June 22, 2009 Meeting Notes**

**Summary**

On June 22, the Technical Workgroup (TWG) for the O&G (O&G) Exploration & Production (E&P) and Natural Gas Gathering & Processing Greenhouse Gas (GHG) Accounting Protocol project held their sixth project call. The agenda and materials for this call 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 primary focus for the call was an overview by the SAIC/ENVIRON Technical Team on the first draft of the Task 3 documents, “Upstream O&G Protocol and Addendum to the General Verification Protocol for Upstream O&G”. These draft papers was released to the TWG in advance of the call, and comments are due to the Technical Team by COB July 10. In addition, there were brief updates on the status of Task 2, and the upcoming project schedule and plan for the next TWG meeting on July 22-23, 2009, in Sacramento, CA.

Participants on the call included:

<b>Name</b>	<b>Organization</b>	<b>Name</b>	<b>Organization</b>
Roger Fernandez	EPA Natural Gas Star	Karin Ritter	American Petroleum Institute
Mark Fesmire	New Mexico Oil Commission	Mike Schneider	New Mexico Env Dept
Joe Fischer	Calif Air Resources Board	Steve Messner	SAIC
Sue Folger	(for Mark Nordheim Chevron)	Chris Minnucci	SAIC
Peggy Foran	The Climate Registry	Sandra Miranda	SAIC
Jackie Huggins	The Climate Registry	Rob Greenwood	Ross & Associates
Jennifer Knowlton	Yates Petroleum	Lydia Dobrovolny	Ross & Associates
Miriam Levon	American Petroleum Institute		
Jim Meyer	Environmental Defense Fund		
Tom Moore	WRAP		
Arun Naik	Shell O&G Company		
Tom Singer	Nat Resources Defns Council		

**Overview of Task 3 Drafts: Upstream O&G Protocol, and Addendum to the General Verification Protocol for Upstream O&G**

The SAIC/ENVIRON Technical Team presented a PowerPoint slide show summarizing the structure and organization of the draft protocol, the major policy issues addressed, clarifications on the application of General Reporting Protocol (GRP) rules to the E&P sector, additional estimation methodologies provided for E&P emission sources, and soliciting specific comments from TWG members. Specific requests for input from the TWG also appear throughout the draft protocol and verification addendum in bold red text. The Technical Team answered clarifying questions.

The general structure of the protocol parallels the organization of The Climate Registry’s (TCR) GRP. New guidance is provided where needed for unique E&P reporting requirements and situations, and the O&G protocol reader is directed back to the GRP when GRP-generic guidance suffices. New chapters have been added at the end

to cover calculation methods for emission sources unique to the E&P sector, and a brief addendum to TCR's General Verification Protocol has also been prepared to address requirements unique to the E&P sector.

The current draft addresses the following major policy issues:

- **Contractor emissions:** Rather than requiring either all or none, the current draft would require that contractor engine emissions associated with drilling, completions and workovers, and not require other contractor emissions. For transitional and historical data reporting, contractor emissions would not be required. Specific comment solicited from TWG members on this policy issue include:
  - 1) Do you agree with contractor emissions reporting requirement?
  - 2) Will leaseholders be able to obtain the necessary data?
  
- **Definition for an O&G facility:** The proposed definition of an O&G facility is “geographically dispersed emission sources to be aggregated to field level”. Emissions from sources corresponding to the standard definition of a facility (e.g., natural gas from processing plants located inside an O&G field) would be reported separately from dispersed sources by facility. Specific comment solicited from TWG members on this policy issue include:
  - 1) Would requiring additional aggregation by state permit within a field foster greater consistency between TCR and mandatory reporting programs?
  - 2) Are there other pros or cons to adding an additional requirement for aggregation by permit within field?
  
- **Simplified Estimation Methods:** The GRP has approved methods for developing emission estimates which TCR members are required to use. However, a simplified method can be substituted for TCR-approved methods for up to the maximum threshold of 5% of total emissions. Since some Scope 3 contractor emissions are required, the current draft clarifies that this 5% threshold needs to be calculated to include 5% of Scope 1, Scope 2, and required Scope 3 (contractor) emissions. This draft proposes that required Scope 3 contractor emissions be verified, and that Scope 3 contractor emissions should be combined with Scope 1 emissions for the purpose of applying the 5% materiality threshold. The current draft proposes exemptions to the 5% threshold for two sources: flaring and water ponds. In addition, an exemption from the 5% threshold is proposed for contractor emissions when the data need to apply standard methods in the GRP and O&G protocol are not available from contractors. Specific comment solicited from TWG members on these policy issues include:
  - 1) Do you agree with these three exemptions?
  - 2) Should we instead attempt to provide generic guidance for flaring and water ponds? If so, how can we provide guidance flexible enough to reflect site specific conditions, and for flaring, how can we provide generic guidance for estimating volume flows? Can you provide us with emission factors for water ponds?
  - 3) If you disagree with exemption for contractor emissions, what alternatives are available if contractors refuse to provide needed data?

The current draft provides the following clarifications on the application of GRP rules to the E&P sector:

- Clarification of reporting of offshore sources by nation or state/province
- Examples on application of organizational boundaries to the E&P sector
- Descriptions of Scope 1, Scope 2, and Scope 3 sources covered by the protocol
- Clarification to rules for aggregating mobile sources
- Clarification to rules for revising base year emissions report
- Clarification of verification requirements to ensure appropriate use of simplified estimation methods

The specific comment solicited from TWG members on these clarifications is:

- 1) Is the generic guidance for selecting an appropriate sample size for verification applicable to the E&P sector?

The current draft also includes estimation methodologies for the following source categories:

- **Stationary Combustion:** New (simplified) methodologies based on load factors are provided for emission sources without fuel meters. These methodologies are taken from the Task 2 report. Specific methodologies are provided for internal combustion engines, natural gas turbines, drill rig and workover rig engines, and heaters and boilers.
- **Fugitive Emissions:** Proposed methodologies are taken from the API Compendium 2009 (Draft), API Compendium (2004), and Task 2 report, and are provided specifically for: flashing losses from tanks, working/Breathing losses from tanks, pneumatic devices, natural gas driven chemical injection pumps, wellhead and facilities fugitive losses, and surface collection ponds.
- **Vented Emission Sources:** New methodologies are based on simplified emission factors and volumes of gas, and are taken from the API Compendium 2009 (Draft), API Compendium (2004), Task 2 report, and EPA Climate Leaders-Natural Gas STAR Program. Specific methodologies are provided for: amine plants, dehydrators, well completions, unbalanced drilling, drilling mud degassing, well blowdowns, vessel and facility upsets/blowdowns, and compressor engine start-ups and shutdowns.
- **Flaring Emissions:** Methodologies are taken from the API Compendium (2004), and Task 2 report.
- **Oil Sands and Oil Shale-Specific Sources:** Methodologies are taken from the API Compendium 2009 (Draft), and Oil Sands / Heavy Oil Upgrader Industry Report (May 2004). Specific methodologies are provided for: hydrogen units, upgrading facilities, flue gas desulphurization, and oil sands mines and ponds.

An additional methodologies section includes place holders for methodologies related to the O&G Transportation sector. The SAIC/ENVIRON team is moving forward with this additional work and will update this section in the next few weeks.

Comment solicited from TWG members on these estimation methodologies include:

- 1) Examples showing calculation methods and additional details about methodologies, such as combustion efficiency factors for flaring emissions, and details about methodologies used by Syncrude and Suncor for oil sands and oil shale-specific sources.
- 2) Additional details about software and simulation programs, where appropriate and possibly within proprietary considerations.
- 3) For fugitive and flaring emission sources, additional questions are raised in the draft such as: default CO<sub>2</sub> content value and default CH<sub>4</sub> emission rates.

### **Discussion on Task 3 Drafts - Clarifying Questions and Responses**

The Technical Team answered clarifying questions from TWG members about the draft Task 3 protocol and verification addendum:

- In response to a question about whether the protocol cites a specific method or suite of methods from which a reporter can choose, the Technical Team noted that every source is different. The GRP has standard factors for some sources (e.g. stationary combustion) that are derived from commonly-used approaches, are robust, and

will likely always apply to the O&G sector, so the Team has not conducted uncertainty analysis comparing those approaches. For other approaches, additional clarification may be needed. Members are asked to provide comment on these.

- In response to a question about whether the intent is to create a new definition that is not called “facility” to accommodate the concept of aggregating O&G emissions, the Technical Team responded that after the initial definition at the beginning of the protocol equating “field” with “facility”, the term field is primarily used to avoid confusing E&P reporters. The Team requested comments by TWG members on whether this use of terminology can be further clarified.
- In response to a question about how gathering lines and booster stations are treated when aggregating sources, the Technical Team noted that these sources are aggregated by operator and by field. The document raises the issue that in certain fields, these sources are operated by someone else; since the reporting is by operator, those facilities will be captured. Reporters need to base their calculations on source-specific information, but will run the calculations themselves and do either a bulk software or spreadsheet upload. The TCR software can then aggregate operations within a field if desired. Feedback is requested from TWG members on how and at what level emissions should be broken out.
- In response to a question about the definition of water ponds, the Technical Team responded that these are defined as surface collection ponds which are typically evaporation ponds. These have been eliminated in California, but are still common in other parts of the United States. These sources appear in the literature, but there are no documented factors that are reliable for use in this reporting situation.
- In response to a question about whether there is a preferred methodology for oil shale gas with high volatile organic compounds, the Technical Team responded that there does not appear to be a reliable, consistently-used approach for estimating the carbon dioxide content grouped by basin, field or region. Given this lack of other data for default factors, the content would have to be measured.

TWG comments on the Task 3 drafts are requested by July 10<sup>th</sup>, and should be sent to Sandra Miranda at SAIC ([sandra.miranda@saic.com](mailto:sandra.miranda@saic.com)). The Technical Team will email a summary of the TWG comments to the TWG on July 20<sup>th</sup>.

## **Task 2 Status Update and Project Schedule**

WRAP staff provided a brief status update to the TWG on Task 2. The Technical Team requested comments and additional materials on the methods for reporting combustion and fugitive venting sources. The draft has been revised with comments received. After review by the Steering Committee, the draft will be distributed to the TWG for review in advance of the next TWG meeting. A call may be scheduled when the draft is distributed to orient TWG members to the changes and additions to the Task 2 report.

The next TWG meeting will be in Sacramento on Wednesday, July 22<sup>nd</sup>, from 8:30 a.m. to 5:00 p.m., and on Thursday, July 23<sup>rd</sup>, from 8:30 a.m. to the early afternoon. The bulk of the meeting will focus on the Task 3 protocol as well as a methodology discussion that will be structured to assist both the Tasks 2 and 3.

A tour for TWG members of the Alberta Oil Sands is being tentatively planned for the week of August 5. Information will be forwarded to the TWG as it becomes available.

Meeting logistics are available at the WRAP Calendar meeting notice at: <http://www.wrapair.org/cal/calendar.php?op=view&id=1641>.