

**DOE Environmental Sustainability Network (ESN)  
September 17, 2009 Conference Call Notes**

**1. 450.1A Guidance Update** – Jane Powers (HS-22), (202) 586-7301,  
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The Directives Review Board placed the four proposed guidance documents related to DOE O 450.1A on hold pending issuance of the expected new executive order. The draft proposed document on integrating sustainable practices into the environmental management system (EMS) will be modified and issued as a technical assistance tool to support the “Successful Implementation of Sustainable Practices in EMS” training program. The training will be offered at Sandia National Laboratories/New Mexico, Los Alamos National Laboratory, Lawrence Berkeley National Laboratory, Lawrence Livermore National Laboratory, and the SLAC National Accelerator Laboratory in October. It will also be offered at the EPA November 2009 federal facilities conference in DC.

A new training module, “The ABCs of GHGs” is available. The development of this training is timely as the new executive order is expected to place considerable emphasis on greenhouse gas (GHG).

**2. Emerging Federal Framework for GHG Management: GHG Protocol Road Test and Guidance** – Matt Gray (FEMP), (202) 586-0067, [matthew.gray@ee.doe.gov](mailto:matthew.gray@ee.doe.gov)

The United States is expected to lead by example in reducing its GHG emissions while creating green jobs and transitioning to a clean energy economy, and the Federal government is expected to exhibit leadership by managing and reducing its own GHG emissions. The GHG Protocol Road Test is a multi-agency effort to test and update the Corporate Standards of the Public Sector Protocol by applying it to Federal agencies. The test results will strengthen the protocol by discovering insights into issues related to its practical implementation, contribute to short- and long-term policy development, and increase the government’s knowledge of GHG accounting.

The protocol incorporates basic accounting and reporting principles; requires identification of emission sources and owners of those sources to avoid emissions “double counting”; involves identifying, calculating, and then reporting GHG emissions; and calls for setting GHG targets. It can be implemented via a top-down (done at the headquarters level using existing data systems and standardized calculations) or bottom-up (start at the equipment level, build up to site-specific data, customize calculation, then rollup to headquarters.) The Department will probably use a synthesis of these approaches.

All sites are welcome to participate in the road test. The road test kickoff meeting was held on 10 September; the next meeting is scheduled for October 8. Results of the road test are due mid-December 2009; the final report should be issued in March 2010 along with protocol guidance.

**3. Hanford Site Greenhouse Gas Footprint** – James Wise (Richland), (509) 376-0545,  
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Motivated by the forthcoming executive order on GHG and the State of Washington requirement to report two-years of GHG emissions by 31 December 2010, Hanford completed its first GHG

footprint during the summer of 2009. The Greenhouse Gas Protocol developed by the World Resources Institute and the World Business Council for Sustainable Development, the Climate Registry, and the Energy Information Administration's Form 1605, Voluntary Reporting of Greenhouse Gases was combined to form the structure for the study.

The following were included in the Hanford GHG footprint study: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). The method was to identify activity data (e.g., fuel oil used), multiply the data by the emission factor to arrive at a GHG-specific emission which was then multiplied by its global warming potential to arrive at the emissions in metric tons of carbon dioxide equivalent. Total site emissions is based on the emissions calculated by gas for each source, the total emissions from each source, and the total emissions from each of the three scopes (direct emissions from onsite operations, indirect emissions from production of purchased electricity for the site, and upstream and downstream activities indirect emissions).

Completing the study was complicated by the number of contractors and sub-contractors at the site, changeover of major contracts, information not being reported in the same formats by all entities, incompatibility of databases, and the non-availability of some information. A major lesson learned was that decontamination and decommissioning (D&D) activities do lend themselves to GHG measurement and management.

The final report will be made available to ESN participants.

**4. GHG Inventory** – Josh Silverman (HS-22), (202) 586-6535, [Josh.Silverman@hq.doe.gov](mailto:Josh.Silverman@hq.doe.gov)  
The Department does not yet have a full understanding of its GHG sources and where they are. In developing its inventory, the Department will leverage existing data sources (e.g., Pollution Prevention Tracking and Reporting System (PPTRS), Federal Automotive Statistical Tool (FAST)) and possible new sources (Clean Air Act Title V permits). A data call to flesh out the Department's GHG inventory is not envisioned but ESN participants may be contacted by Josh for their ideas about an inventory. Alternatively, contact Josh if you are interested in further discussing GHG reporting issues or specific challenges to completing an inventory.

**5. Savannah River Site Gasket Replacement System and Bio-Mass Steam Plant** – John Harley (SRS), (803) 208-8557, [john.harley@srs.gov](mailto:john.harley@srs.gov)  
The Savannah River Site Remote Systems Engineering group developed and deployed a system for the Defense Waste Processing Facility that allows remote removal and replacement of damaged gaskets and snap rings in Hanford-type connectors. With this tool, there is less process downtime, no additional personnel radiation exposure, no personal protective equipment (PPE) usage and associated job-control waste, and manpower needs have been reduced.

The site's new bio-mass steam plant replaced a 1950s-era coal-fired steam plant leading to reductions of more than 2,300 tons of pollutants per year. It was built at a cost of \$10 million through an energy savings performance contract (ESPC); payback is expected to be complete in 6 to 7 years.

The Savannah River Site received *E*Star Honorable Mentions for these projects.

**6. Sulfur Hexafluoride (SF<sub>6</sub>) Awareness** – Jeff Eagan (HS-22), (202) 586-4598, [Jeff.Eagan@hq.doe.gov](mailto:Jeff.Eagan@hq.doe.gov)

HSS decided to issue information on SF<sub>6</sub> in the form of a DOE Safety Bulletin intended for use by line managers and floor personnel. SF<sub>6</sub> is a GHG that is 23,900 times more potent than carbon dioxide and is widely used in the complex. Contact Jeff if your site uses SF<sub>6</sub> and share your process for managing it so that best practices can be developed.

**7. Clean Air Award and Electronic Stewardship Updates** – Jeff Eagan (HS-22), (202) 586-4598, [Jeff.Eagan@hq.doe.gov](mailto:Jeff.Eagan@hq.doe.gov)

The deadline for the 10th EPA Annual Clean Air Excellence Awards is Friday, September 25, 2009. Award-winning entries must directly or indirectly reduce pollutant emissions, demonstrate innovation, offer sustainable outcomes, and provide a model for others to follow. Information and the entry form materials are available at [http://www.epa.gov/air/caaac/clean\\_award.html](http://www.epa.gov/air/caaac/clean_award.html). (Feel free to submit the same activity or program to the EStar Award program!)

Several sites are still working on joining the Federal Electronics Challenge (FEC) in conformance with EO 13423. Contact Jeff if he can be of assistance.

The Department is facing tougher competition this year in the Electronics Reuse & Recycling Campaign (ERRC) so your participation in the campaign will be very helpful. Please go to <http://www.fedcenter.gov/errc> to join the competition. Reuse and recycling reports are due by September 30<sup>th</sup>.

**8. PPTRS Reporting** – Don Lentzen (HS-22), (202) 586-7428, [Donald.Lentzen@hq.doe.gov](mailto:Donald.Lentzen@hq.doe.gov)  
Reporting guidance for the Pollution Prevention Tracking and Reporting System (PPTRS) will be available at the end of September. The system will open on Thursday, 1 October and close at the end of November. Site names for PPTRS purposes will correspond to names used on the EMS.

PPTRS support is available by calling 800 473 4375 or emailing [P2support@HQ.doe.gov](mailto:P2support@HQ.doe.gov)

**9. EMS Reporting** – Josh Silverman (HS-22), (202) 586-6535, [Josh.Silverman@hq.doe.gov](mailto:Josh.Silverman@hq.doe.gov)  
Similar to last year, EMS reporting will be completed through FedCenter. New this year, however, are revised EMS metrics. Contact Steve Woodbury at 202 586 4371 with questions. FedCenter will open on 1 October for EMS reporting and will close at the end of November.

*Next ESN Conference Call: October 15, 2009*

*Contact Beverly Whitehead (HS-22), (202) 586-6073, [Beverly.Whitehead@hq.doe.gov](mailto:Beverly.Whitehead@hq.doe.gov),  
with issues you would like to raise and/or presentations you would like to make.*