



**U.S. Environmental Protection Agency**

This document is one section from the Response to Public Comments Document regarding the “Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs,” published in August 2004. You can find the Response to Comments document in its entirety at <http://www.epa.gov/owow/oceans/habitat/artificialreefs/index.html>.

**Response to Public Comments Regarding the  
“Draft National Guidance: Best Management  
Practices for Preparing Vessels Intended to Create  
Artificial Reefs”**

**Responses to Comment #s  
EPA-HQ-OW-2004-0003-0001  
To  
EPA-HQ-OW-2004-0003-0014**

**May 2006**

**Response to Public Comments regarding the  
Draft National Guidance: Best Management Practices for Preparing  
Vessels Intended to Create Artificial Reefs  
69 Fed. Reg. 46141 (August 2, 2004)**

**Docket ID:** EPA-HQ-OW-2004-0003. “*Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs.*” 69 Fed. Reg. 46141 (August 2, 2004).

**Public Comment**

**Docket Document ID:** EPA-HQ-OW-2004-0003-0001

**Author Date:** August 2, 2004

**Author:** U.S. Environmental Protection Agency, Office of Water,  
Office of Wetlands, Oceans, and Watersheds  
Oceans and Coastal Protection Division  
Marine Pollution Control Branch

**Comment # A-1:**

Federal Register notice of availability and request for public comments. 69 Fed. Reg. 46141 (August 2, 2004).

**Response to Comment # A-1:**

The *Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs* describes guidelines for the preparation of vessels in a manner that will help ensure that the marine environment will benefit from their use as artificial reefs. A notice of availability was published in the Federal Register on August 2, 2004, commencing a 60-day comment period for public participation in the continued development of this document. The public comment period concluded on October 1, 2004. EPA will prepare a letter to the file providing responses to comments that were submitted. Submitted comments will be considered before the document is finalized.

The Federal Register notice of availability and request for public comments is included as Appendix A of today’s document. The Federal Register notice can also be accessed via the internet at <http://www.epa.gov/owow/oceans/habitat/artificialreefs/>.

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**Docket ID:** EPA-HQ-OW-2004-0003. “*Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs.*” 69 Fed. Reg. 46141 (August 2, 2004).

**Public Comment**

**Docket Document ID:** EPA-HQ-OW-2004-0003-0002

**Author Date:** August 11, 2004

**Author:** Reef Ball Foundation

**Comment # B-1:**

The Reef Ball Foundation does not believe solid polychlorinated biphenyls (PCBs) at levels at or above 50 parts per million (50 ppm) (which represent current EPA standards) should be allowed on any vessels sunk as artificial reefs. Therefore, an appropriate best management practice would be to require rejecting any vessel as a possible artificial reef if preparation to this standard is not feasible.

**Response to Comment # B-1:**

The narrative clean-up goal for PCBs, as presented in the BMPs, recommends removal of all manufactured products containing greater than or equal to ( $\geq$ ) 50 parts per million (ppm) of solid PCBs; removal of all liquid PCBs regardless of concentration; and removal of all materials contaminated by PCB spills where the concentration of the original PCB source is  $\geq$  50 ppm. It must be noted that liquids at greater than 50 ppm, manufactured products containing solid PCBs  $\geq$  50 ppm, and PCB remediation waste at any concentration are regulated for disposal under 40 CFR 761. Sinking a ship containing PCBs regulated for disposal as an artificial reef is considered disposal of PCBs; PCB regulations require the proper disposal of these materials on the ship.

While the complete removal of PCB bulk product waste is a goal, these items are often difficult to identify and locate on a ship and removal may pose risks to worker safety or the removal method (thermal removal) may pose a greater risk to the environment than leaving remnants onboard. If this is the case, the interested parties can apply to EPA for a risk-based disposal approval (this option of seeking a risk-based PCB disposal approval is presented in the PCB section of the BMPs). Obtaining a risk-based disposal approval requires the applicant to demonstrate “no unreasonable risk to human health and the environment.” If EPA finds that leaving these PCB bulk product wastes on the ship will not result in an unreasonable risk to human health and the environment, then these materials may be disposed as part of the reefing. However, the BMPs do mention that the methods, approach, and level of effort for cleaning, as well as worker safety concerns, are directly dependent on the vessel’s condition and the amount of material of environmental concern that is found onboard. Vessels needing preparation that would pose potential worker safety risks and/or would be expensive to clean (including extensive removal of items containing regulated levels of PCBs) may not be good candidates for reefing.

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**Comment # B-2:**

Short term studies (Such as the South Carolina studies) that have shown limited short term risk for higher PCB levels in the marine environment fail to account for long term hazards associated with PCB contamination of aquatic environments and possible concentration of toxins by marine life.

**Response to Comment # B-2:**

The study referred to in the comment has significant limitations including few finfish samples and sampling that was not random, in addition to minimal detail on sample preparation and analytical methods. EPA is not aware of any other short- or long-term studies, with the exception of a study that involves a deep-water sinking exercise. Results

from that study have not been submitted to the Agency for review. Currently, EPA has issued one PCB disposal approval to sink a vessel as an artificial reef. EPA and the applicant(s) are in the process of developing a long term monitoring plan involving both pre- and post-sinking monitoring for PCBs. Any disposal approval issued for artificial reefing will include pre-sinking monitoring and long term post-sinking monitoring.

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**Docket ID:** EPA-HQ-OW-2004-0003. “*Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs.*” 69 Fed. Reg. 46141 (August 2, 2004).

**Public Comment**

**Docket Document ID:** EPA-HQ-OW-2004-0003-0003

**Author Date:** August 11, 2004

**Author:** Anonymous

**Comment # C-1:**

It really not necessary to remove the caulk from these ships. The threat is insignificant

**Response to Comment # C-1:**

The commenter provides no data to support the commenter assertion that there is no need to remove any PCB-containing caulk from a vessel because it poses no threat. When Congress passed the Toxic Substances Control Act of 1976 (PL-580), it recognized the significant detrimental impact that PCBs can have on human health and the environment by prescribing specific provisions for regulation of PCBs as a hazardous substance, including banning production of PCBs by January 1, 1977.

Given the potential for releases of PCBs to have long-lasting significant impacts on human health and the environment, it is important to properly characterize releases that may result from the reefing of vessels, and the risk that these releases may pose to humans who consume fish that will colonize and/or feed in the vicinity of these vessels as reefs.

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**Comment # C-2:**

and the 50ppm rule is random.

**Response to Comment # C-2:**

Given that the PCBs in PCB bulk product waste are tightly bound within the product matrix, EPA believes that 50 ppm is an appropriate lower limit for PCB bulk product waste (see 63 FR 35411). The PCBs are expected to leach out of the matrix more slowly than PCBs from other materials. The relative leachability should hold in an aqueous environment as well as a terrestrial environment.

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**Docket ID:** EPA-HQ-OW-2004-0003. “Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs.” 69 Fed. Reg. 46141 (August 2, 2004).

**Public Comment**

**Docket Document ID:** EPA-HQ-OW-2004-0003-0004\*

**Author Date:** August 11, 2004

**Author:** Anonymous

\*Duplicate document. Please see EPA-HQ-OW-2004-0003-0003.

**Comment # C-I-1:**

It really not necessary to remove the caulk from these ships. The threat is insignificant and the 50ppm rule is random.

**Response to Comment # C-I-1:**

This is a duplicate comment. Please refer to previous response for EPA-HQ-OW-2004-0003-0003.

**Docket ID:** EPA-HQ-OW-2004-0003. “Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs.” 69 Fed. Reg. 46141 (August 2, 2004).

**Public Comment**

**Docket Document ID:** EPA-HQ-OW-2004-0003-0005

**Author Date:** August 10, 2004

**Author:** b. sachau

**Comment # D-1:**

tHIS RUSH TO JUDGMENT IS A SCAM FOR PROFITEERS. They are still reseaching whether this is an environmentally safe thing to do and meanwhile the junk ship owners are dying to get this passed before that research even comes in, and who even knows if we have truly independent people doing this research or people who are paid off by junk ship owners.

**Response to Comment # D-1:**

It is true that research directed at the impacts that sinking vessels may have on the marine environment and human health is ongoing. More specifically, a risk assessment is underway to determine whether leaving materials containing regulated levels of PCBs on vessels will have “no unreasonable risk of injury to human health and the environment.” The guidance provided in the BMPs is not dependent on the findings of that risk assessment. Further, the PCB section of the guidance document has been written so that it addresses the PCB regulations specifically, allowing for the flexibility of those regulations to be responsive to any research results that arise. However, if results from sound research and studies yield information contrary to any of the information presented in the best management practices guidance, EPA will modify this guidance document to reflect those findings.

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**Comment # D-2:**

I personally do not want the ocean turned into a junkyard for old ships. i think old ships should be recycled and reused.

**Response to Comment # D-2:**

Several options exist for managing obsolete and decommissioned military and commercial vessels. These options include re-use of the vessel or parts of the vessel, recycling or scrapping, creating artificial reefs, and disposal on land or at sea. The BMP guidance discusses the vessel management option of artificial reefing.

The use of this guidance will help ensure that vessels prepared for use as artificial reefs will be environmentally sound in their use as artificial reefs. The purpose of creating an artificial reef is to benefit the environment by enhancing aquatic habitat and marine resources, as well as providing an additional option for conserving, managing, and/or developing fisheries resources.

This guidance document describes appropriate vessel preparation that could help achieve the benefits of an artificial reef and avoid negatively impacting the environment with pollutants. The clean-up performance goals provided in the BMP guidance, if implemented and complemented with strategic reef site selection, will maximize the opportunity for these vessels to benefit the environment as artificial reefs.

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**Comment # D-3:**

I think junk ship owners are trying to jam this down america's throat befoore the research is in. The management option here seems to be its junk - let's line our oceans with this junk, which is not safe or sound.

**Response to Comment # D-3:**

Section 3516 of the National Defense Authorization Act for Fiscal Year 2004 requires that MARAD and EPA jointly develop guidance recommending environmental best management practices to be used in the preparation of vessels for use as artificial reefs. Note that EPA chaired an interagency workgroup and developed the draft BMP guidance document in response to MARAD's urgency to identify another potential management option for their decommissioned vessel fleet.

It is beyond the scope of the BMP guidance to provide a decision process to determine the management option for obsolete and decommissioned military and commercial vessels. The specific application of this guidance document is for preparation of vessels when implementing the management option of creating an artificial reef.

As stated in the guidance document, artificial reefs should be developed such that they enhance marine resources and benefit the marine environment. For further discussion, please refer to the preceding response (*Response to Comment # D-2*).

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**Comment # D-4:**

IO am sick of profiteers looking to escape the cost of what they do - the costs of getting rid of their own junk but instead destroying america with it.

**Response to Comment # D-4:**

The draft BMP guidance only addresses environmental impact and protection issues. The costs associated with this particular vessel management option will vary according to a given vessel-to-reef project. Although the best management practices in our guidance were developed independent of specific costs associated with clean-up, the narrative clean-up performance goals in this document can be used as a basis for estimating the cost for appropriate vessel preparation prior to reefing. The methods, approach, and level of effort for clean-up, as well as worker safety concerns, are directly dependent on the vessel's condition and the amount of materials of environmental concern that are found onboard. Vessels where clean-up could pose potential worker safety risks or could incur high costs may not be good candidate vessels for reefing.

In order to determine the estimated cost to prepare a specific vessel for use as an artificial reef, the narrative clean-up performance goals, along with the vessel preparation best management practices, can be used to scope the volume of work to be accomplished based on a detailed ship-check and implementation of a representative PCB sampling protocol. There is wide variability of ships and associated kinds and amounts of material found on a particular ship, as well as wide variability of remediation and disposal costs in different geographical locations within the U.S.

As stated in the guidance document, artificial reefs should be developed such that they enhance marine resources and benefit the marine environment. For further discussion, please refer to *Response to Comment # D-2*.

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**Comment # D-5:**

I note that environmental groups were the last on the list of those consulted about this anti environmental measure. The profiteers came first.

**Response to Comment # D-5:**

An interagency workgroup, chaired by EPA, was established to develop this guidance document. The workgroup included representatives from the EPA, U.S. Coast Guard, U.S. Navy, MARAD, U.S. Army Corps of Engineers, National Oceanic and Atmospheric Administration, and the U.S. Fish and Wildlife Service.

EPA also contacted a number of environmental groups, as well as state agencies, state artificial reef coordinators, and any private industry group that has approached EPA or MARAD regarding vessel-to-reef projects, to notify them of the Federal Register publication that detailed how to access the document and submit comments.

On August 2, 2004, EPA published a notice of availability in the Federal Register, commencing a 60-day comment period. The final BMP guidance document incorporates revisions that were made in response to the public comments received in addition to the lessons learned from recent and ongoing vessel-to-reef projects.

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**Comment # D-6:**

The only thing allowed with old junk ships should be re-use. cut it up into reusable sections and reuse it. America should not have junk ships pushed on it by shipping profiteers looking for the least costly way to make more money for their own pockets.

**Response to Comment # D-6:**

For further discussion in response to comments pertaining to management options, project costs, and driving factors for the development of this guidance document, please refer to *Response to Comment #s D-3, D-4, and D-5*.

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**Comment # D-7:**

there is absolutely no rush to judgment on this. public comment on this national question should be extended to 90 days at a minimum, although i favor six months. i also think all environmental groups should be notified of this attempt to rush to judgment, which seems like a scam pushed by junkj ship profiteers.

**Response to Comment # D-7:**

Please refer to *Response to Comment # D-5*.

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b. sachau  
15 elm st  
florham park nj 07932

rodney - i would appreciate congress looking into this fast track movement to make america's oceans filled with junk ships

**Docket ID:** EPA-HQ-OW-2004-0003. *"Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs."* 69 Fed. Reg. 46141 (August 2, 2004).

**Public Comment**

**Docket Document ID:** EPA-HQ-OW-2004-0003-0006

**Author Date:** August 11, 2004

**Author:** Kevin Rottner

**Comment # E-1:**

This is a FANTASTIC PROGRAM. Where can I get more info about this in my local area Los Angeles California ??

**Response to Comment # E-1:**

General information about Navy and MARAD's artificial reefing program can be found at <http://peoships.crane.navy.mil/reefing/default.htm> and [www.marad.dot.gov/programs/index.html](http://www.marad.dot.gov/programs/index.html), respectively. Many coastal states have artificial reef programs, and information on local vessel-to-reef programs can be obtained by contacting the appropriate offices of your local and state government.

Information for state artificial reef coordinators is included as Appendix B of today's document.

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**Docket ID:** EPA-HQ-OW-2004-0003. *"Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs."* 69 Fed. Reg. 46141 (August 2, 2004).

**Public Comment**

**Docket Document ID:** EPA-HQ-OW-2004-0003-0007

**Author Date:** August 28, 2004

**Author:** S.A. Kehinde

**Comment # F-1:**

Dear Madam,

Further to our E-Mail of today, the following are the comments we want to pass to EPA:

Docket ID: OW-2004-0003

Docket Title: National Guidance. Best Management Practices For Preparing Vessels intended To Create Artificial Reefs.

Subject /Title: ARTIFICIAL REEFING ARE NOT NECESSARY.

COMMENTS: It is not necessary to apply artificial reefing in solving the problems caused by these *so* called obsolete vessels. We support Vessel donation/Conversion. Africans needs these vessels badly. If given to interested Africans, the beneficiaries (NO Governmental entities must be allowed as they will politicize it and make it fail) can pay for cost of removing PCBS, Asbestos etcetra etcetra and also pay for conversion costs. The jobs will be done in the USA-more jobs for the Americans and a lot of savings for the US GOVERNMENT AND THE USA will be doing greater assistance to Africans.

**Response to Comment # F-1:**

Vessel conversion/donation/export to foreign countries is beyond the scope of the draft BMP guidance document. This document provides guidance on the preparation of obsolete

and decommissioned military and commercial vessels when employing the vessel management option of creating artificial reefs.

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**Comment # F-2:**

Artificial reefing may turn USA waters to artificial junk yards. After stripping the vessels naked, it will be corroded and dissolved into the waters like the cornflakes in liquid milk. Another bigger problem will evolve. If the USA government will like to make the divers and the fish to be happy, it will be a good idea and very cheap to carry granites and other natural stones that will not cause pollution and sink them into the waters. GOD or Nature uses these stones and they are perfect for these purposes. Moreover, we think no prudent investors will like to go near this venture. It is not bankable nor advisable.

**Response to Comment # F-2:**

EPA does not intend to turn the waters of the U.S. into “artificial junk yards.” The best management practices guidance document identifies materials or categories of materials of concern that may be found aboard vessels and specifically identifies where they may be found. For each material or category of material, the guidance document provides a narrative clean-up performance goal, as well as information on methods for achieving those goals in preparation of the vessel prior to sinking. Materials of concern include, but are not limited to: oil and fuel, asbestos, polychlorinated biphenyls (PCBs), paint, and solids/debris/floatables.

The use of this guidance will help ensure that vessels prepared for use as artificial reefs will be environmentally sound in their use as artificial reefs. Best management practices are provided through clean-up performance goals that are directed at the level of cleaning and/or removing materials of concern aboard vessels. The preparation of vessels in this manner will help ensure that their use as artificial reefs is environmentally sound. The purpose of creating an artificial reef is to benefit the environment by enhancing aquatic habitat and marine resources, as well as providing an additional option for conserving, managing, and/or developing fisheries resources. The draft BMP guidance document describes appropriate vessel preparation that could achieve such benefits as an artificial reef and avoid negative impacts on the environment with pollutants. The clean-up performance goals provided in this document, if implemented and accompanied by strategic site selection, will maximize the opportunity for a vessel to benefit the environment as an artificial reef.

The methods, approach, and level of effort for clean-up, as well as worker safety concerns, are directly dependent on the vessel’s condition and the amount of materials of environmental concern that are found aboard. Vessels where clean-up could pose potential worker safety risks or could incur high costs may not be good candidate vessels for reefing. Choosing a good candidate vessel to meet the goal of creating an artificial reef, complemented with the proper project planning, vessel preparation, and artificial reef siting, can lead to a successful project, which in turn can provide positive economic benefits for the respective coastal community and the project investors/sponsors.

It is beyond the scope of the BMP guidance document to explore materials unrelated to vessels or other structures for reefing.

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**Comment # F-3:**

We strongly appeal to the USA Government to view these issues on humanitarian ground (Human beings) but not on animalitarian ground (Fish and sea animals). Even no divers will like Togo near murky waters. > These donations/Conversion are strictly for peaceful purposes. We in this part of the world (Africa) will greatly appreciate this assistance from the USA government.

**Response to Comment # F-3:**

Vessel conversion/donation/export to foreign countries is beyond the scope of the draft BMP guidance document. This document provides guidance on the preparation of obsolete and decommissioned military and commercial vessels when employing the vessel management option of creating artificial reefs.

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These comments are from Messrs Kehinde Global Ventures Of BP7 Aneho, Republic of Togo. West Africa.

E-Mail:alumoni@yahoo.fr

GOD BLESS THE GOVERNMENT AND THE PEOPLE OF THE UNITED STATES OF AMERICA. (AMEN)

Thank you very much .  
Best Regards  
S.A. Kehinde

**Docket ID:** EPA-HQ-OW-2004-0003. *“Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs.”* 69 Fed. Reg. 46141 (August 2, 2004).

**Public Comment**

**Docket Document ID:** EPA-HQ-OW-2004-0003-0008

**Author Date:** September 24, 2004

**Author:** Barbara Nightingale  
Environmental Planner  
Planning Unit  
Aquatic Resources Division  
Washington State Department of Natural Resources

**Comment # G-I-1:**

OW-Docket,

The attached file contains comments on the Docket ID No. OW 2004-0003 Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs from the Washington State Department of Natural Resources, Aquatics Division.

Thank you for the opportunity to comment.

Barbara Nightingale  
Environmental Planner  
Planning Unit  
Aquatic Resources Division  
Washington State Dept. of Natural Resources

**Response to Comment # G-I-1:**

The attached file, as mentioned above in the Public Comment Docket Document ID # EPA-HQ-OW-2004-0003-0008 (Comment # G-I-1), was received. Please see proceeding Public Comment Docket Document ID # EPA-HQ-OW-2004-0003-0009 for the comment letter submitted, and EPA's response to those comments.

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**Docket ID:** EPA-HQ-OW-2004-0003. *“Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs.”* 69 Fed. Reg. 46141 (August 2, 2004).

**Public Comment**

**Docket Document ID:** EPA-HQ-OW-2004-0003-0009

**Author Date:** September 24, 2004

**Author:** Loren J. Stern, Manager  
Aquatic Resources Division  
The Washington Department of Natural Resources (WDNR)



WASHINGTON STATE DEPARTMENT OF  
**Natural Resources**

DOUG SUTHERLAND  
Commissioner of Public Lands

September 24, 2004

Water Docket  
Environmental Protection Agency  
Mail Code 4101T  
1200 Pennsylvania Ave. NW  
Washington, D.C. 20460

Attention: Docket ID No. OW-2004-0003

Subject: Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs

To whom it may concern:

Thank you for the opportunity to provide comments on the draft Federal Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs.

The Washington Department of Natural Resources (WDNR) manages over 2.4 million acres of state-owned aquatic lands. These lands include shorelands, tidelands, and bedlands in Puget Sound, along the Pacific Coast, and in navigable rivers and lakes throughout Washington State. WDNR's management authority derives from the State Constitution. As proprietary manager of state-owned aquatic lands, WDNR has been directed to manage the lands for the benefit of the public in a manner that provides a balance of public benefits for all citizens of the state. These public benefits include encouraging direct public use and access, fostering water-dependant uses, ensuring environmental protection, and utilizing renewable resources.

As stewards and managers of state-owned aquatic lands, WDNR has the authority to determine or prohibit the placement of sunken vessels on state-owned aquatic lands. To allow such placement, WDNR would set stringent criteria and require an impact assessment for any proposal to use sunken vessels as artificial reefs. The widespread use of sunken vessels as artificial reefs in Washington State is largely precluded by Washington's extensive area of inland waterways, the nature of the aquatic habitats and animals that have evolved to use these waterways, the extent of human uses, and the exposed high-energy nature of the state's outer coast. In Washington, natural aquatic habitats include protected sand and mud flats, eelgrass and kelp beds, and rocky reefs. Native animals have evolved in response to these natural habitats. By adding artificial reefs, we are altering nature's balance in these aquatic ecosystems.

**AQUATIC RESOURCES DIVISION** 1111 WASHINGTON ST SE PO BOX 47027 OLYMPIA, WA 98504-7027

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**Comment # G-II-1:**

The draft provides needed guidance for vessel cleanup to protect against potential human and environmental contamination risks. However, based upon our previous experiences with sunken vessels and the placement of artificial reefs in Washington waterways, we've found that such reefs and sunken vessels alter the physical and biological nature of aquatic habitats important to species listed under the Endangered Species Act (ESA) and other species of concern.

**Response to Comment # G-II-1:**

The draft BMP guidance document refers to the purpose of creating an artificial reef to be to benefit the environment by enhancing aquatic habitat and marine resources, as well as providing an additional option for conserving, managing, and/or developing fisheries resources. Impacts of vessel-to-reef projects to species listed under the Endangered Species Act and other species of concern, and the potential of altering nature's balance in the aquatic ecosystems in which these vessels are to be placed, should be considered in the initial phases of the project planning and feasibility. The BMP guidance does stress that planning (including site selection), long-term monitoring, and evaluation are necessary components of each project to help ensure that the anticipated benefits of artificial reefs are attained.

Further, the draft BMP guidance document's brief discussion of artificial reef site selection states that "because the purpose of creating an artificial reef is to benefit the environment by enhancing aquatic habitat and marine resources, as well as providing an additional option for conserving, managing, and/or developing fisheries resources, artificial reefs should not cause harm to existing living marine resources and habitats." The draft BMP guidance document also states that applicants should consult with the appropriate federal and State agencies to ensure that vessel placement would not adversely affect endangered species or habitat areas of particular concern or considered to be special aquatic sites. Selection of an appropriate artificial reef site is a critical element for any successful vessel-to-reef project.

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**Comment # G-II-2:**

Species associated with artificial reefs, such as rockfish, are species that do not stray far from their adult habitat and therefore become easy prey for fishermen. In Washington, these species are currently declining and have been proposed for listing under the ESA. The cause for their decline is largely overfishing. Using sunken vessels for artificial reefs to facilitate access and use by fishermen would further contribute to their decline. Sunken vessels are known to harbor predators of ESA listed species, such as chinook and chum salmon. Salmon outrigrate at a small size from their natal streams to Washington estuaries and are known to use nearshore habitats as protected migratory corridors during a most vulnerable life-history stage. Without the presence of the sunken vessels, these predators would not ordinarily be present in the juvenile salmon migratory corridor.

The presence of sunken vessels and the havens such structures provide for large predators could significantly increase the mortalities of these ESA listed species.

**Response to Comment # G-II-2:**

The general concerns regarding purpose/intent of reef creation, reef siting, and potential conflict among competing user groups of the reef site raised in the comment letter are addressed in the draft version of the BMP guidance document. More specifically, the draft guidance states that the purpose of creating an artificial reef is to benefit the environment by enhancing aquatic habitat and marine resources, as well as providing an additional option for conserving, managing, and/or developing fisheries resources.

Impacts of vessel-to-reef projects to species listed under the Endangered Species Act and other species of concern and the potential of altering nature's balance in the aquatic ecosystems in which these vessels are placed should be considered prior to creating an artificial reef. The BMP guidance stresses that planning (including siting), long-term monitoring, and evaluation are necessary components of each project to help ensure that the anticipated benefits of artificial reefs are attained. Improperly planned, constructed, or managed reefs may be ineffective, may cause conflict among competing user groups of the reef site, may increase the potential to over harvest targeted species, or may damage natural habitats. In such cases, the anticipated benefits of an artificial reef project may be negated. Artificial reefs should not be sited in locations that cause harm to existing living marine resources and habitats.

Vessel placement/site selection, while not the primary focus of the draft BMP guidance document, is an integral part of any vessel-to-reef project. The draft BMP guidance document's cursory description of artificial reef site selection recommendations states that "because the purpose of creating an artificial reef is to benefit the environment by enhancing aquatic habitat and marine resources, as well as providing an additional option for conserving, managing, and/or developing fisheries resources, artificial reefs should not cause harm to existing living marine resources and habitats." The BMP guidance document also states that applicants should consult with the appropriate federal and State agencies to ensure that vessel placement would not adversely affect endangered species or habitat areas of Endangered Species Act listed species and species of State and local concern or areas considered to be special aquatic sites. Further, the BMPs state that vessel placement for reefing should conform to any federal, State, or local requirements or policies for artificial reefs.

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**Comment # G-II-3:**

Another significant risk in Washington State is the known tendency for such vessels to snare derelict fishing nets and to continue the catch of animals in perpetuity or until the gear is discovered and removed.

**Response to Comment # G-II-3:**

The BMP guidance document stresses that beyond the project planning that takes place prior to reefing, long-term monitoring and evaluation once the vessel is settled at the reef site are necessary components of each project to help ensure that the anticipated benefits of artificial reefs are attained. Such monitoring and evaluation of a given reef would provide opportunities to assess the integrity of the reef, as well as the anticipated benefits of an artificial reef project, which is not to cause harm to existing living marine resources and habitats as stated in Comment # G-II-3.

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**Comment # G-II-4:**

Upon review of the draft guidance, and in consideration of the above public benefits, and an ongoing dilemma WDNR now faces with the growing number of derelict vessels found in our state's inland waterways, we raise the following list of concerns and comments:

- **Page 5, Executive Summary, paragraph 2, sentence 3.** This paragraph makes the general statement that "artificial reefs should be developed such that they enhance marine resources and benefit the marine environment." For a stronger and clearer statement, the wording should be changed to: "Artificial reefs should only be developed where such reefs are known to enhance native marine resources and benefit the natural marine environment."

**Response to Comment # G-II-4:**

EPA accepts this comment and the suggested change has been incorporated in the final guidance document. The comment will be addressed as follows:

“Artificial reefs should only be developed where such reefs will enhance native marine resources and benefit the natural marine environment.”

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**Comment # G-II-5:**

- **Page 5, Executive Summary, paragraph 5, sentence 2.** This sentence states that this guidance neither imposes legally binding requirements nor substitutes for other regulatory authorities. As state interests include not only regulatory but proprietary management authority, the wording should be changed to: "It does not impose legally binding requirements on any federal agency, States, other regulatory, proprietary management authorities, or the regulated community, and may not apply to a particular situation based upon the circumstances. Proprietary interests include the ability of the landowner, including state governments, to authorize or prohibit such uses and to charge fees."

**Response to Comment # G-II-5:**

EPA accepts this comment in part and has revised the disclaimer to refer to proprietary management authorities as “resource management authorities” so as to read as follows:

“This guidance does not substitute for any statute or regulation, nor is it a regulation itself. The document recommends environmental best management practices for use in the preparation of vessels for use as artificial reefs. Associated with the recommended environmental best management practices are narrative environmental clean-up performance goals, as well as recommendations and suggestions in furtherance of those goals. By its terms, the guidance itself does not impose binding requirements on any federal agency, States, other regulatory or resource management authorities, or any other entity.”

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**Comment # G-II-6:**

- **Page 11, third paragraph, bulleted list.** This paragraph provides a bulleted list of the objectives for using sunken vessels as artificial reefs. One of these objectives is to facilitate access and use by recreational and/or commercial fishermen. In Washington, as species known to be associated with artificial reefs, such as rockfish, are currently in decline to the point of being proposed for listing under the ESA due to overfishing, we request the

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September 24, 2004

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removal of the second bullet "facilitate access and use by recreational and/or commercial fishermen."

**Response to Comment # G-II-6:**

Properly prepared and strategically sited artificial reefs can enhance fish habitat, provide more access to quality fishing grounds, and provide managers with another option for conserving, managing, and/or developing fishery resources, any of which is dependent upon the anticipated benefits of the artificial reef project. Because a specific goal for a given artificial reef project could be to enhance a target species or to provide access to quality fishing grounds, EPA addresses the concern over text in the second bullet by stating that:

"Additional considerations that may be relevant to the placement of a vessel for the creation of an artificial reef include facilitating access and use by recreational and/or commercial fisherman."

Additionally, EPA notes in the guidance that:

"Improperly sited reefs might enhance a recreational fish resource at the expense of other species or habitat; it may also alter the ecological balance of the area."

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**Comment # G-II-7:**

- **Page 12, second paragraph, bulleted list.** Add "migratory corridors and rearing habitats of ESA listed species and species of state and local concern" as a sixth bullet to the first list of excluded areas.

**Response to Comment # G-II-7:**

EPA accepts this comment in part for the reasons described in the narrative introduction of the comment. EPA has more broadly addressed this concern by adding a bullet in the final guidance document as follows:

“Artificial reefs should not be constructed such that they are placed on or threaten the integrity of mature habitats such as habitats of Endangered Species Act listed species and species of State and local concern.”

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**Comment # G-II-8:**

- **Page 29, paragraphs 2 and 3.** These paragraphs refer to those instances when the bottom coating application date is unknown. As a precautionary approach to protect against the potential harmful effects of a known biocide, this paragraph should require bottom paint removal, rather than further evaluation whenever the length of time since the last biocide application is unknown.

**Response to Comment # G-II-8:**

Even though the last biocide application date may be unknown, removal of bottom paint may not be necessary. If a vessel has been inactive for at least 12 years, during which time no new anti-fouling system has been applied, and essentially all the underwater hull area is covered with marine growth, the anti-fouling coatings can be left in place without further evaluation, as they are no longer likely to present risks of harm. If satisfactory evidence relating to underwater hull coating types and coating application dates is not available, and if the anti-fouling coating seems to be inhibiting fouling growth according to established anti-fouling paint efficacy, further evaluations should be carried out to ascertain the current anti-fouling properties of the coating. This further evaluation would help determine if the anti-fouling paint is inhibiting growth, or if other factors may be having an influence. Though EPA agrees with the comment, no text modifications appear to be necessary.

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**Comment # G-II-9:**

- **Page 31, paragraph 1.** The description of vessel debris to be removed prior to sinking should include "all netting material."

**Response to Comment # G-II-9:**

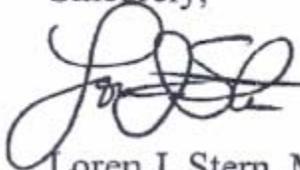
Although “netting material” could be considered “foreign matter” (per the draft guidance), EPA incorporated the suggested change in the final guidance document under the Solids/Debris/Floatables discussion of Vessel Preparation. EPA addressed the comment as follows:

“Ship’s surfaces (e.g., decks, bulkheads, overheads, and surfaces of appurtenances) should be thoroughly cleaned to remove all dirt, loose scale, trash, exfoliating paint, paint chips, hazardous materials, and other foreign matter (including netting material).”

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Thank you for the opportunity to comment on this draft guidance. If you have any questions or need further information, please do not hesitate to contact Barbara Nightingale, Environmental Planner, at (360) 902-1068 or via e-mail at Barbara.nightingale@wadnr.gov.

Sincerely,



Loren J. Stern, Manager  
Aquatic Resources Division

c : Barbara Nightingale, WDNR

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**Docket ID:** EPA-HQ-OW-2004-0003. *“Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs.”* 69 Fed. Reg. 46141 (August 2, 2004).

**Public Comment**

**Docket Document ID:** EPA-HQ-OW-2004-0003-0010

**Author Date:** September 29, 2004

**Author:** Peggy Bowen  
NJ Council of Diving Clubs

**Comment # H-1:**

As a New Jersey Diver, I believe your limit of PCB's is way to high. It shouldn't be higher than that allowed in other parts of our New Jersey ocean waters. I would comment further but I just found out about this document today (9/29/04)

**Response to Comment # H-1:**

EPA does not believe that this level is too high. The Agency believes that given that the PCBs in PCB bulk product waste are tightly bound within the product matrix, 50 ppm is an appropriate lower limit for PCB bulk product waste (see 63 FR 35411). The PCBs are expected to leach out of the matrix more slowly than PCBs from other materials. The relative leachability should hold in an aqueous environment as well as a terrestrial environment.

**Docket ID:** EPA-HQ-OW-2004-0003. “*Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs.*” 69 Fed. Reg. 46141 (August 2, 2004).

**Public Comment**

**Docket Document ID:** EPA-HQ-OW-2004-0003-0011

**Author Date:** September 24, 2004

**Author:** Washington Department of Natural Resources (WDNR)

**Comment # G-III-1:**

Duplicate comment. Please see EPA-HQ-OW-2004-0003-0009.

**Response to Comment # G-III-1:**

Please refer to the response provided for EPA-HQ-OW-2004-0003-0009 (Commenter Identification “G-II”).

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**Docket ID:** EPA-HQ-OW-2004-0003. “*Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs.*” 69 Fed. Reg. 46141 (August 2, 2004).

**Public Comment**

**Docket Document ID:** EPA-HQ-OW-2004-0003-0012

**Author Date:** September 30, 2004

**Author:** Anne Newsom  
The Commonwealth of Virginia  
Department of Environmental Quality

**Comment # I-1:**

09/30/2004 03:16 PM

To: Group Ow-Docket@EPA

cc:

Subject: Attention: Docket ID No.  
OW-2004-0003

Dear Sir/Madam,

Due to an error in our original comments mailed by our office on September 28, 2004, please accept this corrected version of our comments. A signed copy of the corrected version will be mailed to you shortly. If you have any questions, please contact me at the address/phone number below.

Anne Newsom

\*VDEQ-OW-2004-0003-correctedorignial.doc

\*VDEQ-OW-2004-0003-letterofcorrection.doc

Anne Newsom

Department of Environmental Quality

Office of Environmental Impact Review

629 East Main Street

Richmond, Virginia 23219  
(804) 698-4135  
(804) 698-4319 (fax)  
email: abnewsom@deq.virginia.gov

**Response to Comment # I-1:**

The attached file, as mentioned above in the Public Comment Docket Document ID # EPA-HQ-OW-2004-0003-00012, was received. Please see proceeding Public Comment Docket Document ID # EPA-HQ-OW-2004-0003-00013 (Commenter Identification "I-I") for the comment letter submitted.

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**Docket ID:** EPA-HQ-OW-2004-0003. "*Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs.*" 69 Fed. Reg. 46141 (August 2, 2004).

**Public Comment**

**Docket Document ID:** EPA-HQ-OW-2004-0003-0013  
**Author Date:** September 28, 2004  
**Author:** Ellie Irons  
Program Manager  
Office of Environmental Impact Review  
The Commonwealth of Virginia

**Comment # I-I:**



**COMMONWEALTH of VIRGINIA**

**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
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W. Tayloe Murphy, Jr.  
Secretary of Natural Resources

Robert G. Buntley  
Director

(804) 698-4000  
1-800-592-5482

September 28, 2004

Water Docket  
Environmental Protection Agency  
Mailcode: 4101T  
1200 Pennsylvania Avenue, NW  
Washington, D.C. 20460

ATTN: Docket ID No. OW-2004-0003

RE: Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs (DEQ # 04-164F).

Dear Sir/Madam:

The Commonwealth of Virginia has completed its review of the above-referenced guidance. The Department of Environmental Quality (DEQ) is responsible for coordinating Virginia's review of federal environmental documents and responding to appropriate federal officials on behalf of the Commonwealth. The following agencies and planning district commission participated in this review:

Department of Environmental Quality  
Department of Game and Inland Fisheries  
Department of Conservation and Recreation  
Virginia Port Authority  
Virginia Institute of Marine Science  
Hampton Roads Planning District Commission

The Department of Health and the Marine Resources Commission were also invited to comment.

### **Project Description and Purpose**

The Environmental Protection Agency (EPA), with support from the Department of Transportation's Maritime Administration (MARAD), intends to provide a national, environmentally-based best management practices guidance for the preparation of vessels

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Docket ID No. OW-2004-0003  
Page 2

to be sunk with the intention of creating artificial reefs in permitted artificial reef construction areas. Artificial reefs should be developed in a manner that enhances marine resources and benefits the marine environment. Strategically sited artificial reefs not only enhance aquatic habitat, but also provide an additional option for conserving, managing and/or developing fishery resources.

Although the best management practices presented in the Draft Guidance document are intended for use when preparing vessels to serve as artificial reef habitat, the best management practices

may have applicability to other in-water uses of vessels, such as the creation of recreational diving opportunities, and placement of breakwaters or other types of barriers. When preparing a vessel for other permitted in-water uses, consideration should be given to vessel stability and integrity prior to and after final placement.

## Comments

In general, the Commonwealth supports the EPA in providing national, environmentally-based best management practices as set forth in the guidance document. Please note, however, the guidance document does not preclude the Commonwealth from commenting on future sitespecific projects. Any proposed projects located in Virginia's coastal zone would be subject to review under the Virginia Coastal Resources Management Program (VCP) and would require the project proponent to submit a consistency determination to this office for review.

Comments submitted by reviewers during the Commonwealth's review of the draft guidance document are attached for your review. A summary of these comments follows.

The Department of Game and Inland Fisheries supports the siting guidance that stipulates that while artificial reefs can improve local fishery resources, care must be taken to avoid locating a reef where it may adversely impact wildlife resources (Draft Guidance Document, pages 11-12).

Since the document excludes discussion of hazardous and solid wastes, the DEQ-Waste Division recommends that the Final National Guidance document address hazardous waste laws and regulations, including the Resources Conservation and Recovery Act and state analogues, along with hazardous substances, as addressed by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and solid waste laws and regulations.

The Department of Environmental Quality's Northern Regional Office (NRO) states that the guidance outlined in the document on the removal of toxic and/or hazardous substances should

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minimize impacts to water quality. However, both the DEQ-NRO and the DEQ-Tidewater Regional Office state that the document does not address the handling and disposal of wastes generated during vessel preparation. The DEQ-NRO suggests that information should be added to the Executive Summary and each section of the document stating that all waste generated during the preparation of the vessels must be stored and disposed of according to 40 CFR 260 through 265 and all applicable state regulations. Also, discussion should be added to Appendix B citing the hazardous waste regulations under 40 CFR 261 through 265. In addition, the guidance document should address the use of appropriate spill containment during the sinking of the vessels to capture any oil or fuel that appears on the surface and that the party responsible for sinking the vessel should be prepared to capture and clean up any residual material.

## **General Information**

The Draft Guidance document (page 6) states that the document does not cover the specific statutory requirements and associated regulations as well as permit processes applicable to the process of preparing a vessel for reefing. However, the DEQ-Waste Division would like to provide some general information that would be relevant to any proposal for preparation of and the sinking of a vessel in waters of the Commonwealth of Virginia.

The DEQ-Waste Division states that for any ship disposal/Artificial Reef project, soil or ship-related material that is suspected of contamination, or wastes that are generated in or prior to the disposal process, must be tested and disposed of in accordance with applicable federal, State and local laws and regulations. Some of the applicable state laws and regulations in Virginia are the Virginia Waste Management Act, Code of Virginia Sections 10.1-1400 *et seq.*, the Virginia Hazardous Waste Management Regulations (9VAC 2-60) and the Virginia Solid Waste Management Regulations (9VAC 20-110). Some of the applicable Federal laws and regulations include the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Section 6901 *et seq.* and the applicable regulations contained in Title 40 of the Code of Federal Regulations, and the U.S. Department of Transportation Rules for Transportation of Hazardous Materials, 49 CFR Parts 107.

In addition, ship-related structures to be demolished should be checked for asbestos-containing materials (ACM) and lead-based paint (LBP) prior to demolition or disposal. If ACM or LBP are found, in addition to the federal waste-related regulations, State regulations 9VAC20-80-640 for ACM and 9VAC20-60-261 for LBP must be followed. DEQ also encourages all projects and facilities to implement pollution prevention principles, including the reduction, reuse and recycling of all solid wastes generated. All generation of hazardous wastes should be minimized and handled appropriately.

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Page 4

Thank you for the opportunity to review the Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs. Copies of future NEPA or Coastal Zone Management Act documents prepared for sites located in Virginia should be sent to DEQ's Office of Environmental Review for review. For further information, please contact me at (804) 698-4325 or Anne Newsom at (804) 698-4135.

Sincerely,

Ellie Irons  
Program Manager  
Office of Environmental Impact Review

Enclosures

cc: Michelle Henicheck, DEQ-OWWP&C  
John Bowden, DEQ-NRO  
Harold Winer, DEQ-TRO  
Allen Brockman, DEQ-Waste  
Andrew Zadnik, DGIF

**Response to Comment # I-I:**

Per comment letter EPA-HQ-OW-2004-0003-0014, the comment letter EPA-HQ-OW-2004-0003-0013 was amended. The amended letter was submitted and received (see comment letter EPA-HQ-OW-2004-0003-0028). For this reason, the response for the EPA-HQ-OW-2004-0003-0013 comment letter is provided in the response given for the EPA-HQ-OW-2004-0003-0028 (Commenter Identification "I-III").

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**Docket ID:** EPA-HQ-OW-2004-0003. *"Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs."* 69 Fed. Reg. 46141 (August 2, 2004).

**Public Comment**

**Docket Document ID:** EPA-HQ-OW-2004-0003-0014  
**Author Date:** September 28, 2004  
**Author:** The Commonwealth of Virginia  
Department of Environmental Quality

**Comment # I-II:**



**COMMONWEALTH of VIRGINIA**

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W. Taylor Murphy, Jr.  
Secretary of Natural Resources

Robert G. Bumley  
Director

(804) 698-4000  
1-800-592-5482

September 30, 2004

Water Docket  
Environmental Protection Agency  
Mailcode: 4101T  
1200 Pennsylvania Avenue, NW  
Washington, D.C. 20460

ATTN: Docket ID No. OW-2004-0003

RE: Draft National Guidance: Best Management Practices for Preparing Vessels Intended to Create Artificial Reefs (DEQ # 04-164F).

Dear Sir/Madam:

This letter is provided to clarify the Department of Environmental Quality's September 28, 2004 comments on the above-referenced project. Page 2, paragraph 4 in the "Comments" section of our letter to your office. Our initial correspondence indicated that the Draft National Guidance document addressed the topic of waste from a toxic and hazardous waste perspective. This is incorrect since the document does not specifically address hazardous or solid wastes, but instead, the Draft National Guidance document only addresses some toxic and hazardous substances.

The new Page 2, paragraph 4, "Comments" section should read as follows:

Since the document excludes discussion of hazardous and solid wastes, the DEQ-Waste Division recommends that the Final National Guidance document address hazardous waste laws and regulations, including the Resources Conservation and Recovery Act and state analogues, along with hazardous substances, as addressed by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and solid waste laws and regulations.

We are sending this letter and a corrected version of our September 28, 2004 letter by email in order to reach your office by the October 1, 2004 deadline. We will follow up this email with a signed copy and 3 originals of both letters in the mail. We regret any inconvenience that may have resulted from this error. Thank you for the opportunity to comment on this matter.

Sincerely,

Ellie Irons, Program Manager  
Office of Environmental Impact Review

Cc: Allen Brockman, DEQ-Waste

**Response to Comment # I-II:** As mentioned above in the Public Comment Docket Document ID # EPA-HQ-OW-2004-0003-0014, letter EPA-HQ-OW-2004-0003-0013 was amended. The amended letter was submitted and received (see comment letter EPA-HQ-OW-2004-0003-0028). For this reason, the response for the EPA-HQ-OW-2004-0003-

0013 and EPA-HQ-OW-2004-0003-0014 comment letter is provided in the response given for EPA-HQ-OW-2004-0003-0028 (Commenter Identification "I-III").

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