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To

Pai-Yei Whung/DC/USEPA/US

cc

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Robert

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Subject

Scientific Integrity

Dear Pai-Yei -

At Ira's request, we have set forth below some examples of processes, activities and workgroups in Region 1 that help us promote and ensure scientific integrity in our decision-making. We have also tried to provide links for more information on these activities. We believe these activities have raised the level of scientific discourse in our region and given regional scientists better tools and information to do their jobs. We hope that they are helpful to you in recommending actions and opportunities at a national level.

In discussing with Ira your request for opportunities and actions to promote scientific integrity, we agreed that the most important regional challenge is to ensure our staff has the scientific data and information necessary to make permit and clean-up decisions. Nothing is more demoralizing to our permit-writers and site managers than asking them to recommend permit limits or cleanup approaches when they have significant unanswered science questions. Whatever actions we take in response to the President's memorandum on scientific integrity, the Agency should keep its eyes on the goal of ensuring that our staff has the science support they need to make difficult decisions on permits and site cleanups.

Please let me know if you have any questions. Thanks to Robert Hillger and Bill Lovely for helping assemble the examples below.

Michael Kenyon, Director
EPA New England Regional Laboratory

Activities to Promote and Ensure Scientific Integrity at EPA New England

(1) Regional Science Council (RSC): EPA New England's RSC is a forum of regional scientists that works to enhance science capacity within the region. Among other activities, the council -

Organizes a monthly science seminar series (see description below);
Organizes training on science capabilities needing strengthening in the region (recent examples include a six-week statistics course and a one-day workshop on the use of models);

Promotes awareness of science news and research by maintaining a very active regional science website and publishing a bi-monthly newsletter ScienceWise; and
Reviews and ranks short-term research projects within the region for funding through ORD's Regional Applied Research Effort (RARE) and Regional Methods (RM) programs.

Related documents:

RSC's website: <http://r1-gis-web.r1.epa.gov:9876/rsc/index.htm>

(2) RSC's Monthly Science Seminars: Because tight fiscal times have reduced the ability of our scientists to travel to conferences and meetings, the RSC brings in local scientists to discuss their research each month. The monthly seminars routinely draw 30 to 100 regional employees, elevate the prominence of science in the region, and greatly boost the morale of staff. Recent or upcoming seminar topics have included the perspective of a member of the Intergovernmental Panel on Climate Change (IPCC) on mitigation efforts, climate change impacts on New England, environmental contaminants in breast milk, emerging contaminants in water, and exposure pathways in Maine tribal communities.

Related documents:

Historical collection of presentations used in the science seminar series
from 2004 to 2009: <http://r1-gis-web.r1.epa.gov:9876/rsc/Seminars.html>

(3) Regional Superfund Remedy Review Board: EPA's National Remedy Review Board reviews proposed Superfund response decisions at both NPL and non-NPL sites where the proposed actions cost more than \$25 million. Region 1 has instituted a parallel process for smaller cleanups. Before a Remedial Project Manager (RPM) completes a Record of Decision (ROD) for cleanup of a Superfund site, the RPM must present and defend the rationale for a recommended remedy to a regional board in an effort to ensure the soundness of the recommended remedy.

Related documents:

Link to the National Remedy Review Board web page
<http://www.epa.gov/superfund/programs/nrrb/index.htm>
Memo: Formation of the National Superfund Remedy Review Board, November 28, 1995, <http://www.epa.gov/superfund/programs/nrrb/11-28-95.htm>
Link to "Review Criteria" web page
<http://www.epa.gov/superfund/programs/nrrb/reviewcr.htm>

(4) Technical Reviews of Regional Science Projects: Regional leads for RARE and RM projects must regularly present to a mix of managers and peers the progress on their short-term research projects. These reviews are designed to alert management to obstacles encountered, encourage discussion, and hone the presentation skills of scientists.

Related documents:

Protocol for Quarterly Technical Reviews at EPA New England's Regional Laboratory

(5) Providing Support to Partners through Science Workshops: Often with the support of ORD, EPA New England regularly hosts science workshops with the goal of ensuring our state, tribal and community partners are working with the best science tools to address the region's most pressing environmental challenges. These workshops are typically one- to three-days long, are co-sponsored with academic and/or interstate organizations, and are aimed at bring practical information and tools to engineers and scientists. Science workshops in 2008 and 2009 were held (or will be held) on the following topics: (1) planning for climate change impacts on New England communities, (2) coastal climate change impacts, (3) monitoring of climate change impacts on New England's water resources, (4) lyme disease mitigation and urban infrastructure, (5) stormwater best management practices (to be held jointly with Regions 2 and 3); (6) strategies to address nutrients, and (7) all-day seminar on research of NCER grant recipients in New England.

(6) Using our Quality Assurance Program to Ensure Scientific Integrity of Use of Environmental Data: Like the other nine regions, EPA New England has a quality assurance program which works actively with technical staff from the region, state, tribes and grant recipients to ensure that high quality data and sound science are used to support Agency decisions. The QA staff provides technical assistance for project planning, expert chemistry and engineering advice, method reviews, document and data reviews, training, and assessments/audits of laboratory and field operations.

(7) Strengthening Scientific Resources to Support Emergency Response: EPA New England's regional laboratory works with public health and environmental laboratories in New England to ensure that, in the event of a major incident, the laboratories work together in a coordinated and efficient fashion, drawing on their different strengths and capabilities. As is the case in other regions, representatives from the public health and environmental laboratories have developed a joint plan for response to actual or suspected water contamination incidents. The New England laboratories have conducted practical exercises of this plan requiring a collaborative laboratory response to identify and quantify contaminants of concern in environmental samples to assist in emergency response and recovery.

Related documents:

After-Action Report from New England Homeland Security Environmental Summit, May 2008

EPA Region 1 Regional Laboratory Response Plan Functional Exercise After-Action Report, February 2008

(8) Example of Regional Applied Research Effort (RARE) Projects - Penobscot Indian Nation Study: The region generally funds two or three specific high priority research projects every year. These projects are responsible for conducting studies on environmental issues of critical concern to the region. For example, the Penobscot Indian Nation was

concerned about exposure from chemicals when performing specific cultural tasks and from sustainable practices from hunting and fishing. This study clearly is concerned with the Native Americans welfare and health. Understanding the importance of this work, the region elevated the quality assurance of this study to the very highest level in the agency, and endorsed a QA field and laboratory audit with auditors from ORD - NHERL. This provided the assurance to the region that the science being done was not only credible, but defensible should the data needs be used in future Tribal litigation work.