

Peer Review Summary Document

(12/11/13)

Peer Review Plan

http://www.usgs.gov/peer_review/docs/buried_oil_appendix_OSAT3-report.pdf [20 KB PDF].

Title and Authorship of Information Product Disseminated

Use of Wave Scenarios to Assess Potential Submerged Oil Mat (SOM) Formation along the Coast of Florida and Alabama, By P.S. Dalyander, J.W. Long, N.G. Plant, and D.M. Thompson.

Peer Reviewers Expertise and Credentials

Reviewer #1 received PhD and MS degrees in Geological Oceanography from the University of Washington, and an AB in Economics and Environmental Studies from Bowdoin College. The reviewer has over 30 years of experience conducting research in coastal and marine sediment-transport processes, including the observational and modeling studies study of combined wave-current bottom boundary layers and resuspension and transport of sediment during and after storms. Peer Reviewer #1 has also conducted research into the behavior of oil and gas droplets in hydrocarbon plumes and the mixture of ice crystals and sediment to form sediment-laden ice in the Arctic. Reviewer #1 has been funded by the USGS, Office of Naval Research, U.S. Environmental Protection Agency, National Science Foundation, U.S. Army Corps of Engineers, and the government of Australia.

Reviewer #2 received BS and MS degrees in Biology from East Carolina University and completed 55 semester hours toward a PhD in Environmental Engineering at the University of Florida. The reviewer has over 20 years of experience conducting research on the effects of contaminants on aquatic systems, including application of mathematical models of transport and fate of sediments and contaminants. Reviewer #2 has served as a science advisor to the Federal On Scene Coordinator for the Deep Water Horizon Oil Spill, and since April 2012, has served as science team leader of an assessment of the sources and mechanisms for shoreline reoiling.

Charge Submitted to Peer Reviewers

The reviewers were asked to make an objective evaluation of the research.

Summary of Peer Reviewers Comments

Peer Reviewer #1 supported the scientific and technical merit of the appendix and found the techniques to be appropriate and well applied. The reviewer recommended expanding the background information on the project. Other comments from the reviewer were editorial in nature, relating to readability, such as suggestions regarding the use of a consistent shorthand notation system and how to improve some of the figures.

Peer Reviewer #2 was also complimentary of the approach used in the appendix and considered the results to be scientifically valid. Additionally, the reviewer suggested enlarging two figures in the appendix for readability.

Summary of USGS Response to Peer Reviewers Comments

Most of the editorial related suggestions from Reviewer #1 were incorporated into the final appendix manuscript. Although the reviewer recommended expanding the background information on the project, this was not done, since this appendix is to be included in a larger work in which considerable background information on the overall project is provided. A consistent set of terms for key concepts in the appendix was added and figures were modified as suggested by the reviewer. Two figures were enlarged as suggested by Reviewer #2.

The Dissemination

The product will be an appendix in the final report of the Operational Science Advisory Team (OSAT3) to the U.S. Coast Guard, which will be available on www.restorethegulf.gov.