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National Oil and Hazardous Substances Pollution Contingency Plan

PART 300-NATIONAL OIL AND HAZARDOUS SUBSTANCES POLLUTION CONTINGENCY PLAN

3. The authority citation for part 300 is revised to read as follows:

Authority: 42 U.S.C. 9601-9657; 33 U.S.C. 1321(d); E.O. 11735, 38 FR 21243; E.O. 12580, 52 FR 2923; E.O. 12777, 56 FR 54757.

4. Subparts A, B, C, and D are revised to read as follows:

PART 300- AMENDED

Subpart A-Introduction

Sec.

Subpart B- Responsibility and Organization for Response

Sec. 300.1 -- Purpose and objectives.

The purpose of the National Oil and Hazardous Substances Pollution Contingency Plan(NCP) is to provide the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants.

Sec. 300.2 -- Authority and applicability.

The NCP is required by section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. 9605, as amended by the Superfund Amendments and Reauthorization Act of 1986(SARA), Pub. L. 99-499,(hereinafter CERCLA), and by section 311(d) of the Clean Water Act(CWA), 33 U.S.C. 1321(d), as amended by the Oil Pollution Act of 1990(OPA), Pub. L. 101-380. In Executive Order(E.O.) 12777(56 FR 54757, October 22, 1991), the President delegated to the Environmental Protection Agency(EPA) the responsibility for the amendment of the NCP. Amendments to the NCP are coordinated with members of the National Response Team(NRT) prior to publication for notice and comment. This includes coordination with the Federal Emergency Management Agency(FEMA) and the Nuclear Regulatory Commission in order to avoid inconsistent or duplicative requirements in the emergency planning responsibilities of those agencies. The NCP is applicable to response actions taken pursuant to the authorities under CERCLA and section 311 of the CWA, as amended.

Sec. 300.3 -- Scope.

(a) The NCP applies to and is in effect for:

(1) Discharges of oil into or on the navigable waters of the United States, on the adjoining shorelines, the waters of the contiguous zone, into waters of the exclusive economic zone, or that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States(See sections 311(c)(1) and 502(7) of the CWA).

(2) Releases into the environment of hazardous substances, and pollutants or contaminants which may present an imminent and substantial danger to

public health or welfare of the United States.

(b) The NCP provides for efficient, coordinated, and effective response to discharges of oil and releases of hazardous substances, pollutants, and contaminants in accordance with the authorities of CERCLA and the CWA. It provides for:

(1) The national response organization that may be activated in response actions. It specifies responsibilities among the federal, state, and local governments and describes resources that are available for response.

(2) The establishment of requirements for federal, regional, and area contingency plans. It also summarizes state and local emergency planning requirements under SARA Title III.

(3) Procedures for undertaking removal actions pursuant to section 311 of the CWA.

(4) Procedures for undertaking response actions pursuant to CERCLA.

(5) Procedures for involving state governments in the initiation, development, selection, and implementation of response actions, pursuant to CERCLA.

(6) Listing of federal trustees for natural resources for purposes of CERCLA and the CWA.

(7) Procedures for the participation of other persons in response actions.

(8) Procedures for compiling and making available an administrative record for response actions.

(9) National procedures for the use of dispersants and other chemicals in removals under the CWA and response actions under CERCLA.

(c) In implementing the NCP, consideration shall be given to international assistance plans and agreements, security regulations and responsibilities based on international agreements, federal statutes, and executive orders. Actions taken pursuant to the provisions of any applicable international joint contingency plans shall be consistent with the NCP, to the greatest extent possible. The Department of State shall be consulted, as appropriate, prior to taking any action which may affect its activities.

(d) Additionally, the NCP applies to and is in effect when the Federal Response Plan and some or all its Emergency Support Functions(ESFs) are activated.

Sec. 300.4 -- Abbreviations.

(a) Department and Agency Title Abbreviations:

ATSDR-Agency for Toxic Substances and Disease Registry

CDC-Centers for Disease Control

DOC-Department of Commerce

DOD-Department of Defense

DOE-Department of Energy

DOI- Department of the Interior

DOJ-Department of Justice

DOL- Department of Labor DOS-Department of State

DOT-Department of Transportation

EPA-Environmental Protection Agency

FEMA-Federal Emergency Management Agency

GSA-General Services Administration

HHS-Department of Health and Human Services

NIOSH- National Institute for Occupational Safety and Health

NOAA-National Oceanic and Atmospheric Administration

OSHA-Occupational Health and Safety Administration

RSPA-Research and Special Programs Administration

USCG-United States Coast Guard USDA-United States Department of Agriculture

Note: Reference is made in the NCP to both the Nuclear Regulatory Commission and the National Response Center. In order to avoid confusion, the NCP will spell out Nuclear Regulatory Commission and use the abbreviation "NRC" only with respect to the National Response Center.

(b) Operational Abbreviations:

ACP-Area Contingency Plan

ARARs-Applicable or Relevant and Appropriate Requirements

CERCLIS-CERCLA Information System

CRC-Community Relations Coordinator

CRP-Community Relations Plan

DRAT-District Response Advisory Team

DRG-District Response Group ERT-Environmental Response Team

ESF-Emergency Support Function

FCO-Federal Coordinating Officer

FRERP-Federal Radiological Emergency Response Plan

FRP-Federal Response Plan

FS- Feasibility Study

HRS-Hazard Ranking System

LEPC-Local Emergency Planning Committee

NCP-National Contingency Plan

NPFC-National Pollution Funds Center

NPL-National Priorities List NRC-National Response Center

NRS-National Response System

NRT-National Response Team

NSF-National Strike Force

NSFCC-National Strike Force Coordination Center

O&M-Operation and Maintenance

OSC-On-Scene Coordinator

OSLTF-Oil Spill Liability Trust Fund

PA-Preliminary Assessment

PIAT-Public Information Assist Team

RA-Remedial Action RCP-Regional Contingency Plan

RD-Remedial Design

RERT- Radiological Emergency Response Team

RI-Remedial Investigation

ROD-Record of Decision

RPM-Remedial Project Manager

RRC-Regional Response Center

RRT-Regional Response Team

SAC-Support Agency Coordinator

SERC-State Emergency Response Commission

SI-Site Inspection SMOA-Superfund Memorandum of Agreement

SONS-Spill of National Significance

SSC-Scientific Support Coordinator

SUPSALV-United States Navy Supervisor of Salvage

USFWS-United States Fish and Wildlife Service

Sec. 300.5 -- Definitions.

Terms not defined in this section have the meaning given by CERCLA, the OPA, or the CWA.

Activation means notification by telephone or other expeditious manner or, when required, the assembly of some or all appropriate members of the RRT or NRT.

Alternative water supplies as defined by section 101(34) of CERCLA, includes, but is not limited to, drinking water and household water supplies. Applicable requirements means those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance found at a CERCLA site. Only those state standards that are

identified by a state in a timely manner and that are more stringent than federal requirements may be applicable.

Area Committee(AC) as provided for by CWA sections 311(a)(18) and(j)(4), means the entity appointed by the President consisting of members from qualified personnel of federal, state, and local agencies with responsibilities that include preparing an area contingency plan for an area designated by the President.

Area contingency plan(ACP) as provided for by CWA sections 311(a)(19) and(j)(4), means the plan prepared by an Area Committee that is developed to be implemented in conjunction with the NCP and RCP, in part to address removal of a worst case discharge and to mitigate or prevent a substantial threat of such a discharge from a vessel, offshore facility, or onshore facility operating in or near an area designated by the President. Bioremediation agents means microbiological cultures, enzyme additives, or nutrient additives that are deliberately introduced into an oil discharge and that will significantly increase the rate of biodegradation to mitigate the effects of the discharge.

Burning agents means those additives that, through physical or chemical

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means, improve the combustibility of the materials to which they are applied.

CERCLA is the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986.

CERCLIS is the abbreviation of the CERCLA Information System, EPA's comprehensive data base and management system that inventories and tracks releases addressed or needing to be addressed by the Superfund program. CERCLIS contains the official inventory of CERCLA sites and supports EPA's site planning and tracking functions. Sites that EPA decides do not warrant moving further in the site evaluation process are given a "No Further Response Action Planned"(NFRAP) designation in CERCLIS. This means that no additional federal steps under CERCLA will be taken at the site unless future information so warrants. Sites are not removed from the data base after completion of evaluations in order to document that these evaluations took place and to preclude the possibility that they be needlessly repeated. Inclusion of a specific site or area in the CERCLIS data base does not represent a determination of any party's liability, nor does it represent a finding that any response action is necessary. Sites that are deleted from the NPL are not designated NFRAP sites. Deleted sites are listed in a separate category in the CERCLIS data base.

Chemical agents means those elements, compounds, or mixtures that coagulate, disperse, dissolve, emulsify, foam, neutralize, precipitate, reduce, solubilize, oxidize, concentrate, congeal, entrap, fix, make the pollutant mass more rigid or viscous, or otherwise facilitate the mitigation of deleterious effects or the removal of the pollutant from the water. Chemical agents include biological additives, dispersants, sinking agents, miscellaneous oil spill control agents, and burning agents, but do not include sorbents.

Claim for purposes of a release under CERCLA, means a demand in writing for a sum certain; for purposes of a discharge under CWA, it means a request, made in writing for a sum certain, for compensation for damages or removal costs resulting from an incident. Claimant as defined by section 1001 of the OPA means any person or government who presents a claim for compensation under Title I of the OPA.

Coastal waters for the purposes of classifying the size of discharges, means the waters of the coastal zone except for the Great Lakes and specified ports and harbors on inland rivers.

Coastal zone as defined for the purpose of the NCP, means all United States waters subject to the tide, United States waters of the Great Lakes, specified ports and harbors on inland rivers, waters of the contiguous zone, other waters of the high seas subject to the NCP, and the land surface or land substrata, ground waters, and ambient air proximal to those waters. The term coastal zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in federal regional contingency plans.

Coast Guard District Response Group(DRG) as provided for by CWA sections 311(a)(20) and(j)(3), means the entity established by the Secretary of the department in which the USCG is operating, within each USCG district, and shall consist of: the combined USCG personnel and equipment, including marine firefighting equipment, of each port in the district; additional prepositioned response equipment; and a district response advisory team.

Community relations means EPA's program to inform and encourage public participation in the Superfund process and to respond to community concerns. The term "public" includes citizens directly affected by the site, other interested citizens or parties, organized groups, elected officials, and potentially responsible parties(PRPs).

Community relations coordinator means lead agency staff who work with the OSC/RPM to involve and inform the public about the Superfund process and response actions in accordance with the interactive community relations requirements set forth in the NCP.

Contiguous zone means the zone of the high seas, established by the United States under Article 24 of the Convention on the Territorial Sea and Contiguous Zone, which is contiguous to the territorial sea and which extends nine miles seaward from the outer limit of the territorial sea.

Cooperative agreement is a legal instrument EPA uses to transfer money, property, services, or anything of value to a recipient to accomplish a public purpose in which substantial EPA involvement is anticipated during the performance of the project. Damages as defined by section 1001 of the OPA means damages specified in section 1002(b) of the Act, and includes the cost of assessing these damages.

Discharge as defined by section 311(a)(2) of the CWA, includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil, but excludes discharges in compliance with a permit under section 402 of the CWA, discharges resulting from circumstances identified and reviewed and made a part of the public record with respect to a permit issued or modified under section 402 of the CWA, and subject to a condition in such permit, or continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 402 of the CWA, that are caused by events occurring within the scope of relevant operating or treatment systems. For purposes of the NCP, discharge also means substantial threat of discharge.

Dispersants means those chemical agents that emulsify, disperse, or solubilize oil into the water column or promote the surface spreading of oil slicks to facilitate dispersal of the oil into the water column.

Drinking water supply as defined by section 101(7) of CERCLA, means any raw or finished water source that is or may be used by a public water system(as defined in the Safe Drinking Water Act(42 U.S.C. 300 et seq.) or as drinking water by one or more individuals.

Environment as defined by section 101(8) of CERCLA, means the navigable waters, the waters of the contiguous zone, and the ocean waters of which the natural resources are under the exclusive management authority of the United States under the Magnuson Fishery Conservation and Management Act(16 U.S.C. 1801 et seq.); and any other surface water, ground water,

drinking water supply, land surface or subsurface strata, or ambient air within the United States or under the jurisdiction of the United States.

Exclusive economic zone, as defined by OPA section 1001, means the zone established by Presidential Proclamation Numbered 5030, dated March 10, 1983, including the ocean waters of the areas referred to as "eastern special areas" in Article 3(1) of the Agreement between the United States of America and the Union of Soviet Socialist Republics on the Maritime Boundary, signed June 1, 1990.

Facility as defined by section 101(9) of CERCLA, means any building, structure, installation, equipment, pipe or pipeline(including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft, or any site or area, where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located;

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but does not include any consumer product in consumer use or any vessel. As defined by section 1001 of the OPA, it means any structure, group of structures, equipment, or device(other than a vessel) which is used for one or more of the following purposes: Exploring for, drilling for, producing, storing, handling, transferring, processing, or transporting oil. This term includes any motor vehicle, rolling stock, or pipeline used for one or more of these purposes.

Feasibility study(FS) means a study undertaken by the lead agency to develop and evaluate options for remedial action. The FS emphasizes data analysis and is generally performed concurrently and in an interactive fashion with the remedial investigation(RI), using data gathered during the RI. The RI data are used to define the objectives of the response action, to develop remedial action alternatives, and to undertake an initial screening and detailed analysis of the alternatives. The term also refers to a report that describes the results of the study.

Federal Radiological Emergency Response Plan(FRERP) means the inter-agency agreement for coordinating the response of various agencies, under a variety of statutes, to a large radiological accident. The Lead Federal Agency(LFA), defined by the FRERP, activates the FRERP for any peacetime radiological emergency which, based upon its professional judgment, is expected to have a significant radiological effect within the United States, its territories, possessions, or territorial waters and that could require a response by several federal agencies.

Federal Response Plan(FRP) means the agreement signed by 27 federal departments and agencies in April 1987 and developed under the authorities of the Earthquake Hazards Reduction Act of 1977(42 U.S.C. 7701 et seq.) and the Disaster Relief Act of 1974(42 U.S.C. 3231 et seq.), as amended by the Stafford Disaster Relief Act of 1988.

First federal official means the first federal representative of a participating agency of the National Response Team to arrive at the scene of a discharge or a release. This official coordinates activities under the NCP and may initiate, in consultation with the OSC, any necessary actions until the arrival of the predesignated OSC. A state with primary jurisdiction over a site covered by a cooperative agreement will act in the stead of the first federal official for any incident at the site.

Fund or Trust Fund means the Hazardous Substance Superfund established by section 9507 of the Internal Revenue Code of 1986. Ground water as defined by section 101(12) of CERCLA, means water in a saturated zone or stratum beneath the surface of land or water.

Hazard Ranking System(HRS) means the method used by EPA to evaluate the relative potential of hazardous substance releases to cause health or safety problems, or ecological or environmental damage.

Hazardous substance as defined by section 101(14) of CERCLA, means: Any substance designated pursuant to section 311(b)(2)(A) of the CWA; any element, compound, mixture, solution, or substance designated pursuant to section 102 of CERCLA; any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act(but not including any waste the regulation of which under the Solid Waste Disposal Act(42 U.S.C. 6901 et seq.) has been suspended by Act of Congress); any toxic pollutant listed under section 307(a) of the CWA; any hazardous air pollutant listed under section 112 of the Clean Air Act(42 U.S.C. 7521 et seq.); and any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action pursuant to section 7 of the Toxic Substances Control Act(15 U.S.C. 2601 et seq.). The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance in the first sentence of this paragraph, and the term does not include natural gas, natural gas liquids, liquified natural gas, or synthetic gas usable for fuel(or mixtures of natural gas and such synthetic gas).

Indian tribe as defined by section 101(36) of CERCLA, means any Indian tribe, band, nation, or other organized group or community, including any alaska Native village but not including any Alaska Native regional or village corporation, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians. "Indian tribe," as defined by OPA section 1001, means any Indian tribe, band, nation, or other organized group or community, but not including any Alaska Native regional or village corporation, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians and has governmental authority over lands belonging to or controlled by the tribe.

Inland waters, for the purposes of classifying the size of discharges, means those waters of the United States in the inland zone, waters of the Great Lakes, and specified ports and harbors on inland rivers.

Inland zone means the environment inland of the coastal zone excluding the Great Lakes and specified ports and harbors on inland rivers. The term inland zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in federal regional contingency plans.

Lead administrative trustee means a natural resource trustee who is designated on an incident-by-incident basis for the purpose of preassessment and damage assessment and chosen by the other trustees whose natural resources are affected by the incident. The lead administrative trustee facilitates effective and efficient communication during response operations between the OSC and the other natural resource trustees conducting activities associated with damage assessment, and is responsible for applying to the OSC for access to response operations resources on behalf of all trustees for initiation of a damage assessment.

Lead agency means the agency that provides the OSC/RPM to plan and implement response actions under the NCP. EPA, the USCG, another federal agency, or a state(or political subdivision of a state) operating pursuant to a contract or cooperative agreement executed pursuant to section 104(d)(1) of CERCLA, or designated pursuant to a Superfund Memorandum of agreement(SMOA) entered into pursuant to subpart F of the NCP or other agreements may be the lead agency for a response action. In the case of a release of a hazardous substance, pollutant, or contaminant, where the release is on, or the sole source of the release is from, any facility or vessel under the jurisdiction, custody, or control of Department of Defense(DOD) or Department of Energy(DOE), then DOD or DOE will be the lead agency. Where the release is on, or the sole source of the release is from, any facility or vessel under the jurisdiction, custody, or control of a federal agency other than EPA, the USCG, DOD, or DOE, then that agency will be the lead agency for remedial actions and removal actions other than emergencies. The federal

agency maintains its lead agency responsibilities whether the remedy is selected by the federal agency for non-NPL sites or by EPA and the federal agency or by EPA alone under CERCLA section 120. The lead agency will consult with the support agency, if one exists, throughout the response process.

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Management of migration means actions that are taken to minimize and mitigate the migration of hazardous substances or pollutants or contaminants and the effects of such migration. Measures may include, but are not limited to, management of a plume of contamination, restoration of a drinking water aquifer, or surface water restoration.

Miscellaneous oil spill control agent is any product, other than a dispersant, sinking agent, surface washing agent, surface collecting agent, bioremediation agent, burning agent, or sorbent that can be used to enhance oil spill cleanup, removal, treatment, or mitigation.

National Pollution Funds Center(NPFC) means the entity established by the Secretary of Transportation whose function is the administration of the Oil Spill Liability Trust Fund(OSLTF). Among the NPFC's duties are: providing appropriate access to the OSLTF for federal agencies and states for removal actions and for federal trustees to initiate the assessment of natural resource damages; providing appropriate access to the OSLTF for claims; and coordinating cost recovery efforts.

National Priorities List(NPL) means the list, compiled by EPA pursuant to CERCLA section 105, of uncontrolled hazardous substance releases in the United States that are priorities for long-term remedial evaluation and response.

National response system(NRS) is the mechanism for coordinating response actions by all levels of government in support of the OSC/RPM. The NRS is composed of the NRT, RRTs, OSC/RPM, Area Committees, and Special Teams and related support entities. The NRS is capable of expanding or contracting to accommodate the response effort required by the size or complexity of the discharge or release.

National Strike Force(NSF) is a special team established by the USCG, including the three USCG Strike Teams, the Public Information Assist Team(PIAT), and the National Strike Force Coordination Center. The NSF is available to assist OSCs/RPMs in their preparedness and response duties. National Strike Force Coordination Center(NSFCC), authorized as the National Response Unit by CWA sections 311(a)(23) and(j)(2), means the entity established by the Secretary of the department in which the USCG is operating at Elizabeth City, North Carolina with responsibilities that include administration of the USCG Strike Teams, maintenance of response equipment inventories and logistic networks, and conducting a national exercise program.

Natural resources means land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States(including the resources of the exclusive economic zone defined by the Magnuson Fishery Conservation and Management Act of 1976), any state or local government, any foreign government, any Indian tribe, or, if such resources are subject to a trust restriction on alienation, any member of an Indian tribe.

Navigable waters as defined by 40 CFR 110.1, means the waters of the United States, including the territorial seas. The term includes:

(1) All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;

(2) Interstate waters, including interstate wetlands;

(3) All other waters such as intrastate lakes, rivers, streams(including intermittent streams), mudflats, sandflats, and wetlands, the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters;

(i) That are or could be used by interstate or foreign travelers for recreational or other purposes;

(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce;

(iii) That are used or could be used for industrial purposes by industries in interstate commerce;(4) All impoundments of waters otherwise defined as navigable waters under this section;

(5) Tributaries of waters identified in paragraphs(a) through(d) of this definition, including adjacent wetlands; and

(6) Wetlands adjacent to waters identified in paragraphs(a) through(e) of this definition: Provided, that waste treatment systems(other than cooling ponds meeting the criteria of this paragraph) are not waters of the United States.

(7) Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

Offshore facility as defined by section 101(17) of CERCLA and section 311(a)(11) of the CWA, means any facility of any kind located in, on, or under any of the navigable waters of the United States, and any facility of any kind which is subject to the jurisdiction of the United States and is located in, on, or under any other waters, other than a vessel or a public vessel.

Oil as defined by section 311(a)(1) of the CWA, means oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. Oil, as defined by section 1001 of the OPA means oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil, but does not include petroleum, including crude oil or any fraction thereof, which is specifically listed or designated as a hazardous substance under subparagraphs(A) through(F) of section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act(42 U.S.C. 9601) and which is subject to the provisions of that Act.

Oil Spill Liability Trust Fund(OSLTF) means the fund established under section 9509 of the Internal Revenue Code of 1986(26 U.S.C. 9509).

On-scene coordinator(OSC) means the federal official predesignated by EPA or the USCG to coordinate and direct responses under subpart D, or the government official designated by the lead agency to coordinate and direct removal actions under subpart E of the NCP. Onshore facility as defined by section 101(18) of CERCLA, means any facility(including, but not limited to, motor vehicles and rolling stock) of any kind located in, on, or under any land or non-navigable waters within the United States; and, as defined by section 311(a)(10) of the CWA,

means any facility(including, but not limited to, motor vehicles and rolling stock) of any kind located in, on, or under any land within the United States other than submerged land.

On-site means the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of the response action.

Operable unit means a discrete action that comprises an incremental step toward comprehensively addressing site problems. This discrete portion of a remedial response manages migration, or eliminates or mitigates a release, threat of a release, or pathway of exposure. The cleanup of a site can be divided into a number of operable units, depending on the complexity of the problems associated with the site.

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Operable units may address geographical portions of a site, specific site problems, or initial phases of an action, or may consist of any set of actions performed over time or any actions that are concurrent but located in different parts of a site. Operation and maintenance(O&M) means measures required to maintain the effectiveness of response actions.

Person as defined by section 101(21) of CERCLA, means an individual, firm, corporation, association, partnership, consortium, joint venture, commercial entity, United States government, state, municipality, commission, political subdivision of a state, or any interstate body. As defined by section 1001 of the OPA, "person" means an individual, corporation, partnership, association, state, municipality, commission, or political subdivision of a state, or any interstate body.

Pollutant or contaminant as defined by section 101(33) of CERCLA, shall include, but not be limited to, any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions(including malfunctions in reproduction) or physical deformations, in such organisms or their offspring. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under section 101(14)(A) through(F) of CERCLA, nor does it include natural gas, liquified natural gas, or synthetic gas of pipeline quality(or mixtures of natural gas and such synthetic gas). For purposes of the NCP, the term pollutant or contaminant means any pollutant or contaminant that may present an imminent and substantial danger to public health or welfare of the United States.

Post-removal site control means those activities that are necessary to sustain the integrity of a Fund-financed removal action following its conclusion. Post-removal site control may be a removal or remedial action under CERCLA. The term includes, without being limited to, activities such as relighting gas flares, replacing filters, and collecting leachate.

Preliminary assessment(PA) under CERCLA means review of existing information and an off-site reconnaissance, if appropriate, to determine if a release may require additional investigation or action. A PA may include an on- site reconnaissance, if appropriate.

Public participation, see the definition for community relations.

Public vessel as defined by section 311(a)(4) of the CWA, means a vessel owned or bareboat-chartered and operated by the United States, or by a state or political subdivision thereof, or by a foreign nation, except when such vessel is engaged in commerce.

Quality assurance project plan(QAPP) is a written document, associated with all remedial site sampling activities, which presents in specific terms the organization(where applicable), objectives, functional activities, and specific quality assurance(QA) and quality control(QC) activities designed to achieve the data quality objectives of a specific project(s) or continuing operation(s). The QAPP is prepared for each specific project or continuing operation(or group of similar projects or continuing operations). The QAPP will be prepared by the responsible program office, regional office, laboratory, contractor, recipient of an assistance agreement, or other organization. For an enforcement action, potentially responsible parties may prepare a QAPP subject to lead agency approval.

Release as defined by section 101(22) of CERCLA, means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment(including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant), but excludes: Any release which results in exposure to persons solely within a workplace, with respect to a claim which such persons may assert against the employer of such persons; emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine; release of source, byproduct, or special nuclear material from a nuclear incident, as those terms are defined in the atomic Energy Act of 1954, if such release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under section 170 of such Act, or, for the purposes of section 104 of CERCLA or any other response action, any release of source, byproduct, or special nuclear material from any processing site designated under section 102(a)(1) or 302(a) of the Uranium Mill Tailings Radiation Control Act of 1978(42 U.S.C. 7901 et seq.); and the normal application of fertilizer. For purposes of the NCP, release also means threat of release.

Relevant and appropriate requirements means those cleanup standards, standards of control, and other substantive requirements, criteria, or limitations promulgated under federal environmental or state environmental or facility siting laws that, while not "applicable" to a hazardous substance, pollutant, contaminant, remedial action, location, or other circumstance at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site that their use is well suited to the particular site. Only those state standards that are identified in a timely manner and are more stringent than federal requirements may be relevant and appropriate.

Remedial design(RD) means the technical analysis and procedures which follow the selection of remedy for a site and result in a detailed set of plans and specifications for implementation of the remedial action.

Remedial investigation(RI) is a process undertaken by the lead agency to determine the nature and extent of the problem presented by the release. The RI emphasizes data collection and site characterization, and is generally performed concurrently and in an interactive fashion with the feasibility study. The RI includes sampling and monitoring, as necessary, and includes the gathering of sufficient information to determine the necessity for remedial action and to support the evaluation of remedial alternatives.

Remedial project manager(RPM) means the official designated by the lead agency to coordinate, monitor, or direct remedial or other response actions under subpart E of the NCP.

Remedy or remedial action(RA) means those actions consistent with permanent remedy taken instead of, or in addition to, removal action in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment. The term includes, but is not limited to, such actions at the location of the release as storage, confinement, perimeter protection using dikes, trenches, or

ditches, clay cover, neutralization, cleanup of released hazardous substances and associated contaminated materials, recycling or reuse, diversion, destruction, segregation of reactive wastes, dredging or excavations, repair or replacement of leaking containers, collection of

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leachate and runoff, on-site treatment or incineration, provision of alternative water supplies, any monitoring reasonably required to assure that such actions protect the public health and welfare and the environment and, where appropriate, post-removal site control activities. The term includes the costs of permanent relocation of residents and businesses and community facilities(including the cost of providing "alternative land of equivalent value" to an Indian tribe pursuant to CERCLA section 126(b)) where EPA determines that, alone or in combination with other measures, such relocation is more cost-effective than, and environmentally preferable to, the transportation, storage, treatment, destruction, or secure disposition off-site of such hazardous substances, or may otherwise be necessary to protect the public health or welfare; the term includes off-site transport and off-site storage, treatment, destruction, or secure disposition of hazardous substances and associated contaminated materials. For the purpose of the NCP, the term also includes enforcement activities related thereto.

Remove or removal as defined by section 311(a)(8) of the CWA, refers to containment and removal of oil or hazardous substances from the water and shorelines or the taking of such other actions as may be necessary to minimize or mitigate damage to the public health or welfare of the United States(including, but not limited to, fish, shellfish, wildlife, public and private property, and shorelines and beaches) or to the environment. For the purpose of the NCP, the term also includes monitoring of action to remove a discharge. As defined by section 101(23) of CERCLA, remove or removal means the cleanup or removal of released hazardous substances from the environment; such actions as may be necessary taken in the event of the threat of release of hazardous substances into the environment; such actions as may be necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances; the disposal of removed material; or the taking of such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare of the United States or to the environment, which may otherwise result from a release or threat of release. The term includes, in addition, without being limited to, security fencing or other measures to limit access, provision of alternative water supplies, temporary evacuation and housing of threatened individuals not otherwise provided for, action taken under section 104(b) of CERCLA, post-removal site control, where appropriate, and any emergency assistance which may be provided under the Disaster Relief act of 1974. For the purpose of the NCP, the term also includes enforcement activities related thereto.

Removal costs as defined by section 1001 of the OPA means the costs of removal that are incurred after a discharge of oil has occurred, or in any case in which there is a substantial threat of a discharge of oil, the costs to prevent, minimize, or mitigate oil pollution from such an incident.

Respond or response as defined by section 101(25) of CERCLA, means remove, removal, remedy, or remedial action, including enforcement activities related thereto.

Responsible party as defined by section 1001 of the OPA, means the following:

(1) Vessels-In the case of a vessel, any person owning, operating, or demise chartering the vessel.

(2) Onshore Facilities-In the case of an onshore facility(other than a pipeline), any person owning or operating the facility, except a federal agency, state, municipality, commission, or political subdivision of a state, or any interstate body, that as the owner transfers possession and right to use the property to another person by lease, assignment, or permit.

(3) Offshore Facilities-In the case of an offshore facility(other than a pipeline or a deepwater port licensed under the Deepwater Port Act of 1974(33 U.S.C. 1501 et seq.)), the lessee or permittee of the area in which the facility is located or the holder of a right of use and easement granted under applicable state law or the Outer Continental Shelf Lands Act(43 U.S.C. 1301-1356) for the area in which the facility is located(if the holder is a different person than the lessee or permittee), except a federal agency, state, municipality, commission, or political subdivision of a state, or any interstate body, that as owner transfers possession and right to use the property to another person by lease, assignment, or permit.

(4) Deepwater Ports-In the case of a deepwater port licensed under the Deepwater Port Act of 1974(33 U.S.C. 1501-1524), the licensee.

(5) Pipelines-In the case of a pipeline, any person owning or operating the pipeline.

(6) Abandonment-In the case of an abandoned vessel, onshore facility, deepwater port, pipeline, or offshore facility, the person who would have been responsible parties immediately prior to the abandonment of the vessel or facility.

SARA is the Superfund Amendments and Reauthorization Act of 1986. In addition to certain free-standing provisions of law, it includes amendments to CERCLA, the Solid Waste Disposal Act, and the Internal Revenue Code. among the free-standing provisions of law is Title III of SARA, also known as the "Emergency Planning and Community Right-to-Know Act of 1986" and Title IV of SARA, also known as the "Radon Gas and Indoor Air Quality Research Act of 1986." Title V of SARA amending the Internal Revenue Code is also known as the "Superfund Revenue Act of 1986."

Sinking agents means those additives applied to oil discharges to sink floating pollutants below the water surface. Site inspection(SI) means an on-site investigation to determine whether there is a release or potential release and the nature of the associated threats. The purpose is to augment the data collected in the preliminary assessment and to generate, if necessary, sampling and other field data to determine if further action or investigation is appropriate.

Size classes of discharges refers to the following size classes of oil discharges which are provided as guidance to the OSC and serve as the criteria for the actions delineated in subpart D. They are not meant to imply associated degrees of hazard to public health or welfare of the United States, nor are they a measure of environmental injury. Any oil discharge that poses a substantial threat to public health or welfare of the United States or the environment or results in significant public concern shall be classified as a major discharge regardless of the following quantitative measures:

(1) Minor discharge means a discharge to the inland waters of less than 1,000 gallons of oil or a discharge to the coastal waters of less than 10,000 gallons of oil.

(2) Medium discharge means a discharge of 1,000 to 10,000 gallons of oil to the inland waters or a discharge of 10,000 to 100,000 gallons of oil to the coastal waters.

(3) Major discharge means a discharge of more than 10,000 gallons of oil to the inland waters or more than 100,000 gallons of oil to the coastal waters.

Size classes of releases refers to the following size classifications which are provided as guidance to the OSC for meeting pollution reporting requirements in subpart B. The final determination of the appropriate classification of a release will be made by the OSC based on consideration of

the particular release(e.g., size, location, impact, etc.):

(1) Minor release means a release of a quantity of hazardous substance(s), pollutant(s), or contaminant(s) that poses minimal threat to public health or welfare of the United States or the environment.

(2) Medium release means a release not meeting the criteria for classification as a minor or major release.

(3) Major release means a release of any quantity of hazardous substance(s), pollutant(s), or contaminant(s) that poses a substantial threat to public health or welfare of the United States or the environment or results in significant public concern.

Sorbents means essentially inert and insoluble materials that are used to remove oil and hazardous substances from water through adsorption, in which the oil or hazardous substance is attracted to the sorbent surface and then adheres to it; absorption, in which the oil or hazardous substance penetrates the pores of the sorbent material; or a combination of the two. Sorbents are generally manufactured in particulate form for spreading over an oil slick or as sheets, rolls, pillows, or booms. The sorbent material may consist of, but is not limited to, the following materials:

(1) Organic products-

(i) Peat moss or straw;

(ii) Cellulose fibers or cork;

(iii) Corn cobs;

(iv) Chicken, duck, or other bird feathers.

(2) Mineral compounds-(i) Volcanic ash or perlite;

(ii) Vermiculite or zeolite.

(3) Synthetic products-

(i) Polypropylene;

(ii) Polyethylene;

(iii) Polyurethane;

(iv) Polyester.

Source control action is the construction or installation and start-up of those actions necessary to prevent the continued release of hazardous substances or pollutants or contaminants(primarily from a source on top of or within the ground, or in buildings or other structures) into the environment.

Source control maintenance measures are those measures intended to maintain the effectiveness of source control actions once such actions are operating and functioning properly, such as the maintenance of landfill caps and leachate collection systems.

Specified ports and harbors means those ports and harbor areas on inland rivers, and land areas immediately adjacent to those waters, where the USCG acts as predesignated on-scene coordinator. Precise locations are determined by EPA/USCG regional agreements and identified in federal Regional Contingency Plans and Area Contingency Plans.

Spill of national significance(SONS) means a spill that due to its severity, size, location, actual or potential impact on the public health and welfare or the environment, or the necessary response effort, is so complex that it requires extraordinary coordination of federal, state, local, and responsible party resources to contain and clean up the discharge.

State means the several states of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the U.S. Virgin Islands, the Commonwealth of the Northern Marianas, and any other territory or possession over which the United States has jurisdiction. For purposes of the NCP, the term includes Indian tribes as defined in the NCP except where specifically noted. Section 126 of CERCLA provides that the governing body of an Indian tribe shall be afforded substantially the same treatment as a state with respect to certain provisions of CERCLA. Section 300.515(b) of the NCP describes the requirements pertaining to Indian tribes that wish to be treated as states under CERCLA.

Superfund Memorandum of Agreement(SMOA) means a nonbinding, written document executed by an EPA Regional Administrator and the head of a state agency that may establish the nature and extent of EPA and state interaction during the removal, pre-remedial, remedial, and/or enforcement response process. The SMOA is not a site-specific document although attachments may address specific sites. The SMOA generally defines the role and responsibilities of both the lead and the support agencies.

Superfund state contract is a joint, legally binding agreement between EPA and a state to obtain the necessary assurances before a federal-lead remedial action can begin at a site. In the case of a political subdivision-lead remedial response, a three- party Superfund state contract among EPA, the state, and political subdivision thereof, is required before a political subdivision takes the lead for any phase of remedial response to ensure state involvement pursuant to section 121(f)(1) of CERCLA. The Superfund state contract may be amended to provide the state's CERCLA section 104 assurances before a political subdivision can take the lead for remedial action.

Support agency means the agency or agencies that provide the support agency coordinator to furnish necessary data to the lead agency, review response data and documents, and provide other assistance as requested by the OSC or RPM. EPA, the USCG, another federal agency, or a state may be support agencies for a response action if operating pursuant to a contract executed under section 104(d)(1) of CERCLA or designated pursuant to a Superfund Memorandum of Agreement entered into pursuant to subpart F of the NCP or other agreement. The support agency may also concur on decision documents.

Support agency coordinator(SAC) means the official designated by the support agency, as appropriate, to interact and coordinate with the lead agency in response actions under subpart E of this part.

Surface collecting agents means those chemical agents that form a surface film to control the layer thickness of oil.

Surface washing agent is any product that removes oil from solid surfaces, such as beaches and rocks, through a detergency mechanism and does not involve dispersing or solubilizing the oil into the water column. Tank vessel as defined by section 1001 of the OPA means a vessel that is constructed or adapted to carry, or that carries oil or hazardous material in bulk as cargo or cargo residue, and that:

(1) is a vessel of the United States;

(2) operates on the navigable waters; or

(3) transfers oil or hazardous material in a place subject to the jurisdiction of the United States.

Threat of discharge or release, see definitions for discharge and release.

Threat of release, see definition for release.

Treatment technology means any unit operation or series of unit operations that alters the composition of a hazardous substance or pollutant or contaminant through chemical, biological, or physical means so as to reduce toxicity, mobility, or volume of the contaminated materials being treated. Treatment technologies are an alternative to land disposal of hazardous wastes without treatment. Trustee means an official of a federal natural resources management agency designated in subpart G of the NCP or a designated state official or Indian tribe or, in the case of discharges covered by the OPA, a foreign government official, who may pursue claims for damages under section 107(f) of CERCLA or section 1006 of the OPA.

United States when used in relation to section 311(a)(5) of the CWA, means the states, the District of Columbia, the Commonwealth of Puerto Rico, the Northern Mariana Islands, Guam,

American Samoa, the United States Virgin Islands, and the Pacific Island Governments. United States, when used in relation to section 101(27) of CERCLA and section 1001(36) of the OPA, includes the several states of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, the Commonwealth of the Northern Marianas, and any other territory or possession over which the United States has jurisdiction.

Vessel as defined by section 101(28) of CERCLA, means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water; and, as defined by section 311(a)(3) of the CWA, means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water other than a public vessel.

Volunteer means any individual accepted to perform services by the lead agency which has authority to accept volunteer services(examples: See 16 U.S.C. 742f(c)). A volunteer is subject to the provisions of the authorizing statute and the NCP.

Worst case discharge as defined by section 311(a)(24) of the CWA, means, in the case of a vessel, a discharge in adverse weather conditions of its entire cargo, and, in the case of an offshore facility or onshore facility, the largest foreseeable discharge in adverse weather conditions.

Sec. 300.6 -- Use of number and gender.

As used in this regulation, words in the singular also include the plural and words in the masculine gender also include the feminine and vice versa, as the case may require.

Sec. 300.7 -- Computation of time.

In computing any period of time prescribed or allowed in these rules of practice, except as otherwise provided, the day of the event from which the designated period begins to run shall

not be included. Saturdays, Sundays, and federal legal holidays shall be included. When a stated time expires on a Saturday, Sunday, or legal holiday, the stated time period shall be extended to include the next business day.

Subpart B- Responsibility and Organization for Response

Sec. 300.100 -- Duties of President delegated to federal agencies.

In Executive Orders 12580 and 12777, the President delegated certain functions and responsibilities vested in him by the CWA, CERCLA, and the OPA.

Sec. 300.105 -- General organization concepts.

(a) Federal agencies should:

(1) Plan for emergencies and develop procedures for addressing oil discharges and releases of hazardous substances, pollutants, or contaminants;

(2) Coordinate their planning, preparedness, and response activities with one another;

(3) Coordinate their planning, preparedness, and response activities with affected states, local governments, and private entities; and

(4) Make available those facilities or resources that may be useful in a response situation, consistent with agency authorities and capabilities.

(b) Three fundamental kinds of activities are performed pursuant to the NCP:

(1) Preparedness planning and coordination for response to a discharge of oil or release of a hazardous substance, pollutant, or contaminant;

(2) Notification and communications; and

(3) Response operations at the scene of a discharge or release.

(c) The organizational elements created to perform these activities are:

(1) The NRT, responsible for national response and preparedness planning, for coordinating regional planning, and for providing policy guidance and support to the Regional Response Teams(RRTs). NRT membership consists of representatives from the agencies specified inSec. 300.175(b).

(2) RRTs, responsible for regional planning and preparedness activities before response actions, and for providing advice and support to the OSC or RPM when activated during a response. RRT membership consists of designated representatives from each federal agency participating in the NRT together with state and(as agreed upon by the states) local government representatives.

(3) The OSC and the RPM, primarily responsible for directing response efforts and coordinating all other efforts at the scene of a discharge or release. The other responsibilities of OSCs and RPMs are described in Sec. 300.135.

(4) Area Committees, responsible for developing, under direction of the OSC, ACPs for each area designated by the President. Responsibilities of area Committees are described inSec. 300.205(c).

(d) The basic framework for the response management structure is a system(e.g., a unified command system) that brings together the functions of the Federal Government, the state government, and the responsible party to achieve an effective and efficient response, where the OSC maintains authority.

(e)(1) The organizational concepts of the national response system are depicted in the following Figures 1a and 1b:

{SEE ILLUSTRATION(S) IN ORIGINAL DOCUMENT}

(2) The standard federal regional boundaries(which are also the geographic areas of responsibility for the RRTs) are shown in the following Figure 2:

{SEE ILLUSTRATION(S) IN ORIGINAL DOCUMENT}

(3) The USCG District boundaries are shown in the following Figure 3:

{SEE ILLUSTRATION(S) IN ORIGINAL DOCUMENT}

Sec. 300.110 -- National Response Team.

National planning and coordination is accomplished through the NRT.(a) The NRT consists of representatives from the agencies named in Sec. 300.175(b). Each agency shall designate a member to the team and sufficient alternates to ensure representation, as agency resources permit. The NRT will consider requests for membership on the NRT from other agencies. Other agencies may request membership by forwarding such requests to the chair of the NRT.

(b) The chair of the NRT shall be the representative of EPA and the vice chair shall be the representative of the USCG, with the exception of periods of activation because of response action. During activation, the chair shall be the member agency providing the OSC/RPM. The vice chair shall maintain records of NRT activities along with national, regional, and area plans for response actions.

(c) While the NRT desires to achieve a consensus on all matters brought before it, certain matters may prove unresolvable by this means. In such cases, each agency serving as a participating agency on the NRT may be accorded one vote in NRT proceedings.

(d) The NRT may establish such bylaws and committees as it deems appropriate to further the purposes for which it is established.(e) The NRT shall evaluate methods of responding to discharges or releases; shall recommend any changes needed in the response organization; and shall recommend to the Administrator of EPA changes to the NCP designed to improve the effectiveness of the national response system, including drafting of regulatory language.

(f) The NRT shall provide policy and program direction to the RRTs.

(g) The NRT may consider and make recommendations to appropriate agencies on the training, equipping, and protection of response teams and necessary research, development, demonstration, and evaluation to improve response capabilities.

(h) Direct planning and preparedness responsibilities of the NRT include:

(1) Maintaining national preparedness to respond to a major discharge of oil or release of a hazardous substance, pollutant, or contaminant that is beyond regional capabilities;

(2) Publishing guidance documents for preparation and implementation of SARA Title III local emergency response plans;(3) Monitoring incoming reports from all RRTs and activating for a response action, when necessary;

(4) Coordinating a national program to assist member agencies in preparedness planning and response, and enhancing coordination of member agency preparedness programs;

(5) Developing procedures, in coordination with the NSFCC, as appropriate, to ensure the coordination of federal, state, and local governments, and private response to oil discharges and releases of hazardous substances, pollutants, or contaminants;

(6) Monitoring response-related research and development, testing, and evaluation activities of NRT agencies to enhance coordination, avoid duplication of effort, and facilitate research in support of response activities;

(7) Developing recommendations for response training and for enhancing the coordination of available resources among agencies with training responsibilities under the NCP;

(8) Reviewing regional responses to oil discharges and hazardous substance, pollutant, or contaminant releases, including an evaluation of equipment readiness and coordination among responsible public agencies and private organizations; and

(9) Assisting in developing a national exercise program, in coordination with the NSFCC, to ensure preparedness and coordination nationwide.

(i) The NRT will consider matters referred to it for advice or resolution by an RRT.

(j) The NRT should be activated as an emergency response team:

(1) When an oil discharge or hazardous substance release:

(i) Exceeds the response capability of the region in which it occurs;

(ii) Transects regional boundaries; or

(iii) Involves a substantial threat to the public health or welfare of the United States or the environment, substantial amounts of property, or substantial threats to natural resources;(2) If requested by any NRT member.

(k) When activated for a response action, the NRT shall meet at the call of the chair and may:

(1) Monitor and evaluate reports from the OSC/RPM and recommend to the OSC/RPM, through the RRT, actions to combat the discharge or release;

(2) Request other federal, state, and local governments, or private agencies, to provide resources under their existing authorities to combat a discharge or release, or to monitor response operations; and

(3) Coordinate the supply of equipment, personnel, or technical advice to the affected region from other regions or districts.

Sec. 300.115 -- Regional Response Teams.

(a) Regional planning and coordination of preparedness and response actions is accomplished through the RRT. In the case of a discharge of oil, preparedness activities will be carried out in conjunction with Area Committees, as appropriate. The RRT agency membership parallels that of the NRT, as described in Sec. 300.110, but also includes state and local representation. The RRT provides:

(1) The appropriate regional mechanism for development and coordination of preparedness activities before a response action is taken and for coordination of assistance and advice to the OSC/RPM during such response actions; and

(2) Guidance to Area Committees, as appropriate, to ensure inter-area consistency and consistency of individual ACPs with the RCP and NCP.

(b) The two principal components of the RRT mechanism are a standing team, which consists of designated representatives from each participating federal agency, state governments, and local governments(as agreed upon by the states); and incident-specific teams formed from the standing team when the RRT is activated for a response. On incident-specific teams, participation by the RRT member agencies will relate to the technical nature of the incident and its geographic location.

(1) The standing team's jurisdiction corresponds to the standard federal regions, except for Alaska, Oceania in the Pacific, and the Caribbean area, each of which has a separate standing RRT. The role of the standing RRT includes communications systems and procedures, planning, coordination, training, evaluation, preparedness, and related matters on a regionwide basis. It also includes coordination of Area Committees for these functions in areas within their respective regions, as appropriate.

(2) The role of the incident-specific team is determined by the operational requirements of the response to a specific discharge or release. Appropriate levels of activation and/or notification of the incident-specific RRT, including participation by state and local governments, shall be determined by the designated RRT chair for the incident, based on the RCP. The incident-specific RRT supports the designated OSC/RPM. The designated OSC/RPM directs response efforts and coordinates all other efforts at the scene of a discharge or release.

(c) The representatives of EPA and the USCG shall act as co-chairs of RRTs except when the RRT is activated. When the RRT is activated for response

actions, the chair shall be the member agency providing the OSC/RPM.

(d) Each participating agency should designate one member and at least one alternate member to the RRT. Agencies whose regional subdivisions do not correspond to the standard federal regions may designate additional representatives to the standing RRT to ensure appropriate coverage of the standard federal region. Participating states may also designate one member and at least one alternate member to the RRT. Indian tribal governments may arrange for representation with the RRT appropriate to their geographical location. All agencies and states may also provide additional representatives as observers to meetings of the RRT.

(e) RRT members should designate representatives and alternates from their agencies as resource personnel for RRT activities, including RRT work planning, and membership on incident- specific teams in support of the OSCs/RPMs.

(f) Federal RRT members or their representatives should provide OSCs/RPMs with assistance from their respective federal agencies commensurate with agency responsibilities, resources, and capabilities within the region. During a response action, the members of the RRT should seek to make available the resources of their agencies to the OSC/RPM as specified in the RCP and ACP.

(g) RRT members should nominate appropriately qualified representatives from their agencies to work with OSCs in developing and maintaining ACPs.

(h) Affected states are encouraged to participate actively in all RRT activities. Each state governor is requested to assign an office or agency to represent the state on the appropriate RRT; to designate representatives to work with the RRT in developing RCPs; to plan for, make available, and coordinate state resources; and to serve as the contact point for coordination of response with local government agencies, whether or not represented on the RRT. The state's RRT representative should keep the State Emergency Response Commission(SERC), described inSec. 300.205(d), apprised of RRT activities and coordinate RRT activities with the SERC. Local governments are invited to participate in activities on the appropriate RRT as provided by state law or as arranged by the state's representative. Indian tribes are also invited to participate in such activities.

(i) The standing RRT shall recommend changes in the regional response organization as needed, revise the RCP as needed, evaluate the preparedness of the participating agencies and the effectiveness of ACPs for the federal response to discharges and releases, and provide technical assistance for preparedness to the response community. The RRT should:

(1) Review and comment, to the extent practicable, on local emergency response plans or other issues related to the preparation, implementation, or exercise of such plans upon request of a local emergency planning committee;

(2) Evaluate regional and local responses to discharges or releases on a continuing basis, considering available legal remedies, equipment readiness, and coordination among responsible public agencies and private organizations, and recommend improvements;

(3) Recommend revisions of the NCP to the NRT, based on observations of response operations;

(4) Review OSC actions to ensure that RCPs and ACPs are effective;

(5) Encourage the state and local response community to improve its preparedness for response;

(6) In coordination with Area Committees and in accordance with any applicable laws, regulations, or requirements, conduct advance planning for use of dispersants, surface washing agents, surface collecting agents, burning agents, bioremediation agents, or other chemical agents in accordance with subpart J of this part;

(7) Be prepared to provide response resources to major discharges or releases outside the region;

(8) Conduct or participate in training and exercises as necessary to encourage preparedness activities of the response community within the region;

(9) Meet at least semiannually to review response actions carried out during the preceding period, consider changes in RCPs, and recommend changes in ACPs;

(10) Provide letter reports on RRT activities to the NRT twice a year, no later than January 31 and July 31. At a minimum, reports should summarize recent activities, organizational changes, operational concerns, and efforts to improve state and local coordination; and

(11) Ensure maximum participation in the national exercise program for announced and unannounced exercises.

(j)(1) The RRT may be activated by the chair as an incident-specific response team when a discharge or release:

(i) Exceeds the response capability available to the OSC/RPM in the place where it occurs;

(ii) Transects state boundaries;

(iii) May pose a substantial threat to the public health or welfare of the United States or the environment, or to regionally significant amounts of property; or

(iv) Is a worst case discharge, as described inSec. 300.324. RCPs shall specify detailed criteria for activation of RRTs.

(2) The RRT will be activated during any discharge or release upon a request from the OSC/RPM, or from any RRT representative, to the chair of the RRT. Requests for RRT activation shall later be confirmed in writing. Each representative, or an appropriate alternate, should be notified immediately when the RRT is activated.

(3) During prolonged removal or remedial action, the RRT may not need to be activated or may need to be activated only in a limited sense, or may need to have available only those member agencies of the RRT who are directly affected or who can provide direct response assistance.(4) When the RRT is activated for a discharge or release, agency representatives shall meet at the call of the chair and may:

(i) Monitor and evaluate reports from the OSC/RPM, advise the OSC/RPM on the duration and extent of response, and recommend to the OSC/RPM specific actions to respond to the discharge or release;

(ii) Request other federal, state, or local governments, or private agencies, to provide resources under their existing authorities to respond to a discharge or release or to monitor response operations;

(iii) Help the OSC/RPM prepare information releases for the public and for communication with the NRT;

(iv) If the circumstances warrant, make recommendations to the regional or district head of the agency providing the OSC/RPM that a different OSC/RPM should be designated; and

(v) Submit pollution reports to the NRC as significant developments occur.

(5) At the regional level, a Regional Response Center(RRC) may provide facilities and personnel for communications, information storage, and other requirements for coordinating response. The location of each RRC should be provided in the RCP.

(6) When the RRT is activated, affected states may participate in all RRT deliberations. State government representatives participating in the RRT have the same status as any federal member of the RRT.

(7) The RRT can be deactivated when the incident-specific RRT chair determines that the OSC/RPM no longer requires RRT assistance.

(8) Notification of the RRT may be appropriate when full activation is not necessary, with systematic

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communication of pollution reports or other means to keep RRT members informed as to actions of potential concern to a particular agency, or to assist in later RRT evaluation of regionwide response effectiveness.

(k) Whenever there is insufficient national policy guidance on a matter before the RRT, a technical matter requiring solution, a question concerning interpretation of the NCP, or a disagreement on discretionary actions among RRT members that cannot be resolved at the regional level, it may be referred to the NRT, described inSec. 300.110, for advice. Sec. 300.120 -- On-scene coordinators and remedial project managers: general responsibilities.

(a) The OSC/RPM directs response efforts and coordinates all other efforts at the scene of a discharge or release. As part of the planning and preparedness for response, OSCs shall be predesignated by the regional or district head of the lead agency. EPA and the USCG shall predesignate OSCs for all areas in each region, except as provided in paragraphs(c) and(d) of this section. RPMs shall be assigned by the lead agency to manage remedial or other response actions at NPL sites, except as provided in paragraphs(c) and(d) of this section.

(1) The USCG shall provide OSCs for oil discharges, including discharges from facilities and vessels under the jurisdiction of another federal agency, within or threatening the coastal zone. The USCG shall also provide OSCs for the removal of releases of hazardous substances, pollutants, or contaminants into or threatening the coastal zone, except as provided in paragraph(b) of this section. The USCG shall not provide predesignated OSCs for discharges or releases from hazardous waste management facilities or in similarly chronic incidents. The USCG shall provide an initial response to discharges or releases from hazardous waste management facilities within the coastal zone in accordance with Department of Transportation(DOT)/EPA Instrument of Redelegation(May 27, 1988) except as provided by paragraph(b) of this section. The USCG OSC shall contact the cognizant RPM as soon as it is evident that a removal may require a follow-up remedial action, to ensure that the required planning can be initiated and an orderly transition to an EPA or state lead can occur.

(2) EPA shall provide OSCs for discharges or releases into or threatening the inland zone and shall provide RPMs for federally funded remedial actions, except in the case of state- lead federally funded response and as provided in paragraph(b) of this section. EPA will also assume all remedial actions at NPL sites in the coastal zone, even where removals are initiated by the USCG, except as provided in paragraph(b) of this section.

(b) In general, USCG Captains of the Port(COTP) shall serve as the designated OSCs for areas in the coastal zone for which an ACP is required under CWA section 311(j) and EPA Regional Administrators shall designate OSCs for areas in the inland zone for which an ACP is required under CWA section 311(j).

(c) For releases of hazardous substances, pollutants, or contaminants, when the release is on, or the sole source of the release is from, any facility or vessel, including vessels bareboat-chartered and operated, under the jurisdiction, custody, or control of DOD, DOE, or other federal agency:

(1) In the case of DOD or DOE, DOD or DOE shall provide OSCs/RPMs responsible for taking all response actions; and

(2) In the case of a federal agency other than EPA, DOD, or DOE, such agency shall provide OSCs for all removal actions that are not emergencies and shall provide RPMs for all remedial actions.

(d) DOD will be the removal response authority with respect to incidents involving DOD military weapons and munitions or weapons and munitions under the jurisdiction, custody, or control of DOD.

(e) The OSC is responsible for overseeing development of the ACP in the area of the OSC's responsibility. ACPs shall, as appropriate, be accomplished in cooperation with the RRT, and designated state and local representatives. In contingency planning and removal, the OSC coordinates, directs, and reviews the work of other agencies, Area Committees, responsible parties, and contractors to assure compliance with the NCP, decision document, consent decree, administrative order, and lead agency-approved plans applicable to the response.

(f) The RPM is the prime contact for remedial or other response actions being taken(or needed) at sites on the proposed or promulgated NPL, and for sites not on the NPL but under the jurisdiction, custody, or control of a federal agency. The RPM's responsibilities include:

(1) Fund-financed response: The RPM coordinates, directs, and reviews the work of EPA, states and local governments, the U.S. Army Corps of Engineers, and all other agencies and contractors to assure compliance with the NCP. Based upon the reports of these parties, the RPM recommends action for decisions by lead agency officials. The RPM's period of responsibility begins prior to initiation of the remedial investigation/feasibility study(RI/FS), described inSec. 300.430, and continues through design, remedial action, deletion of the site from the NPL, and the CERCLA cost recovery activity. When a removal and remedial action occur at the same site, the OSC and RPM should coordinate to ensure an orderly transition of responsibility.

(2) Federal-lead non-Fund-financed response: The RPM coordinates, directs, and reviews the work of other agencies, responsible parties, and contractors to assure compliance with the NCP, Record of Decision(ROD), consent decree, administrative order, and lead agency-approved plans applicable to the response. Based upon the reports of these parties, the RPM shall recommend action for decisions by lead agency officials. The RPM's period of responsibility begins prior to initiation of the RI/FS, described inSec. 300.430, and continues through design and remedial action and the CERCLA cost recovery activity. The OSC and RPM shall ensure orderly transition of responsibilities from one to the other.

(3) The RPM shall participate in all decision-making processes necessary to ensure compliance with the NCP, including, as appropriate, agreements between EPA or other federal agencies and the state. The RPM may also review responses where EPA has preauthorized a person to file a claim for reimbursement to determine that the response was consistent with the terms of such preauthorization in cases where claims are filed for reimbursement.

(g)(1) Where a support agency has been identified through a cooperative agreement, Superfund Memorandum of Agreement(SMOA), or other agreement, that agency may designate a support agency coordinator(SAC) to provide assistance, as requested, by the OSC/RPM. The SAC is the prime representative of the support agency for response actions.(2) The SAC's responsibilities may include:

(i) Providing and reviewing data and documents as requested by the OSC/RPM during the planning, design, and cleanup activities of the response action; and

(ii) Providing other assistance as requested.

(h)(1) The lead agency should provide appropriate training for its OSCs, RPMs,

and other response personnel to carry out their responsibilities under the NCP.

(2) OSCs/RPMs should ensure that persons designated to act as their on-scene representatives are adequately trained and prepared to carry out actions under the NCP, to the extent practicable.

Sec. 300.125 -- Notification and communications.

(a) The National Response Center(NRC), located at USCG Headquarters, is the national communications center, continuously manned for handling activities related to response actions. The NRC acts as the single point of contact for all pollution incident reporting, and as the NRT communications center. Notice of discharges and releases must be made telephonically through a toll free number or a special local number(Telecommunication Device for the Deaf(TDD) and collect calls accepted).(Notification details appear in Secs. 300.300 and 300.405.) The NRC receives and immediately relays telephone notices of discharges or releases to the appropriate predesignated federal OSC. The telephone report is distributed to any interested NRT member agency or federal entity that has established a written agreement or understanding with the NRC. The NRC evaluates incoming information and immediately advises FEMA of a potential major disaster situation.

(b) The Commandant, USCG, in conjunction with other NRT agencies, shall provide the necessary personnel, communications, plotting facilities, and equipment for the NRC.

(c) Notice of an oil discharge or release of a hazardous substance in an amount equal to or greater than the reportable quantity must be made immediately in accordance with 33 CFR part 153, subpart B, and 40 CFR part 302, respectively. Notification shall be made to the NRC Duty Officer, HQ USCG, Washington, DC, telephone(800) 424-8802 or(202) 267-2675. All notices of discharges or releases received at the NRC will be relayed immediately by telephone to the OSC.
Sec. 300.130 -- Determinations to initiate response and special conditions.

(a) In accordance with CWA and CERCLA, the Administrator of EPA or the Secretary of the department in which the USCG is operating, as appropriate, is authorized to act for the United States to take response measures deemed necessary to protect the public health or welfare or environment from discharges of oil or releases of hazardous substances, pollutants, or contaminants except with respect to such releases on or from vessels or facilities under the jurisdiction, custody, or control of other federal agencies.

(b) The Administrator of EPA or the Secretary of the department in which the USCG is operating, as appropriate, is authorized to initiate and, in the case of a discharge posing a substantial threat to public health or welfare of the United States is required to initiate and direct, appropriate response activities when the Administrator or Secretary determines that any oil or CWA hazardous substance is discharged or there is a substantial threat of such discharge from any vessel or offshore or onshore facility into or on the navigable waters of the United States, on the adjoining shorelines to the navigable waters, into or on the waters of the exclusive economic zone, or that may affect natural resources belonging to, appertaining to, or under exclusive management authority of the United States; or

(c) The Administrator of EPA or the Secretary of the department in which the USCG is operating, as appropriate, is authorized to initiate appropriate response activities when the Administrator or Secretary determines that any hazardous substance is released or there is a threat of such a release into the environment, or there is a release or threat of release into the

environment of any pollutant or contaminant which may present an imminent and substantial danger to the public health or welfare of the United States.

(d) In addition to any actions taken by a state or local government, the Administrator of EPA or the Secretary of the department in which the USCG is operating may request the U.S. Attorney General to secure the relief from any person, including the owner or operator of the vessel or facility necessary to abate a threat or, after notice to the affected state, take any other action authorized by section 311 of the CWA or section 106 of CERCLA as appropriate, including issuing administrative orders, that may be necessary to protect the public health or welfare, if the Administrator or Secretary determines:(1) That there may be an imminent and substantial threat to the public health or welfare of the United States or the environment of the United States, including fish, shellfish, and wildlife, public and private property, shorelines, beaches, habitats, and other living and nonliving natural resources under the jurisdiction or control of the United States, because of an actual or threatened discharge of oil or a CWA hazardous substance from any vessel or offshore or onshore facility into or upon the navigable waters of the United States; or

(2) That there may be an imminent and substantial endangerment to the public health or welfare of the United States or the environment because of a release of a CERCLA hazardous substance from a facility.

(e) Response actions to remove discharges originating from operations conducted subject to the Outer Continental Shelf Lands Act shall be in accordance with the NCP.

(f) Where appropriate, when a discharge or release involves radioactive materials, the lead or support federal agency shall act consistent with the notification and assistance procedures described in the appropriate Federal Radiological Plan. For the purpose of the NCP, the FRERP(24 CFR part 2401) is the appropriate plan. Most radiological discharges and releases do not result in FRERP activation and should be handled in accordance with the NCP. However, releases from nuclear incidents subject to requirements for financial protection established by the Nuclear Regulatory Commission under the Price-Anderson amendments(section 170) of the Atomic Energy Act are specifically excluded from CERCLA and NCP requirements.

(g) Removal actions involving nuclear weapons should be conducted in accordance with the joint Department of Defense, Department of Energy, and FEMA Agreement for Response to Nuclear Incidents and Nuclear Weapons Significant Incidents(January 8, 1981).

(h) If the situation is beyond the capability of state and local governments and the statutory authority of federal agencies, the President may, under the Disaster Relief Act of 1974, act upon a request by the governor and declare a major disaster or emergency and appoint a Federal Coordinating Officer(FCO) to coordinate all federal disaster assistance activities. In such cases, the OSC/RPM would continue to carry out OSC/RPM responsibilities under the NCP, but would coordinate those activities with the FCO to ensure consistency with other federal disaster assistance activities.

(i) In the event of a declaration of a major disaster by the President, the FEMA may activate the Federal Response Plan(FRP). A FCO, designated by the President, may implement the FRP and coordinate and direct emergency assistance and disaster relief of impacted individuals, business, and public services under the Robert T. Stafford Disaster Relief Act. Delivery of

federal assistance is facilitated through twelve functional annexes to the FRP known as Emergency Support Functions(ESFs). EPA coordinates activities under ESF 10-Hazardous Materials, which addresses preparedness and response to hazardous materials and oil incidents caused by a natural disaster or other catastrophic event. In such cases, the OSC/RPM should

coordinate response activities with the FCO, through the incident-specific ESF 10 Chair, to ensure consistency with federal disaster assistance activities.

Sec. 300.135 -- Response operations.

(a) The OSC/RPM, consistent with Secs. 300.120 and 300.125, shall direct response efforts and coordinate all other efforts at the scene of a discharge or release. As part of the planning and preparation for response, the OSCs/RPMs shall be predesignated by the regional or district head of the lead agency.

(b) The first federal official affiliated with an NRT member agency to arrive at the scene of a discharge or release should coordinate activities under the NCP and is authorized to initiate, in consultation with the OSC, any necessary actions normally carried out by the OSC until the arrival of the predesignated OSC. This official may initiate federal fund-financed actions only as authorized by the OSC or, if the OSC is unavailable, the authorized representative of the lead agency.

(c) The OSC/RPM shall, to the extent practicable, collect pertinent facts about the discharge or release, such as its source and cause; the identification of potentially responsible parties; the nature, amount, and location of discharged or released materials; the probable direction and time of travel of discharged or released materials; whether the discharge is a worst case discharge as discussed inSec. 300.324; the pathways to human and environmental exposure; the potential impact on human health, welfare, and safety and the environment; whether the discharge or release poses a substantial threat to the public health or welfare of the United States as discussed in Sec. 300.322; the potential impact on natural resources and property which may be affected; priorities for protecting human health and welfare and the environment; and appropriate cost documentation.

(d) The OSC's/RPM's efforts shall be coordinated with other appropriate federal, state, local, and private response agencies. OSCs/RPMs may designate capable persons from federal, state, or local agencies to act as their on-scene representatives. State and local governments, however, are not authorized to take actions under subparts D and E of the NCP that involve expenditures of the Oil Spill Liability Trust Fund or CERCLA funds unless an appropriate contract or cooperative agreement has been established. The basic framework for the response management structure is a system(e.g., a unified command system), that brings together the functions of the federal government, the state government, and the responsible party to achieve an effective and efficient response, where the OSC maintains authority.

(e) The OSC/RPM should consult regularly with the RRT and NSFCC, as appropriate, in carrying out the NCP and keep the RRT and NSFCC, as appropriate, informed of activities under the NCP.

(f) The OSC/RPM shall advise the support agency as promptly as possible of reported releases.

(g) The OSC/RPM should evaluate incoming information and immediately advise FEMA of potential major disaster situations.(h) In those instances where a possible public health emergency exists, the OSC/RPM should notify the Department of Health and Human Services(HHS) representative to the RRT. Throughout response actions, the OSC/RPM may call upon the HHS representative for assistance in determining public health threats and call upon the Occupational Safety and Health administration(OSHA) and HHS for assistance on worker health and safety issues.

(i) All federal agencies should plan for emergencies and develop procedures for dealing with oil discharges and releases of hazardous substances, pollutants, or contaminants from vessels and

facilities under their jurisdiction. All federal agencies, therefore, are responsible for designating the office that coordinates response to such incidents in accordance with the NCP and applicable federal regulations and guidelines.

(j)(1) The OSC/RPM shall ensure that the trustees for natural resources are promptly notified of discharges or releases.

(2) The OSC or RPM shall coordinate all response activities with the affected natural resource trustees and, for discharges of oil, the OSC shall consult with the affected trustees on the appropriate removal action to be taken.(k) Where the OSC/RPM becomes aware that a discharge or release may affect any endangered or threatened species or their habitat, the OSC/RPM shall consult with the Department of Interior(DOI), or the Department of Commerce(DOC)(NOAA) and, if appropriate, the cognizant federal land managing agency.

(l) The OSC/RPM is responsible for addressing worker health and safety concerns at a response scene, in accordance withSec. 300.150.

(m) The OSC shall submit pollution reports to the RRT and other appropriate agencies as significant developments occur during response actions, through communications networks or procedures agreed to by the RRT and covered in the RCP.

(n) OSCs/RPMs should ensure that all appropriate public and private interests are kept informed and that their concerns are considered throughout a response, to the extent practicable, consistent with the requirements ofSec. 300.155 of this part.

Sec. 300.140 -- Multi-regional responses.

(a) If a discharge or release moves from the area covered by one ACP or RCP into another area, the authority for response actions should likewise shift. If a discharge or release affects areas covered by two or more ACPs or RCPs, the response mechanisms of each applicable plan may be activated. In this case, response actions of all regions concerned shall be fully coordinated as detailed in the RCPs and ACPs.

(b) There shall be only one OSC and/or RPM at any time during the course of a response operation. Should a discharge or release affect two or more areas, EPA, the USCG, DOD, DOE, or other lead agency, as appropriate, shall give prime consideration to the area vulnerable to the greatest threat, in determining which agency should provide the OSC and/or RPM. The RRT shall designate the OSC and/or RPM if the RRT member agencies who have response authority within the affected areas are unable to agree on the designation. The NRT shall designate the OSC and/or RPM if members of one RRT or two adjacent RRTs are unable to agree on the designation.

(c) Where the USCG has initially provided the OSC for response to a release from hazardous waste management facilities located in the coastal zone, responsibility for response action shall shift to EPA or another federal agency, as appropriate.

Sec. 300.145 -- Special teams and other assistance available to OSCs/RPMs.(a) The NSF is a special team established by the USCG, including the three USCG Strike Teams, the Public Information Assist Team(PIAT), and the NSFCC. The NSF is available to assist OSCs/RPMs in their preparedness and response duties.
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(1) The three Strike Teams(Atlantic, Gulf, and Pacific) provide trained personnel and specialized equipment to assist the OSC in training for spill response, stabilizing and containing the spill,

and in monitoring or directing the response actions of the responsible parties and/or contractors. The OSC has a specific team designated for initial contact and may contact that team directly for any assistance.

(2) The NSFCC can provide the following support to the OSC:

(i) Technical assistance, equipment and other resources to augment the OSC staff during spill response.

(ii) Assistance in coordinating the use of private and public resources in support of the OSC during a response to or a threat of a worst case discharge of oil.

(iii) Review of the area contingency plan, including an evaluation of equipment readiness and coordination among responsible public agencies and private organizations.

(iv) Assistance in locating spill response resources for both response and planning, using the NSFCC's national and international computerized inventory of spill response resources.

(v) Coordination and evaluation of pollution response exercises.

(vi) Inspection of district prepositioned pollution response equipment.

(3) PIAT is an element of the NSFCC staff which is available to assist OSCs to meet the demands for public information during a response or exercise. Its use is encouraged any time the OSC requires outside public affairs support. Requests for PIAT assistance may be made through the NSFCC or NRC.

(b)(1) The Environmental Response Team(ERT) is established by EPA in accordance with its disaster and emergency responsibilities. The ERT has expertise in treatment technology, biology, chemistry, hydrology, geology, and engineering.(2) The ERT can provide access to special decontamination equipment for chemical releases and advice to the OSC/RPM in hazard evaluation; risk assessment; multimedia sampling and analysis program; on-site safety, including development and implementation plans; cleanup techniques and priorities; water supply decontamination and protection; application of dispersants; environmental assessment; degree of cleanup required; and disposal of contaminated material.

(3) The ERT also provides both introductory and intermediate level training courses to prepare response personnel.

(4) OSC/RPM or RRT requests for ERT support should be made to the EPA representative on the RRT; EPA Headquarters, Director, Emergency Response Division; or the appropriate EPA regional emergency coordinator.

(c) Scientific Support Coordinators(SSCs) may be designated by the OSC(and RPM in the case of EPA SSCs) as the principal advisors for scientific issues, communication with the scientific community, and coordination of requests for assistance from state and federal agencies regarding scientific studies. The SSC strives for a consensus on scientific issues affecting the response, but ensures that differing opinions within the community are communicated to the OSC/RPM.(1) Generally, SSCs are provided by NOAA in the coastal zones, and by EPA in the inland zone. OSC/RPM requests for SSC support can be made directly to the SSC assigned to the area or to the agency member of the RRT. NOAA SSCs can also be requested through NOAA's SSC program office in Seattle, WA. NOAA SSCs are assigned to USCG Districts and are supported by a scientific support team that includes expertise in environmental chemistry, oil slick tracking, pollutant transport modeling, natural resources at risk, environmental tradeoffs of countermeasures and cleanup, and information management.

(2) During a response, the SSC serves on the federal OSC's/RPM's staff and may, at the request of the OSC/RPM, lead the scientific team and be responsible for providing scientific support for operational decisions and for coordinating on-scene scientific activity. Depending on the nature and location of the incident, the SSC integrates expertise from governmental agencies, universities, community representatives, and industry to assist the OSC/RPM in evaluating the hazards and potential effects of releases and in developing response strategies.

(3) At the request of the OSC, the SSC may facilitate the OSC's work with the lead administrative trustee for natural resources to ensure coordination between damage assessment data collection efforts and data collected in support of response operations.

(4) SSCs support the Regional Response Teams and the Area Committees in preparing regional and area contingency plans and in conducting spill training and exercises. For area plans, the SSC provides leadership for the synthesis and integration of environmental information required for spill response decisions in support of the OSC.

(d)(1) SUPSALV has an extensive salvage/search and recovery equipment inventory with the requisite knowledge and expertise to support these operations, including specialized salvage, firefighting, and petroleum, oil and lubricants offloading capability.

(2) When possible, SUPSALV will provide equipment for training exercises in support of national and regional contingency planning objectives.

(3) The OSC/RPM may request assistance directly from SUPSALV. Formal requests are routed through the Chief of Naval Operations(N312).

(e) For marine salvage operations, OSCs/RPMs with responsibility for monitoring, evaluating, or supervising these activities should request technical assistance from DOD, the Strike Teams, or commercial salvors as necessary to ensure that proper actions are taken. Marine salvage operations generally fall into five categories: afloat salvage; offshore salvage; river and harbor clearance; cargo salvage; and rescue towing. Each category requires different knowledge and specialized types of equipment. The complexity of such operations may be further compounded by local environmental and geographic conditions. The nature of marine salvage and the conditions under which it occurs combine to make such operations imprecise, difficult, hazardous, and expensive. Thus, responsible parties or other persons attempting to perform such operations without adequate knowledge, equipment, and experience could aggravate, rather than relieve, the situation.

(f) Radiological Emergency Response Teams(RERTs) have been established by EPA's Office of Radiation Programs(ORP) to provide response and support for incidents or sites containing radiological hazards. Expertise is available in radiation monitoring, radionuclide analysis, radiation health physics, and risk assessment. RERTs can provide on-site support including mobile monitoring laboratories for field analyses of samples and fixed laboratories for radiochemical sampling and analyses. Requests for support may be made 24 hours a day via the NRC or directly to the EPA Radiological Response Coordinator in the Office of Radiation Programs. Assistance is also available from DOE and other federal agencies.

(g)(1) DRGs assist the OSC by providing technical assistance, personnel, and equipment, including pre-positioned equipment. Each DRG consists of all Coast Guard personnel

and equipment, including marine firefighting equipment, in its district, additional pre-positioned equipment, and a District Response Advisory Team(DRAT) that is available to provide support to the OSC in the event that a spill exceeds local response capabilities. Each DRG:

(i) Shall provide technical assistance, equipment, and other resources, as available, when requested by an OSC through the USCG representative to the RRT;

(ii) Shall ensure maintenance of all USCG response equipment within its district;

(iii) May provide technical assistance in the preparation of the ACP; and

(iv) Shall review each of those plans that affect its area of geographic responsibility.(2) In deciding where to locate personnel and pre-positioned equipment, the USCG shall give priority emphasis to:

(i) The availability of facilities for loading and unloading heavy or bulky equipment by barge;

(ii) The proximity to an airport capable of supporting large military transport aircraft;

(iii) The flight time to provide response to oil spills in all areas of the Coast Guard district with the potential for marine casualties;

(iv) The availability of trained local personnel capable of responding in an oil spill emergency; and

(v) Areas where large quantities of petroleum products are transported.

(h) The NPFC is responsible for implementing those portions of Title I of the OPA that have been delegated to the Secretary of the department in which the Coast Guard is operating. The NPFC is responsible for addressing funding issues arising from discharges and threats of discharges of oil. The NPFC:(1) Issues Certificates of Financial Responsibility to owners and operators of vessels to pay for costs and damages that are incurred by their vessels as a result of oil discharges;

(2) Provides funding for various response organizations for timely abatement and removal actions related to oil discharges;

(3) Provides equitable compensation to claimants who sustain costs and damages from oil discharges when the responsible party fails to do so;

(4) Recovers monies from persons liable for costs and damages resulting from oil discharges to the full extent of liability under the law; and

(5) Provides funds to initiate natural resource damage assessments.

Sec. 300.150 -- Worker health and safety.

(a) Response actions under the NCP will comply with the provisions for response action worker safety and health in 29 CFR 1910.120. The NRS meets the requirements of 29 CFR 1910.120 concerning use of an incident command system.(b) In a response action taken by a responsible party, the responsible party must assure that an occupational safety and health program consistent with 29 CFR 1910.120 is made available for the protection of workers at the response site.

(c) In a response taken under the NCP by a lead agency, an occupational safety and health program should be made available for the protection of workers at the response site, consistent with, and to the extent required by, 29 CFR 1910.120. Contracts relating to a response action

under the NCP should contain assurances that the contractor at the response site will comply with this program and with any applicable provisions of the Occupational Safety and Health Act of 1970(29 U.S.C. 651 et seq.)(OSH act) and state laws with plans approved under section 18 of the OSH Act.

(d) When a state, or political subdivision of a state, without an OSHA-approved state plan is the lead agency for response, the state or political subdivision must comply with standards in 40 CFR part 311, promulgated by EPA pursuant to section 126(f) of SARA.

(e) Requirements, standards, and regulations of the OSH Act and of state OSH laws not directly referenced in paragraphs(a) through(d) of this section, must be complied with where applicable. Federal OSH Act requirements include, among other things, Construction Standards(29 CFR part 1926), General Industry Standards(29 CFR part 1910), and the general duty requirement of section 5(a)(1) of the OSH Act(29 U.S.C. 654(a)(1)). No action by the lead agency with respect to response activities under the NCP constitutes an exercise of statutory authority within the meaning of section 4(b)(1) of the OSH Act. All governmental agencies and private employers are directly responsible for the health and safety of their own employees.

Sec. 300.155 -- Public information and community relations.

(a) When an incident occurs, it is imperative to give the public prompt, accurate information on the nature of the incident and the actions underway to mitigate the damage. OSCs/RPMs and community relations personnel should ensure that all appropriate public and private interests are kept informed and that their concerns are considered throughout a response. They should coordinate with available public affairs/community relations resources to carry out this responsibility by establishing, as appropriate, a Joint Information Center bringing together resources from federal and state agencies and the responsible party.

(b) An on-scene news office may be established to coordinate media relations and to issue official federal information on an incident. Whenever possible, it will be headed by a representative of the lead agency. The OSC/RPM determines the location of the on-scene news office, but every effort should be made to locate it near the scene of the incident. If a participating agency believes public interest warrants the issuance of statements and an on-scene news office has not been established, the affected agency should recommend its establishment. All federal news releases or statements by participating agencies should be cleared through the OSC/RPM. Information dissemination relating to natural resource damage assessment activities shall be coordinated through the lead administrative trustee. The designated lead administrative trustee may assist the OSC/RPM by disseminating information on issues relating to damage assessment activities. Following termination of removal activity, information dissemination on damage assessment activities shall be through the lead administrative trustee.

(c) The community relations requirements specified in Secs. 300.415, 300.430, and 300.435 apply to removal, remedial, and enforcement actions and are intended to promote active communication between communities affected by discharges or releases and the lead agency responsible for response actions. Community Relations Plans(CRPs) are required by EPA for certain response actions. The OSC/RPM should ensure coordination with such plans which may be in effect at the scene of a discharge or release or which may need to be developed during follow-up activities.

Sec. 300.160 -- Documentation and cost recovery.

(a) For releases of a hazardous substance, pollutant, or contaminant, the following provisions apply:

(1) During all phases of response, the lead agency shall complete and maintain documentation to support all actions taken under the NCP and to form the basis for cost recovery. In general, documentation shall be

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sufficient to provide the source and circumstances of the release, the identity of responsible parties, the response action taken, accurate accounting of federal, state, or private party costs incurred for response actions, and impacts and potential impacts to the public health and welfare and the environment. Where applicable, documentation shall state when the NRC received notification of a release of a reportable quantity.

(2) The information and reports obtained by the lead agency for Fund-financed response actions shall, as appropriate, be transmitted to the chair of the RRT. Copies can then be forwarded to the NRT, members of the RRT, and others as appropriate.(3) The lead agency shall make available to the trustees of affected natural resources information and documentation that can assist the trustees in the determination of actual or potential natural resource injuries.

(b) For discharges of oil, documentation and cost recovery provisions are described inSec. 300.315.

(c) Response actions undertaken by the participating agencies shall be carried out under existing programs and authorities when available. Federal agencies are to make resources available, expend funds, or participate in response to discharges and releases under their existing authority. Interagency agreements may be signed when necessary to ensure that the federal resources will be available for a timely response to a discharge or release. The ultimate decision as to the appropriateness of expending funds rests with the agency that is held accountable for such expenditures. Further funding provisions for discharges of oil are described in Sec. 300.335.

(d) The Administrator of EPA and the Administrator of the Agency for Toxic Substances and Disease Registry(ATSDR) shall assure that the costs of health assessment or health effect studies conducted under the authority of CERCLA section 104(i) are documented in accordance with standard EPA procedures for cost recovery. Documentation shall include information on the nature of the hazardous substances addressed by the research, information concerning the locations where these substances have been found, and any available information on response actions taken concerning these substances at the location.

Sec. 300.165 -- OSC reports.

(a) As requested by the NRT or RRT, the OSC/RPM shall submit to the NRT or RRT a complete report on the removal operation and the actions taken. The RRT shall review the OSC report and send to the NRT a copy of the OSC report with its comments or recommendations within 30 days after the RRT has received the OSC report.

(b) The OSC report shall record the situation as it developed, the actions taken, the resources committed, and the problems encountered.

Sec. 300.170 -- Federal agency participation.

Federal agencies listed in Sec. 300.175 have duties established by statute, executive order, or Presidential directive which may apply to federal response actions following, or in prevention of, the discharge of oil or release of a hazardous substance, pollutant, or contaminant. Some of these agencies also have duties relating to the restoration, rehabilitation, replacement, or acquisition of equivalent natural resources injured or lost as a result of such discharge or release as described in subpart G of this part. The NRT, RRT, and Area Committee organizational

structure, and the NCP, RCPs and ACPs, described inSec. 300.210, provide for agencies to coordinate with each other in carrying out these duties.

(a) Federal agencies may be called upon by an OSC/RPM during response planning and implementation to provide assistance in their respective areas of expertise, as described inSec. 300.175, consistent with the agencies' capabilities and authorities.

(b) In addition to their general responsibilities, federal agencies should:

(1) Make necessary information available to the Secretary of the NRT, RRTs, Area Committees, and OSCs/RPMs.

(2) Provide representatives to the NRT and RRTs and otherwise assist RRTs and OSCs, as necessary, in formulating RCPs and ACPs.(3) Inform the NRT, RRTs, and Area Committees, consistent with national security considerations, of changes in the availability of resources that would affect the operations implemented under the NCP.

(c) All federal agencies are responsible for reporting releases of hazardous substances from facilities or vessels under their jurisdiction or control in accordance with section 103 of CERCLA.

(d) All federal agencies are encouraged to report releases of pollutants or contaminants and must report discharges of oil, as required in 40 CFR part 110, from facilities or vessels under their jurisdiction or control to the NRC.

Sec. 300.175 -- Federal agencies: additional responsibilities and assistance.

(a) During preparedness planning or in an actual response, various federal agencies may be called upon to provide assistance in their respective areas of expertise, as indicated in paragraph(b) of this section, consistent with agency legal authorities and capabilities.

(b) The federal agencies include:(1) USCG, as provided in 14 U.S.C. 1-3, is an agency in DOT, except when operating as an agency in the United States Navy(USN) in time of war. The USCG provides the NRT vice chair, co- chairs for the standing RRTs, and predesignated OSCs for the coastal zone, as described in Sec. 300.120(a)(1). The USCG maintains continuously manned facilities which can be used for command, control, and surveillance of oil discharges and hazardous substance releases occurring in the coastal zone. The USCG also offers expertise in domestic and international fields of port safety and security, maritime law enforcement, ship navigation and construction, and the manning, operation, and safety of vessels and marine facilities. The USCG may enter into a contract or cooperative agreement with the appropriate state in order to implement a response action.

(2) EPA chairs the NRT and co-chairs, with the USCG, the standing RRTs; provides predesignated OSCs for all inland areas for which an ACP is required under CWA section 311(j) and for discharges and releases occurring in the inland zone and RPMs for remedial actions except as otherwise provided; and generally provides the SSC for responses in the inland zone. EPA provides expertise on human health and ecological effects of oil discharges or releases of hazardous substances, pollutants, or contaminants; ecological and human health risk assessment methods; and environmental pollution control techniques. Access to EPA's scientific expertise can be facilitated through the EPA representative to the Research and Development Committee of the National Response Team; the EPA Office of Research and Development's Superfund Technical Liaisons or Regional Scientists located in EPA Regional offices; or through EPA's Office of Science Planning and Regulatory Evaluation. EPA also provides legal expertise on the interpretation of CERCLA and other environmental statutes. EPA may enter into a

contract or cooperative agreement with the appropriate state in order to implement a response action.

(3) FEMA provides guidance, policy and program advice, and technical assistance in hazardous materials,

chemical, and radiological emergency preparedness activities(including planning, training, and exercising). FEMA's primary point of contact for administering financial and technical assistance to state and local governments to support their efforts to develop and maintain an effective emergency management and response capability is the Preparedness, Training, and Exercises Directorate.

(4) DOD has responsibility to take all action necessary with respect to releases where either the release is on, or the sole source of the release is from, any facility or vessel under the jurisdiction, custody, or control of DOD. In addition to those capabilities provided by SUPSALV, DOD may also, consistent with its operational requirements and upon request of the OSC, provide locally deployed USN oil spill equipment and provide assistance to other federal agencies on request. The following two branches of DOD have particularly relevant expertise:

(i) The United States Army Corps of Engineers has specialized equipment and personnel for maintaining navigation channels, for removing navigation obstructions, for accomplishing structural repairs, and for performing maintenance to hydropower electric generating equipment. The Corps can also provide design services, perform construction, and provide contract writing and contract administrative services for other federal agencies.

(ii) The U.S. Navy Supervisor of Salvage(SUPSALV) is the branch of service within DOD most knowledgeable and experienced in ship salvage, shipboard damage control, and diving. The USN has an extensive array of specialized equipment and personnel available for use in these areas as well as specialized containment, collection, and removal equipment specifically designed for salvage-related and open-sea pollution incidents.

(5) DOE generally provides designated OSCs/RPMs that are responsible for taking all response actions with respect to releases where either the release is on, or the sole source of the release is from, any facility or vessel under its jurisdiction, custody, or control, including vessels bareboat-chartered and operated. In addition, under the FRERP, DOE provides advice and assistance to other OSCs/RPMs for emergency actions essential for the control of immediate radiological hazards. Incidents that qualify for DOE radiological advice and assistance are those believed to involve source, by-product, or special nuclear material or other ionizing radiation sources, including radium, and other naturally occurring radionuclides, as well as particle accelerators. Assistance is available through direct contact with the appropriate DOE Radiological Assistance Program Regional Office.

(6) The Department of Agriculture(USDA) has scientific and technical capability to measure, evaluate, and monitor, either on the ground or by use of aircraft, situations where natural resources including soil, water, wildlife, and vegetation have been impacted by fire, insects and diseases, floods, hazardous substances, and other natural or man-caused emergencies. The USDA may be contacted through Forest Service emergency staff officers who are the designated members of the RRT. Agencies within USDA have relevant capabilities and expertise as follows:

(i) The Forest Service has responsibility for protection and management of national forests and national grasslands. The Forest Service has personnel, laboratory, and field capability to measure, evaluate, monitor, and control as needed, releases of pesticides and other hazardous substances on lands under its jurisdiction.

(ii) The Agriculture Research Service(ARS) administers an applied and developmental research program in animal and plant protection and production; the use and improvement of soil, water, and air; the processing, storage, and distribution of farm products; and human nutrition. The ARS has the capabilities to provide regulation of, and evaluation and training for, employees exposed to biological, chemical, radiological, and industrial hazards. In emergency situations, the ARS can identify, control, and abate pollution in the areas of air, soil, wastes, pesticides, radiation, and toxic substances for ARS facilities.

(iii) The Soil Conservation Service(SCS) has personnel in nearly every county in the nation who are knowledgeable in soil, agronomy, engineering, and biology. These personnel can help to predict the effects of pollutants on soil and their movements over and through soils. Technical specialists can assist in identifying potential hazardous waste sites and provide review and advice on plans for remedial measures.

(iv) The Animal and Plant Health Inspection Service(APHIS) can respond in an emergency to regulate movement of diseased or infected organisms to prevent the spread and contamination of nonaffected areas.

(v) The Food Safety and Inspection Service(FSIS) has responsibility to prevent meat and poultry products contaminated with harmful substances from entering human food channels. In emergencies, the FSIS works with other federal and state agencies to establish acceptability for slaughter of exposed or potentially exposed animals and their products. In addition they are charged with managing the Federal Radiological Emergency Response Program for the USDA.

(7) DOC, through NOAA, provides scientific support for response and contingency planning in coastal and marine areas, including assessments of the hazards that may be involved, predictions of movement and dispersion of oil and hazardous substances through trajectory modeling, and information on the sensitivity of coastal environments to oil and hazardous substances and associated clean-up and mitigation methods; provides expertise on living marine resources and their habitats, including endangered species, marine mammals and National Marine Sanctuary ecosystems; provides information on actual and predicted meteorological, hydrological, ice, and oceanographic conditions for marine, coastal, and inland waters, and tide and circulation data for coastal and territorial waters and for the Great Lakes.

(8) HHS assists with the assessment, preservation, and protection of human health and helps ensure the availability of essential human services. HHS provides technical and nontechnical assistance in the form of advice, guidance, and resources to other federal agencies as well as state and local governments.

(i) The principal HHS response comes from the U.S. Public Health Service and is coordinated from the Office of the Assistant Secretary for Health, and various Public Health Service regional offices. Within the Public Health Service, the primary response to a hazardous materials emergency comes from Agency for Toxic Substances and Disease Registry(ATSDR) and the Centers for Disease Control(CDC). Both ATSDR and CDC have a 24-hour emergency response capability wherein scientific and technical personnel are available to provide technical assistance to the lead federal agency and state and local response agencies on human health threat assessment and analysis, and exposure prevention and mitigation. Such assistance is used for situations requiring evacuation of affected areas, human exposure to hazardous materials, and technical advice on mitigation and prevention. CDC takes the lead during petroleum releases regulated under the CWA and OPA while ATSDR takes the lead during

chemical releases under CERCLA. Both agencies are mutually supportive.

(ii) Other Public Health Service agencies involved in support during hazardous materials incidents either directly or through ATSDR/CDC include the Food and Drug Administration,

the Health Resources and Services administration, the Indian Health Service, and the National Institutes of Health.

(iii) Statutory authority for HHS / National Institutes for Environmental Health Sciences(NIEHS) involvement in hazardous materials accident prevention is non-regulatory in nature and focused on two primary areas for preventing community and worker exposure to hazardous materials releases: Worker safety training and basic research activities. Under section 126 of SARA, NIEHS is given statutory authority for supporting development of curricula and model training programs for waste workers and chemical emergency responders.

Under section 118(b) of the Hazardous Materials Transportation and Uniform Safety Act(HMTUSA)(49 U.S.C. 1802 et seq.), NIEHS also administers the Hazmat Employee Training Program to prepare curricula and training for hazardous materials transportation workers. In the basic research arena, NIEHS is authorized under section 311 of SARA to conduct a hazardous substance basic research and training program to evaluate toxic effects and assess human health risks from accidental releases of hazardous materials. Under Title IX, section 901(h) of the Clean Air Act Amendments, NIEHS also is authorized to conduct basic research on air pollutants, as well as train physicians in environmental health. Federal research and training in hazardous materials release prevention represents an important non-regulatory activity and supplements ongoing private sector programs.

(9) DOI may be contacted through Regional Environmental Officers(REOs), who are the designated members of RRTs. Department land managers have jurisdiction over the national park system, national wildlife refuges and fish hatcheries, the public lands, and certain water projects in western states. In addition, bureaus and offices have relevant expertise as follows:

(i) United States Fish and Wildlife Service(USFWS) and other Bureaus: anadromous and certain other fishes and wildlife, including endangered and threatened species, migratory birds, and certain marine mammals; waters and wetlands; and effects on natural resources.

(ii) The National Biological Survey performs research in support of biological resource management; inventories, monitors, and reports on the status and trends in the Nation's biotic resources; and transfers the information gained in research and monitoring to resource managers and others concerned with the care, use, and conservation of the Nation's natural resources. The National Biological Survey has laboratory / research facilities.

(iii) Geological Survey: Geology, hydrology(ground water and surface water), and natural hazards.

(iv) Bureau of Land Management: Minerals, soils, vegetation, wildlife, habitat, archaeology, and wilderness; and hazardous materials.

(v) Minerals Management Service: Oversight of offshore oil and gas exploration and production facilities and associated pipelines and pipeline facilities under the Outer Continental Shelf Lands Act and the CWA; oil spill response technology research; and establishing oil discharge contingency planning requirements for offshore facilities.

(vi) Bureau of Mines: Analysis and identification of inorganic hazardous substances and technical expertise in metals and metallurgy relevant to site cleanup.(vii) Office of Surface Mining: Coal mine wastes and land reclamation.

(viii) National Park Service: General biological, natural, and cultural resource managers to evaluate, measure, monitor, and contain threats to park system lands and resources; archaeological and historical expertise in protection, preservation, evaluation, impact mitigation, and restoration of cultural resources; emergency personnel.

(ix) Bureau of Reclamation: Operation and maintenance of water projects in the West; engineering and hydrology; and reservoirs.

(x) Bureau of Indian Affairs: Coordination of activities affecting Indian lands; assistance in identifying Indian tribal government officials.

(xi) Office of Territorial Affairs: Assistance in implementing the NCP in American Samoa, Guam, the Pacific Island Governments, the Northern Mariana Islands, and the Virgin Islands.

(10) The Department of Justice(DOJ) can provide expert advice on complicated legal questions arising from discharges or releases, and federal agency responses. In addition, the DOJ represents the federal government, including its agencies, in litigation relating to such discharges or releases. Other legal issues or questions shall be directed to the federal agency counsel for the agency providing the OSC/RPM for the response.

(11) The Department of Labor(DOL), through OSHA and the states operating plans approved under section 18 of the OSH Act, has authority to conduct safety and health inspections of hazardous waste sites to assure that employees are being protected and to determine if the site is in compliance with:

(i) Safety and health standards and regulations promulgated by OSHA(or the states) in accordance with section 126 of SARA and all other applicable standards; and

(ii) Regulations promulgated under the OSH Act and its general duty clause. OSHA inspections may be self-generated, consistent with its program operations and objectives, or may be conducted in response to requests from EPA or another lead agency, or in response to accidents or employee complaints. OSHA may also conduct inspections at hazardous waste sites in those states with approved plans that choose not to exercise their jurisdiction to inspect such sites. On request, OSHA will provide advice and consultation to EPA and other NRT/RRT agencies as well as to the OSC/RPM regarding hazards to persons engaged in response activities. OSHA may also take any other action necessary to assure that employees are properly protected at such response activities. Any questions about occupational safety and health at these sites may be referred to the OSHA Regional Office.

(12) DOT provides response expertise pertaining to transportation of oil or hazardous substances by all modes of transportation. Through the Research and Special Programs Administration(RSPA), DOT offers expertise in the requirements for packaging, handling, and transporting regulated hazardous materials. DOT, through RSPA, establishes oil discharge contingency planning requirements for pipelines, transport by rail and containers or bulk transport of oil.

(13) The Department of State(DOS) will lead in the development of international joint contingency plans. It will also help to coordinate an international response when discharges or releases cross international boundaries or involve foreign flag vessels. Additionally, DOS will coordinate requests for assistance from foreign governments and U.S. proposals for conducting research at incidents that occur in waters of other countries.(14) The Nuclear Regulatory Commission will respond, as appropriate, to releases of radioactive materials by its licensees, in accordance

with the NRC Incident Response Plan(NUREG- 0728) to monitor the actions of those licensees and assure that the public health and environment are protected and adequate recovery operations are instituted. The Nuclear Regulatory Commission will keep EPA informed of any significant actual or potential releases in accordance with procedural agreements. In addition, the Nuclear Regulatory Commission will provide advice to the OSC/RPM when assistance is

required in identifying the source and character of other hazardous substance releases where the Nuclear Regulatory Commission has licensing authority for activities utilizing radioactive materials.

(15) The General Services Administration(GSA) provides logistic and telecommunications support to federal agencies. During an emergency situation, GSA quickly responds to aid state and local governments as directed by other federal agencies. The type of support provided might include leasing and furnishing office space, setting up telecommunications and transportation services, and advisory assistance.

Sec. 300.180 -- State and local participation in response.(a) Each state governor is requested to designate one state office/representative to represent the state on the appropriate RRT. The state's office/representative may participate fully in all activities of the appropriate RRT. Each state governor is also requested to designate a lead state agency that will direct state-lead response operations. This agency is responsible for designating the lead state response official for federal and/or state-lead response actions, and coordinating/communicating with any other state agencies, as appropriate. Local governments are invited to participate in activities on the appropriate RRT as may be provided by state law or arranged by the state's representative. Indian tribes wishing to participate should assign one person or office to represent the tribal government on the appropriate RRT.

(b) Appropriate local and state officials(including Indian tribes) will participate as part of the response structure as provided in the ACP.

(c) In addition to meeting the requirements for local emergency plans under SARA section 303, state and local government agencies are encouraged to include contingency planning for responses, consistent with the NCP, RCP, and ACP in all emergency and disaster planning.

(d) For facilities not addressed under CERCLA or the CWA, states are encouraged to undertake response actions themselves or to use their authorities to compel potentially responsible parties to undertake response actions.

(e) States are encouraged to enter into cooperative agreements pursuant to sections 104(c)(3) and(d) of CERCLA to enable them to undertake actions authorized under subpart E of the NCP. Requirements for entering into these agreements are included in subpart F of the NCP. A state agency that acts pursuant to such agreements is referred to as the lead agency. In the event there is no cooperative agreement, the lead agency can be designated in a SMOA or other agreement.

(f) Because state and local public safety organizations would normally be the first government representatives at the scene of a discharge or release, they are expected to initiate public safety measures that are necessary to protect public health and welfare and that are consistent with containment and cleanup requirements in the NCP, and are responsible for directing evacuations pursuant to existing state or local procedures.

Sec. 300.185 -- Nongovernmental participation.

(a) Industry groups, academic organizations, and others are encouraged to commit resources for response operations. Specific commitments should be listed in the RCP and ACP. Those entities required to develop tank vessel and facility response plans under CWA section 311(j) must be able to respond to a worst case discharge to the maximum extent practicable, and shall commit sufficient resources to implement other aspects of those plans in accordance with the requirements of 30 CFR part 254, 33 CFR parts 150, 154, and 155; 40 CFR part 112; and 49 CFR parts 171 and 194.

(b) The technical and scientific information generated by the local community, along with information from federal, state, and local governments, should be used to assist the OSC/RPM in devising response strategies where effective standard techniques are unavailable. Such information and strategies will be incorporated into the ACP, as appropriate. The SSC may act as liaison between the OSC/RPM and such interested organizations.

(c) ACPs shall establish procedures to allow for well organized, worthwhile, and safe use of volunteers, including compliance with Sec. 300.150 regarding worker health and safety. ACPs should provide for the direction of volunteers by the OSC/RPM or by other federal, state, or local officials knowledgeable in contingency operations and capable of providing leadership. ACPs also should identify specific areas in which volunteers can be used, such as beach surveillance, logistical support, and bird and wildlife treatment. Unless specifically requested by the OSC/RPM, volunteers generally should not be used for physical removal or remedial activities. If, in the judgment of the OSC/RPM, dangerous conditions exist, volunteers shall be restricted from on-scene operations.

(d) Nongovernmental participation must be in compliance with the requirements of subpart H of this part if any recovery of costs will be sought.

Subpart C-Planning and Preparedness

Sec. 300.200 -- General.

This subpart summarizes emergency preparedness activities relating to discharges of oil and releases of hazardous substances, pollutants, or contaminants; describes the three levels of contingency planning under the national response system; and cross-references state and local emergency preparedness activities under SARA Title III, also known as the "Emergency Planning and Community Right-to-Know Act of 1986" but referred to herein as "Title III." Regulations implementing Title III are codified at 40 CFR Subchapter J. Sec. 300.205 -- Planning and coordination structure.

(a) National. As described inSec. 300.110, the NRT is responsible for national planning and coordination.

(b) Regional. As described inSec. 300.115, the RRTs are responsible for regional planning and coordination.

(c) Area. As required by section 311(j) of the CWA, under the direction of the federal OSC for its area, Area Committees comprising qualified personnel of federal, state, and local agencies shall be responsible for:

(1) Preparing an ACP for their areas(as described inSec. 300.210(c));

(2) Working with appropriate federal, state, and local officials to enhance the contingency planning of those officials and to assure pre-planning of joint response efforts, including appropriate procedures for mechanical recovery, dispersal, shoreline cleanup, protection of sensitive environmental areas, and protection, rescue, and rehabilitation of fisheries and wildlife; and

(3) Working with appropriate federal, state, and local officials to expedite decisions for the use of dispersants and other mitigating substances and devices.

(d) State. As provided by sections 301 and 303 of Title III, the SERC of each

state, appointed by the Governor, is to designate emergency planning districts, appoint Local Emergency Planning Committees(LEPCs), supervise and coordinate their activities, and review local emergency response plans, which are described inSec. 300.215. The SERC also is to establish procedures for receiving and processing requests from the public for information generated by Title III reporting requirements and to designate an official to serve as coordinator for information.

(e) Local. As provided by sections 301 and 303 of Title III, emergency planning districts are designated by the SERC in order to facilitate the preparation and implementation of emergency plans. Each LEPC is to prepare a local emergency response plan for the emergency planning district and establish procedures for receiving and processing requests from the public for information generated by Title III reporting requirements. The LEPC is to appoint a chair and establish rules for the LEPC. The LEPC is to designate an official to serve as coordinator for information and designate in its plan a community emergency coordinator.(f) As required by section 311(j)(5) of the CWA, a tank vessel, as defined under section 2101 of title 46, U.S. Code, an offshore facility, and an onshore facility that, because of its location, could reasonably be expected to cause substantial harm to the environment by discharging into or on the navigable waters, adjoining shorelines, or exclusive economic zone must prepare and submit a plan for responding, to the maximum extent practicable, to a worst case discharge, and to a substantial threat of such a discharge, of oil or a hazardous substance.

(g) The relationship of these plans is described in Figure 4.

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Relationship of Plans

International - - - - National Oil and Federal Response Joint Plans Hazardous Substances - - - Plan(FRP) Pollution Contingency / Plan(NCP) / / / Regional / Contingency / Plans(RCPs) / Federal Agency---------- Area Contingency ----Facility Response Internal Plans Plans(ACPs) Plans(FRPs) / / / / / / State / Local----------Vessel Response Plans Plans(VRPs)

Plans of the National Response System(NRS)

- - - - Points of coordination with the NRS

------- Plans Integrated with the ACP

Sec. 300.210 -- Federal contingency plans. There are three levels of contingency plans under the national response system: The National Contingency Plan, RCPs, and ACPs. These plans are available for inspection at EPA regional offices or USCG district offices. addresses and telephone numbers for these offices may be found in the United States Government Manual, issued annually, or in local telephone directories.

(a) The National Contingency Plan. The purpose and objectives, authority, and scope of the NCP are described in Secs. 300.1 through 300.3.

(b) Regional Contingency Plans. The RRTs, working with the states, shall develop federal RCPs for each standard federal region, Alaska, Oceania in the Pacific, and the Caribbean to coordinate timely, effective response by various federal agencies and other organizations to discharges of oil or releases of hazardous substances, pollutants, or contaminants. RCPs shall, as appropriate, include information on all useful facilities and resources in the region, from government, commercial, academic, and other sources. To the greatest extent possible, RCPs shall follow the format of the NCP and be coordinated with state emergency response plans, aCPs, which are

described inSec. 300.210(c), and Title III local emergency response plans, which are described inSec. 300.215. Such coordination should be accomplished by working with the SERCs in the region covered by the RCP. RCPs shall contain lines of demarcation between the inland and coastal zones, as mutually agreed upon by USCG and EPA.

(c) Area Contingency Plans.(1) Under the direction of an OSC and subject to approval by the lead agency, each Area Committee, in consultation with the appropriate RRTs, Coast Guard DRGs, the NSFCC, SSCs, LEPCs, and SERCs, shall develop an ACP for its designated area. This plan, when implemented in conjunction with other provisions of the NCP, shall be adequate to remove a worst case discharge underSec. 300.324, and to mitigate or prevent a substantial threat of such a discharge, from a vessel, offshore facility, or onshore facility operating in or near the area.

(2) The areas of responsibility may include several Title III local planning districts, or parts of such districts. In developing the ACP, the OSC shall coordinate with affected SERCs and LEPCs. The ACP shall provide for a well coordinated response that is integrated and compatible, to the greatest extent possible, with all appropriate response plans of state, local, and non-federal entities, and especially with Title III local emergency response plans.

(3) The ACP shall include the following:(i) A description of the area covered by the plan, including the areas of special economic or environmental importance that might be damaged by a discharge;

(ii) A description in detail of the responsibilities of an owner or operator and of federal, state, and local agencies in removing a discharge, and in mitigating or preventing a substantial threat of a discharge;

(iii) A list of equipment(including firefighting equipment), dispersants, or other mitigating substances and devices, and personnel available to an owner or operator and federal, state, and local agencies, to ensure an effective and immediate removal of a discharge, and to ensure mitigation or prevention of a substantial threat of a discharge(this may be provided in an appendix or by reference to other relevant emergency plans(e.g., state or LEPC plans), which may include such equipment lists);

(iv) A description of procedures to be followed for obtaining an expedited decision regarding the use of dispersants; and

(v) A detailed description of how the plan is integrated into other aCPs and tank vessel, offshore facility, and onshore facility response plans approved by the President, and into operating procedures of the NSFCC.

(4)(i) In order to provide for coordinated, immediate and effective protection, rescue, and rehabilitation of, and minimization of risk of injury to, fish and wildlife resources and habitat, Area Committees shall incorporate into each ACP a detailed annex containing a Fish and Wildlife and Sensitive Environments Plan that is consistent with the RCP and NCP. The annex shall be prepared in consultation with the USFWS and NOAA and other interested natural resource management agencies and parties. It shall address fish and wildlife resources and their habitat, and shall include other areas considered sensitive environments in a separate section of the annex, based upon Area Committee recommendations. The annex will provide the necessary information and procedures to immediately and effectively respond to discharges that may adversely affect fish and wildlife and their habitat and sensitive environments, including provisions for a response to a worst case discharge. Such information shall include the identification of appropriate agencies and their responsibilities, procedures to notify these agencies following a discharge or threat of a discharge, protocols for obtaining required fish and

wildlife permits and other necessary permits, and provisions to ensure compatibility of annex-related activities with removal operations.(ii) The annex shall:

(a) Identify and establish priorities for fish and wildlife resources and their habitats and other important sensitive areas requiring protection from any direct or indirect effects from discharges that may occur. These effects include, but are not limited to, any seasonal or historical use, as well as all critical, special, significant, or otherwise designated protected areas.

(b) Provide a mechanism to be used during a spill response for timely identification of protection priorities of those fish and wildlife resources and habitats and sensitive environmental areas that may be threatened or injured by a discharge. These include as appropriate, not only marine and freshwater species, habitats, and their food sources, but also terrestrial wildlife and their habitats that may be affected directly by onshore oil or indirectly by oil-related factors, such as loss or contamination of forage. The mechanism shall also provide for expeditious evaluation and appropriate consultations on the effects to fish and wildlife, their habitat, and other sensitive environments from the application of chemical countermeasures or other countermeasures not addressed under paragraph(e)(4)(iii).(c) Identify potential environmental effects on fish and wildlife, their habitat, and other sensitive environments resulting from removal actions or countermeasures, including the option of no removal. Based on this evaluation of potential environmental effects, the annex should establish priorities for application of countermeasure and removal actions to habitats within the geographic region of the ACP. The annex should establish methods to minimize the identified effects on fish and wildlife because of response activities, including, but not limited to: Disturbance of sensitive areas and habitats; illegal or inadvertent taking or disturbance of fish and wildlife or specimens by response personnel; and fish and wildlife, their habitat, and environmentally sensitive areas coming in contact with various cleaning or bioremediation agents. Furthermore, the annex should identify the areas where the movement of oiled debris may pose a risk to resident, transient, or migratory fish and wildlife, and other sensitive environments and should discuss measures to be considered for removing such oiled

debris in a timely fashion to reduce such risk.

(d) Provide for pre-approval of application of specific countermeasures or removal actions that, if expeditiously applied, will minimize adverse spill-induced impacts to fish and wildlife resources, their habitat, and other sensitive environments. Such pre-approval plans must be consistent with paragraphs(c)(4)(ii)(B) and(C) of this section and subpart J requirements, and must have the concurrence of the natural resource trustees.

(e) Provide monitoring plan(s) to evaluate the effectiveness of different countermeasures or removal actions in protecting the environment. Monitoring should include "set-aside" or "control" areas, where no mitigative actions are taken.

(f) Identify and plan for the acquisition and utilization of necessary response capabilities for protection, rescue, and rehabilitation of fish and wildlife resources and habitat. This may include appropriately permitted private organizations and individuals with appropriate expertise and experience. The suitable organizations should be identified in cooperation with natural resource law enforcement agencies. Such capabilities shall include, but not be limited to, identification of facilities and equipment necessary for deterring sensitive fish and wildlife from entering oiled areas, and for capturing, holding, cleaning, and releasing injured wildlife. Plans for the provision of such capabilities shall ensure that there is no interference with other OSC removal operations.(g) Identify appropriate federal and state agency contacts and alternates responsible for coordination of fish and wildlife rescue and rehabilitation and protection of sensitive environments; identify and provide for required fish and wildlife handling and rehabilitation permits necessary under federal and state laws; and provide guidance on the implementation of law enforcement requirements included under current federal and state laws

and corresponding regulations. Requirements include, but are not limited to procedures regarding the capture, transport, rehabilitation, and release of wildlife exposed to or threatened by oil, and disposal of contaminated carcasses of wildlife.

(h) Identify and secure the means for providing, if needed, the minimum required OSHA and EPA training for volunteers, including those who assist with injured wildlife.

(i) Define the requirements for evaluating the compatibility between this annex and non-federal response plans(including those of vessels, facilities, and pipelines) on issues affecting fish and wildlife, their habitat, and sensitive environments.

Sec. 300.211 -- OPA facility and vessel response plans. This section describes and cross-references the regulations that implement section 311(j)(5) of the CWA. A tank vessel, as defined under section 2101 of title 46, U.S. Code, an offshore facility, and an onshore facility that, because of its location, could reasonably expect to cause substantial harm to the environment by discharging into or on the navigable waters, adjoining shorelines, or exclusive economic zone must prepare and submit a plan for responding, to the maximum extent practicable, to a worst case discharge, and to a substantial threat of such a discharge, of oil or a hazardous substance. These response plans are required to be consistent with applicable Area Contingency Plans. These regulations are codified as follows:

(a) For tank vessels, these regulations are codified in 33 CFR part 155;

(b) For offshore facilities, these regulations are codified in 30 CFR part 254;

(c) For non-transportation related onshore facilities, these regulations are codified in 40 CFR 112.20;

(d) For transportation-related onshore facilities, these regulations are codified in 33 CFR part 154;

(e) For pipeline facilities, these regulations are codified in 49 CFR part 194; and

(f) For rolling stock, these regulations are codified in 49 CFR part 106 et al.

Sec. 300.212 -- Area response drills.

The OSC periodically shall conduct drills of removal capability(including fish and wildlife response capability), without prior notice, in areas for which ACPs are required bySec. 300.210(c) and under relevant tank vessel and facility response plans.

Sec. 300.215 -- Title III local emergency response plans.

This section describes and cross-references the regulations that implement Title III. These regulations are codified at 40 CFR part 355.

(a) Each LEPC is to prepare an emergency response plan in accordance with section 303 of Title III and review the plan once a year, or more frequently as changed circumstances in the community or at any facility may require. Such Title III local emergency response plans should be closely coordinated with applicable federal ACPs and state emergency response plans.

(b) Reserved

Sec. 300.220 -- Related Title III issues.

Other related Title III requirements are found in 40 CFR part 355.

Subpart D-Operational Response Phases for Oil Removal

Sec. 300.300 -- Phase I-Discovery or notification.

(a) A discharge of oil may be discovered through:

(1) A report submitted by the person in charge of a vessel or facility, in accordance with statutory requirements;

(2) Deliberate search by patrols;(3) Random or incidental observation by government agencies or the public; or

(4) Other sources.

(b) Any person in charge of a vessel or a facility shall, as soon as he or she has knowledge of any discharge from such vessel or facility in violation of section 311(b)(3) of the CWA, immediately notify the NRC. If direct reporting to the NRC is not practicable, reports may be made to the USCG or EPA predesignated OSC for the geographic area where the discharge occurs. The EPA predesignated OSC may also be contacted through the regional 24-hour emergency response telephone number. All such reports shall be promptly relayed to the NRC. If it is not possible to notify the NRC or predesignated OSC immediately, reports may be made immediately to the nearest Coast Guard unit. In any event such person in charge of the vessel or facility shall notify the NRC as soon as possible.

(c) Any other person shall, as appropriate, notify the NRC of a discharge of oil.

(d) Upon receipt of a notification of discharge, the NRC shall promptly notify the OSC. The OSC shall ensure notification of the appropriate state agency of any state which is, or may reasonably be expected to be, affected by the discharge. The OSC shall then proceed with the following phases as outlined in the RCP and ACP.

Sec. 300.305 -- Phase II-Preliminary assessment and initiation of action.

(a) The OSC is responsible for promptly initiating a preliminary assessment.

(b) The preliminary assessment shall be conducted using available information, supplemented where necessary and possible by an on-scene inspection. The OSC shall undertake actions to:

(1) Evaluate the magnitude and severity of the discharge or threat to

public health or welfare of the United States or the environment;

(2) Assess the feasibility of removal; and

(3) To the extent practicable, identify potentially responsible parties.(c) Where practicable, the framework for the response management structure is a system(e.g., a unified command system), that brings together the functions of the federal government, the state government, and the responsible party to achieve an effective and efficient response, where the OSC maintains authority.

(d) Except in a case when the OSC is required to direct the response to a discharge that may pose a substantial threat to the public health or welfare of the United States(including but not limited to fish, shellfish, wildlife, other natural resources, and the public and private beaches and shorelines of the United States), the OSC may allow the responsible party to voluntarily and promptly perform removal actions, provided the OSC determines such actions will ensure an effective and immediate removal of the discharge or mitigation or prevention of a substantial threat of a discharge. If the responsible party does conduct the removal, the OSC shall ensure adequate surveillance over whatever actions are initiated. If effective actions are not being taken to eliminate the threat, or if removal is not being properly done, the OSC should, to the extent practicable under the circumstances, so advise the responsible party. If the responsible party does not respond properly the OSC shall take appropriate response actions and should notify the responsible party of the potential liability for federal response costs incurred by the OSC pursuant to the OPA and CWA. Where practicable, continuing efforts should be made to encourage response by responsible parties.

(1) In carrying out a response under this section, the OSC may:

(i) Remove or arrange for the removal of a discharge, and mitigate or prevent a substantial threat of a discharge, at any time;

(ii) Direct or monitor all federal, state, and private actions to remove a discharge; and

(iii) Remove and, if necessary, destroy a vessel discharging, or threatening to discharge, by whatever means are available.

(2) If the discharge results in a substantial threat to the public health or welfare of the United States(including, but not limited to fish, shellfish, wildlife, other natural resources, and the public and private beaches and shorelines of the United States), the OSC must direct all response efforts, as provided in Sec. 300.322(b) of this part. The OSC should declare as expeditiously as practicable to spill response participants that the federal government will direct the response. The OSC may act without regard to any other provision of the law governing contracting procedures or employment of personnel by the federal government in removing or arranging for the removal of such a discharge.

(e) The OSC shall ensure that the natural resource trustees are promptly notified in the event of any discharge of oil, to the maximum extent practicable as provided in the Fish and Wildlife and Sensitive Environments Plan annex to the ACP for the area in which the discharge occurs. The OSC and the trustees shall coordinate assessments, evaluations, investigations, and planning with respect to appropriate removal actions. The OSC shall consult with the affected trustees on the appropriate removal action to be taken. The trustees will provide timely advice concerning recommended actions with regard to trustee resources potentially affected. The trustees also will assure that the OSC is informed of their activities in natural resource damage assessment that may affect response operations. The trustees shall assure, through the lead administrative trustee, that all data from the natural resource damage assessment activities that may support more effective operational decisions are provided in a timely manner to the OSC. When circumstances permit, the OSC shall share the use of non-monetary response resources(i.e., personnel and equipment) with the trustees, provided trustee activities do not interfere with response actions. The lead administrative trustee facilitates effective and efficient communication between the OSC and the other trustees during response operations and is responsible for applying to the OSC for non-monetary federal response resources on behalf of all trustees. The lead administrative trustee is also responsible for applying to the NPFC for funding for initiation of damage assessment for injuries to natural resources.

Sec. 300.310 -- Phase III-Containment, countermeasures, cleanup, and disposal.

(a) Defensive actions shall begin as soon as possible to prevent, minimize, or mitigate threat(s) to the public health or welfare of the United States or the environment. Actions may include but are not limited to: Analyzing water samples to determine the source and spread of the oil; controlling the source of discharge; measuring and sampling; source and spread control or salvage operations; placement of physical barriers to deter the spread of the oil and to protect natural resources and sensitive ecosystems; control of the water discharged from upstream impoundment; and the use of chemicals and other materials in accordance with subpart J of this part to restrain the spread of the oil and mitigate its effects. The aCP prepared underSec. 300.210(c) should be consulted for procedures to be followed for obtaining an expedited decision regarding the use of dispersants and other products listed on the NCP Product Schedule.(b) As appropriate, actions shall be taken to recover the oil or mitigate its effects. Of the numerous chemical or physical methods that may be used, the chosen methods shall be the most consistent with protecting public health and welfare

and the environment. Sinking agents shall not be used.

(c) Oil and contaminated materials recovered in cleanup operations shall be disposed of in accordance with the RCP, ACP, and any applicable laws, regulations, or requirements. RRT and Area Committee guidelines may identify the disposal options available during an oil spill response and may describe what disposal requirements are mandatory or may not be waived by the OSC. ACP guidelines should address: the sampling, testing, and classifying of recovered oil and oiled debris; the segregation, temporary storage, and stockpiling of recovered oil and oiled debris; prior state disposal approvals and permits; and the routes; methods(e.g. recycle/reuse, on-site burning, incineration, landfilling, etc.); and sites for the disposal of collected oil, oiled debris, and animal carcasses; and procedures for obtaining waivers, exemptions, or authorizations associated with handling or transporting waste materials. The ACPs may identify a hierarchy of preferences for disposal alternatives, with recycling(reprocessing) being the most preferred, and other alternatives preferred based on priorities for health or the environment.
Sec. 300.315 -- Phase IV-Documentation and cost recovery.

(a) All OSLTF users need to collect and maintain documentation to support all actions taken under the CWA. In general, documentation shall be sufficient to support full cost recovery for resources utilized and shall identify the source and circumstances of the incident, the responsible party or parties, and impacts and potential impacts to public health and welfare and the environment. Documentation procedures are contained in 33 CFR part 136.

(b) When appropriate, documentation shall also be collected for scientific understanding of the environment and for research and development of improved response methods and technology. Funding for these actions is restricted by section 6002 of the OPA.

(c) OSCs shall submit OSC reports to the NRT or RRT, only if requested, as provided bySec. 300.165.

(d) OSCs shall ensure the necessary collection and safeguarding of information, samples, and reports. Samples and information shall be gathered expeditiously during the response to ensure an accurate record of the impacts incurred. Documentation materials shall be made available to the trustees of affected natural resources. The OSC shall make available to trustees of the affected natural resources information and documentation in the OSC's possession that can assist the trustees in the determination of actual or potential natural resource injuries.

(e) Information and reports obtained by the EPA or USCG OSC shall be transmitted to the appropriate offices responsible for follow-up actions.

Sec. 300.317 -- National response priorities.

(a) Safety of human life must be given the top priority during every response action. This includes any search and rescue efforts in the general proximity of the discharge and the insurance of safety of response personnel.

(b) Stabilizing the situation to preclude the event from worsening is the next priority. All efforts must be focused on saving a vessel that has been involved in a grounding, collision, fire, or explosion, so that it does not compound the problem. Comparable measures should be taken to stabilize a situation involving a facility, pipeline, or other source of pollution. Stabilizing the situation includes securing the source of the spill and/or removing the remaining oil from the container(vessel, tank, or pipeline) to prevent additional oil spillage, to reduce the need for follow-up response action, and to minimize adverse impact to the environment.

(c) The response must use all necessary containment and removal tactics in a coordinated manner to ensure a timely, effective response that minimizes adverse impact to the environment.

(d) All parts of this national response strategy should be addressed concurrently, but safety and stabilization are the highest priorities. The OSC should not delay containment and removal decisions unnecessarily and should take actions to minimize adverse impact to the environment that begins as soon as a discharge occurs, as well as actions to minimize further adverse environmental impact from additional discharges.

(e) The priorities set forth in this section are broad in nature, and should not be interpreted to preclude the consideration of other priorities that may arise on a site-specific basis.

Sec. 300.320 -- General pattern of response.

(a) When the OSC receives a report of a discharge, actions normally should be taken in the following sequence:

(1) Investigate the report to determine pertinent information such as the threat posed to public health or welfare of the United States or the environment, the type and quantity of polluting material, and the source of the discharge.

(2) Officially classify the size(i.e., minor, medium, major) and type(i.e., substantial threat to the public health or welfare of the United States, worst case discharge) of the discharge and determine the course of action to be followed to ensure effective and immediate removal, mitigation, or prevention of the discharge. Some discharges that are classified as a substantial threat to the public health or welfare of the United States may be further classified as a spill of national significance by the Administrator of EPA or the Commandant of the USCG. The appropriate course of action may be prescribed in Secs. 300.322, 300.323, and 300.324.

(i) When the reported discharge is an actual or potential major discharge, the OSC shall immediately notify the RRT and the NRC.

(ii) When the investigation shows that an actual or potential medium discharge exists, the OSC shall recommend activation of the RRT, if appropriate.

(iii) When the investigation shows that an actual or potential minor discharge exists, the OSC shall monitor the situation to ensure that proper removal action is being taken.

(3) If the OSC determines that effective and immediate removal, mitigation, or prevention of a discharge can be achieved by private party efforts, and where the discharge does not pose a

substantial threat to the public health or welfare of the United States, determine whether the responsible party or other person is properly carrying out removal. Removal is being done properly when:

(i) The responsible party is applying the resources called for in its response plan to effectively and immediately remove, minimize, or mitigate threat(s) to public health and welfare and the environment; and

(ii) The removal efforts are in accordance with applicable regulations, including the NCP. Even if the OSC supplements responsible party resources with government resources, the spill response will not be considered improper, unless specifically determined by the OSC.(4) Where appropriate, determine whether a state or political subdivision thereof has the capability to carry out any or all removal actions. If so, the OSC may arrange funding to support these actions.

(5) Ensure prompt notification of the trustees of affected natural resources in accordance with the applicable RCP and ACP.

(b) Removal shall be considered complete when so determined by the OSC in consultation with the Governor or Governors of the affected states. When the OSC considers removal complete, OSLTF removal funding shall end. This determination shall not preclude additional removal actions under applicable state law.

Sec. 300.322 -- Response to substantial threats to public health or welfare of the United States.

(a) As part of the investigation described inSec. 300.320, the OSC shall determine whether a discharge results in a substantial threat to public health or welfare of the United States(including, but not limited to, fish, shellfish, wildlife, other natural resources, and the public and private beaches and shorelines of the United States). Factors to be considered by the OSC in making this determination include, but are not limited to, the size of the discharge, the character of the discharge, and the nature of the threat to public health or welfare of the United States. Upon obtaining such information, the OSC shall conduct an evaluation of the threat posed, based on the OSC's experience in assessing other discharges, and consultation with senior lead agency officials and readily available authorities on issues outside the OSC's technical expertise.

(b) If the investigation by the OSC shows that the discharge poses or may present a substantial threat to public health or welfare of the United States, the OSC shall direct all federal, state, or private actions to remove the discharge or to mitigate or prevent the threat of such a discharge, as appropriate. In directing the response in such cases, the OSC may act without regard to any other provision of law governing contracting procedures or employment

of personnel by the federal government to:

(1) Remove or arrange for the removal of the discharge;

(2) Mitigate or prevent the substantial threat of the discharge; and

(3) Remove and, if necessary, destroy a vessel discharging, or threatening to discharge, by whatever means are available.(c) In the case of a substantial threat to public health or welfare of the United States, the OSC shall:

(1) Assess opportunities for the use of various special teams and other assistance described in Sec. 300.145, including the use of the services of the NSFCC, as appropriate;

(2) Request immediate activation of the RRT; and

(3) Take whatever additional response actions are deemed appropriate, including, but not limited to, implementation of the ACP as required by section 311(j)(4) of the CWA or relevant tank vessel or facility response plan required by section 311(j)(5) of the CWA. When requested by the OSC, the lead agency or RRT shall dispatch appropriate personnel to the scene of the discharge to assist the OSC. This assistance may include technical support in the agency's areas of expertise and disseminating information to the public. The lead agency shall ensure that a contracting officer is available on scene, at the request of the OSC.

Sec. 300.323 -- Spills of national significance

(a) A discharge may be classified as a spill of national significance(SONS) by the Administrator of EPA for discharges occurring in the inland zone and the Commandant of the USCG for discharges occurring in the coastal zone.

(b) For a SONS in the inland zone, the EPA Administrator may name a senior Agency official to assist the OSC in communicating with affected parties and the public and coordinating federal, state, local, and international resources at the national level. This strategic coordination will involve, as appropriate, the NRT, RRT(s), the Governor(s) of affected state(s), and the mayor(s) or other chief executive(s) of local government(s).

(c) For a SONS in the coastal zone, the USCG Commandant may name a National Incident Commander(NIC) who will assume the role of the OSC in communicating with affected parties and the public, and coordinating federal, state, local, and international resources at the national level. This strategic coordination will involve, as appropriate, the NRT, RRT(s), the Governor(s) of affected state(s), and the mayor(s) or other chief executive(s) of local government(s).

Sec. 300.324 -- Response to worst case discharges.(a) If the investigation by the OSC shows that a discharge is a worst case discharge as defined in the ACP, or there is a substantial threat of such a discharge, the OSC shall:

(1) Notify the NSFCC;

(2) Require, where applicable, implementation of the worst case portion of an approved tank vessel or facility response plan required by section 311(j)(5) of the CWA;

(3) Implement the worst case portion of the ACP required by section 311(j)(4) of the CWA; and

(4) Take whatever additional response actions are deemed appropriate.

(b) Under the direction of the OSC, the NSFCC shall coordinate use of private and public personnel and equipment, including strike teams, to remove a worst case discharge and mitigate or prevent a substantial threat of such a discharge.

Sec. 300.335 -- Funding.(a) The OSLTF is available under certain circumstances to fund removal of oil performed under section 311 of the CWA. Those circumstances and the procedures for accessing the OSLTF are described in 33 CFR part 136. The responsible party is liable for costs of federal removal and damages in accordance with section 311(f) of the CWA, section 1002 of the OPA, and other federal laws.

(b) Where the OSC requests assistance from a federal agency, that agency may be reimbursed in accordance with the provisions of 33 CFR part 136. Specific interagency reimbursement

agreements may be used when necessary to ensure that the federal resources will be available for a timely response to a discharge of oil.

(c) Procedures for funding the initiation of natural resource damage assessment are covered in 33 CFR part 136.

(d) Response actions other than removal, such as scientific investigations not in support of removal actions or law enforcement, shall be provided by the agency with legal responsibility for those specific actions.

(e) The funding of a response to a discharge from a federally owned, operated, or supervised facility or vessel is the responsibility of the owning, operating, or supervising agency if it is a responsible party.

(f) The following agencies have funds available for certain discharge removal actions:

(1) DOD has two specific sources of funds that may be applicable to an oil discharge under appropriate circumstances. This does not consider military resources that might be made available under specific conditions.

(i) Funds required for removal of a sunken vessel or similar obstruction of navigation are available to the Corps of Engineers through Civil Works Appropriations, Operations and Maintenance, General.

(ii) USN may conduct salvage operations contingent on defense operational commitments, when funded by the requesting agency. Such funding may be requested on a direct cite basis.

(2) Pursuant to Title I of the OPA, the state or states affected by a discharge of oil may act where necessary to remove such discharge. Pursuant to 33 CFR part 136 states may be reimbursed from the OSLTF for the reasonable costs incurred in such a removal. Subpart E-Hazardous Substance Response

5. Section 300.400 is amended by revising paragraph(a) to read as follows:

Sec. 300.400 -- General.

(a) This subpart establishes methods and criteria for determining the appropriate extent of response authorized by CERCLA and CWA section 311(c):

(1) When there is a release of a hazardous substance into the environment; or

(2) When there is a release into the environment of any pollutant or contaminant that may present an imminent and substantial danger to the public health or welfare of the United States.

* * * * *

6. Section 300.405 is amended by revising paragraphs(a) and(f)(3) to read as follows: Sec. 300.405 -- Discovery or notification.

(a) A release may be discovered through:

(1) A report submitted in accordance with section 103(a) of CERCLA, i.e., reportable quantities codified at 40 CFR part 302;

(2) A report submitted to EPA in accordance with section 103(c) of CERCLA;

(3) Investigation by government authorities conducted in accordance with section 104(e) of CERCLA or other statutory authority;

(4) Notification of a release by a federal or state permit holder when required by its permit;

(5) Inventory or survey efforts or random or incidental observation

reported by government agencies or the public;

(6) Submission of a citizen petition to EPA or the appropriate federal facility requesting a preliminary assessment, in accordance with section 105(d) of CERCLA;(7) A report submitted in accordance with section 311(b)(5) of the CWA; and

(8) Other sources.

* * * * *

(f) * * *

(3) If radioactive substances are present in a release, the EPA Radiological Response Coordinator should be notified for evaluation and assistance either directly or via the NRC, consistent with Secs. 300.130(e) and 300.145(f).

* * * * *

7. Section 300.410 is revised to read as follows:

Sec. 300.410 -- Removal site evaluation.

(a) A removal site evaluation includes a removal preliminary assessment and, if warranted, a removal site inspection.(b) A removal site evaluation of a release identified for possible CERCLA response pursuant to Sec. 300.415 shall, as appropriate, be undertaken by the lead agency as promptly as possible. The lead agency may perform a removal preliminary assessment in response to petitions submitted by a person who is, or may be, affected by a release of a hazardous substance, pollutant, or contaminant pursuant toSec. 300.420(b)(5).

(c)(1) The lead agency shall, as appropriate, base the removal preliminary assessment on readily available information. A removal preliminary assessment may include, but is not limited to:

(i) Identification of the source and nature of the release or threat of release;

(ii) Evaluation by ATSDR or by other sources, for example, state public health agencies, of the threat to public health;

(iii) Evaluation of the magnitude of the threat;

(iv) Evaluation of factors necessary to make the determination of whether a removal is necessary; and(v) Determination of whether a nonfederal party is undertaking proper response.

(2) A removal preliminary assessment of releases from hazardous waste management facilities may include collection or review of data such as site management practices, information from

generators, photographs, analysis of historical photographs, literature searches, and personal interviews conducted, as appropriate.

(d) A removal site inspection may be performed if more information is needed. Such inspection may include a perimeter(i.e., off-site) or on-site inspection, taking into consideration whether such inspection can be performed safely.

(e)(1) As part of the evaluation under this section, the OSC shall determine whether a release governed by CWA section 311(c)(1), as amended by OPA section 4201(a), has occurred.

(2) If such a release of a CWA hazardous substance has occurred, the OSC shall determine whether the release results in a substantial threat to the public health or welfare of the United States. Factors to be considered by the OSC in making this determination include, but are not limited to, the size of the release, the character of the release, and the nature of the threat to public health or welfare of the United States. Upon obtaining relevant elements of such information, the OSC shall conduct an evaluation of the threat posed, based on the OSC's experience in assessing other releases, and consultation with senior lead agency officials and readily available authorities on issues outside the OSC's technical expertise.

(f) A removal site evaluation shall be terminated when the OSC or lead agency determines:

(1) There is no release;

(2) The source is neither a vessel nor a facility as defined in Sec. 300.5 of the NCP;

(3) The release involves neither a hazardous substance, nor a pollutant or contaminant that may present an imminent and substantial danger to public health or welfare of the United States;

(4) The release consists of a situation specified inSec. 300.400(b)(1) through(3) subject to limitations on response;(5) The amount, quantity, or concentration released does not warrant federal response;

(6) A party responsible for the release, or any other person, is providing appropriate response, and on-scene monitoring by the government is not required; or

(7) The removal site evaluation is completed.

(g) The results of the removal site evaluation shall be documented.

(h) The OSC or lead agency shall ensure that natural resource trustees are promptly notified in order that they may initiate appropriate actions, including those identified in Subpart G of this part. The OSC or lead agency shall coordinate all response activities with such affected trustees.

(i) If the removal site evaluation indicates that removal action under Sec. 300.415 is not required, but that remedial action underSec. 300.430 may be necessary, the lead agency shall, as appropriate, initiate a remedial site evaluation pursuant toSec. 300.420. 8. Section 300.415 is revised to read as follows:

Sec. 300.415 -- Removal action.

(a)(1) In determining the appropriate extent of action to be taken in response to a given release, the lead agency shall first review the removal site evaluation, any information produced through a remedial site evaluation, if any has been done previously, and the current site conditions, to determine if removal action is appropriate.

(2) Where the responsible parties are known, an effort initially shall be made, to the extent practicable, to determine whether they can and will perform the necessary removal action promptly and properly.

(3) This section does not apply to removal actions taken pursuant to section 104(b) of CERCLA. The criteria for such actions are set forth in section 104(b) of CERCLA.

(b)(1) At any release, regardless of whether the site is included on the National Priorities List(NPL), where the lead agency makes the determination, based on the factors in paragraph(b)(2) of this section, that there is a threat to public health or welfare of the United States or the environment, the lead agency may take any appropriate removal action to abate, prevent, minimize, stabilize, mitigate, or eliminate the release or the threat of release.

(2) The following factors shall be considered in determining the appropriateness of a removal action pursuant to this section:

(i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances or pollutants or contaminants;

(ii) Actual or potential contamination of drinking water supplies or sensitive ecosystems;

(iii) Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that may pose a threat of release;

(iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface, that may migrate;

(v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;(vi) Threat of fire or explosion;

(vii) The availability of other appropriate federal or state response mechanisms to respond to the release; and

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(viii) Other situations or factors that may pose threats to public health or welfare of the United States or the environment.

(3) If the lead agency determines that a removal action is appropriate, actions shall, as appropriate, begin as soon as possible to abate, prevent, minimize, stabilize, mitigate, or eliminate the threat to public health or welfare of the United States or the environment. The lead agency shall, at the earliest possible time, also make any necessary determinations pursuant to paragraph(b)(4) of this section.

(4) Whenever a planning period of at least six months exists before on-site activities must be initiated, and the lead agency determines, based on a site evaluation, that a removal action is appropriate:

(i) The lead agency shall conduct an engineering evaluation/cost analysis(EE/CA) or its equivalent. The EE/CA is an analysis of removal alternatives for a site.(ii) If environmental samples are to be collected, the lead agency shall develop sampling and analysis plans that shall provide a process for obtaining data of sufficient quality and quantity to satisfy data needs. Sampling and analysis plans shall be reviewed and approved by EPA. The sampling and analysis plans shall consist of two parts:

(a) The field sampling plan, which describes the number, type, and location of samples and the type of analyses; and

(b) The quality assurance project plan, which describes policy, organization, and functional activities and the data quality objectives and measures necessary to achieve adequate data for use in planning and documenting the removal action.

(5) CERCLA fund- financed removal actions, other than those authorized under section 104(b) of CERCLA, shall be terminated after $2 million has been obligated for the action or 12 months have elapsed from the date that removal activities begin on-site, unless the lead agency determines that:

(i) There is an immediate risk to public health or welfare of the United States or the environment; continued response actions are immediately required to prevent, limit, or mitigate an emergency; and such assistance will not otherwise be provided on a timely basis; or

(ii) Continued response action is otherwise appropriate and consistent with the remedial action to be taken.

(c)(1) In carrying out a response to a release of a CWA hazardous substance, as described in CWA section 311(c)(1), as amended by OPA section 4201(a), the OSC may:

(i) Remove or arrange for the removal of a release, and mitigate or prevent a substantial threat of a release, at any time;

(ii) Direct or monitor all federal, state, and private actions to remove a release; and

(iii) Remove and, if necessary, destroy a vessel releasing or threatening to release CWA hazardous substances, by whatever means are available.

(2) If the investigation by the OSC underSec. 300.410 shows that the release of a CWA hazardous substance results in a substantial threat to public health or welfare of the United States, the OSC shall direct all federal, state, or private actions to remove the release or to mitigate or prevent the threat of such a release, as appropriate. In directing the response, the OSC may act without regard to any other provision of law governing contracting procedures or employment of personnel by the federal government to:

(i) Remove or arrange for the removal of the release;

(ii) Mitigate or prevent the substantial threat of the release; and

(iii) Remove and, if necessary, destroy a vessel releasing, or threatening to release, by whatever means are available.

(3) In the case of a release of a CWA hazardous substance posing a substantial threat to public health or welfare of the United States, the OSC shall:

(i) Assess opportunities for the use of various special teams and other assistance described inSec. 300.145, as appropriate;

(ii) Request immediate activation of the RRT; and(iii) Take whatever additional response actions are deemed appropriate. When requested by the OSC, the lead agency or RRT shall dispatch appropriate personnel to the scene of the release to assist the OSC. This assistance may include technical support in the agency's areas of expertise and disseminating information to the public

in accordance with Sec. 300.155. The lead agency shall ensure that a contracting officer is available on-scene, at the request of the OSC.

(d) Removal actions shall, to the extent practicable, contribute to the efficient performance of any anticipated long-term remedial action with respect to the release concerned.

(e) The following removal actions are, as a general rule, appropriate in the types of situations shown; however, this list is not exhaustive and is not intended to prevent the lead agency from taking any other actions deemed necessary under CERCLA, CWA section 311, or other appropriate federal or state enforcement or response authorities, and the list does not create a duty on the lead agency to take action at any particular time:

(1) Fences, warning signs, or other security or site control precautions-where humans or animals have access to the release;(2) Drainage controls, for example, run-off or run-on diversion-where needed to reduce migration of hazardous substances or pollutants or contaminants off-site or to prevent precipitation or run-off from other sources, for example, flooding, from entering the release area from other areas;

(3) Stabilization of berms, dikes, or impoundments or drainage or closing of lagoons- where needed to maintain the integrity of the structures;

(4) Capping of contaminated soils or sludges-where needed to reduce migration of hazardous substances or pollutants or contaminants into soil, ground or surface water, or air;

(5) Using chemicals and other materials to retard the spread of the release or to mitigate its effects-where the use of such chemicals will reduce the spread of the release;

(6) Excavation, consolidation, or removal of highly contaminated soils from drainage or other areas-where such actions will reduce the spread of, or direct contact with, the contamination;(7) Removal of drums, barrels, tanks, or other bulk containers that contain or may contain hazardous substances or pollutants or contaminants-where it will reduce the likelihood of spillage; leakage; exposure to humans, animals, or food chain; or fire or explosion;

(8) Containment, treatment, disposal, or incineration of hazardous materials-where needed to reduce the likelihood of human, animal, or food chain exposure; or

(9) Provision of alternative water supply-where necessary immediately to reduce exposure to contaminated household water and continuing until such time as local authorities can satisfy the need for a permanent remedy.

(f) Where necessary to protect public health or welfare, the lead agency shall request that FEMA conduct a temporary relocation or that state / local officials conduct an evacuation.

(g) If the lead agency determines that the removal action will not fully address the threat posed by the release and the release may require remedial action, the lead agency shall ensure an orderly transition from removal to remedial response activities.

(h) CERCLA removal actions conducted by states under cooperative agreements, described in subpart F of this part, shall comply with all requirements of this section.

(i) Facilities operated by a state or political subdivision at the time of disposal require a state cost share of at least 50 percent of Fund-financed response costs if a Fund-financed remedial action is conducted.

(j) Fund-financed removal actions under CERCLA section 104 and removal actions pursuant to CERCLA section 106 shall, to the extent practicable considering the exigencies of the situation, attain applicable or relevant and appropriate requirements(ARARs) under federal environmental or state environmental or facility siting laws. Waivers described in Sec. 300.430(f)(1)(ii)(C) may be used for removal actions. Other federal and state advisories, criteria, or guidance may, as appropriate, be considered in formulating the removal action(seeSec. 300.400(g)(3)). In determining whether compliance with ARARs is practicable, the lead agency may consider appropriate factors, including:

(1) The urgency of the situation; and(2) The scope of the removal action to be conducted.

(k) Removal actions pursuant to section 106 or 122 of CERCLA are not subject to the following requirements of this section:

(1) Section 300.415(a)(2) requirement to locate responsible parties and have them undertake the response;

(2) Section 300.415(b)(2)(vii) requirement to consider the availability of other appropriate federal or state response and enforcement mechanisms to respond to the release;

(3) Section 300.415(b)(5) requirement to terminate response after $2 million has been obligated or 12 months have elapsed from the date of the initial response; and

(4) Section 300.415(g) requirement to assure an orderly transition from removal to remedial action.

(l) To the extent practicable, provision for post-removal site control following a CERCLA Fund-financed removal action at both NPL and non-NPL sites is encouraged to be made prior to the initiation of the removal action. Such post-removal site control includes actions necessary to ensure the effectiveness and integrity of the removal action after the completion of the on-site removal action or after the $2 million or 12-month statutory limits are reached for sites that do not meet the exemption criteria in paragraph(b)(5) of this section. Post-removal site control may be conducted by:

(1) The affected state or political subdivision thereof or local units of government for any removal;

(2) Potentially responsible parties; or

(3) EPA's remedial program for some federal-lead Fund-financed responses at NPL sites.

(m) OSCs/RPMs conducting removal actions shall submit OSC reports to the RRT as required bySec. 300.165.

(n) Community relations in removal actions.(1) In the case of all CERCLA removal actions taken pursuant toSec. 300.415 or CERCLA enforcement actions to compel removal response, a spokesperson shall be designated by the lead agency. The spokesperson shall inform the community of actions taken, respond to inquiries, and provide information concerning the release. All news releases or statements made by participating agencies shall be coordinated with the OSC/RPM. The spokesperson shall notify, at a minimum, immediately affected citizens, state and local officials, and, when appropriate, civil defense or emergency management agencies.

(2) For CERCLA actions where, based on the site evaluation, the lead agency determines that a removal is appropriate, and that less than six months exists before on-site removal activity must begin, the lead agency shall:

(i) Publish a notice of availability of the administrative record file established pursuant toSec. 300.820 in a major local newspaper of general circulation within 60 days of initiation of on-site removal activity;

(ii) Provide a public comment period, as appropriate, of not less than 30 days from the time the administrative record file is made available for public inspection, pursuant toSec. 300.820(b)(2); and

(iii) Prepare a written response to significant comments pursuant to Sec. 300.820(b)(3).(3) For CERCLA removal actions where on-site action is expected to extend beyond 120 days from the initiation of on-site removal activities, the lead agency shall by the end of the 120-day period:

(i) Conduct interviews with local officials, community residents, public interest groups, or other interested or affected parties, as appropriate, to solicit their concerns, information needs, and how or when citizens would like to be involved in the Superfund process;

(ii) Prepare a formal community relations plan(CRP) based on the community interviews and other relevant information, specifying the community relations activities that the lead agency expects to undertake during the response; and

(iii) Establish at least one local information repository at or near the location of the response action. The information repository should contain items made available for public information. Further, an administrative record file established pursuant to subpart I for all removal actions shall be available for public inspection in at least one of the repositories. The lead agency shall inform the public of the establishment of the information repository and provide notice of availability of the administrative record file for public review. All items in the repository shall be available for public inspection and copying.

(4) Where, based on the site evaluation, the lead agency determines that a CERCLA removal action is appropriate and that a planning period of at least six months exists prior to initiation of the on-site removal activities, the lead agency shall at a minimum:

(i) Comply with the requirements set forth in paragraphs(n)(3)(i),(ii), and(iii) of this section, prior to the completion of the EE/CA, or its equivalent, except that the information repository and the administrative record file will be established no later than when the EE/CA approval memorandum is signed;

(ii) Publish a notice of availability and brief description of the EE/CA in a major local newspaper of general circulation pursuant to Sec. 300.820;

(iii) Provide a reasonable opportunity, not less than 30 calendar days, for submission of written and oral comments after completion of the EE/CA pursuant to Sec. 300.820(a). Upon timely request, the lead agency will extend the public comment period by a minimum of 15 days; and(iv) Prepare a written response to significant comments pursuant to Sec. 300.820(a).

9. Subpart G is revised to read as follows:

Subpart G-Trustees for Natural Resources

300.600 Designation of federal trustees.

300.605 State trustees.

300.610 Indian tribes.

300.612 Foreign trustees.

300.615 Responsibilities of trustees.

Subpart G-Trustees for Natural Resources

Sec. 300.600 -- Designation of federal trustees.

(a) The President is required to designate in the NCP those federal officials who are to act on behalf of the public as trustees for natural resources. Federal officials so designated will act

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pursuant to section 107(f) of CERCLA, section 311(f)(5) of the CWA, and section 1006 of the OPA. Natural resources means land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled(hereinafter referred to as "managed or controlled") by the United States(including the resources of the exclusive economic zone).

(b) The following individuals shall be the designated trustee(s) for general categories of natural resources, including their supporting ecosystems. They are authorized to act pursuant to section 107(f) of CERCLA, section 311(f)(5) of the CWA, or section 1006 of the OPA when there is injury to, destruction of, loss of, or threat to natural resources, including their supporting ecosystems, as a result of a release of a hazardous substance or a discharge of oil. Notwithstanding the other designations in this section, the Secretaries of Commerce and the Interior shall act as trustees of those resources subject to their respective management or control.

(1) Secretary of Commerce. The Secretary of Commerce shall act as trustee for natural resources managed or controlled by DOC and for natural resources managed or controlled by other federal agencies and that are found in, under, or using waters navigable by deep draft vessels, tidally influenced waters, or waters of the contiguous zone, the exclusive economic zone, and the outer continental shelf. However, before the Secretary takes an action with respect to an affected resource under the management or control of another federal agency, he shall, whenever practicable, seek to obtain the concurrence of that other federal agency. Examples of the Secretary's trusteeship include the following natural resources and their supporting ecosystems: marine fishery resources; anadromous fish; endangered species and marine mammals; and the resources of National Marine Sanctuaries and National Estuarine Research Reserves.

(2) Secretary of the Interior. The Secretary of the Interior shall act as trustee for natural resources managed or controlled by the DOI. Examples of the Secretary's trusteeship include the following natural resources and their supporting ecosystems: migratory birds; anadromous fish; endangered species and marine mammals; federally owned minerals; and certain federally managed water resources. The Secretary of the Interior shall also be trustee for those natural resources for which an Indian tribe would otherwise act as trustee in those cases where the United States acts on behalf of the Indian tribe.(3) Secretary for the land managing agency. For natural resources located on, over, or under land administered by the United States, the trustee shall be the head of the department in which the land managing agency is found. The trustees for the principal federal land managing agencies are the Secretaries of DOI, USDA, DOD, and DOE.

(4) Head of authorized agencies. For natural resources located in the United States but not otherwise described in this section, the trustee shall be the head of the federal agency or agencies authorized to manage or control those resources.

Sec. 300.605 -- State trustees.

State trustees shall act on behalf of the public as trustees for natural resources, including their supporting ecosystems, within the boundary of a state or belonging to, managed by, controlled by, or appertaining to such state. For the purposes of subpart G of this part, the definition of the term "state" does not include Indian tribes. The governor of a state is encouraged to designate a state lead trustee to coordinate all state trustee responsibilities with other trustee agencies and with response activities of the RRT and OSC. The state's lead trustee would designate a representative to serve as contact with the OSC. This individual should have ready access to appropriate state officials with environmental protection, emergency response, and natural resource responsibilities. The EPA Administrator or USCG Commandant or their designees may appoint the state lead trustee as a member of the Area Committee. Response strategies should be coordinated between the state and other trustees and the OSC for specific natural resource locations in an inland or coastal zone and should be included in the Fish and Wildlife and Sensitive Environments Plan annex of the ACP.

Sec. 300.610 -- Indian tribes.

The tribal chairmen(or heads of the governing bodies) of Indian tribes, as defined in Sec. 300.5, or a person designated by the tribal officials, shall act on behalf of the Indian tribes as trustees for the natural resources, including their supporting ecosystems, belonging to, managed by, controlled by, or appertaining to such Indian tribe, or held in trust for the benefit of such Indian tribe, or belonging to a member of such Indian tribe, if such resources are subject to a trust restriction on alienation. When the tribal chairman or head of the tribal governing body designates another person as trustee, the tribal chairman or head of the tribal governing body shall notify the President of such designation. Such officials are authorized to act when there is injury to, destruction of, loss of, or threat to natural resources, including their supporting ecosystems as a result of a release of a hazardous substance.

Sec. 300.612 -- Foreign trustees.

Pursuant to section 1006 of the OPA, foreign trustees shall act on behalf of the head of a foreign government as trustees for natural resources belonging to, managed by, controlled by, or appertaining to such foreign government.

Sec. 300.615 -- Responsibilities of trustees.

(a) Where there are multiple trustees, because of coexisting or contiguous natural resources or concurrent jurisdictions, they should coordinate and cooperate in carrying out these responsibilities.

(b) Trustees are responsible for designating to the RRTs and the Area Committees, for inclusion in the RCP and the ACP, appropriate contacts to receive notifications from the OSCs/RPMs of discharges or releases.

(c)(1) Upon notification or discovery of injury to, destruction of, loss of, or threat to natural resources, trustees may, pursuant to section 107(f) of CERCLA, or section 311(f)(5) of the CWA, take the following or other actions as appropriate:

(i) Conduct a preliminary survey of the area affected by the discharge or release to determine if trust resources under their jurisdiction are, or potentially may be, affected;

(ii) Cooperate with the OSC/RPM in coordinating assessments, investigations, and planning;

(iii) Carry out damage assessments; or

(iv) Devise and carry out a plan for restoration, rehabilitation, replacement, or acquisition of equivalent natural resources. In assessing damages to natural resources, the federal, state, and Indian tribe trustees have the option of following the procedures for natural resource damage assessments located at 43 CFR part 11.

(2) Upon notification or discovery of injury to, destruction of, loss of, or loss of use of, natural resources, or the potential for such, resulting from a discharge of oil occurring after August 18, 1990, the trustees, pursuant to section 1006 of the OPA, are to take the following actions:

(i) In accordance with OPA section 1006(c), determine the need for assessment of natural resource damages,

collect data necessary for a potential damage assessment, and, where appropriate, assess damages to natural resources under their trusteeship; and

(ii) As appropriate, and subject to the public participation requirements of OPA section 1006(c), develop and implement a plan for the restoration, rehabilitation, replacement, or acquisition of the equivalent, of the natural resources under their trusteeship;

(3)(i) The trustees, consistent with procedures specified in the Fish and Wildlife and Sensitive Environments Plan Annex to the Area Contingency Plan, shall provide timely advice on recommended actions concerning trustee resources that are potentially affected by a discharge of oil. This may include providing assistance to the OSC in identifying/recommending pre-approved response techniques and in predesignating shoreline types and areas in ACPs.

(ii) The trustees shall assure, through the lead administrative trustee, that the OSC is informed of their activities regarding natural resource damage assessment that may affect response operations in order to assure coordination and minimize any interference with such operations. The trustees shall assure, through the lead administrative trustee, that all data from the natural resource damage assessment activities that may support more effective operational decisions are provided in a timely manner to the OSC.

(iii) When circumstances permit, the OSC shall share the use of federal response resources(including but not limited to aircraft, vessels, and booms to contain and remove discharged oil) with the trustees, providing trustee activities do not interfere with response actions. The lead administrative trustee facilitates effective and efficient communication between the OSC and the other trustees during response operations and is responsible for applying to the OSC for non-monetary federal response resources on behalf of all trustees. The lead administrative trustee is also responsible for applying to the NPFC for funding for initiation of damage assessment for injuries to natural resources.

(d) The authority of federal trustees includes, but is not limited to the following actions:

(1) Requesting that the Attorney General seek compensation from the responsible parties for the damages assessed and for the costs of an assessment and of restoration planning; and

(2) Participating in negotiations between the United States and potentially responsible parties to obtain PRP-financed or PRP- conducted assessments and restorations for injured resources or protection for threatened resources and to agree to covenants not to sue, where appropriate.

(3) Requiring, in consultation with the lead agency, any person to comply with the requirements of CERCLA section 104(e) regarding information gathering and access.

(4) Initiating damage assessments, as provided in OPA section 6002.

(e) Actions which may be taken by any trustee pursuant to section 107(f) of CERCLA, section 311(f)(5) of the CWA, or section 1006 of the OPA include, but are not limited to, any of the following:

(1) Requesting that an authorized agency issue an administrative order or pursue injunctive relief against the parties responsible for the discharge or release; or(2) Requesting that the lead agency remove, or arrange for the removal of, or provide for remedial action with respect to, any oil or hazardous substances from a contaminated medium pursuant to section 104 of CERCLA or section 311 of CWA.

10. Subpart H is revised to read as follows:

Subpart H- Participation by Other Persons

300.700 Activities by other persons.

Subpart H-Participation by Other Persons

Sec. 300.700 -- Activities by other persons.

(a) General. Except as provided(e.g., in CWA section 311(c)), any person may undertake a response action to reduce or eliminate a release of a hazardous substance, pollutant, or contaminant.

(b) Summary of CERCLA authorities. The mechanisms available to recover the costs of response actions under CERCLA are, in summary:(1) Section 107(a), wherein any person may receive a court award of his or her response costs, plus interest, from the party or parties found to be liable;

(2) Section 111(a)(2), wherein a private party, a PRP pursuant to a settlement agreement, or certain foreign entities may file a claim against the Fund for reimbursement of response costs;

(3) Section 106(b), wherein any person who has complied with a section 106(a) order may petition the Fund for reimbursement of reasonable costs, plus interest; and

(4) Section 123, wherein a general purpose unit of local government may apply to the Fund under 40 CFR part 310 for reimbursement of the costs of temporary emergency measures that are necessary to prevent or mitigate injury to human health or the environment associated with a release.

(c) Section 107(a) cost recovery actions.(1) Responsible parties shall be liable for all response costs incurred by the United States government or a state or an Indian tribe not inconsistent with the NCP.

(2) Responsible parties shall be liable for necessary costs of response actions to releases of hazardous substances incurred by any other person consistent with the NCP.

(3) For the purpose of cost recovery under section 107(a)(4)(B) of CERCLA:

(i) A private party response action will be considered "consistent with the NCP" if the action, when evaluated as a whole, is in substantial compliance with the applicable requirements in paragraphs(5) and(6) of this section, and results in a CERCLA-quality cleanup; and

(ii) Any response action carried out in compliance with the terms of an order issued by EPA pursuant to section 106 of CERCLA, or a consent decree entered into pursuant to section 122 of CERCLA, will be considered "consistent with the NCP."

(4) Actions under Sec. 300.700(c)(1) will not be considered "inconsistent with the NCP," and actions underSec. 300.700(c)(2) will not be considered not "consistent with the NCP," based on immaterial or insubstantial deviations from the provisions of 40 CFR part 300.

(5) The following provisions of this Part are potentially applicable to private party response actions:

(i) Section 300.150(on worker health and safety);

(ii) Section 300.160(on documentation and cost recovery);

(iii) Section 300.400(c)(1),(4),(5), and(7)(on determining the need for a Fund-financed action);(e)(on permit requirements) except that the permit waiver does not apply to private party response actions; and(g)(on identification of ARARs) except that applicable requirements of federal or state law may not be waived by a private party;

(iv) Section 300.405(b),(c), and(d)(on reports of releases to the NRC);

(v) Section 300.410(on removal site evaluation) except paragraphs(f)(5) and(6);

(vi) Section 300.415(on removal actions) except paragraphs(a)(2),(**b)(2)(vii),(b)(5), and(g); and includingSec. 300.415(j) with regard to** meeting ARARs where practicable except that private party removal actions must always comply with the requirements of applicable law;

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(vii) Section 300.420(on remedial site evaluation);

(viii) Section 300.430(on RI/FS and selection of remedy) except paragraph(f)(1)(ii)(C)(6) and that applicable requirements of federal or state law may not be waived by a private party; and

(ix) Section 300.435(on RD/RA and operation and maintenance).

(6) Private parties undertaking response actions should provide an opportunity for public comment concerning the selection of the response action based on the provisions set out below, or based on substantially equivalent state and local requirements. The following provisions of this part regarding public participation are potentially applicable to private party response actions, with the exception of administrative record and information repository requirements stated therein:

(i) Section 300.155(on public information and community relations);

(ii) Section 300.415(n)(on community relations during removal actions);

(iii) Section 300.430(c)(on community relations during RI/FS) except paragraph(c)(5);

(iv) Section 300.430(f)(2),(3), and(6)(on community relations during selection of remedy); and

(v) Section 300.435(c)(on community relations during RD/RA and operation and maintenance).

(7) When selecting the appropriate remedial action, the methods of remedying releases listed in Appendix D of this part may also be appropriate to a private party response action.

(8) Except for actions taken pursuant to CERCLA sections 104 or 106 or response actions for which reimbursement from the Fund will be sought, any action to be taken by the lead agency listed in paragraphs(c)(5) through(c)(7) may be taken by the person carrying out the response action.

(d) Section 111(a)(2) claims.(1) Persons, other than those listed in paragraphs(d)(1)(i) through(iii) of this section, may be able to receive reimbursement of response costs by means of a claim against the Fund. The categories of persons excluded from pursuing this claims authority are:(i) Federal government;

(ii) State governments, and their political subdivisions, unless they are potentially responsible parties covered by an order or consent decree pursuant to section 122 of CERCLA; and

(iii) Persons operating under a procurement contract or an assistance agreement with the United States with respect to matters covered by that contract or assistance agreement, unless specifically provided therein.

(2) In order to be reimbursed by the Fund, an eligible person must notify the Administrator of EPA or designee prior to taking a response action and receive prior approval, i.e., "preauthorization," for such action.

(3) Preauthorization is EPA's prior approval to submit a claim against the Fund for necessary response costs incurred as a result of carrying out the NCP. All applications for preauthorization will be reviewed to determine whether the request should receive priority for funding. EPA, in its discretion, may grant preauthorization of a claim. Preauthorization will be considered only for:(i) Removal actions pursuant toSec. 300.415;

(ii) CERCLA section 104(b) activities; and

(iii) Remedial actions at National Priorities List sites pursuant to Sec. 300.435.

(4) To receive EPA's prior approval, the eligible person must:

(i) Demonstrate technical and other capabilities to respond safely and effectively to releases of hazardous substances, pollutants, or contaminants; and

(ii) Establish that the action will be consistent with the NCP in accordance with the elements set forth in paragraphs(c)(5) through(8) of this section.

(5) EPA will grant preauthorization to a claim by a party it determines to be potentially liable under section 107 of CERCLA only in accordance with an order issued pursuant to section 106 of CERCLA, or a settlement with the federal government in accordance with section 122 of CERCLA.(6) Preauthorization does not establish an enforceable contractual relationship between EPA and the claimant.

(7) Preauthorization represents EPA's commitment that if funds are appropriated for response actions, the response action is conducted in accordance with the preauthorization decision document, and costs are reasonable and necessary, reimbursement will be made from the Superfund, up to the maximum amount provided in the preauthorization decision document.

(8) For a claim to be awarded under section 111 of CERCLA, EPA must certify that the costs were necessary and consistent with the preauthorization decision document.

(e) Section 106(b) petition. Subject to conditions specified in CERCLA section 106(b), any person who has complied with an order issued after October 16, 1986 pursuant to section 106(a) of CERCLA, may seek reimbursement for response costs incurred in complying with that order unless the person has waived that right.

(f) Section 123 reimbursement to local governments. Any general purpose unit of local government for a political subdivision that is affected by a release may receive reimbursement for the costs of temporary emergency measures necessary to prevent or mitigate injury to human health or the environment subject to the conditions set forth in 40 CFR part 310. Such reimbursement may not exceed $25,000 for a single response.

(g) Release From Liability. Implementation of response measures by potentially responsible parties or by any other person does not release those parties from liability under section 107(a) of CERCLA, except as provided in a settlement under section 122 of CERCLA or a federal court judgment.

(h) Oil Pollution Act Claims. Claims are authorized to be presented to the OSLTF under section 1013 of the OPA, for certain uncompensated removal costs or uncompensated damages resulting from the discharge, or substantial threat of discharge, of oil from a vessel or facility into or upon the navigable waters, adjoining shorelines, or exclusive economic zone of the United States. Anyone desiring to file a claim against the OSLTF may obtain general information on the procedure for filing a claim from the Director, National Pollution Funds Center, Suite 1000, 4200 Wilson Boulevard, arlington, Virginia 22203-1804,(703) 235-4756.

11. Subpart J is revised to read as follows: Subpart J-Use of Dispersants and Other Chemicals

Subpart J-Use of Dispersants and Other Chemicals

Sec. 300.900 -- General.

(a) Section 311(d)(2)(G) of the CWA requires that EPA prepare a schedule of dispersants, other chemicals, and other spill mitigating devices and substances, if any, that may be used in carrying out the NCP. This subpart makes provisions for such a schedule.

(b) This subpart applies to the navigable waters of the United States and adjoining shorelines, the waters of the contiguous zone, and the high seas beyond the contiguous zone in connection with activities under the Outer Continental Shelf Lands Act,

activities under the Deepwater Port Act of 1974, or activities that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States, including resources under the Magnuson Fishery Conservation and Management Act of 1976.

(c) This subpart applies to the use of any chemical agents or other additives as defined in subpart A of this part that may be used to remove or control oil discharges.

Sec. 300.905 -- NCP Product Schedule.

(a) Oil Discharges.(1) EPA shall maintain a schedule of dispersants and other chemical or bioremediation products that may be authorized for use on oil discharges in accordance with the procedures set forth in Sec. 300.910. This schedule, called the NCP Product Schedule, may be obtained from the Emergency Response Division(5202-G), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460. The telephone number is 1-202- 260-2342.(2) Products may be added to the NCP Product Schedule by the process specified inSec. 300.920.

(b) Hazardous Substance Releases. Reserved

Sec. 300.910 -- Authorization of use.

(a) RRTs and Area Committees shall address, as part of their planning activities, the desirability of using appropriate dispersants, surface washing agents, surface collecting agents, bioremediation agents, or miscellaneous oil spill control agents listed on the NCP Product Schedule, and the desirability of using appropriate burning agents. RCPs and ACPs shall, as appropriate, include applicable preauthorization plans and address the specific contexts in which such products should and should not be used. In meeting the provisions of this paragraph, preauthorization plans may address factors such as the potential sources and types of oil that might be spilled, the existence and location of environmentally sensitive resources that might be impacted by spilled oil, available product and storage locations, available equipment and adequately trained operators, and the available means to monitor product application and effectiveness. The RRT representatives from EPA and the states with jurisdiction over the waters of the area to which a preauthorization plan applies and the DOC and DOI natural resource trustees shall review and either approve, disapprove, or approve with modification the preauthorization plans developed by Area Committees, as appropriate. approved preauthorization plans shall be included in the appropriate RCPs and ACPs. If the RRT representatives from EPA and the states with jurisdiction over the waters of the area to which a preauthorization plan applies and the DOC and DOI natural resource trustees approve in advance the use of certain products under specified circumstances as described in the preauthorization plan, the OSC may authorize the use of the products without obtaining the specific concurrences described in paragraphs(b) and(c) of this section.

(b) For spill situations that are not addressed by the preauthorization plans developed pursuant to paragraph(a) of this section, the OSC, with the concurrence of the EPA representative to the RRT and, as appropriate, the concurrence of the RRT representatives from the states with jurisdiction over the navigable waters threatened by the release or discharge, and in consultation with the DOC and DOI natural resource trustees, when practicable, may authorize the use of dispersants, surface washing agents, surface collecting agents, bioremediation agents, or miscellaneous oil spill control agents on the oil discharge, provided that the products are listed on the NCP Product Schedule.(c) The OSC, with the concurrence of the EPA

representative to the RRT and, as appropriate, the concurrence of the RRT representatives from the states with jurisdiction over the navigable waters threatened by the release or discharge, and in consultation with the DOC and DOI natural resource trustees, when practicable, may authorize the use of burning agents on a case-by- case basis.

(d) The OSC may authorize the use of any dispersant, surface washing agent, surface collecting agent, other chemical agent, burning agent, bioremediation agent, or miscellaneous oil spill control agent, including products not listed on the NCP Product Schedule, without obtaining the concurrence of the EPA representative to the RRT and, as appropriate, the RRT representatives from the states with jurisdiction over the navigable waters threatened by the release or discharge, when, in the judgment of the OSC, the use of the product is necessary to prevent or substantially reduce a hazard to human life. Whenever the OSC authorizes the use of a product pursuant to this paragraph, the OSC is to inform the EPA RRT representative and, as appropriate, the RRT representatives from the affected states and, when practicable, the DOC/DOI natural resources trustees of the use of a product, including products not on the Schedule, as soon as possible. Once the threat to human life has subsided, the continued use of a product shall be in accordance with paragraphs(a),(b), and(c) of this section.(e) Sinking agents shall not be authorized for application to oil discharges.

(f) When developing preauthorization plans, RRTs may require the performance of supplementary toxicity and effectiveness testing of products, in addition to the test methods specified inSec. 300.915 and described in Appendix C to part 300, due to existing site-specific or area-specific concerns.

Sec. 300.915 -- Data requirements.

(a) Dispersants.(1) Name, brand, or trademark, if any, under which the dispersant is sold.

(2) Name, address, and telephone number of the manufacturer, importer, or vendor.

(3) Name, address, and telephone number of primary distributors or sales outlets.

(4) Special handling and worker precautions for storage and field application. Maximum and minimum storage temperatures, to include optimum ranges as well as temperatures that will cause phase separations, chemical changes, or other alterations to the effectiveness of the product.

(5) Shelf life.

(6) Recommended application procedures, concentrations, and conditions for use depending upon water salinity, water temperature, types and ages of the pollutants, and any other application restrictions.

(7) Effectiveness. Use the Swirling Flask effectiveness test methods described in Appendix C to part 300. Manufacturers shall submit test results and supporting data, along with a certification signed by

responsible corporate officials of the manufacturer and laboratory stating that the test was conducted on a representative product sample, the testing was conducted using generally accepted laboratory practices, and they believe the results to be accurate. A dispersant must attain an effectiveness value of 45 percent or greater to be added to the NCP Product Schedule. Manufacturers are encouraged to provide data on product performance under conditions other than those captured by these tests.

(8) Dispersant Toxicity. For those dispersants that meet the effectiveness threshold described in paragraph(a)(7) above, use the standard toxicity test methods described in Appendix C to part 300. Manufacturers shall submit test results and supporting data, along with a certification signed by responsible corporate officials of the manufacturer and laboratory stating that the test was conducted on a representative product sample, the testing was conducted using generally accepted laboratory practices, and they believe the results to be accurate.

(9) The following data requirements incorporate by reference standards from the 1991 or 1992 Annual Books of ASTM Standards. American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. fn 1

fn 1 Copies of these standards may be obtained from the publisher. Copies may be inspected at the U.S. Environmental Protection Agency, 401 M St., SW., Room LG, Washington, DC, or at the Office of the Federal Register, 1100 L Street, NW., Room 8401, Washington, DC 20408.

(i) Flash Point-Select appropriate method from the following:

(a) ASTM-D 56-87, "Standard Test Method for Flash Point by Tag Closed Tester;"(b) ASTM-D 92-90, "Standard Test Method for Flash and Fire Points by Cleveland Open Cup;"

(c) ASTM-D 93-90, "Standard Test Methods for Flash Point by Pensky-Martens Closed Tester;"

(d) ASTM-D 1310-86, "Standard Test Method for Flash Point and Fire Point of Liquids by Tag Open-Cup Apparatus;" or

(e) ASTM-D 3278-89, "Standard Test Methods for Flash Point of Liquids by Setaflash Closed-Cup Apparatus."

(ii) Pour Point-Use ASTM-D 97-87, "Standard Test Method for Pour Point of Petroleum Oils."

(iii) Viscosity-Use ASTM-D 445-88, "Standard Test Method for Kinematic Viscosity of Transparent and Opaque Liquids(and the Calculation of Dynamic Viscosity)."

(iv) Specific Gravity-Use ASTM-D 1298-85(90), "Standard Test Method for Density, Relative Density(Specific Gravity), or API Gravity of Crude Petroleum and Liquid Petroleum Products by Hydrometer Method."(v) pH-Use ASTM-D 1293-84(90), "Standard Test Methods for pH of Water."

(10) Dispersing Agent Components. Itemize by chemical name and percentage by weight each component of the total formulation. The percentages will include maximum, minimum, and average weights in order to reflect quality control variations in manufacture or formulation. In addition to the chemical information provided in response to the first two sentences, identify the major components in at least the following categories: surface active agents, solvents, and additives.

(11) Heavy Metals, Cyanide, and Chlorinated Hydrocarbons. Using standard test procedures, state the concentrations or upper limits of the following materials:

(i) Arsenic, cadmium, chromium, copper, lead, mercury, nickel, zinc, plus any other metals that may be reasonably expected to be in the sample. atomic absorption methods should be used and the detailed analytical methods and sample preparation shall be fully described.

(ii) Cyanide. Standard calorimetric procedures should be used.

(iii) Chlorinated hydrocarbons. Gas chromatography should be used and the detailed analytical methods and sample preparation shall be fully described. At a minimum, the following test methods shall be used for chlorinated hydrocarbon analyses: EPA Method 601-Purgeable halocarbons(Standard Method 6230 B) and EPA Method 608-Organochlorine pesticides and PCBs(Standard Method 6630 C). fn 2

fn 2 These test methods may be obtained from: Standard Methods for the Examination of Water and Wastewater, 17th Edition, American Public Health association, 1989; or Method 601-Purgeable halocarbons, 40 CFR part 136 and Method 608-Organochlorine pesticide and PCBs, 40 CFR part 136. Copies may be inspected at the U.S. Environmental Protection Agency, 401 M St., SW., Room LG, Washington, DC, or at the Office of the Federal Register, 1100 L Street, NW., Room 8401, Washington, DC 20408.

(12) The technical product data submission shall include the identity of the laboratory that performed the required tests, the qualifications of the laboratory staff, including professional biographical information for individuals responsible for any tests, and laboratory experience with similar tests. Laboratories performing toxicity tests for dispersant toxicity must demonstrate previous toxicity test experience in order for their results to be accepted. It is the responsibility of the submitter to select competent analytical laboratories based on the guidelines contained herein. EPA reserves the right to refuse to accept a submission of technical product data because of lack of qualification of the analytical laboratory, significant variance between submitted data and any laboratory confirmation performed by EPA, or other circumstances that would result in inadequate or inaccurate information on the dispersing agent.

(b) Surface washing agents.(1) Name, brand, or trademark, if any, under which the surface washing agent is sold.

(2) Name, address, and telephone number of the manufacturer, importer, or vendor.

(3) Name, address, and telephone number of primary distributors or sales outlets.

(4) Special handling and worker precautions for storage and field application. Maximum and minimum storage temperatures, to include optimum ranges as well as temperatures that will cause phase separations, chemical changes, or other alterations to the effectiveness of the product.

(5) Shelf life.(6) Recommended application procedures, concentrations, and conditions for use depending upon water salinity, water temperature, types and ages of the pollutants, and any other application restrictions.

(7) Toxicity. Use standard toxicity test methods described in Appendix C to part 300.

(8) Follow the data requirement specifications in paragraph(a)(9) of this section.

(9) Surface Washing Agent Components. Itemize by chemical name and percentage by weight each component of the total formulation. The percentages will include maximum, minimum, and average weights in order to reflect quality control variations in manufacture or formulation. In addition to the chemical information provided in response to the first two sentences, identify the major components in at least the following categories: surface active agents, solvents, and additives.

(10) Heavy Metals, Cyanide, and Chlorinated Hydrocarbons. Follow specifications in paragraph(a)(11) of this section.

(11) Analytical Laboratory Requirements for Technical Product Data. Follow specifications in paragraph(a)(12) of this section.

(c) Surface collecting agents.(1) Name, brand, or trademark, if any, under which the product is sold.

(2) Name, address, and telephone number of the manufacturer, importer, or vendor.

(3) Name, address, and telephone number of primary distributors or sales outlets.

(4) Special handling and worker precautions for storage and field application. Maximum and minimum storage temperatures, to include optimum ranges as well as temperatures that will cause phase separations, chemical changes, or other alterations to the effectiveness of the product.

(5) Shelf life.

(6) Recommended application procedures, concentrations, and conditions for use depending upon water salinity, water temperature, types and ages of the pollutants, and any other application restrictions.(7) Toxicity. Use standard toxicity test methods described in Appendix C to part 300.

(8) Follow the data requirement specifications in paragraph(a)(9) of this section.

(9) Test to Distinguish Between Surface Collecting Agents and Other Chemical Agents.

(i) Method Summary-Five milliliters of the chemical under test are mixed with 95 milliliters of distilled water and allowed to stand undisturbed for one hour. Then the volume of the upper phase is determined to the nearest one milliliter.

(ii) Apparatus.

(a) Mixing Cylinder: 100 milliliter subdivisions and fitted with a glass stopper.

(b) Pipettes: Volumetric pipette, 5.0 milliliter.

(c) Timers.(iii) Procedure-Add 95 milliliters of distilled water at 22 degrees C, plus or minus 3 degrees C, to a 100 milliliter mixing cylinder. To the surface of the water in the mixing cylinder, add 5.0 milliliters of the chemical under test. Insert the stopper and invert the cylinder five times in ten seconds. Set upright for one hour at 22 degrees C, plus or minus 3 degrees C, and then measure the chemical layer at the surface of the water. If the major portion of the chemical added(75 percent) is at the water surface as a separate and easily distinguished layer, the product is a surface collecting agent.

(10) Surface Collecting Agent Components. Itemize by chemical name and percentage by weight each component of the total formulation. The percentages should include maximum, minimum, and average weights in order to reflect quality control variations in manufacture or formulation. In addition to the chemical information provided in response to the first two sentences, identify the major components in at least the following categories: surface action agents, solvents, and additives.

(11) Heavy Metals, Cyanide, and Chlorinated Hydrocarbons. Follow specifications in paragraph(a)(11) of this section.

(12) Analytical Laboratory Requirements for Technical Product Data. Follow specifications in paragraph(a)(12) of this section.

(d) Bioremediation Agents.(1) Name, brand, or trademark, if any, under which the agent is sold.

(2) Name, address, and telephone number of the manufacturer, importer, or vendor.

(3) Name, address, and telephone number of primary distributors or sales outlets.

(4) Special handling and worker precautions for storage and field application. Maximum and minimum storage temperatures.

(5) Shelf life.

(6) Recommended application procedures, concentrations, and conditions for use depending upon water salinity, water temperature, types and ages of the pollutants, and any other application restrictions.

(7) Bioremediation Agent Effectiveness. Use bioremediation agent effectiveness test methods described in Appendix C to part 300.(8) Bioremediation Agent Toxicity Reserved .

(9) Biological additives.

(i) For microbiological cultures, furnish the following information:

(a) Listing of each component of the total formulation, other than microorganisms, by chemical name and percentage by weight.

(b) Listing of all microorganisms by species.

(c) Percentage of each species in the composition of the additive.

(d) Optimum pH, temperature, and salinity ranges for use of the additive, and maximum and minimum pH, temperature, and salinity levels above or below which the effectiveness of the additive is reduced to half its optimum capacity.

(e) Special nutrient requirements, if any.

(f) Separate listing of the following, and test methods for such determinations: Salmonella, fecal coliform, Shigella, Staphylococcus Coagulase positive, and Beta Hemolytic Streptococci.

(ii) For enzyme additives, furnish the following information:

(a) Listing of each component of the total formulation, other than enzymes, by chemical name and percentage by weight.

(b) Enzyme name(s).

(c) International Union of Biochemistry(i.U.B.) number(s).

(d) Source of the enzyme.

(e) Units.

(f) Specific Activity.

(g) Optimum pH, temperature, and salinity ranges for use of the additive, and maximum and minimum pH, temperature, and salinity levels above or below which the effectiveness of the additive is reduced to half its optimum capacity.(h) Enzyme shelf life.

(i) Enzyme optimum storage conditions.

(10) For nutrient additives, furnish the following information:

(i) Listing of each component of the total formulation by chemical name and percentage by weight.

(ii) Nutrient additive optimum storage conditions.

(11) Analytical Laboratory Requirements for Technical Product Data. Follow specifications in paragraph(a)(12) of this section.

(e) Burning Agents. EPA does not require technical product data submissions for burning agents and does not include burning agents on the NCP Product Schedule.

(f) Miscellaneous Oil Spill Control Agents.(1) Name, brand, or trademark, if any, under which the miscellaneous oil spill control agent is sold.(2) Name, address, and telephone number of the manufacturer, importer, or vendor.

(3) Name, address, and telephone number of primary distributors or sales outlets.

(4) Brief description of recommended uses of the product and how the product works.

(5) Special handling and worker precautions for storage and field application. Maximum and minimum storage temperatures, to include optimum ranges as well as temperatures that will cause phase separations, chemical changes, or other alternatives to the effectiveness of the product.

(6) Shelf life.

(7) Recommended application procedures, concentrations, and conditions for use depending upon water salinity, water temperature, types and ages of the pollutants, and any other application restrictions.

(8) Toxicity. Use standard toxicity test methods described in Appendix C to part 300.(9) Follow the data requirement specifications in paragraph(a)(9) of this section.

(10) Miscellaneous Oil Spill Control Agent Components. Itemize by chemical name and percentage by weight each component of the total formulation. The percentages should include maximum, minimum, and average weights in order to reflect quality control variations in manufacture or formulation. In addition to the chemical information provided in response to the first two sentences, identify the major components in at least the following categories: surface active agents, solvents, and additives.

(11) Heavy Metals, Cyanide, and Chlorinated Hydrocarbons. Follow specifications in paragraph(a)(11) of this section.

(12) For any miscellaneous oil spill control agent that contains microbiological cultures, enzyme additives, or nutrient additives, furnish the information specified in paragraphs(d)(9) and(d)(10) of this section, as appropriate.

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(13) Analytical Laboratory Requirements for Technical Product Data. Follow specifications in paragraph(a)(12) of this section.(g) Sorbents.(1) Sorbent material may consist of, but is not limited to, the following materials:

(i) Organic products-

(a) Peat moss or straw;

(b) Cellulose fibers or cork;

(c) Corn cobs;

(d) Chicken, duck, or other bird feathers.

(ii) Mineral compounds-

(a) Volcanic ash or perlite;

(b) Vermiculite or zeolite.

(iii) Synthetic products-

(a) Polypropylene;(b) Polyethylene;

(c) Polyurethane;

(d) Polyester.

(2) EPA does not require technical product data submissions for sorbents and does not include sorbents on the NCP Product Schedule.

(3) Manufacturers that produce sorbent materials that consist of materials other than those listed in paragraph(g)(1) of this section shall submit to EPA the technical product data specified for miscellaneous oil spill control agents in paragraph(f) of this section and EPA will consider listing those products on the NCP Product Schedule under the miscellaneous oil spill control agent category. EPA will inform the submitter in writing, within 60 days of the receipt of technical product data, of its decision on adding the product to the Schedule.

(4) Certification. OSCs may request a written certification from manufacturers that produce sorbent materials that consist solely of the materials listed in paragraph(g)(1) of this section prior to making a decision on the use of a particular sorbent material. The certification at a minimum shall state that the sorbent consists solely of the materials listed in Sec. 300.915(g)(1) of the NCP. The following statement, when completed, dated, and signed by a sorbent manufacturer, is sufficient to meet the written certification requirement:

SORBENT NAME is a sorbent material and consists solely of the materials listed inSec. 300.915(g)(1) of the NCP.

(h) Mixed products. Manufacturers of products that consist of materials that meet the definitions of two or more of the product categories contained on the NCP Product Schedule

shall submit to EPA the technical product data specified in this section for each of those product categories. After review of the submitted technical product data, and the performance of required dispersant effectiveness and toxicity tests, if appropriate, EPA will make a determination on whether and under which category the mixed product should be listed on the Schedule.

Sec. 300.920 -- Addition of products to Schedule.

(a) Dispersants.(1) To add a dispersant to the NCP Product Schedule, submit the technical product data specified inSec. 300.915(a) to the Emergency Response Division(5202-G), U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460. A dispersant must attain an effectiveness value of 45 percent or greater in order to be added to the Schedule.

(2) EPA reserves the right to request further documentation of the manufacturers' test results. EPA also reserves the right to verify test results and consider the results of EPA's verification testing in determining whether the dispersant meets listing criteria. EPA will, within 60 days of receiving a complete application as specified inSec. 300.915(a) of this part, notify the manufacturer of its decision to list the product on the Schedule, or request additional information and/or a sample of the product in order to review and/or conduct validation sampling. If EPA requests additional information and/or a product sample, within 60 days of receiving such additional information or sample, EPA will then notify the manufacturer in writing of its decision to list or not list the product.

(3) Request for review of decision.(i) A manufacturer whose product was determined to be ineligible for listing on the NCP Product Schedule may request EPA's Administrator to review the determination. The request must be made in writing within 30 days of receiving notification of EPA's decision to not list the dispersant on the Schedule. The request shall contain a clear and concise statement with supporting facts and technical analysis demonstrating that EPA's decision was incorrect.

(ii) The Administrator or his designee may request additional information from the manufacturer, or from any other person, and may provide for a conference between EPA and the manufacturer, if appropriate. The Administrator or his designee shall render a decision within 60 days of receiving the request, or within 60 days of receiving requested additional information, if appropriate, and shall notify the manufacturer of his decision in writing.

(b) Surface washing agents, surface collecting agents, bioremediation agents, and miscellaneous oil spill control agents.(1) To add a surface washing agent, surface collecting agent, bioremediation agent, or miscellaneous oil spill control agent to the NCP Product Schedule, the technical product data specified inSec. 300.915 must be submitted to the Emergency Response Division(5202-G), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460. If EPA determines that the required data were submitted, EPA will add the product to the Schedule.

(2) EPA will inform the submitter in writing, within 60 days of the receipt of technical product data, of its decision on adding the product to the Schedule.(c) The submitter may assert that certain information in the technical product data submissions, including technical product data submissions for sorbents pursuant to Sec. 300.915(g)(3), is confidential business information. EPA will handle such claims pursuant to the provisions in 40 CFR part 2, subpart B. Such information must be submitted separately from non-confidential information, clearly identified, and clearly marked "Confidential Business Information." If the submitter fails to make such a claim at the time of submittal, EPA may make the information available to the public without further notice.

(d) The submitter must notify EPA of any changes in the composition, formulation, or application of the dispersant, surface washing agent, surface collecting agent, bioremediation agent, or miscellaneous oil spill control agent. On the basis of this data, EPA may require retesting of the product if the change is likely to affect the effectiveness or toxicity of the product.

(e) The listing of a product on the NCP Product Schedule does not constitute approval of the product. To avoid possible misinterpretation or misrepresentation, any label, advertisement, or technical literature that refers to the placement of the product on the NCP Product Schedule must either reproduce in its entirety EPA's written statement that it will add the product to the NCP Product Schedule underSec. 300.920(a)(2) or(b)(2), or include the disclaimer shown below. If the disclaimer is used, it must be conspicuous and must be fully reproduced. Failure to comply with these restrictions or any other improper attempt to demonstrate the approval of the product by any NRT or other U.S. Government agency shall constitute grounds for removing the product from the NCP Product Schedule.

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DISCLAIMER

PRODUCT NAME is on the U.S. Environmental Protection Agency's NCP Product Schedule. This listing does NOT mean that EPA approves, recommends, licenses, certifies, or authorizes the use of PRODUCT NAME on an oil discharge. This listing means only that data have been submitted to EPA as required by subpart J of the National Contingency Plan,Sec. 300.915.

12. Appendix C to part 300 is revised to read as follows: appendix C to Part 300-Swirling Flask Dispersant Effectiveness Test, Revised Standard Dispersant Toxicity Test, and Bioremediation Agent Effectiveness Test

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1.0 Introduction

1.1 Scope and Application. The methods described below apply to "dispersants, surface washing agents, surface collecting agents, bioremediation agents, and miscellaneous oil spill control agents" involving subpart J(Use of Dispersants and Other Chemicals) in 40 CFR Part 300(National Oil and Hazardous Substances Pollution Contingency Plan). They are revisions and additions to the EPA's Standard Dispersant Effectiveness and Toxicity Tests(1). The new Swirling Flask Dispersant Effectiveness Test is used only for testing dispersants. The Revised Standard Dispersant Toxicity Test is used for testing dispersants, as well as surface washing agents, surface collecting agents, and miscellaneous oil spill control agents. The bioremediation agent effectiveness test is used for testing bioremediation agents only. 1.2 Definitions. The definitions of dispersants, surface washing agents, surface collecting agents, bioremediation agents, and miscellaneous oil spill control agents are provided in 40 CFR 300.5.

2.0 Swirling Flask Dispersant Effectiveness Test

2.1 Summary of Method. This protocol was developed by Environment Canada to provide a relatively rapid and simple testing procedure for evaluating dispersant effectiveness(2). It uses a modified Erlenmeyer flask to which a side spout has been added for removing subsurface samples of water near the bottom of the flask without disturbing a surface oil layer. Seawater and a surface layer of oil are added to the flask. Turbulent mixing is provided by placing the flask on a standard shaker table at 150 rpm for 20 minutes to induce a swirling motion to the liquid contents. Following shaking, the flask is immediately removed from the shaker table and maintained in a stationary position for 10 minutes to allow the oil that will reform a slick to return to the water's surface. A sample of water for chemical analysis is then removed from the bottom of the flask through the side spout, extracted with methylene chloride(dichloromethane-DCM), and analyzed for oil content by UV-visible absorption spectrophotometry at wavelengths of 340, 370, and 400 nm(2). 2.2 Apparatus.

2.2.1 Modified Erlenmeyer Flask. Use 125-ml glass Erlenmeyer flasks that have been modified to include an attachment of a glass side spout that extends from the bottom of the flask upward to the neck region, as shown in Figure 1.

2.2.2 Shaker Table. Use a shaker table with speed control unit with variable speed(40-400 rpm) and an orbital diameter of approximately 0.75 inches(2 cm) to provide turbulence to solutions in test flasks.

2.2.3 Spectrophotometer. Use a UV-visible spectrophotometer capable of measuring absorbance at 340, 370, and 400 nm. A Hitachi Model U-2000 or equivalent is acceptable for this purpose.

2.2.4 Glassware. Glassware should consist of 5-, 10-, 25-, 100-, and 500- ml graduated cylinders; 125-ml separatory funnels with Teflon stopcocks; and 10-, 100-, and 1,000-ml volumetric flasks and micropipettes.

{SEE ILLUSTRATION(S) IN ORIGINAL DOCUMENT}

2.3 Reagents. 2.3.1 Synthetic seawater. The synthetic sea salt "Instant Ocean," manufactured by Aquarium Systems of Mentor, OH, can be used for this purpose. The synthetic seawater solution is prepared by dissolving 34 g of the salt mixture in 1 liter of distilled water(i.e., a salinity of 34 ppt). Table 1 provides a list of the ion composition of the seasalt mixture.

Table 1.- Major Ion Composition of "Instant Ocean" Synthetic Sea Salt

Major Ion % Total Weight Ionic Concentration at 34 ppt salinity(mg/1)

Chloride(C1 sup -) 47.470 18,740 Sodium(NA sup +) 26.280 10,454 Sulfate(SO sub 4 sup -) 6.602 2,631 Magnesium(Mg sup ++) 3.230 1,256 Calcium(Ca sup ++) 1.013 400 Potassium(K sup +) 1.015 401 Bicarbonate(HCO sub 3 sup 0.491 194 -) Boron(B) 0.015 6.0 Strontium(Sr sup ++) 0.001 7.5 SOLIDS TOTAL 86.11% 34,089.50 Water 13.88 TOTAL 99.99%

Following the preparation, the saltwater solution is allowed to equilibrate to the ambient temperature of the laboratory and should be in the range of 22 +/- 3 degrees C.

2.3.2 Test oil. Two EPA/American Petroleum Institute(API) standard reference oils, Prudhoe Bay and South Louisiana crude, should be used for this test. These oils can be obtained from the Resource Technology Corporation, 2931 Soldier Springs Road, P.O. Box 1346, Laramie, WY 82070,(307) 742-5452. These oils have been thoroughly homogenized, as well as characterized physically and chemically for previous EPA and API studies. Various selected parameters are presented in Table 2.

Table 2.- Test Oil Characteristics

Prudhoe Bay South Louisiana crude oil crude oil

Specific gravity fn 1 0.894 kg/1 0.840 kg/1 API gravity fn 1 26.8 degrees 37.0 degrees Sulfur 1.03 wt% 0.23 wt% Sulfur compounds, profile Nitrogen 0.20 wt% 0.031 wt% Vanadium 21 mg/1 0.95 mg/1 Nickel 11 mg/1 1.1 mg/1 Simulated distillation profile Infrared spectrum UV fluorescence spectrum Pour Point +25 degrees F 0 degrees F

Viscosity at 40 degrees C 14.09 cST 3.582 cST at 100 degrees C 4.059 cST 1.568 cST Index 210(sup 2) fn 1 At 15 degrees C

fn 2 ANot calculable when viscosity at 100 degrees C is less than 2.0.

2.3.3 Methylene Chloride(Dichloromethane-DCM), pesticide quality. For extraction of all sample water and oil-standard water samples.

2.4 Pretest preparation. 2.4.1 Preparation and analysis of oil standards. 2.4.1.1 Standard solutions of oil for calibrating the UV-visible spectrophotometer are prepared with the specific reference oils and dispersant used for a particular set of experimental test runs. For experiments with no dispersant, only oil is used to make the standard solution. For experiments with the oil plus dispersant, the standard is made with a 1:10(v:v) mixture of the dispersant to the test oil(i.e., a dispersant-to-oil ratio of 1:10). This ratio is used in the test tank with dispersant added. The presence of water and certain dispersants in DCM extracts can affect absorbance readings in a spectrophotometer. All standard solutions of oil(and dispersant, if present) should be prepared in a stepwise manner that reflects the analytical protocol used for the experimental water samples.

2.4.1.2 To prepare the standards, prepare a parent oil-DCM standard by mixing 1 part oil(plus 1/10 part premixed dispersant, if applicable) to 9 parts DCM(i.e., 1:10 dilution of the oil v:v). Add a specific volume of the parent oil- DCM standard to 30 ml of synthetic seawater in a separatory funnel. Extract the oil-water mixture with 5-ml volumes of DCM after 15 seconds of vigorous shaking followed by a 2 minute stationary period to allow for phase separation for each extraction. Repeat the extraction using a total of three 5-ml portions of DCM. Adjust the final DCM volume for the combined extracts to 20 ml with DCM in a 25-ml graduated cylinder.

2.4.1.3 The quantities of oil used to achieve the desired concentrations in the final 20-ml DCM extracts for the standard oil-solutions are summarized in Table 3. Specific masses for oil amounts in standards are determined as volumes of oil multiplied by the density of the oil.

2.4.2 Linear stability calibration of UV-Visible spectrophotometer.

2.4.2.1 Before DCM- extracts of dispersed oil-water samples can be analyzed for their oil content, the UV-visible spectrophotometer must meet an instrument stability calibration criterion. This criterion is determined with the six oil standards identified in Table 3. Determine the absorbance of standards at each of the three analytical wavelengths(i.e., 340, 370, and 400 nm). Determine the response factors(RFs) for the test oil at each of the three analytical wavelengths using the following equation:

RF sub x C/A sub x(1)

where:

RF sub x Response factor at wavelength x(x 340, 370, or 400 nm)

C Oil concentration, in mg of oil/ml of DCM in standard solution a sub x Spectrophotometric absorbance of wavelength x

Table 3- Oil Standard Solutions: Concentrations in Final DCM Extractions fn 1

Final oil Final extract Total amount Volume of concentration volume of oil in parent oil-DCM(mg/ml of DCM)(ml of DCM) standard(mg) std(mu l) added to saltwater

4.0 20.0 80.0 890 2.0 20.0 40.0 440 1.0 20.0 20.0 220 0.50 20.0 10.0 110 0.10 20.0 2.0 22 0.05 20.0 1.0 11

fn 1 Assuming an oil density of 0.9 g/ml and an extraction efficiency of 100% for oil from the 30-ml of seawater.

2.4.2.2 Instrument stability for the initial calibration is acceptable when the RFs for the five highest standard extracts of oil are <20% different from the overall mean value for the five standards. If this criterion is satisfied, analysis of sample extracts can begin. RFs for the lowest concentration(0.05 mg oil / ml DCM) are not included in the consideration because the absorbance is close to the detection limit of the spectrophotometer(with associated high variability in the value) for the 1-cm path-length cell used for measurements. Absorbances "3.5 are not included because absorbance saturation occurs at and above this value.

2.4.2.3 If one or more of the standard oil extracts do not meet this linear-stability criterion, then the "offending" standard(s) can be prepared a second time(i.e., extraction of the specified amount of oil from

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30-ml or seawater for the "offending" standard according to the pretest preparation procedure). If replacement of the reanalyzed standard solution(s) in the standard curve meets the linear-stability criterion(i.e., no RF > 20% different from the overall mean), then analysis of sample extracts can begin.

2.4.2.4 If the initial-stability criterion is still not satisfied, analysis of sample extract cannot begin and the source of the problem(e.g., preparation protocol for the oil standards, spectrophotometer stability, etc.) must be corrected.

2.4.2.5 The initial six-point calibration of the UV- visible spectrophotometer at the oil concentrations identified is required at least once per test day.

2.5 Test procedure. 2.5.1 Preparation of premixed dispersant oil. Prepare a premixed dispersant oil by mixing 1 part dispersant to 10 parts oil. Store this mixture in a glass container. The dispersant effectiveness test procedures are listed in steps 1-20:

1. Prepare 4 replicates(same test oil and dispersant), one control(i.e., no dispersant), and one method blank and run at the same time on the shaker table.

2. Add 120 +/- 2 ml of synthetic seawater to each of the modified 125-ml glass Erlenmeyer flasks. Measure and record the water temperature.

3. Place the flasks securely into the attached slot on the shaker table.

4. Carefully add 100 mu l of an oil-dispersant solution onto the center of the water's surface using a positive displacement pipette.

5. Agitate the flasks for 20 +/- 1 minutes at 150 +/- 10 rpm on the shaker table.

6. After the 20 +/- 1 minutes shaking, remove the flasks from the shaker table and allow them to remain stationary for 10 +/- 1 minutes for oil droplet "settling."

7. At the conclusion of the 10-minute settling period, carefully decant a 30-ml sample through the side spout of the test flasks into a 50-ml graduated cylinder.

Note: Discard the first 1-2 ml of sample water to remove nonhomogeneous water-oil initially contained in the spout.

8. Transfer the samples from the graduated cylinder into a 125- or 250-ml glass separatory funnel fitted with a Teflon stopcock.

9. Add 5 ml of pesticide-quality DCM to the separatory funnel and shake vigorously for 15 seconds. Release the pressure carefully from the separatory funnel through the stopcock into a fume hood.

10. Allow the funnel to remain in a stationary position for 2 minutes to allow phase-separation of the water and DCM.

11. Drain the DCM layer from the separatory funnel into a glass-stoppered, 25-ml graduated glass cylinder. 12. Repeat the DCM-extraction process two additional times.

13. Combine the three extracts in the graduated cylinder and adjust the final volume to 20-ml with additional DCM.

14. Analyze the samples using a UV- spectrophotometer at 340, 370, and 400 nm-wavelengths and determine the quantity of oil as follows:

C sub x(A sub x)x(RF sub x)x(V sub DCM)x(V sub tw / V sub ew)(2)

where:

C sub x Total mass of dispersed oil in swirling flask at wavelength x(x 340, 370, or 400 nm) a sub x Spectrophotometric absorbance at wavelength x

RF sub x Mean response factor at wavelength x(determined from equation 1)

V sub DCM Final volume of DCM-extract of water sample(20 ml)

V sub tw Total water volume in swirling flask vessel(120 ml) V sub ew Volume of water extracted for dispersed oil content(30 ml)

15. Obtain three concentration values for oil in each experimental water sample(340, 370, and 400 nm).

16. Determine the mean of three values as follows:

C sub mean(C sub 340+C sub 370+C sub 400) / 3(3)

Note: Means will be used for all dispersion-performance calculations. Samples where one of the values for C sub 340, C sub 370, or C sub 400 is more than 30% different from C sub mean will be flagged. Whenever oil measurements are flagged as having a concentration based on one wavelength as >30% different from C sub mean, raw data will be evaluated to establish that the measurements are valid. In addition, attempts will be made to correlate the difference to oil type, dispersant test, or dispersant used. If no errors or correlations are apparent and >10% of all oil measurements are flagged, the mean concentration data will be used in the calculation for dispersant performance and the subject data will be flagged.

17. Determine the dispersant performance(i.e., percent of oil that is dispersed, or EFF) based on the ratio of oil dispersed in the test system to the total oil added to the system as follows:

EFF(in %)(C sub mean / C sub TOT)x100(4)

where:

C sub mean Mean value for total mass of dispersed oil in the swirling flask determined by spectrophotometric analysis

C sub TOT Total mass of oil initially added to the experimental swirling flask

18. Calculate EFF using equation 4 for coupled experiments with and without dispersant(EFF sub c and EFF sub d, respectively). EFF sub c is the effectiveness of the control and represents natural dispersion of the oil in the test apparatus. EFF sub d is the measured uncorrected value.

19. Calculate the final dispersant performance of a chemical dispersant agent after correcting for natural dispersion using equation 5.

EFF sub D EFF sub d-EFF sub c(5) where:

EFF sub D % dispersed oil due to dispersant only

EFF sub d % dispersed oil with dispersant added

EFF sub c % dispersed oil with no dispersant added

20. Calculate the average dispersant effectiveness value by summing the corrected values(EFF sub D) for each of the four replicates for each of the two test oils and dividing this sum by eight.

2.6 Performance criterion. The dispersant product tested will remain in consideration for addition to the NCP Product Schedule if the average dispersant effectiveness, as calculated in section 2.5 above, is at least 45%(i.e., 50% +/- 5%).

2.7 Quality Control(QC) procedures for measurements of oil concentrations. 2.7.1 UV-visible spectrophotometric measurements. At least 5% of all UV-visible spectrophotometric measurements will be performed in duplicate as a QC check on the analytical measurement method. The absorbance values for the duplicates should agree within +/- 5% of their mean value.

2.7.2 Method blanks. Analytical method blanks involve an analysis of seawater blanks(i.e., seawater but no oil or dispersant in a swirling flask vessel) through testing and analytical procedures(3, pp 79-80). Method blanks are analyzed with a frequency of at least 1 for every 12 experimental swirling flask samples. Oil concentrations in method blanks must be <5% of that occurring for 100% dispersion of oil in testing apparatus.

3.0 Revised standard dispersant toxicity test

3.1 Summary of method. The standard toxicity test for dispersants and other products involves exposing two species(Menidia beryllina(silversides) and Mysidopsis bahia(mysid shrimp)) to five concentrations of the test product and No. 2 fuel oil alone and in a 1:10 mixture of product to oil. To aid in comparing results from assays performed by different workers, reference toxicity tests are conducted using dodecyl sodium sulfate(DSS) as a reference toxicant. The test length is 96 hours for Menidia and 48 hours for Mysidopsis. LC sub 50s are calculated based on mortality data at the end of the exposure period(for method of calculation, see section 3.6 below). 3.2 Selection and preparation of test materials.

3.2.1 Test organisms.

3.2.1.1 Menidia beryllina. Obtain fish(silversides) from a single source for each series of toxicity tests. In-house cultures are recommended wherever it is cost-effective; however, organisms are available from commercial suppliers. Information on the source of test organisms and any known unusual condition to which fish were exposed before use should be included in the data report. Use of animals previously treated with pesticides or chemotherapeutic agents should be

avoided. Organisms should not be used if they appear to be unhealthy, discolored, or show signs of stress. Use 7-day old larval fish. Fish should be cultured in accordance with the methods outlined in Middaugh, et al.(5). There should be no need to acclimate organisms to the 25 +/- 1 degrees C temperature recommended for the toxicity tests if laboratory stock cultures of Menidia are maintained at the recommended culture temperature of 25 +/- 1 degrees C. If test organisms must be obtained from a commercial source, it may become necessary to acclimate test fish to the test temperature of 25 +/- 1 degrees C, a pH of 8.0 +/- 0.2, and 20 +/- 2 ppt salinity since changes in temperature may occur during shipping. Eliminate groups of fish having a mortality of more than 10% during the first 48 hours, and more than 5% thereafter. During acclimation, organisms should be maintained on a diet of freshly hatched Artemia(brine shrimp)

nauplii. Feed the fish daily to satiation during the acclimation period, and once daily during the 96-hour test. Care should be taken daily to remove excess food and fecal material from beakers during the test. Use only those organisms that feed actively and that appear to be healthy. Organisms should be free of disease, external parasites, and any signs of physical damage or stress. Discard any fish injured or dropped while handling.

3.2.1.2 Mysidopsis bahia. Several methods for culturing Mysidopsis bahia(mysid shrimp) may be used and are noted in Appendix A of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms(6). To ensure uniformity of mysids, recently hatched mysids should be collected daily from stock cultures and identified by the date of hatch. Mysids used in 48-hour tests should be from a single day's collection, but may have an age range of 5-7 days old. In cases where in-house cultures of mysids are unavailable, organisms may be purchased from a commercial source. Information on the source of test organisms should be submitted in the data report.

3.2.2 Preparation of experimental water. Filtered natural seawater is recommended for use since it represents a natural source of saltwater containing an inherent population of microorganisms. Synthetic seawater formulated according to the following method can serve as an acceptable alternative to filtered, natural seawater for toxicity tests performed in laboratories in which natural seawater is unavailable.

3.2.3 Synthetic seawater formation. To prepare standard seawater, mix technical-grade salts with 900 liters of distilled or demineralized water in the order and quantities listed in Table 4. These ingredients must be added in the order listed and each ingredient must be dissolved before another is added. Stir constantly after each addition during preparation until dissolution is complete. Add distilled or demineralized water to make up to 1,000 liters. The pH should now be 8.0 +/- 0.2. To attain the desired salinity of 20 +/- 1 ppt, dilute again with distilled or demineralized water at time of use.

3.3 Sampling and storage of test materials. Toxicity tests are performed with No. 2 fuel oil having the characteristics defined in Table 5. Store oil used for toxicity tests in sealed containers to prevent the loss of volatiles and other changes. For ease in handling and use, it is recommended that 1,000-ml glass containers be used. To ensure comparable results in the bioassay tests, use oils packaged and sealed at the source. Dispose of unused oil in each open container on completion of dosing to prevent its use at a later date when it may have lost some of its volatile components. Run all tests in a bioassay series with oil from the same container and with organisms from the same group collected or secured from the same source.

Table 4.- Synthetic Seawater

Toxicity Test	Salt(g) fn 1

NaF 1.9 SrCl sub 2 x 6H sub 2O 13.0 H sub 3BO sub 2 20.0 KBr 67.0 KCl 466.0 CaC1 sub 2 x 2H sub 2O 733.0 Na sub 2SO sub 4 2,660.0 MgCl sub 2 x 6H sub 2O 3,330.0 NaCl 15,650.0 Na sub 2SiO sub 3 x 9H sub 2O 13.0 EDTA sup 2 0.4 NaHCO sub 3 133.0

fn 1 Amount added to 900 liters of water, as described in the text.

fn 2 Ethylenediaminetetraacetate tetrasodium salt.

3.4 General test conditions and procedures for toxicity tests.

3.4.1 Temperature. For these toxicity tests, use test solutions with temperatures of 25 +/- 1 degrees C.

3.4.2 Dissolved oxygen and aeration.

3.4.2.1 Menidia. Because oils contain toxic, volatile materials, and because the toxicity of some water-soluble fractions of oil and degradation products are changed by oxidation, special care must be used in the oxygenation of test solutions. Aeration during the test is generally not recommended but should be used to maintain the required dissolved oxygen(DO) in cases where low DO is observed. The DO content of test solutions must not drop below 60% saturation during the first 48 hours of a static acute(96-hour) test and must remain between 40-100% after the first 48 hours of the test. Aeration at a rate of 100 +/- 15 bubbles per minute is supplied by a serological pipette as needed for maintenance of DO. If aeration is necessary, all test chambers should be aerated. At this rate, and with the proper weight of fish, DO concentration should remain slightly above 4 ppm over a 96-hour period. Take DO measurements daily.

Table 5.- Test Oil Characteristics: No. 2 Fuel Oil

Characteristic Minimum Maximum

Gravity(degrees API) 32.1 42.8 Viscosity kinematic at 100 2.35 3.00 degrees F(cs) Flash point(degrees F) 150 ... Pour point(degrees F) ... 0 Cloud point(degrees F) ... 10 Sulfur(wt %) ... 0.35 Aniline point(degrees F) 125 180 Carbon residue(wt %) ... 0.16 Water(vol %) ... 0 Sediment(wt %) ... 0 Aromatics(vol %) 10 15

Distillation: IBP(degrees F) 347 407 10%(degrees F) 402 456 50%(degrees F) 475 530 90%(degrees F) 542 606 End Point(degrees F) 596 655 Neutralization No ... 0.05

3.4.2.2 Mysidopsis. Achieve sufficient DO by ensuring that the surface area to volume ratio of the test solution exposed is large enough. Oxygen content should remain high throughout the test because of the low oxygen demand of the organisms. Aeration is not recommended during 48-hour acute toxicity tests unless the DO falls below 60% saturation.

3.4.3 Controls. With each fish or mysid test or each series of simultaneous tests of different solutions, perform a concurrent control test in exactly the same manner as the other tests and under the conditions prescribed or selected for those tests. Use the diluent water alone as the medium in which the controls are held. There must be no more than 10% mortality among the controls during the course of any valid test.

3.4.4 Reference toxicant. To aid in comparing results from tests performed by different workers and to detect changes in the condition of the test organisms that might lead to different results, perform reference toxicity tests with reagent grade DSS in addition to the usual control tests. Prepare a stock solution of DSS immediately before use by adding 1 gram of DSS per 500 ml of test water solution. Use exploratory tests before the full scale tests are begun to determine the amount of reference standard to be used in each of the five different concentrations.

3.4.5 Number of organisms. At a minimum, 20 organisms of a given species are exposed for each test concentration. For the toxicity test procedures using Menidia, place 10 fish in each of two jars. For the toxicity tests using Mysidopsis, place 10 larvae in each of two containers.

3.4.6 Transfer of organisms. Organisms should be handled as little as possible in order to minimize stress. Transfer Menidia and Mysidopsis from the acclimatization aquaria to the test chambers with a pipette or a wide-bore, smooth glass tube(4 to 8 mm internal diameter) fitted with a rubber bulb. Dip nets should be avoided when handling larval fish and mysids. Do not hold fish out of the water longer than necessary and discard any specimen accidentally dropped or otherwise mishandled during transfer.

3.4.6.1 Mysidopsis. To have the mysids ready for study, mysids may be sorted 24 hours prior to initiation of the 48-hour test. Transfer the mysids to a beaker containing a small volume of water; this vessel serves as a holding chamber during randomized transfer of the organisms to test solutions. Mysids are randomly selected from the batch of mysids in the holding chamber, and transferred to 50-ml beakers containing a small volume of seawater. One mysid is added per beaker using a small piece of flexible 500- mu m screening until all of the beakers contain one mysid. The process of random selection and sorting is continued until the appropriate number of mysids has

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been delivered to each of the 50-ml beakers. The mysids are gently released from the 50-ml beakers into larger beakers filled with an appropriate volume of 20-ppt seawater(25 degrees C) to bring the total volume to 200 ml. The beakers are randomly placed into a temperature-controlled water bath to acclimate overnight at 25 degrees C. The mysids are transferred to larger beakers(1-liter) for the 48-hour test after the addition of 800 ml of the test solution. A total of 10 mysids per beaker are used for 48-hour acute toxicity tests. A minimum of two replicate chambers are used for each test concentration and control. 3.4.6.2 Menidia and Mysidopsis are fed 50 brine shrimp nauplii/organism daily during the 96-hour and 48-hour tests. Excess food should be removed daily by aspirating with a pipette.

3.4.7 Test duration and observations. 3.4.7.1 Menidia. Observe the number of dead fish in each test container and record at the end of each 24-hour period. Fish are considered dead upon cessation of respiratory and all other overt movements, whether spontaneous or in response to mild mechanical prodding. Remove dead fish as soon as observed. Also note and report when the behavior of test fish deviates from that of control fish. Such behavioral changes would include variations in opercular movement, coloration, body orientation, movement, depth in container, schooling tendencies, and others. Abnormal behavior of the test organisms(especially during the first 24 hours) is a desirable parameter to monitor in a toxicity test because changes in behavior and appearance may precede mortality. Toxicants can reduce an organism's ability to survive natural stresses. In these cases, the mortality is not directly attributed to the toxicant, but most certainly is an indirect effect. Reports on behavioral changes during a toxicity test can give insight into the non-acute effects of the tested material. At the end of the 96-hour period, terminate the fish tests and determine the LC sub 50 values. The acute toxicity test is terminated after four days of exposure. The number of surviving fish are counted and recorded for each chamber in accordance with standard EPA methods(6). The LC sub 50 is calculated using survival data from the test in accordance with the methods described in the guidelines(6).

3.4.7.2 Mysidopsis. Terminate the mysid test after 48 hours of incubation. To count the dead animals accurately, place the exposure vessels on a light table such that light passes through the bottom of the vessel. Most of the dead mysids will be on the bottom of the beaker and can readily be seen against the background of the light table. Also search the top of the liquid for mysids trapped there by surface tension. Exercise caution when determining death of the animals. Occasionally, an animal appears dead, but closer observation shows slight movement of an appendage or a periodic spasm of its entire body. For these tests, animals exhibiting any movement when touched with a pipette tip are considered alive. Account for all test animals to ensure accuracy since Mysidopsis bahia may disintegrate or be cannibalized by other mysids. Consider individuals not accounted for as dead. At the end of 48 hours of exposure, terminate the mysid assay and determine the LC sub 50 values in accordance with the methods described in the guidelines(6).

3.4.8 Physical and chemical determinations. 3.4.8.1 Menidia. Determine the temperature, DO, and pH of the test solutions before the fish are added and at 24-, 48-, 72-, and 96-hour exposure intervals. It is necessary to take measurements from only one of the replicates of each of the toxicant series.

3.4.8.2 Mysidopsis. Determine the temperature, DO, and pH of the test solutions before the nauplii are added and at the 24- and 48-hour exposure interval. Measure DO and pH in only one of the replicates of each of the toxicant series.

3.4.9 Testing laboratory. An ordinary heated or air-conditioned laboratory room with thermostatic controls suitable for maintaining the prescribed test temperatures generally will suffice to conduct the toxicity tests. Where ambient temperatures cannot be controlled to 25 +/- 1 degrees C, use water baths with the necessary temperature controls.

3.4.10 Test containers. For tests with fish or mysids, use 1-liter glass beakers measuring approximately 10 cm in diameter. In conducting the test, add to each beaker 1 liter of the test solution or seawater formulation aerated to saturation with DO. To add the liter volume easily and accurately, use a large volume(1-liter) graduated cylinder. Process all required glassware before each test. Immerse in normal hexane for 10 minutes. Follow this with a thorough rinse with hot tap water; three hot detergent scrubs; an additional hot tap-water rinse; and three rinses with distilled water. Oven or air dry the glassware in a reasonably dust-free atmosphere.

3.5 Preparation of test concentrations. 3.5.1 Menidia. Place test jars(approximately 22.5 cm in height, 15 cm in diameter, 11 cm in diameter at the mouth) containing 2 liters of synthetic seawater on a reciprocal shaker. The shaker platform should be adapted to hold firmly six of the toxicity test jars. Add the desired amount of the petroleum product(if applicable) under test directly to each test jar. Dispense the appropriate amount of toxicant(if applicable) into the jars with a pipette. Tightly cap the test jars and shake for 5 minutes at approximately 315 to 333 2-cm(0.75-inch) strokes per minute in a reciprocal shaker or at approximately 150 to 160 rpm on orbital shakers. At the completion of shaking, remove the jars from the shaker and dispense 1 liter of the mixture to each of the 1- liter glass beakers. Randomly place beakers in a constant-temperature water bath or room, take water quality measurements, add fish, and initiate aeration.

3.5.2 Mysidopsis. 3.5.2.1 To prepare test solutions for products and oil/product mixtures, blend or mix the test solutions with an electric blender having: speeds of 10,000 rpm or less; a stainless-steel cutting assembly; and a 1-liter borosilicate jar. To minimize foaming, blend at speeds below 10,000 rpm.

3.5.2.2 For the product test solution, add 550 ml of the synthetic seawater to the jar, then with the use of a gas-tight calibrated glass syringe with a Teflon-tipped plunger, add 0.55 ml of the product and mix for 5 seconds.

3.5.2.3 For the oil test solution, add 550 ml of the synthetic seawater to the jar. Then with the use of a gas-tight calibrated glass syringe equipped with a Teflon-tipped plunger, add 0.55 ml of the oil and mix for 5 seconds.

3.5.2.4 For the oil / product mixture, add 550 ml of the synthetic seawater to the mixing jar. While the blender is in operation, add 0.5 ml of the oil under study with the use of a calibrated syringe with a Teflon-tipper plunger and then 0.05 ml of the product as indicated above. Blend for 5 seconds after addition of product. These additions provide test solutions of the product, oil, and the oil / product mixture at concentrations of 1,000 ppm.

3.5.2.5 Immediately after the test solutions are prepared, draw up the necessary amount of test solution with a gas-tight Teflon-tipped glass syringe of appropriate size and dispense into each of the five containers in each series. If the series of five concentrations to be tested are 10, 18, 32, 56, and 100 ppm, the amount of the test solution in the order of the concentrations listed above would be as follows: 10, 18, 32, 56, and 100 ml.

3.5.2.6 Each time a syringe is to be filled for dispensing to the series of test containers, start the mixer and withdraw the desired amount in the appropriate syringe while the mixer is in operation. Turn off immediately after the sample is taken to limit the loss of volatiles.

3.5.2.7 Use exploratory tests before the full-scale test is set up to determine the concentration of toxicant to be used in each of the five different concentrations. After adding the required amounts of liquid, bring the volume in each of the test containers up to 800 ml with the artificial seawater. To ensure keeping each of the series separate, designate on the lid of each container the date, the material under test, and its concentration.

3.5.2.8 When the desired concentrations are prepared, gently release into each beaker the 10 test Mysidopsis(previously transferred into 200 ml of medium). This provides a volume of 1 liter in each test chamber. A pair of standard cover glass forceps with flat, bent ends is an ideal tool for handling and tipping the small beaker without risk of contaminating the medium.

3.5.2.9 After adding the test animals, incubate the test beakers at 25 + / - 1 degrees C for 48 hours. Recommended lighting is 2,000 lumens / m 2(200 ft-c) of diffused, constant, fluorescent illumination.

3.5.2.10 Wash the blender thoroughly after use and repeat the above procedures for each series of tests. Wash the blender as follows: rinse with normal hexane; pour a strong solution of laboratory detergent into the blender to cover the blades; fill the container to about half of its volume with hot tap water; operate the blender for about 30 seconds at high speed; remove and rinse twice with hot tap water, mixing each rinse for 5 seconds at high speed; and then rinse twice with distilled water, mixing each rinse for 5 seconds at high speed.

3.6 Calculating and reporting. At the end of the test period, the toxicity tests are terminated and the LC sub 50 values are determined.

3.6.1 Calculations. The LC sub 50 is the concentration lethal to 50% of the test population. It can be calculated as an interpolated value based on percentages of organisms surviving at two or more concentrations, at which less than half and more than half survived. The LC sub 50 can be estimated with the aid of computer programs or graphic techniques(log paper). The 95% confidence intervals for the LC sub 50 estimate should also be determined.

3.6.2 Reporting. The test product and oil and their source and storage are described in the toxicity test report. Note any observed changes in the experimental water or the test solutions.

Also include the species of fish used; the sources, size, and condition of the fish; data of any known treatment of the fish for disease or infestation with parasites before their use; and any observations on the fish behavior at regular intervals during the tests. In addition to the calculated LC sub 50 values, other data necessary for interpretation(e.g., DO, pH, other physical parameters, and the percent survival at the end of each day of exposure at each concentration of toxicant) should be reported.

3.7 Summary of procedures. 3.7.1 Menidia:

1. Prepare adequate stocks of the appropriate standard dilution water. 2. Add 2 liters of the standard dilution water to the test jars. Each test consists of 5 replicates of each of 5 concentrations of the test material, a control series of 5 beakers, and a standard reference series of 5 different concentrations for a total of 35 beakers. Simultaneous performance of toxicity tests on the oil, product, and oil/product mixture requires a total of 105 beakers.

3. Add the determined amount(quarter points on the log scale) of test material to the appropriate jars. Preliminary tests will be necessary to define the range of definitive test concentrations.

4. Cap the jars tightly with the Teflon-lined screw caps and shake for 5 minutes at 315 to 333 2-cm(0.75-inch) strokes per minute on a reciprocal shaker.

5. Remove the jars from the shaker, take water quality data, dispense 1 liter of solution to the 1-liter glass beaker, and add 10 acclimated fish per beaker.

6. Aerate with 100 +/- 15 bubbles per minute through a 1-ml serological pipette, as needed, to maintain DO above 4.0 mg/l. 7. Observe and record mortalities, water quality, and behavioral changes every 24 hours.

8. After 96 hours, terminate the test, and calculate LC sub 50 values and corresponding confidence limits.

3.7.2 Mysidopsis:

1. Initiate the procedure for hatching the Mysidopsis in sufficient time before the toxicity test is to be conducted so that 5-7 day old larvae are available.

2. With the use of a small pipette, transfer 10 Mysidopsis into small beakers, each containing 200 ml of the proper synthetic seawater.

3. To prepare the test stock product and oil solutions, add 550 ml of the artificial seawater to the prescribed blender jar. By means of a gas-tight glass syringe with a Teflon-tipped plunger, add 0.55 ml of the product(or oil) and mix at 10,000 rpm for 5 seconds. To prepare the test stock oil/product mixture, add 550 ml of the standard seawater to the blender jar. While the blender is in operation(10,000 rpm), add 0.5 ml of the oil, then 0.05 ml of the product with the use of a calibrated syringe with a Teflon-tipped plunger. Blend for 5 seconds after adding the product. One ml of these stock solutions added to the 100 ml of standard seawater in the test containers yields a concentration of 10 ppm product, oil, or oil/product combination(the test will be in a ratio of 1 part product to 10 parts of oil).

4. Each test consists of 5 replications of each of 5 concentrations of the material under study, a control series of 5 beakers and a standard reference series of 5 different concentrations, for a total of 35 beakers. Simultaneous performance of toxicity tests on the oil, product, and oil/product mixture requires a total of 105 beakers. Immediately after preparing the test solution of the product or oil/product solution, and using an appropriately sized syringe, draw

up the necessary amount of test solution and dispense into each of the five containers in each series. Each time a syringe is to be filled for dispensing to the series of test containers, start the mixer and withdraw the desired amount in the appropriate syringe while the mixer is in operation. Turn mixer off immediately after the sample is taken to limit the loss of volatiles. After adding the required amount of the test oil / product or product mixture, bring the volume of liquid in each of the test containers up to 800 ml with the artificial seawater. When the desired concentrations have been prepared, gently release into each beaker the 10 mysids previously transferred into 200 ml of medium. This provides a volume of 1 liter in each test chamber.

5. Wash the blender as prescribed for each series of tests.

6. Incubate the test beakers at 25 + / - 1 degrees C for 48 hours with the prescribed lighting.

7. Terminate the experiment after 48 hours, observe and record the mortalities, and determine the LC sub 50s and corresponding confidence limits.

4.0 Bioremediation agent effectiveness test

4.1 Summary of method. The bioremediation agent effectiveness testing protocol is designed to determine a product's ability to biodegrade oil by quantifying changes in the oil composition resulting from biodegradation. The protocol tests for microbial activity and quantifies the disappearance of saturated hydrocarbons and polynuclear aromatic hydrocarbons(PAHs). The sample preparation procedure extracts the oil phase into dichloromethane(DCM), with a subsequent solvent exchange into hexane. To effectively accomplish the goals of the testing protocol, it is necessary to normalize the concentration of the various analytes in oil to a non-biodegradable marker, either C sub 2-or C sub 3-phenanthrene, C sub 2-chrysene, or hopane fn 1(7). The test method targets the relatively easy to degrade normal alkanes and the more resistant and toxic PAHs. It normalizes their concentrations to C sub 2-or C sub 3-phenanthrene, C sub 2-chrysene, or C sub 3017 alpha(H), 21 beta(H)-hopane on an oil weight basis(mg marker / kg oil, mg target analyte / kg oil). The analytical technique uses a high resolution gas chromatograph / mass spectrometer(GC / MS) because of its high degree of chemical separation and spectral resolution. GC / MS has long been used to study the weathering and fate of oil spilled into the environment. For quantitative analyses, the instrument is operated in the selective ion detection(SIM) mode at a scan rate of greater than 1.5 scans per second to maximize the linear quantitative range and precision of the instrument. The sample preparation method does not exclude analysis of selected samples by GC / MS in the full scanning mode of operation to qualitatively assess changes in the oil not accounted for by the SIM approach. Performed concurrently with the chemical analysis described above is a microbiological analysis. The microbiological analysis is performed to determine and monitor the viability of the microbial cultures being studied. Under this procedure, microbial enumerations of hydrocarbon degraders are performed at each sampling event using a microtiter Most Probable Number(MPN) determination. fn 1 Although any of these biomarkers can be used to conduct this test, it is recommended that hopane be used.

4.2 Apparatus. The following materials and equipment are required for the protocol: Appropriate flasks and other glassware; sterile tubes; graduated cylinders(100-ml); deionized water; p- iodonitrotetrazolium violet dye; weighing pans or paper; 250-ml borosilicate glass Erlenmeyer flasks with screw tops; Pasteur pipettes; laboratory notebook; microtiter MPN plates(24-well) multi-channel pipetting device; dilution tube and caps; autoclave; environmental room or incubator; balance accurate to 0.1 mg(XD- 400); GC / MS instrument equipped with a DB-5 capillary column(30 m, 0.25-mm I.D., and 0.25- mu m film thickness) and a split / splitless injection port operating in the splitless mode, such as Hewlett- Packard 5890 / 5971 GC / MS(recommended for use); and an autosampler for testing multiple samples.

4.3 Reagents and culture medium. 4.3.1 Preparation of seawater. All products are tested in clean natural seawater. Clean natural seawater means that the source of this seawater must not be heavily contaminated with industrial or other types of effluent. For example, seawater should not be obtained from a source near shipping channels or discharges of industrial or municipal wastewater, or with high turbidity. The seawater is used within seven days of collection. No microbial inoculum is added.

4.3.2 Preparation of oil. A medium weight crude oil, Alaska North Slope(ANS), is artificially weathered by heating to 521 degrees F to remove the light end hydrocarbons prior to experimental start-up(ANS 521). The method is described in the Draft International

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Standard ISO/DIS 8708 "Crude Petroleum Oil-Determination of Distillation Characteristics Using 15 Theoretical Plates Columns" by the International Organization for Standardization(8). The ANS521 crude oil can be obtained from the National Environmental Technology Applications Center's(NETAC) Bioremediation Products Evaluation Center(BPEC), University of Pittsburgh Applied Research Center, 615 William Pitt Way, Pittsburgh, PA, 15238,(412) 826-5511. The crude oil is heated to 190 degrees C(374 degrees F) under atmospheric pressure. The system is then cooled and placed under vacuum(or under an atmospheric pressure of 20 mm Hg) for the final distillation to an atmospheric equivalent boiling point of 272 degrees C(521 degrees F).

4.3.3 Preparation of mineral nutrient solution. If a commercial product is strictly a microbial agent and does not contain its own nutrients, a mineral nutrient solution will be provided if requested by the product manufacturer or vendor. If a commercial product contains its own nutrients, no further nutrients will be added. The nutrient solution is a modified salt solution and is described below.

4.3.3.1 Nutrient preparation:

1. N&P Salts. The following salts are added to distilled water and made up to a 1,000-ml volume. Adjust final pH to 7.8. The solution is sterilized by autoclaving at 121 degrees C at 15 psig for 20 minutes or by filtering through a sterile 0.22 mu m membrane filter.

Na sub 2HPO sub 4.2H sub 2-18.40 g

KNO sub 3-76.30 g

2. MgSO sub 4 x 7H sub 2O solution. Dissolve 22.50 g in 1,000 ml distilled water. The solution is sterilized by autoclaving at 121 degrees C at 15 psig for 20 minutes.

3. CaCl sub 2 solution. Dissolve 27.50 g in 1,000 ml of distilled water. The solution is sterilized by autoclaving at 121 degrees C at 15 psig for 20 minutes.

4. FeCl sub 3x 6H sub 2O solution. Dissolve 0.25 g in 1,000 ml of distilled water. The solution is sterilized by autoclaving at 121 degrees C at 15 psig for 20 minutes.

5. Trace Element Solution. The following salts are added to distilled water and made up to a 1,000-ml volume. The solution is sterilized by autoclaving at 121 degrees C at 15 psig for 20 minutes.

MnSO sub 4.H sub 2O-30.2 mg

H sub 3BO sub 3-57.2 mg

ZnSO sub 4.7H sub 2O- 42.8 mg

(NH sub 4)6Mo sub 7(O sub 2) sub 4-34.7 mg

The pH of the nutrient solution is adjusted with a pH meter calibrated at room temperature(approximately 25 degrees C) using commercial buffers of pH 4.0, 7.0, and 10.0(Fisher Scientific), as appropriate, prior to use. The pH is adjusted with concentrated HCl or 10 M NaOH, as appropriate.

4.3.3.2 Final concentrations: Ten(10) ml of solution 1 and 2 ml of solutions 2-5 are added to non-sterile seawater and made up to a 1,000-ml volume immediately prior to test start-up. This seawater / mineral nutrient solution is used for all flasks containing products requiring nutrient supplements and for the flasks containing no commercial additive. Seawater without the above nutrient solutions is used for products containing their own source of nutrients.

4.4 Pretest preparation.

4.4.1 Experimental setup.

4.4.1.1 The procedure consists of an experimental shaker flask setup and the specific set of microbiological and chemical analyses that are performed on individual product samples. The following test flasks(labeled with unique identifiers) are prepared and set up on a gyratory shaker at day 0 to reflect the following treatment design:

Treatment No. of samples at sampling times Day 0 Day 7 Day 28

Control 3 3 3 Nutrient 3 3 3 Product 3 3 3

Treatment Total No. of analytical determinations Microbial Gravimetric GC / MS counts

Control 9 9 9 Nutrient 9 9 9 Product 9 9 9

fn Control Oil + Seawater

fn Nutrient Oil + Seawater + Nutrient

fn Product Oil + Seawater + Product(+ Nutrient, if required).

4.4.1.2 For each test, a sheet listing the number of flasks, types of controls, number of replicates, product to be tested, and other information is prepared. The following steps should be adhered to for the experimental setup: 1. Borosilicate glass Erlenmeyer flasks(250-ml) are thoroughly cleaned and autoclaved for 20 minutes at 120 degrees C at 15 psi, then dried in the drying oven.

2. Flasks are labeled with the appropriate code: product or control, sample day, and letter indicating replicate.

3. 100 ml of seawater is added to each flask.

4. For nutrient and product treatments that require the addition of nutrients, seawater containing the nutrient solution is prepared.

5. Pasteur pipettes should be sterilized in advance. Break off the tip to provide a larger opening prior to sterilization.

6. Pour the approximate amount of oil to be used from the large stock bottle into a sterile beaker. Keep the beaker covered when oil is not being removed.

7. The labeled flasks containing seawater and other additions, as necessary, are placed on the balance. The flask is tared. The appropriate amount of oil(0.5 g) is added drop by drop using a sterile Pasteur pipette with the tip broken off to provide a wider opening. Care is taken to avoid splashing the oil or getting it on the sides of flasks. Precautions are taken when handling and charging the flasks to minimize the likelihood of contamination by exogenous microbes. This includes using a new sterile pipette for each series of flasks.

8. The weight of the oil is recorded in the laboratory notebook.

9. The product is prepared and added to the appropriate flasks according to the manufacturer's or vendor's instructions.

10. Flasks are carried upright and carefully placed in the holders on the shaker table to minimize the amount of oil that might adhere to the side of the flasks. Flasks in which a significant amount of oil is splashed on the sides are redone.

11. The prepared flasks are shaken at 200 rpm at 20 degrees C until such time that they will be removed for sampling.

4.4.2 Sampling. The control and treatments(nutrient and product flasks) are sampled three times over a 28-day period: day 0, day 7, and day 28. The entire flask is sacrificed for analysis; a 0.5-ml aliquot is removed from each flask for the microbiological analysis and the remainder of each flask is used for the chemical analysis. Specific procedures for both the microbiological and chemical analysis are described below. At the time of each sampling event, physical observations of each flask should be recorded.

4.5 Microbiological analysis. To monitor the viability of the microbial cultures being studied, microbial enumerations of hydrocarbon degraders are performed at each sampling event using a microtiter MPN determination. This is used as an indicator of the relative change in biomass. This test design relies on using growth response as an indication of enhanced activity as compared to a "no addition" control.

4.5.1 Media preparation. Media for microbial enumerations are carefully prepared according to manufacturer's or other instructions and sterilized using appropriate methods.

4.5.1.1 General media treatment: Buy Bushnell-Haas(B-H) broth in quantities to last no longer than one year. Use media on a first-in, first-out basis. When practical, buy media in quarter-pound multiples, rather than one-pound multiples to keep supply sealed as long as possible. Keep an inventory of media, including kind, amount, lot number, expiration date, date received, and date opened. Check inventory before reordering media. Discard media that are caked, discolored, or show other deterioration.

4.5.1.2 Sterile saline(pH adjusted):

1. Weigh 30 g of NaCl.

2. Dissolve in enough water to make 1,000 ml.

3. Adjust pH to 8.0 with NaOH(10M and 0.5M).

4. Sterilize by autoclaving for 15 minutes at 15 psig.

4.5.1.3 Standard nutrient concentrate(add 1 ml to each 100 ml of Bushnell-Haas medium for MPNs):

1. Weigh compounds listed below, dissolve in DIH sub 2O, dilute to 1 liter.

Potassium Phosphate, monobasic KH sub 2PO sub 4-0.633 g Potassium Phosphate, dibasic K sub 2HPO sub 4-1.619 g

Sodium Phosphate, dibasic Na sub 2HPO sub 4-2.486 g ammonium Chloride NH sub 4Cl-3.850 g

Magnesium Sulfate, heptahydrate MgSO sub 4.7H sub 2O-4.500 g

Calcium Chloride, dihydrate CaCl sub 2.2H sub 2O-7.290 g

Ferric Chloride, hexahydrate FeCl sub 3.6H sub 2O-0.250 g

Trace Elements

Manganese Sulfate, monohydrate MnSO sub 2.H sub 2O-6.04 mg

Boric Acid H sub 3Bo sub 3-11.44 mg

Zinc Sulfate, heptahydrate ZnSO sub 4.7H sub 2O- 8.56 mg ammonium Moybdate, tetrahydrate(NH sub 4)6Mo sub 7O sub 24.4H sub 2O-6.94 mg 2. Adjust pH to 6.0.

3. Stir solution for approximately 3 hours, then filter through a Buchner funnel using 1 paper, which will retain approximately 3.8 g of insolubles.

4. Then filter through a 0.45 micron filter into sterile bottles.

5. Cap bottles, label, and store in refrigerator until used.

4.5.1.4 Quality assurance / Quality control(QA / QC):

1. Periodically check the effectiveness of sterilization using commercially available tapes or Bacillus stearothermophilus spore suspensions, following the instructions with these products.

2. Maintain a media log book that includes the dates, kinds and amounts of media made, pH, and any problems or observations.

3. Before use, check plates and tubes for signs of contamination, drying, or other problems.
4.5.1.5 Safety / Special precautions:

1. Note any safety or other precautions for particular media.

2. Note precautions to be followed when using the autoclave.

3. Use gloves and other protective clothes when handling media.

4. Use care in handling hot media.

4.5.2 Microbial enumeration. Standardized techniques for performing Most Probable Number microbial enumerations are described below.

4.5.2.1 Dilutions:

1. Prior to sacrificing each flask, remove 0.5 ml of water from each flask and add it to a tube of 4.5 ml sterile phosphate buffer(1:10 dilution) as prepared in the Standard Methods for the Examination of Water and Wastewater(9). Using sterile technique, mix and perform serial dilutions(0.5 ml of previous dilution to 4.5 ml of sterile phosphate buffer) to 10 sup -9 dilution.

4.5.2.2 Inoculating MPN plates(oil degrader):

1. Prepare sufficient sterile 0.4 M NaCl(23.4 g NaCl / 1,000 ml B-H) and B-H at pH 7.0 to fill the number of wells required for the test(1.75 ml / well).

2. Using sterile technique, add 1.75 ml of B-H broth to each well.

3. Label the top of the plate with the proper dilution for each row.

4. Add 0.1 ml of fluid from each dilution tube to each well in the appropriate row, starting with the most dilute.

5. After adding the fluid to all the wells, add 20 mu l of sterilized No. 2 fuel oil to the top of each well.

6. Incubate each plate at 20 degrees C.

7. After 14 days of incubation, add 100 mu l of p-iodotetrazolium violet dye(50 mg / 10 ml of D.I. water) to each well to determine growth.

8. View plates against a white background to determine if color is present. Development of a purple or pink color upon standing for 45 minutes constitutes a positive test.

9. Record the number of positive wells and the dilutions at which they occur.

10. Enter data into a computerized enumeration method using "MPN Calculator" software program(version 2.3 or higher) by Albert J. Klee, U.S. EPA Office of Research and Development, Risk Reduction Engineering Laboratory, Cincinnati, OH.

4.5.2.3 Quality assurance / Quality control:

1. Check pH of medium before preparing wells(pH should be approximately 8.0). Adjust pH, if necessary, with dilute NaOH.

2. Keep prepared tetrazolium violet dye solution in the refrigerator in an amber bottle when not in use.

3. Have all laboratory personnel periodically run MPNs on the same sample to test precision.

4.5.2.4 Safety / Special precautions:

1. Use sterile technique in preparing solutions, dilutions, plates, and MPN wells.

2. Do not pipette potentially hazardous solutions by mouth.

3. Autoclave all plates and wells before discarding.

4.6 Chemical analysis of oil composition.

4.6.1 Sample procedure. After 0, 7, and 28 days of incubation on a rotary shaker, the appropriate flasks are sacrificed and extracted with dichloromethane and spiked with a surrogate recovery standard. A 10-ml aliquot of the DCM layer is used for the gravimetric analysis. If significant biodegradation is evident in the results of the gravimetric analysis, then a solvent exchange into hexane takes place prior to the GC/MS analysis. Follow steps 1-19 below when preparing for the chemical analysis.

1. After 0, 7, and 28 days of rotary shaking and incubating at 20 degrees C, the reaction vessels are sacrificed. Prior to the chemical analysis, a 0.5-ml sample of the aqueous phase is removed for the microbiological analysis(see Microbial Enumeration above).

2. A surrogate recovery standard is prepared in the following manner: 1,000 mg of d sub 10-phenanthrene and 1,000 mg of 5 alpha -androstane are measured into a 500-ml volumetric flask and DCM is added to the mark to produce a 2,000-ng/ mu l stock solution.

3. A 100- mu l aliquot of the surrogate solution is added to each test flask. The final concentration of surrogates in each flask is approximately 4 ng/ mu l of solvent in the final extract. The aliphatics and marker data should be corrected for percent recovery of the 5 alpha -androstane surrogate and the aromatics for the d sub 10-phenanthrene surrogate.

4. The contents of the flask are placed into a 250-ml separatory funnel.

5. Measure a total volume of 50 ml DCM for use in the extraction. Use 3 10-ml fractions to rinse the flask into the funnel and transfer the remaining aliquot of DCM to the funnel.

6. Stopper and mix vigorously by shaking(approximately 50 times) while ventilating properly.

7. Each funnel is set aside to allow the DCM and water layers to partition. This may take 5-10 minutes for some products, or up to 3 hours if the product has caused the formation of an emulsion.

8. Drain the first 10 ml of the DCM(bottom) layer, collect, cap, uniquely label, and use for gravimetric analysis(see below). Drain the remaining 40 ml and dry it by passing it through a funnel packed with anhydrous sodium sulfate.

9. Assemble a Kuderna-Danish(KD) concentrator by attaching a Snyder column to an evaporation flask with a graduated concentrator tube. Align vertically and partially immerse concentrator tube in a water bath(10). Set the water bath to the appropriate temperature to maintain proper distillation.

10. Collect the de-watered extract into the KD concentrator.

11. Evaporate DCM to approximately 10 ml, then add approximately 50 ml of the exchange solvent(hexane) and concentrate the volume to 10 ml. 12. Rinse the flask into the concentrator tube with 50 ml hexane and concentrate to 10 ml. Repeat one more time with 50 ml of hexane.

13. Remove concentrator tube with the recovered 10 ml of sample volume. The heavier residual material should be present as a precipitate(bottom layer).

14. Centrifuge to aid the separation of the hexane from the precipitant fraction.

15. Place hexane-soluble fraction(top layer)-approximately 1.0 ml-into a GC/MS vial for analysis(see GC/MS Analysis Procedure below). If column fouling and deterioration of separation characteristics occur, an alumina column sample cleanup method can be considered(see Alternative GC/MS Sample Cleanup Procedure below).

16. Analyze by GC/MS using the conditions determined by the U.S. EPA Risk Reduction Engineering Laboratory, Water and Hazardous Waste Treatment Research Division, in Cincinnati, OH, which follows U.S. EPA Method 8270(see GC/MS Analysis Procedure below).

17. Calculate surrogate recovery. If surrogate recovery is less than 85 percent for the marker relative to the surrogate recovery standard(d sub 10-phenanthrene), then the water layer should be extracted again using three separate extractions with DCM. Pool the three extractions with original extract and concentrate to 10 ml, and reanalyze by GC/MS.

18. Drain the seawater into a storage sample vial/container.

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19. Seal the vial with a Teflon-lined cap and store frozen. This water layer is kept in case additional extractions are necessary.

4.6.2 Gravimetric analysis. The initial means to evaluate the effectiveness of a bioremediation agent for oil spill response is through gravimetric analysis. A statistically significant difference($p < 0.05$) in analytical weight of the oil from the control system as compared to the analytical weight of the oil treated with a bioremediation agent indicates biodegradation has successfully occurred. Hence, the disappearance of oil should be accompanied by significant decreases in total oil residue weight of extractable materials versus a control. If no significant decrease in oil residue weight is observed, the need to perform further chemical analysis should be evaluated. Follow steps 1-3 to conduct the gravimetric analysis. 1. The 10 ml of DCM extract(from Sample Procedure step 8 above) is placed in a small vial and concentrated to dryness by nitrogen blowdown techniques using a steady stream of nitrogen(pre-purified gas). If the oil is severely biodegraded, a larger volume of DCM(> 10 ml) may be necessary for the gravimetric analysis.

2. The residue is weighed 3 times for the gravimetric weight of oil. Record the weight of the oil.

3. Compare statistically($p < 0.05$) the weight of the product treatment versus the weight of the control from each respective time period. If a significant decrease is observed in the sampling(flask containing bioremediation agent) weight, then proceed with the remainder of the sample procedure.

4.6.3 GC/MS analysis. Often, analysis of saturated and aromatic hydrocarbons by capillary gas chromatography of DCM extracts leads to column fouling and deterioration of separation characteristics. An alternative, simple "one-step" alumina sample cleanup procedure can be performed on oil before injection; this cleanup removes both asphaltenes and polar compounds and can be applied to DCM extracts as well. This procedure is described in steps 1-11 below. 4.6.3.1 Alternative GC/MS sample cleanup procedure:

1. Weigh 4.0 g alumina(neutral, 80-200 mesh) into scintillation vials covered loosely with aluminum foil caps. Prepare one scintillation vial per sample. Heat for 18 hours at 300 degrees C or longer. Place in a desiccator of silica until needed.

2. Add 5.0 ml of DCM to a glass luerlok multi-fit syringe(e.g., BD 2471) with stopcock(e.g., Perfectum 6021) in closed position, stainless steel syringe needle(18 gauge), and PTFE frits. Clamp in a vertical position.

3. Transfer 4.0 g of prepared alumina to a plastic weighing boat and fill syringe slowly while applying continuous vibration(e.g., Conair HM 11FF1).

4. Add a second PTFE frit and push into place on top of the alumina bed.

5. Drain 5.0 ml DCM to the top level of the column frit to await sample addition and discard DCM. 6. Weigh 50 mg +/- 0.1 mg ANS521 oil into a tared vial.

7. Premeasure 10 ml of DCM into a graduated cylinder. Add 0.2 to 0.3 ml of the DCM to the tared oil vial. Mix and transfer solvent to the column bed with a Pasteur pipette. Open stopcock and collect in a 10-ml volumetric flask. Repeat until approximately 1.0 ml(do not exceed 1.0 ml) of DCM has rinsed the vial and inner walls of the syringe body into the 10-ml flask.

8. Transfer balance of DCM from the graduated cylinder to the column and regulate the solvent flow rate to approximately 1 to 2 ml/minute. Collect all eluent in the 10-ml flask.

9. Transfer a known volume of eluent to another scintillation vial and blow down to dryness(nitrogen).

10. Determine and record weight.

11. Dissolve in 1.0 ml hexane for the GC/MS analysis procedure(see below).

4.6.3.2 GC/MS analysis procedure: Immediately prior to injection, an internal standard solution of four deuterated compounds is spiked into the sample extracts and injected. Samples are quantified using the internal standard technique(10) for both the aliphatic and aromatic fractions of the oil extracts in order to provide sufficient information that the oil is being degraded. To help ensure that the observed decline in target analytes is caused by biodegradation rather than by physical loss from mishandling or inefficient extraction, it is necessary to normalize the concentrations of the target analytes via a "conserved internal marker." Conserved internal markers that have been found useful for quantification are C sub 2- or C sub 3-phenanthrene, C sub 2-chrysene, and C sub 3017 alpha(H),21 beta(H)-hopane. Deuterated internal standards are used to calculate the relative response factor(RRF) for the target analyte(s). To compute the "normalized concentrations," the target analyte concentration at a given sampling time is simply divided by the selected conserved analyte concentration at the same sampling time(11). Conduct the GC/MS analysis using the following procedure.

1. One(1) ml of the hexane extract(from Sample Procedure step 15 above) is placed into a 1.5-ml vial for use on the autosampler of the GC/MS instrument. 2. To this solution, 20 mu l of a 500-ng/ mu l solution of the internal standards is added and the vial is capped for injection. The final concentration of the internal standards in each sample is 10 ng/ mu l. This solution contains 4 deuterated compounds: d sub 8-naphthalene, d sub 10- anthracene, d sub 12-chrysene, and d sub 12-perylene.

3. At the start of any analysis period, the mass spectrometer(MS) is tuned to PFTBA by an autotune program, such as the Hewlett-Packard quicktune routine, to reduce operator variability. Set the GC/MS in the SIM mode at a scan rate of 1.5 scans/second to maximize the linear quantitative range and precision of the instrument. Set all other conditions to those specified in Instrument Configuration and Calibration section below.

4. An instrument blank and a daily standard are analyzed prior to analysis of unknowns. Internal standards are combined with the sample extracts and coinjected with each analysis to monitor the instrument's performance during each run.

5. Information that should be included on the acquisition form include operator's name and signature, date of extraction, date and time of autotune, date of injection(s), instrument blank, daily standard mix injection, GC column number, and standards for the 5- point calibration curve.

6. If the instrument is operated for a period of time greater than 12 hours, the tune will be checked and another daily standard analyzed prior to continuing with analyses.

Table 6.- Analytes Listed Under the Corresponding Internal Standard Used for Calculating RRFs

Internal Standard d sub 8-naphthalene d sub 10-anthracene

Alkanes nC10-nC15 nC16-nC23 Pristane Phytane 5 alpha -androstane Aromatics Naphthalene Dibenzothiophene Fluorene Anthracene Phenanthrene

Internal Standard d sub 12-chrysene d sub 12-perylene Alkanes nC24-nC29 nC30-nC35. C sub 3017 beta(h), 21 alpha(H)- hopane.

Aromatics Fluoranthene Benzo(b)fluoranthene . Pyrene Benzo(k)fluoranthene . Chrysene Benzo(e)pyrene. Benzo(a)pyrene. Perylene. Indeno(g,h,i)pyrene. Dibenzo(a,h) anthracene. Benzo(1,2,3- cd)perylene.

7. The MS is calibrated using a modified version of EPA Method 8270(10). Specifically, the concentrations of internal standards are 10 ng / mu l instead of 40 ng / mu l. A five-point calibration curve is obtained for each compound listed in Table 6 prior to

sample analysis at 1, 5, 10, 25, and 50 ng / mu l. A 5-point calibration must be conducted on a standard mix of compounds to determine RRFs for the analytes. The standard mix(excluding the marker) for this calibration curve may be obtained from absolute Standards, Inc., 498 Russell St., New Haven, CT, 06513,(800) 368- 1131. If C sub 3017 beta(H),21 alpha(H)-hopane is used, it may be obtained from Dr. Charles Kennicutt II, Geochemical and Environmental Research Group, Texas A&M University, 833 Graham Rd., College Station, TX, 77845,(409) 690-0095.

8. Calculate each compound's relative response factor to its corresponding deuterated internal standard indicated above, using the following equation:

RRF(A sub xC sub is) / (A sub isC sub x)(6)

where:

RRF relative response factor a sub x peak area of the characteristic ion for the compound being measured(analyte) a sub is peak area of the characteristic ion for the specific internal standard

C sub x concentration of the compound being measured(ng / mu l)

C sub is concentration of the specific internal standard(10 ng / mu l).(This concentration is a constant in this equation for the calibration curve.)

9. Identify each analyte based on the integrated abundance from the primary characteristic ion indicated in Table 7.

10. Quantitate each analyte using the internal standard technique. The internal standard used shall be the one nearest the retention time of that of a given analyte(Table 8).

Table 7.- Primary Ions Monitored for Each Target Analyte During GC / MS Analysis

Compound Ion

n-alkanes(C sub 10-C sub 35) 85 Pristane 85 Phytane 85 Naphthalene 128 C1-naphthalenes 142 C2-naphthalenes 156 C3-naphthalenes 170 C4-naphthalenes 184 Fluorene 166 C1-fluorenes 180 C2-fluorenes 194 C3-fluorenes 208 Dibenzothiophenes 184 C1-dibenzothiophenes 198 C2-dibenzothiophenes 212 C3-dibenzothiophenes 226 Anthracene 178 Phenanthrene 178 C1-phenanthrenes 192 C2-phenanthrenes 206 C3-phenanthrenes 220 Fluoranthene / pyrene 202 C1-pyrenes 216 C2-pyrenes 230 Chrysene 228 C1-chrysenes 242 C2-chrysenes 256 Hopanes(177 family) 177 Hopanes(191 family) 191 Steranes(217 family) 217 Benzo(b)fluoranthene 252 Benzo(k)fluoranthene 252 Benzo(e)pyrene 252 Benzo(a)pyrene 252 Perylene 252 Ideno(g,h,i)pyrene 276 Dibenzo(a,h)anthracene 278 Benzo(1,2,3-cd)perylene 276 d sub 8-naphthalene 136 d sub 10-anthracene 188 d sub 10-phenanthrene 188 d sub 12-chrysene 240 d sub 12-perylene 264 alpha -androstane 260

Table 8.- Analytes and Reference Compounds

Compound Reference Compound Reference compound compound

n-C10 n-C10 C2-naphthalene Naphthalene. n-C11 n-C11 C3-naphthalene Naphthalene. n-C12 n-C12 C4-naphthalene Naphthalene. n-C13 n-C13 Fluorene Fluorene. n-C14 n-C14 C1-fluorene Fluorene. n-C15 n-C15 C2-fluorene Fluorene. n-C16 n-C16 C3-fluorene Fluorene. n-C17 n-C17 Dibenzothiophe Dibenzothiophene ne . Pristane Pristane C1- Dibenzothiophene dibenzothiophe . ne n-C18 n-C18 C2- Dibenzothiophene dibenzothiophe . ne Phytane Phytane C3- Dibenzothiophene dibenzothiophe . ne n-C19 n-C19 Phenanthrene Phenanthrene. n-C20 n-C20 Anthracene Anthracene. n-C21 n-C21 C1- Phenanthrene. phenanthrene n-C22 n-C22 C2- Phenanthrene. phenanthrene n-C23 n-C23 C3- Phenanthrene. phenanthrene n-C24 n-C24 Fluoranthene Fluoranthene. n-C25 n-C25 Pyrene Pyrene. n-C26 n-C26 C1-pyrene Pyrene. n-C27 n-C27 C2-pyrene Pyrene. n-C28 n-C28 Chrysene Chrysene. n-C29 n-C29 C1-chrysene Chrysene. n-C30 n-C30 C2-chrysene Chrysene. n-C31 n-C31 Benzo(b)fluora Benzo(b)fluorant nthene hene. n-C32 n-C32 Benzo(k)fluora Benzo(k)fluorant nthene hene. n-C33 n-C33 Benzo(e)pyrene Benzo(e)pyrene. n-C34 n-C34 Benzo(a)pyrene Benzo(a)pyrene. n-C35 C sub n-C35 C sub Perylene Perylene 3017 alpha ,21 3017 alpha ,21 ideno(g,h,i)py ideno(g,h,i)pyre beta -hopane beta -hopane rene ne. 5 alpha - 5 alpha - Dibenzo(a,h)an Dibenzo(a,h)anth androstane androstane thracene racene. C1-naphthalene Naphthalene Benzo(1,2,3- Benzo(1,2,3- cd)perylene cd)perylene.

11. Use equation 7 to calculate the concentration of analytes in ng / mg(ppm) oil:

Concentration(ng / mg)(A sub xI sub sV sub tx 1,000) / (A sub is(RRF)V sub iM sub o)(7)

where: a sub x peak area of characteristic ion for compound being measured I sub s amount of internal standard injected, in ng(i.e., 20 ng)

V sub t volume of the total DCM extract(50 ml) a sub is peak area of the characteristic ion of the internal standard

RRF relative response factor

V sub i volume of the extract injected(2 mu l)

M sub o total mass of the oil added to the flask, mg

12. Compute the "normalized concentrations" for each target analyte concentration at a given sampling time(equation 7) by simply dividing by the conserved internal marker concentration at the same sampling time.

4.6.4 Generally accepted laboratory procedures. Samples are immediately logged into the laboratory, where they will be given a unique sample identification based on Julian data and the number logged in. Prior to the analysis of any experimental samples, a five-point standard curve is prepared. One of the mid-range standard curve concentration levels is analyzed daily before sample analysis as a continuing standard. RRFs for all target analytes should be within 25% of the standard curve response values at day 0, and at any sampling event the check standard percent difference from the initial five-point calibration must not exceed 20% between the before and after daily standard mix(see below). The collected GC/MS data are initially processed by a macro routine, which performs extracted chromatographic plots of the target compounds, integrates the target compounds, and shows integration results to include tabular numbers. The integration values are then transferred to a spreadsheet format to be quantified. Because of the complexity of the analyte matrix(oil), a very high degree of manual verification and reintegration of the spectral data is required.

4.6.5 QA/QC procedures. The reliability of this method is dependent on the QA/QC procedures followed. Before and after each analytical batch(approximately 10 samples), analyze one procedural blank, one duplicate, and one calibration verification standard(10 ng/ mu l). Analyze one reference crude oil standard. The instrument's performance and reproducibility are validated routinely in this manner. Surrogate recoveries should be within 70 to 120%, and duplicate relative percent difference values should be +/- 20%. A control chart of the standard oil should be prepared and monitored. Variations of analytes in the control chart should be no more than 25% from the historical averages. Injection port discrimination for n-C25 and greater alkanes must be carefully monitored; the ratio of RRF n-C32/RRF n-C21 alkanes should not be allowed to fall below 80%. The mass discrimination can be reduced by replacing the quartz liner in the injection port after every analytical batch. The instrument's performance and reproducibility are validated routinely by analyzing the reference crude oil standard. All analyses are recorded in instrument logs detailing operating conditions, date and time, file name, etc. After analysis, the sample extracts are archived at refrigeration temperatures. To document QA/QC, the following information is contained in the detailed quantitative reports: average RRF derived from the standard curve; RRF from the daily standard; percent relative standard deviation; area of target analyte; concentration determined both on a weight and volume basis; and values for any surrogates and internal standards.

4.6.6 Instrument configuration and calibration. A 2-ml aliquot of the hexane extract prepared by the above procedure is injected into a GC/MS instrument, such as the Hewlett-Packard 5890/5971 GC/MS(recommended for use). This instrument should be equipped with a DB- 5 capillary column(30 m, 0.25-mm I.D., and 0.25- mu m film thickness) and a split/splitless injection port operating in the splitless mode. Table 9 summarizes the temperature program used for the analysis. This temperature program has been optimized to give the best separation and sensitivity for analysis of the desired compounds on the instrument. Prior to the sample analysis, a five- point calibration must be conducted on a standard mix of the compounds listed in Table 7 to determine RRFs for the analyses.

Table 9.- Operating Conditions and Temperature Program of GC/MS

Operating conditions

Injector port-290 degrees C Transfer line-320 degrees C Total run time-73 minutes Column flow rate(He)-1.0 ml/minute

Temperature Program

Level Temp. 1, Time 1, Rate, degrees C minutes degrees C / minute

Level 1 55 3 5 Level 2 280 0 3

Level Temp 2, Time 2, degrees C minutes

Level 1 280 5 Level 2 310 10

4.7 Statistical analysis. The determination of a bioremediation agent's effectiveness will be partially based upon the results of a statistical analysis of the shaker flask experiment. The experimental design for this test is a two factorial design. This two-way analysis of variance(ANOVA) will be used to determine data trends. The statistical method is designed to test various types of bioremediation treatments including microbial, nutrient, enzyme, and combination products. The following is a summary of the statistical methods to be used to evaluate the analytical data obtained from all product tests. The experimental design, data analysis methodology, interpretation of results, required documentation, and a numeric example are outlined below.

4.7.1 Experimental design. The experimental design for this test is known as a factorial experiment with two factors. The first factor is product / control group; the second factor is time(measured in days). For example, if two groups(product A and a non-nutrient control) are tested at each of three points in time(day 0, 7, and 28), the experiment is called a 2x3 factorial experiment. There will be three replications(replicated shaker flasks) of each group-time combination.

4.7.2 Data analysis methods. For each analyte and each product used, a product is considered a success by the demonstration of a statistically significant difference between the mean analyte degradation by the product and the mean analyte degradation by the non-nutrient control. Such a determination will be made by performing an ANOVA on the sample data. The technical aspects of this procedure are outlined in Snedecor and Cochran(12). Most statistical software packages support the use of two-way ANOVA. However, the format required for the input data differs among the various commercial packages. Whichever package is used, the following ANOVA table will be provided as part of the output. In the Degree of Freedom column of Table 10, p the number of product / control groups, t the number of days at which each group is analyzed, and n the number of replications. For the example of the 2x3 factorial experiment discussed above, p 2, t 3, and n 3. The significance of the F- statistics(as indicated by their corresponding p-values) are used to interpret the analysis.

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Table 10.- Two-Way ANOVA Table

Source Degree of Sum of squares Mean square freedom(df)

Group p-1 SSG MSG-MSG / MSE Time t-1 SST MST-MST / MSE Interaction(p-1)(t-1) SSI MSI-MSI / MSE Error pt(n-1) SSE MSE-SSE

Total npt-1 SSTOT

Source F-Statistic p-Value

Group MSG / MSE fn 1 Time MST / MSE fn 1 Interaction MSI / MSE fn 1 Error

Total fn 1 To be determined from the value of the F-statistic.

4.7.3 Interpretation. 4.7.3.1 If the F-statistic for the interaction is significant at the 0.05 level(i.e., p-value is less than 0.05), the data indicate that the mean response of at least two groups being tested differ for at least one point in time. In order to find out which groups and at which points in time the difference occurs, pairwise comparisons between the group means should be conducted for all time points. These comparisons can be made using protected least squared difference(LSD) or Dunnett mean separation techniques. The protected LSD procedure is detailed in Snedecor and Cochran(12); the Dunnett procedure is outlined in Montgomery(13). For both methods, the mean square error(MSE) from the two-way ANOVA table should be used to compute the separation values.

4.7.3.2 If the F-statistic for the interaction is not significant at the 0.05 level(i.e., p-value not less than 0.05), but the F-statistic for the group is significant(i.e., p-value is less than 0.05), the data indicate that any differences that exist among the group means are consistent across time. To find out which group means differ, a pairwise comparison of the group means should be carried out by pooling data across all points in time. Again, the MSE from the two- way ANOVA table should be used to compute the separation values. 4.7.3.3 If the F-statistic corresponding to both interaction and group are not significant at the 0.05 level, the data indicate no difference between the group means at any point in time. In this case, no further analysis is necessary.

4.7.3.4 Finally, Snedecor and Cochran(12) use caution concerning the use of multiple comparisons. If many such comparisons are being conducted, then about 5% of the tested differences will erroneously be concluded as significant. The researcher must guard against such differences causing undue attention.

4.7.4 Required documentation. 4.7.4.1 The following documents should be included to summarize the findings from a product test.

1. Data listings for each analyte that was analyzed. These should show all raw data.

2. A table of summary statistics for each analyte. The table should include the mean, standard deviation, and sample size for each group at each day.

3. An ANOVA table for each analyte. The table should be of the same format as Table 10.

4. A clear summary of the mean separations(if mean separations were necessary). The mean separation methods(LSD or Dunnett), the significance level, the minimum significant difference value, and the significant differences should be clearly marked on each output page.

5. All computer outputs should be included. No programming alterations are necessary. The specific computer package used to analyze the data should be included in the report.

Example. An analysis of the total aromatic data(in ppm) was conducted for the following three groups:

Group 1: Non-nutrient Control

Group 2: Nutrient Control

Group 3: Test Product

4.7.4.2 The raw data are shown in Table 11. Note the three replications for each group-time combination. Table 11.- Product Test Data, Total Aromatics(ppm)

Group 1 Group 2 Group 3

Day 0 8153 7912 7711 8299 8309 8311 8088 8111 8200 Day 7 8100 7950 6900 8078 8200 6702 7999 8019 5987 Day 28 8259 8102 4000 8111 7754 3875 8344 7659 3100

4.7.4.3 Table 12 gives the summary statistics(number of observations, means, and standard deviations) for each group-time combination.

Table 12.- Summary Statistics for Product Test Data Total Aromatics(ppm) Time Product n Mean Standard deviation

Day 0 Group 1 3 8,180.0 108.1 Group 2 3 8,110.7 198.5 Group 3 3 8,074.0 319.2 Day 7 Group 1 3 8,059.0 53.1 Group 2 3 8,056.3 129.1 Group 3 3 6,529.7 480.3 Day 28 Group 1 3 8,238.0 117.9 Group 2 3 7,838.3 233.2 Group 3 3 3,658.3 487.6

4.7.4.4 Table 13 shows the results of the two-way ANOVA.

Table 13.- Example Two-Way ANOVA Table

Source df Sum of squares

Group 2 23,944,856.41 Time 2 10,954,731.19 Interaction 4 19,347,589.04 Error 18 1,418,303.33

Total 26 55,665,480.96

Source Mean square F-statistic p-value

Group 11,972,428.70 151.94 0.0001 Time 5,477,365.59 69.51 0.0001 Interaction 4,836,897.26 61.39 0.0001 Error 78,794.63

Total

4.7.4.5 From Table 13, it can be seen that the F-statistic for interaction is significant(F 61.39, p 0.0001). This indicates that group differences exist for one or more days. Protected LSD mean separations were then conducted for each day to determine which group differences exist. The results are summarized in Table 14. Note that means with the same letter(T grouping) are not significantly different.

Table 14.- Pairwise Protected LSD Mean Separation

T grouping Mean n Interaction

A 8,338.0 3 Group 1, Day 28. A 8,180.0 3 Group 1, Day 0. A 8,110.7 3 Group 2, Day 0. A 8,074.0 3 Group 3, Day 0. A 8,059.0 3 Group 1, Day 7. A 8,056.3 3 Group 2, Day 7. A 7,838.3 3 Group 2, Day 28. B 6,529.7 3 Group 3, Day 7. C 3,658.3 3 Group 3, Day 28.

fn Significant Level 0.05.

fn Degrees of Freedom 18.

fn Mean Square Error 78794.63. fn Critical Value 2.10.

fn Least Significant Difference 481.52.

4.7.4.6 The grouping letters indicate that the product mean values(group 3) at day 7 and day 28 are significantly different from those of both the nutrient control(group 2) and the non-nutrient control(group 1) for those days. No other significant differences are shown. Therefore, in terms of total aromatic degradation, the test indicates the desired statistically significant difference between the mean of the product and the mean of the non-nutrient control.

5.0 Bioremediation agent toxicity test Reserved .

6.0 Summary technical product test data format.

The purpose of this format is to summarize in a standard and convenient presentation the technical product test data required by the U.S. Environmental Protection Agency before a product may be added to EPA's NCP Product Schedule, which may be used in carrying out the National Oil and Hazardous Substances Pollution Contingency Plan. This format, however, is not to preclude the submission of all the laboratory data used to develop the data summarized in this format. Sufficient data should be presented on both the effectiveness and toxicity tests to enable EPA to evaluate the adequacy of the summarized data. A summary of the technical product test data should be submitted in the following format. The numbered headings should be used in all submissions. The subheadings indicate the kinds of information to be supplied. The listed subheadings, however, are not exhaustive; additional relevant information should be reported where necessary. As noted, some subheadings may apply only to particular types of agents.

I. Name, Brand, or Trademark

II. Name, Address, and Telephone Number of Manufacturer

III. Name, Address, and Telephone Numbers of Primary Distributors

IV. Special Handling and Worker Precautions for Storage and Field application

1. Flammability. 2. Ventilation.

3. Skin and eye contact; protective clothing; treatment in case of contact.

4. Maximum and minimum storage temperatures; optimum storage temperature range; temperatures of phase separations and chemical changes.

V. Shelf Life

VI. Recommended Application Procedure

1. Application method.

2. Concentration, application rate(e.g., gallons of dispersant per ton of oil).

3. Conditions for use: water salinity, water temperature, types and ages of pollutants.

VII. Toxicity(Dispersants, Surface Washing Agents, Surface Collecting agents, and Miscellaneous Oil Spill Control Agents) Materials Tested Species LC sub 50(ppm)

Product Menidia beryllina 96-hr. 48-hr. Mysidopsis bahia 2 No. 2 fuel oil Menidia beryllina 96-hr. 48-hr. Mysidopsis bahia Product and No. 2 Menidia beryllina 96-hr. 48-hr. fuel oil(1:10) Mysidopsis bahia

VIII.(a). Effectiveness(bioremediation agents). Raw data must be reported according to the format shown below. The first column lists the names of the analytes measured by GC / MS(SIM), the surrogate standards, and various ratios and sums. In the next three columns, the concentration of the analytes(ng / mg oil), the concentration of the analytes corrected for the recovery of the surrogate standard(alpha -androstane for alkanes, d sub 10-phenanthrene for aromatics), and the concentration of corrected analytes normalized against the conserved internal marker, respectively, are reported for the first replicate from the first sampling event. These three columns are each repeated for the next two replicates, giving 9 total columns for the product of interest. The next 9 columns are the same as the product columns except they are for the non-nutrient control. The last nine columns are for the nutrient control. Thus, a total of 28 columns are needed in the spreadsheet. This spreadsheet is for the first sampling event(day 0). Two more identical spreadsheets will be needed for each of the next two sampling events(days 7 and 28). For the statistical analysis, a report showing the two-way analysis of variance(ANOVA) table created by the software used by the investigator must be shown in its entirety along with the name of the software package used. Another printout showing the mean separation table(protected LSD test results) generated by the software must be reported. The statistical analyses are conducted using the sum of the alkane concentrations and the sum of the aromatics concentrations from the raw data table. Thus, two ANOVAs are run for each sampling event, one for total alkanes and one for total aromatics, giving a total of 6 ANOVAs for a product test(2 ANOVAs x 3 sampling events). Only if significant differences are detected by a given ANOVA will it be necessary to run a protected LSD test.

Bioremediation Agent Effectiveness Test Raw Data

Date: . Testing Date: 0, 7, 28(Circle One). Initial Oil Weight: .

Product Replicate 1 Product Replicate 2 Concentrati Surrogate Normalized on ng / mg corrected to marker ng / mg ng / mg

Alkane Analyte n-C10 n-C11 n-C12 n-C13 n-C14 n-C15 n-C16 n-C17 pristane n-C18 phytane n-C19 n-C20 n-C21 n-C22 n-C23 n-C24 n-C25 n-C26 n-C27 n-C28 n-C29 n-C30 n-C31 n-C32 n-C33 n-C34 n-C35 n-C36 alpha - androstane Total alkanes n- C17:pristan e n- C18:phytane

Aromatic Analyte: naphthalene C1- naphthalene s C2- naphthalene s C3- naphthalene s C4- naphthalene s dibenzothio phene fluorene C1- fluorenes C2- fluorenes C3- fluorenes C1- dibenzothio phenes C2- dibenzothio phenes C3- dibenzothio phenes phenanthren e anthracene C1- phenanthren es C2- phenanthren es C3- phenanthren es naphthobenz othio C1- naphthobenz othio C2- naphthobenz othio C3- naphthobenz othio fluoranthen e pyrene C1-pyrenes C1-pyrenes chrysene benzo(a)ant hracene C1- chrysenes c2- chrysenes benzo(b)flu oranth benzo(k)flu oranth benzo(e)pyr ene benzo(a)pyr ene perylene indeno(1,2, 3-cd)per benzo(g,h,i)pyrene dibenz(ah)a nthrac alpha , beta - hopane d8- naphthalene d10- phenanthren e d12- chrysene d12- perylene

Total aromatics Grav. weight oil No. oil degraders / m l

VIII.(b). Toxicity(Bioremediation Agents) Reserved

IX. Microbiological Analysis(Bioremediation Agents)

X. Physical Properties of Dispersant / Surface Washing Agent / Surface Collecting Agent / Miscellaneous Oil Spill Control Agent:

1. Flash Point:(degrees F)

2. Pour Point:(degrees F)

3. Viscosity: at degrees F(furol seconds)

4. Specific Gravity: at degrees F

5. pH:(10% solution if hydrocarbon based)

6. Surface Active Agents(Dispersants and Surface Washing Agents) fn 2

fn 2 If the submitter claims that the information presented under this subheading is confidential, this information should be submitted on a separate sheet of paper clearly labeled according to the subheading and entitled "Confidential Information."

7. Solvents(Dispersants and Surface Washing Agents) 2

8. Additives(Dispersants and Surface Washing Agents)

9. Solubility(Surface Collecting Agents)

XI. Analysis for Heavy Metals, Chlorinated Hydrocarbons, and Cyanide(Dispersants, Surface Washing Agents, Surface Collecting Agents, and Miscellaneous Oil Spill Control Agents):

Compounds Concentration(ppm)

Arsenic Cadmium Chromium Copper Lead Mercury Nickel Zinc Cyanide Chlorinated Hydrocarbons

References

(1) L.T. McCarthy, Jr., I. Wilder, and J.S. Dorrier. Standard Dispersant Effectiveness and Toxicity Tests. EPA Report EPA-R2-73-201(May 1973).

(2) M.F. Fingas, K.A. Hughes, and M.A. Schwertzer. "Dispersant Testing at the Environmental Emergencies Technology Division." Proc. Tenth Arctic Marine Oilspill Program Technical Seminar. 9-11 June, 1987. Edmonton, alberta, Canada. Conservation and Protection, Environment Canada. pp. 343-356.

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(5) D.P. Middaugh, M.J. Hemmer, and L. Goodman. Methods for Spawning, Cultureing and Conducting Toxicity- tests with Early Life Stages of Four antherinid Fishes: the Inland Silverside, Menidia beryllina, Atlantic Silverside, M. menidia, Tidewater Silverside, M. penisulae, and California Grunion, Lesthes tenuis. Office of Research and Development, U.S. Environmental Protection Agency, Washington, D.C. EPA 600/8-87/004, 1987.

(6) U.S. EPA. Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms. Fourth edition. U.S. Environmental Protection Agency, Washington, D.C. EPA 600/4- 90/027, 1991.

(7) G.S. Douglas, et al. "The Use of Hydrocarbon Analyses for Environmental Assessment and Remediation." In: P.T. Kostecki and E.J. Calabrese(eds.), Contaminated Soils, Diesel Fuel Contamination. Lewis Publishers, Ann Arbor, MI, 1992.(8) Draft International Standard ISO/DIS 8708 "Crude Petroleum Oil- Determination of Distillation Characteristics Using 15 Theoretical Plates Columns." International Organization for Standardization.

(9) Standard Methods for the Examination of Water and Wastewater, 17th Edition, American Public Health Association, 1989.

(10) U.S. EPA. Test Method for Evaluating Solid Waste: SW- 846. Third edition. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, Washington, D.C., 1986.

(11) M.C. Kennicutt II. "The Effect of Bioremediation on Crude Oil Bulk and Molecular Composition." In: Oil Chemical Pollution, 4:89-112, 1988.

(12) G.W. Snedecor and W.G. Cochran. Statistical Methods, 7th edition, The Iowa State University Press, Ames, Iowa, 1980.

(13) D.C. Montgomery. Design and Analysis of Experiments. Third edition. John Wiley & Sons, New York, NY, 1991.

13. Appendix E to part 300 is added to read as follows: appendix E To Part 300

Oil Spill Response

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1.0 Introduction.

1.1 Background. The Oil Pollution Act of 1990(OPA) amends the Federal Water Pollution Control Act(FWPCA), commonly referred to as the Clean Water Act(CWA), to require the revision of the National Oil and Hazardous Substances Pollution Contingency Plan(NCP). In revising the NCP, the need to separate the response requirements for oil discharges and release of hazardous substances, pollutants, and contaminants became evident.

1.2 Purpose/objective. This document compiles general oil discharge response requirements into one appendix to aid participants and responders under the national response system(NRS). This appendix provides the organizational structure and procedures to prepare for and respond to oil discharges. Nothing in this appendix alters the meaning or policy stated in other sections or subparts of the NCP.

1.3 Scope.

(a) This appendix applies to discharges of oil into or upon the navigable waters of the United States and adjoining shorelines, the waters of the contiguous zone, or waters of the exclusive economic zone, or which may affect the natural resources belonging to, appertaining to, or under the exclusive management authority of the United States.

(b) This appendix is designed to facilitate efficient, coordinated, and effective response to discharges of oil in accordance with the authorities of the CWA. It addresses:

(1) The national response organization that may be activated in response actions, the responsibilities among the federal, state, and local governments, and the resources that are available for response.

(2) The establishment of regional and area contingency plans.

(3) Procedures for undertaking removal actions pursuant to section 311 of the CWA.(4) Listing of federal trustees for natural resources for purposes of the CWA.

(5) Procedures for the participation of other persons in response actions.

(6) Procedures for compiling and making available cost documentation for response actions.

(7) National procedures for the use of dispersants and other chemicals in removals under the CWA.

(c) In implementing the NCP provisions compiled in this appendix, consideration shall be given to international assistance plans and agreements, security regulations and responsibilities based on international agreements, federal statutes, and executive orders. Actions taken pursuant to the provisions of any applicable international joint contingency plans shall be consistent with the NCP to the greatest extent possible. The Department of State shall be consulted, as appropriate, prior to taking action that may affect its activities.

1.4 Abbreviations. This section of the appendix provides abbreviations relating to oil.

(a) Department and Agency Title Abbreviations: aTSDR-Agency for Toxic Substances and Disease Registry

CDC-Centers for Disease Control

DOC-Department of Commerce

DOD-Department of Defense

DOE- Department of Energy

DOI-Department of Interior

DOJ-Department of Justice

DOL-Department of Labor

DOS-Department of State DOT- Department of Transportation

EPA-Environmental Protection Agency

FEMA-Federal Emergency Management Agency

GSA-General Services Administration

HHS-Department of Health and Human Services

NIOSH-National Institute for Occupational Safety and Health

NOAA-National Oceanic and Atmospheric Administration

OSHA- Occupational Safety and Health Administration

RSPA-Research and Special Programs Administration

USCG-United States Coast Guard

USDA-United States Department of Agriculture Note: Reference is made in the NCP to both the Nuclear Regulatory Commission and the National Response Center. In order to avoid confusion, the NCP will spell out Nuclear Regulatory Commission and use the abbreviation "NRC" only with respect to the National Response Center.

(b) Operational Abbreviations: aC-Area Committee aCP-Area Contingency Plan

DRAT-District Response Advisory Team

DRG-District Response Group

ERT-Environmental Response Team

ESF-Emergency Support Functions

FCO-Federal Coordinating Officer

FRERP-Federal Radiological Emergency Response Plan FRP-Federal Response Plan

LEPC-Local Emergency Planning Committee

NCP-National Contingency Plan

NPFC-National Pollution Funds Center

NRC-National Response Center

NRS-National Response System

NRT-National Response Team

NSF-National Strike Force

NSFCC-National Strike Force Coordination Center

OSC-On-Scene Coordinator

OSLTF-Oil Spill Liability Trust Fund POLREP-Pollution Report

PIAT-Public Information Assist Team

RCP-Regional Contingency Plan

RERT- Radiological Emergency Response Team

RRT-Regional Response Team

SERC-State Emergency Response Commission

SONS-Spill of National Significance

SSC-Scientific Support Coordinator

SUPSALV- United States Navy Supervisor of Salvage

USFWS-United States Fish and Wildlife Service

1.5 Definitions. Terms not defined in this section have the meaning given by CERCLA, the OPA, or the CWA. This appendix restates the NCP definitions relating to oil.

Activation means notification by telephone or other expeditious manner or, when required, the assembly of some or all appropriate members of the RRT or NRT.

Area Committee(AC) as provided for by CWA sections 311(a)(18) and(j)(4), means the entity appointed by the President consisting of members from qualified personnel of federal, state, and local agencies with responsibilities that include preparing an area contingency plan for an area designated by the President.

Area contingency plan(ACP) as defined by CWA sections 311(a)(19) and(j)(4) means the plan prepared by an Area Committee that is developed to be implemented in conjunction with the NCP and RCP, in part to address removal of a worst case discharge and to mitigate or prevent a substantial threat of such a discharge from a vessel, offshore facility, or onshore facility operating in or near an area designated by the President.

Bioremediation agents means microbiological cultures, enzyme additives, or nutrient additives that are deliberately introduced into an oil discharge and that will significantly increase the rate of biodegradation to mitigate the effects of the discharge.

Burning agents means those additives that, through physical or chemical means, improve the combustibility of the materials to which they are applied.

CERCLA is the Comprehensive Environmental Response, Compensation, and

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Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986.

Chemical agents means those elements, compounds, or mixtures that coagulate, disperse, dissolve, emulsify, foam, neutralize, precipitate, reduce, solubilize, oxidize, concentrate, congeal, entrap, fix, make the pollutant mass more rigid or viscous, or otherwise facilitate the mitigation of deleterious effects or the removal of the oil pollutant from the water. Chemical agents include biological additives, dispersants, sinking agents, miscellaneous oil spill control agents, and burning agents, but do not include solvents.

Claim in the case of a discharge under CWA means a request, made in writing for a sum certain, for compensation for damages or removal costs resulting from an incident. Claimant as defined by section 1001 of the OPA means any person or government who presents a claim for compensation under Title I of the OPA.

Clean natural seawater means that the source of this seawater must not be heavily contaminated with industrial or other types of effluent.

Coastal waters for the purpose of classifying the size of discharges, means the waters of the coastal zone except for the Great Lakes and specified ports and harbors on inland rivers.

Coastal zone as defined for the purpose of the NCP, means all United States waters subject to the tide, United States waters of the Great Lakes, specified ports and harbors on inland rivers, waters of the contiguous zone, other waters of the high seas subject to the NCP, and the land surface or land substrata, ground waters, and ambient air proximal to those waters. The term coastal zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/USCG agreements and identified in federal regional contingency plans.

Coast Guard District Response Group(DRG) as provided for by CWA sections 311(a)(20) and(j)(3), means the entity established by the Secretary of the department in which the USCG is operating within each USCG district and shall consist of: the combined USCG personnel and

equipment, including firefighting equipment, of each port within the district; additional prepositioned response equipment; and a district response advisory team.

Contiguous zone means the zone of the high seas, established by the United States under Article 24 of the Convention on the Territorial Sea and Contiguous Zone, which is contiguous to the territorial sea and which extends nine miles seaward from the outer limit of the territorial sea.

Damages as defined by section 1001 of the OPA means damages specified in section 1002(b) of the Act, and includes the cost of assessing these damages.

Discharge as defined by section 311(a)(2) of the CWA, includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil, but excludes discharges in compliance with a permit under section 402 of the CWA, discharges resulting from circumstances identified and reviewed and made a part of the public record with respect to a permit issued or modified under section 402 of the CWA, and subject to a condition in such permit, or continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under section 402 of the CWA, that are caused by events occurring within the scope of relevant operating or treatment systems. For purposes of the NCP, discharge also means substantial threat of discharge.

Dispersants means those chemical agents that emulsify, disperse, or solubilize oil into the water column or promote the surface spreading of oil slicks to facilitate dispersal of the oil into the water column.

Exclusive economic zone as defined in OPA section 1001, means the zone established by Presidential Proclamation Numbered 5030, dated March 10, 1983, including the ocean waters of the areas referred to as "eastern special areas" in Article 3(1) of the Agreement between the United States of America and the Union of Soviet Socialist Republics on the Maritime Boundary, signed June 1, 1990.

Facility as defined by section 1001 of the OPA means any structure, group of structures, equipment, or device(other than a vessel) which is used for one or more of the following purposes: exploring for, drilling for, producing, storing, handling, transferring, processing, or transporting oil. This term includes any motor vehicle, rolling stock, or pipeline used for one or more of these purposes. Federal Response Plan(FRP) means the agreement signed by 25 federal departments and agencies in April 1987 and developed under the authorities of the Earthquake Hazards Reduction Act of 1977 and the Disaster Relief Act of 1974, as amended by the Stafford Disaster Relief Act of 1988.

First federal official means the first federal representative of a participating agency of the National Response Team to arrive at the scene of a discharge or a release. This official coordinates activities under the NCP and may initiate, in consultation with the OSC, any necessary actions until the arrival of the predesignated OSC.

Indian tribe as defined in OPA section 1001, means any Indian tribe, band, nation, or other organized group or community, but not including any alaska Native regional or village corporation, which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians and has governmental authority over lands belonging to or controlled by the Tribe.

Inland waters for the purposes of classifying the size of discharges, means those waters of the United States in the inland zone, waters of the Great Lakes, and specified ports and harbors on inland rivers. Inland zone means the environment inland of the coastal zone excluding the Great Lakes, and specified ports and harbors on inland rivers. The term inland zone delineates an area

of federal responsibility for response action. Precise boundaries are determined by EPA / USCG agreements and identified in federal regional contingency plans.

Lead administrative trustee means a natural resource trustee who is designated on an incident-by-incident basis for the purpose of preassessment and damage assessment and chosen by the other trustees whose natural resources are affected by the incident. The lead administrative trustee facilitates effective and efficient communication during response operations between the OSC and the other natural resource trustees conducting activities associated with damage assessment and is responsible for applying to the OSC for access to response operations resources on behalf of all trustees for initiation of damage assessment.

Lead agency means the agency that provides the OSC to plan and implement response actions under the NCP.

Miscellaneous oil spill control agent is any product, other than a dispersant, sinking agent, surface washing agent, surface collecting agent, bioremediation agent, burning agent, or sorbent that can be used to enhance oil spill cleanup, removal, treatment, or mitigation.

National Pollution Funds Center(NPFC) means the entity established by the Secretary of Transportation whose function is the administration of the Oil Spill Liability Trust Fund(OSLTF). Among the NPFC's duties are: providing appropriate access to the OSLTF for federal agencies and states for removal actions and for federal trustees to initiate the assessment of natural resource damages; providing appropriate access to the OSLTF for claims; and coordinating cost recovery efforts.

National Response System(NRS) is the mechanism for coordinating response actions by all levels of government in support of the OSC. The NRS is composed of the NRT, RRTs, OSC, Area Committees, and Special Teams and related support entities.

National Strike Force(NSF) is a special team established by the USCG, including the three USCG Strike Teams, the Public Information Assist Team(PIAT), and the National Strike Force Coordination Center. The NSF is available to assist OSCs in their preparedness and response duties.

National Strike Force Coordination Center(NSFCC), authorized as the National Response Unit by CWA section 311(a)(23) and(j)(2), means the entity established by the Secretary of the department in which the USCG is operating at Elizabeth City, North Carolina, with responsibilities that include administration of the USCG Strike Teams, maintenance of response equipment inventories and logistic networks, and conducting a national exercise program.

Natural resources means land, fish, wildlife, biota, air, water, groundwater, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled by the United States(including the resources of the exclusive economic zone defined by the Magnuson Fishery Conservation and Management Act of 1976), any state or local government, any foreign government, any Indian tribe, or, if such resources are subject to a trust restriction on alienation, any member of an Indian tribe.

Navigable waters as defined by 40 CFR 110.1 means the waters of the United States, including the territorial seas. The term includes:

(a) All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;(b) Interstate waters, including interstate wetlands;

(c) All other waters such as intrastate lakes, rivers, streams(including intermittent streams), mudflats, sandflats, and wetlands, the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

(1) That are or could be used by interstate or foreign travelers for recreational or other purposes;

(2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; and

(3) That are used or could be used for industrial purposes by industries in interstate commerce.

(d) All impoundments of waters otherwise defined as navigable waters under this section;

(e) Tributaries of waters identified in paragraphs(a) through(d) of this definition, including adjacent wetlands; and(f) Wetlands adjacent to waters identified in paragraphs(a) through(e) of this definition: Provided, that waste treatment systems(other than cooling ponds meeting the criteria of this paragraph) are not waters of the United States.

(g) Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.

Offshore facility as defined by section 311(a)(11) of the CWA means any facility of any kind located in, on, or under any of the navigable waters of the United States, and any facility of any kind which is subject to the jurisdiction of the United States and is located in, on, or under any other waters, other than a vessel or a public vessel.

Oil as defined by section 311(a)(1) of the CWA means oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil. Oil, as defined by section 1001 of the OPA means oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil, but does not include petroleum, including crude oil or any fraction thereof, which is specifically listed or designated as a hazardous substance under subparagraphs(A) through(F) of section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act(42 U.S.C. 9601) and which is subject to the provisions of that Act.

Oil Spill Liability Trust Fund means the fund established under section 9509 of the Internal Revenue Code of 1986(26 U.S.C. 9509).

On-scene coordinator(OSC) means the federal official predesignated by the EPA or the USCG to coordinate and direct response under subpart D.

Onshore facility as defined by section 311(a)(10) of the CWA, means any facility(including, but not limited to, motor vehicles and rolling stock) of any kind located in, on, or under any land within the United States other than submerged land.

On-site means the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for implementation of a response action. Person as defined by section 1001 of the OPA, means an individual, corporation, partnership, association, state, municipality, commission, or political subdivision of a state, or any interstate body.

Public vessel as defined by section 311(a)(4) of the CWA, means a vessel owned or bareboat-chartered and operated by the United States, or by a state or political subdivision thereof, or by a foreign nation, except when such vessel is engaged in commerce.

Remove or removal as defined by section 311(a)(8) of the CWA, refers to containment and removal of oil or hazardous substances from the water and shorelines or the taking of such other actions as may be necessary to minimize or mitigate damage to the public health or welfare(including, but not limited to, fish, shellfish, wildlife, public and private property, and shorelines and beaches) or to the environment. For the purpose of the NCP, the term also includes monitoring of action to remove a discharge.

Removal costs as defined by section 1001 of the OPA means the costs of removal that are incurred after a discharge of oil has occurred, or in any case in which there is a substantial threat of a discharge of oil the costs to prevent, minimize, or mitigate oil pollution from such an incident. Responsible party as defined by section 1001 of the OPA means the following:

(a) Vessels-In the case of a vessel, any person owning, operating, or demise chartering the vessel.

(b) Onshore Facilities-In the case of an onshore facility(other than a pipeline), any person owning or operating the facility, except a federal agency, state, municipality, commission, or political subdivision of a state, or any interstate body, that as the owner transfers possession and right to use the property to another person by lease, assignment, or permit.

(c) Offshore Facilities-In the case of an offshore facility(other than a pipeline or a deepwater port licensed under the Deepwater Port Act of 1974(33 U.S.C. 1501 et seq.)), the lessee or permittee of the area in which the facility is located or the holder of a right of use and easement granted under applicable state law or the Outer Continental Shelf Lands Act(43 U.S.C. 1301-1356) for the area in which the facility is located(if the holder is a different person than the lessee or permittee), except a federal agency, state, municipality, commission, or political subdivision of a state, or any interstate body, that as owner transfers possession and right to use the property to another person by lease, assignment, or permit.

(d) Deepwater Ports-In the case of a deepwater port licensed under the Deepwater Port Act of 1974(33 U.S.C. 1501-1524), the licensee.

(e) Pipelines-In the case of a pipeline, any person owning or operating the pipeline.

(f) Abandonment-In the case of an abandoned vessel, onshore facility, deepwater port, pipeline, or offshore facility, the person who would have been responsible parties immediately prior to the abandonment of the vessel or facility.

Sinking agents means those additives applied to oil discharges to sink floating pollutants below the water surface.

Size classes of discharges refers to the following size classes of oil discharges which are provided as guidance to the OSC and serve as the criteria for the actions delineated in subpart D. They are not meant to imply associated degrees of hazard to public health or welfare, nor are they a measure of environmental injury. Any oil discharge that poses a substantial threat to public health or welfare or the

environment or results in significant public concern shall be classified as a major discharge regardless of the following quantitative measures:

(a) Minor discharge means a discharge in inland waters of less than 1,000 gallons of oil or a discharge to the coastal waters of less than 10,000 gallons of oil.

(b) Medium discharge means a discharge of 1,000 to 10,000 gallons of oil to the inland waters or a discharge of 10,000 to 100,000 gallons of oil to the coastal waters.

(c) Major discharge means a discharge of more than 10,000 gallons of oil to the inland waters or more than 100,000 gallons of oil to the coastal waters.

Sorbents means essentially inert and insoluble materials that are used to remove oil and hazardous substances from water through adsorption, in which the oil or hazardous substance is attracted to the sorbent surface and then adheres to it, absorption, in which the oil or hazardous substance penetrates the pores of the sorbent material, or a combination of the two. Sorbents are generally manufactured in particulate form for spreading over an oil slick or as sheets, rolls, pillows, or booms. The sorbent material may consist of, but is not limited to, the following materials:

(a) Organic products-

(1) Peat moss or straw;

(2) Cellulose fibers or cork;

(3) Corn cobs;

(4) Chicken or duck feathers.

(b) Mineral compounds-

(1) Volcanic ash or perlite;

(2) Vermiculite or zeolite.

(c) Synthetic products-

(1) Polypropylene;(2) Polyethylene;

(3) Polyurethane;

(4) Polyester.

Specified ports and harbors means those ports and harbor areas on inland rivers, and land areas immediately adjacent to those waters, where the USCG acts as predesignated on-scene coordinator. Precise locations are determined by EPA/USCG regional agreements and identified in federal regional contingency plans and area contingency plans.

Spill of national significance(SONS) means a spill which due to its severity, size, location, actual or potential impact on the public health and welfare or the environment, or the necessary response effort, is so complex that it requires extraordinary coordination of federal, state, local, and responsible party resources to contain and cleanup the discharge.

State means the several states of the United States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the U.S. Virgin Islands, the Commonwealth of the Northern Marianas, and any other territory or possession over which the

United States has jurisdiction. For purposes of the NCP, the term includes Indian tribes as defined in the NCP except where specifically noted.

Surface collecting agents means those chemical agents that form a surface film to control the layer thickness of oil.

Surface washing agent is any product that removes oil from solid surfaces, such as beaches and rocks, through a detergency mechanism and does not involve dispersing or solubilizing the oil into the water column.

Tank vessel as defined by section 1001 of OPA means a vessel that is constructed or adapted to carry, or that carries, oil or hazardous material in bulk as cargo or cargo residue, and that:(1) is a vessel of the United States;(2) operates on the navigable waters; or(3) transfers oil or hazardous material in a place subject to the jurisdiction of the United States.

Threat of discharge, see definition for discharge.

Trustee means an official of a federal natural resources management agency designated in subpart G of the NCP or a designated state official or Indian tribe or, in the case of discharges covered by the OPA, a foreign government official, who may pursue claims for damages under section 1006 of the OPA.

United States when used in relation to section 311(a)(5) of the CWA, mean the states, the District of Columbia, the Commonwealth of Puerto Rico, the Northern Mariana Islands, Guam, American Samoa, the U.S. Virgin Islands, and the Pacific Island Governments.

Vessel as defined by section 311(a)(3) of the CWA means every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water other than a public vessel.

Volunteer means any individual accepted to perform services by the lead agency which has authority to accept volunteer services(for examples, see 16 U.S.C. 742f(c)). A volunteer is subject to the provisions of the authorizing statute and the NCP.

Worst case discharge as defined by section 311(a)(24) of the CWA means, in the case of a vessel, a discharge in adverse weather conditions of its entire cargo, and in the case of an offshore facility or onshore facility, the largest foreseeable discharge in adverse weather conditions.

2.0 National response system.

2.1 Overview. The national response system(NRS) is the mechanism for coordinating response actions by all levels of government in support of the OSC. The NRS is composed of the National Response Team(NRT), Regional Response Teams(RRTs), On- scene coordinator(OSC), Area Committees, and Special Teams and related support entities. The NRS functions as an incident command system(ICS) under the direction of the OSC. Typical of an ICS, the NRS is capable of expanding or contracting to accommodate the response effort required by the size or complexity of the discharge.

2.2 Priorities.(a) Safety of human life must be given the highest priority during every response action. This includes any search and rescue efforts in the general proximity of the discharge and the insurance of safety of response personnel.

(b) Stabilizing the situation to preclude the event from worsening is the next priority. All efforts must be focused on saving a vessel that has been involved in a grounding, collision, fire or explosion, so that it does not compound the problem. Comparable measures should be taken to

stabilize a situation involving a facility, pipeline, or other source of pollution. Stabilizing the situation includes securing the source of the spill and/or removing the remaining oil from the container(vessel, tank, or pipeline) to prevent additional oil spillage, to reduce the need for follow-up response action, and to minimize adverse impact to the environment.

(c) The response must use all necessary containment and removal tactics in a coordinated manner to ensure a timely, effective response that minimizes adverse impact to the environment.

(d) All parts of this national response strategy should be addressed concurrently, but safety and stabilization are the highest priorities. The OSC should not delay containment and removal decisions unnecessarily and should take actions to minimize adverse impact to the environment that begins as soon as a discharge occurs, as well as actions to minimize further adverse environmental impact from additional discharges.

(e) The priorities set forth in this section are broad in nature, and should not be interpreted to preclude the consideration of other priorities that may arise on a site-specific basis.

2.3 Responsibility.(a) The predesignated OSC has the responsibility to direct response actions and coordinate all other response efforts at the scene of an oil discharge or threatened discharge. The OSC monitors or directs all federal, state, local, and private removal actions, or arranges for the removal of an actual or threatened oil discharge, removing and if necessary, requesting authority to destroy a vessel. Additionally, the CWA requires the OSC to direct all federal, state, local, and private removal actions to any incident that poses a substantial threat to the public health or welfare.

(b) Cleanup responsibility for an oil discharge immediately falls on the responsible party, unless the discharge poses a substantial threat to public health or welfare. In a large percentage of oil discharges, the responsible party shall conduct the cleanup. If the responsible party does conduct the removal, the OSC shall ensure adequate surveillance over whatever actions are initiated.

(1) If effective actions are not being taken to eliminate the threat, or if removal is not being properly done, the OSC should, to the extent practicable under the circumstances, so advise the responsible party. If the responsible party does not respond properly, the OSC shall take appropriate response actions and should notify the responsible party of the potential liability for federal response costs incurred by the OSC pursuant to the OPA and CWA. Where practicable, continuing efforts should be made to encourage response by responsible parties.

(2) If the Administrator of EPA or the Secretary of the department in which the USCG is operating determines that there may be an imminent and substantial threat to the public health or welfare or the environment of the United States(including fish, shellfish, and wildlife, public and private property, shorelines, beaches, habitats, and other living and nonliving natural resources under the jurisdiction or control of the United States, because of an actual or threatened discharge of oil from any vessel or offshore or onshore facility into or upon the navigable waters of the United States), the Administrator or Secretary may request the U.S. attorney General to secure the relief from any person, including the owner or operator of the vessel or facility necessary to abate a threat or, after notice to the affected state, take any other action authorized by section 311 of the CWA including administrative orders, that may be necessary to protect the public health or welfare.

(3) The responsible party is liable for costs of federal removal and damages in accordance with section 311(f) of the CWA, section 1002 of the OPA, and other federal laws.(c) In those incidents where a discharge or threat of discharge poses a substantial threat to the public health or welfare of the United States, the OSC shall direct all federal, state, or private actions to remove

the discharge or to mitigate or prevent the threat of such a discharge, as appropriate. The OSC shall also request immediate activation of the RRT.

(d) During responses to any discharge the OSC may request advice or support from the Special Teams and any local support units identified by the Area Committee. Examples include scientific advice from the Scientific Support Coordinator(SSC), technical guidance or prepositioned equipment from the District Response Group(DRG), or public information assistance from the National Strike Force(NSF).

(e) When an oil discharge exceeds the response capability of the region in which it occurs, transects regional boundaries, or involves a substantial threat to the public health or welfare, substantial amounts of property, or substantial threats to the natural resources, the NRT should be activated as an emergency response team. If appropriate the RRT Chairman may contact the NRT Chairman and request the NRT activation.

3.0 Components of national response system and responsibilities. The NRS is the mechanism for coordinating response actions by all levels of government in support of the OSC. The NRS organization is divided into national, regional, and area levels. The national level comprises the NRT, the National Strike Force

Coordination Center(NSFCC), and the National Response Center(NRC). The regional level is comprised of the RRT. The area level is made up of the OSC, Special Teams, and Area Committees. The basic framework for the response management structure is a system(e.g., a unified command system), that brings together the functions of the federal government, the state government, and the responsible party to achieve an effective and efficient response, where the OSC retains authority.

3.1 National.

3.1.1 National response team.(a) National planning and coordination is accomplished through the NRT. The NRT consists of representatives from the USCG, EPA, Federal Emergency Management Agency(FEMA), Department of Defense(DOD), Department of Energy(DOE), Department of Agriculture(DOA), Department of Commerce(DOC), Department of Health and Human Services(HHS), Department of the Interior(DOI), Department of Justice(DOJ), Department of Labor(DOL), Department of Transportation(DOT), Department of State(DOS), Nuclear Regulatory Commission, and General Services administration(GSA). Each agency shall designate a member to the team and sufficient alternates to ensure representation, as agency resources permit. The NRT will consider requests for membership on the NRT from other agencies. Other agencies may request membership by forwarding such requests to the chair of the NRT(see Figure 1).

(b) The chair of the NRT shall be the representative of the EPA and the vice chair shall be the representative of the USCG, with the exception of periods of activation because of response action. During activation, the chair shall be the member agency providing the OSC. The vice chair shall maintain records of NRT activities along with national, regional, and area plans for response actions.

(c) While the NRT desires to achieve a consensus on all matters brought before it, certain matters may prove unresolvable by this means. In such cases, each agency serving as a participating agency on the NRT may be accorded one vote in NRT proceedings.

(d) The NRT may establish such bylaws, procedures, and committees as it deems appropriate to further the purposes for which it is established.

(e) The NRT shall evaluate methods of responding to discharges, shall recommend any changes needed in the response organization, and shall recommend to the Administrator of EPA changes to the NCP designed to improve the effectiveness of the national response system, including drafting of regulatory language.

(f) The NRT shall provide policy and program direction to the RRTs.

(g) The NRT may consider and make recommendations to appropriate agencies on the training, equipping, and protection of response teams and necessary research, development, demonstration, and evaluation to improve response capabilities.

{SEE ILLUSTRATION(S) IN ORIGINAL DOCUMENT}

(h) Direct planning and preparedness responsibilities of the NRT include:

(1) Maintaining national preparedness to respond to a major discharge of oil that is beyond regional capabilities;

(2) Monitoring incoming reports from all RRTs and activating for a response action, when necessary;(3) Coordinating a national program to assist member agencies in preparedness planning and response, and enhancing coordination of member agency preparedness programs;

(4) Developing procedures, in coordination with the NSFCC, as appropriate, to ensure the coordination of federal, state, and local governments, and private response to oil discharges;

(5) Monitoring response-related research and development, testing, and evaluation activities of NRT agencies to enhance coordination, avoid duplication of effort, and facilitate research in support of response activities;

(6) Developing recommendations for response training and for enhancing the coordination of available resources among agencies with training responsibilities under the NCP;

(7) Reviewing regional responses to oil discharges, including an evaluation of equipment readiness and coordination among responsible public agencies and private organizations; and

(8) Assisting in developing a national exercise program, in coordination with the NSFCC to ensure preparedness and coordination nationwide.

(i) The NRT shall consider matters referred to it for advice or resolution by an RRT.

(j) The NRT should be activated as an emergency response team:

(1) When an oil discharge:

(a) Exceeds the response capability of the region in which it occurs;

(b) Transects regional boundaries; or

(c) Involves a substantial threat to the public health or welfare, substantial amounts of property, or substantial threats to natural resources;

(2) If requested by any NRT member.

(k) When activated for a response action, the NRT will meet at the call of the chair and may:(1) Monitor and evaluate reports from the OSC and recommend to the OSC, through the RRT, actions to combat the discharge;

(2) Request other federal, state and local governments, or private agencies, to provide resources under their existing authorities to combat a discharge, or to monitor response operations; and

(3) Coordinate the supply of equipment, personnel, or technical advice to the affected region from other regions or districts.

3.1.2 National response center.(a) The NRC, located at USCG Headquarters, is the national communications center, continuously manned for handling activities related to response actions, including those involving discharges of oil. The NRC acts as the single point of contact for all pollution incident reporting, and as the NRT communications center. Notice of discharges must be made by telephone through a toll free number or a special number(Telecommunication Device for the Deaf(TDD) and collect calls accepted). Upon receipt of a notification of discharge, the NRC shall promptly notify the OSC. The telephone report is distributed to any interested NRT member agency or federal entity that has established a written agreement or understanding with the NRC.(b) The Commandant, USCG, in conjunction with other NRT agencies, provides the necessary personnel, communications, plotting facilities, and equipment for the NRC.

(c) Notice of an oil discharge in an amount equal to or greater than the reportable quantity must be made immediately in accordance with 33 CFR part 153, subpart B. Notification will be made to the NRC Duty Officer, HQ USCG, Washington, DC, telephone(800) 424-8802 or(202) 267-2675. All notices of discharges received at the NRC will be relayed immediately by telephone to the OSC.

3.1.3 National strike force coordination center. NSFCC, located in Elizabeth City, North Carolina, may assist the OSC by providing information on available spill removal resources, personnel, and equipment. The NSFCC can provide the following support to the OSC:

(a) Technical assistance, equipment, and other resources to augment the OSC staff during spill response;

(b) Assistance in coordinating the use of private and public resources in support of the OSC during a response to or a threat of a worst case discharge of oil;(c) Review of the area contingency plan, including an evaluation of equipment readiness and coordination among responsible public agencies and private organizations;

(d) Assistance in locating spill response resources for both response and planning, using the NSFCC's national and international computerized inventory of spill response resources;

(e) Coordination and evaluation of pollution response exercises; and

(f) Inspection of district prepositioned pollution response equipment.

3.2 Regional.(a) Regional planning and coordination of preparedness and response actions is accomplished through the RRT. In the case of a discharge of oil, preparedness activities shall be carried out in conjunction with Area Committees as appropriate. The RRT agency membership parallels that of the NRT, but also includes state and local representation. The RRT provides:(1) the appropriate regional mechanism for development and coordination of preparedness activities before a response action is taken and for coordination of assistance and advice to the OSC during such response actions; and(2) guidance to Area Committees, as appropriate, to ensure inter-area consistency and consistency of individual ACPs with the RCP and NCP.

(b) The two principal components of the RRT mechanism are a standing team, which consists of designated representatives from each participating federal agency, state governments, and local governments(as agreed upon by the states); and incident-specific teams formed from the standing team when the RRT is activated for a response. On incident-specific teams, participation by the RRT member agencies will relate to the technical nature of the incident and its geographic location.

(1) The standing team's jurisdiction corresponds to the standard federal regions, except for Alaska, Oceania in the Pacific, and the Caribbean area, each of which has a separate standing RRT. The role of the standing RRT includes communications systems and procedures, planning, coordination, training, evaluation, preparedness, and related matters on a regionwide basis. It also includes coordination of Area Committees for these functions in areas within their respective regions, as appropriate.

(2) The role of the incident- specific team is determined by the operational requirements of the response to a specific discharge. appropriate levels of activation and/or notification of the incident-specific RRT, including participation by state and local governments, shall be determined by the designated RRT chair for the incident, based on the RCP. The incident-specific RRT supports the designated OSC. The designated OSC manages response efforts and coordinates all other efforts at the scene of a discharge.

(c) The representatives of EPA and the USCG shall act as co-chairs of the RRTs except when the RRT is activated. When the RRT is activated for response actions, the chair is the member agency providing the OSC.

(d) Each participating agency should designate one member and at least one alternate member to the RRT. Agencies whose regional subdivisions do not correspond to the standard federal regions may designate additional representatives to the standing RRT to ensure appropriate coverage of the standard federal region. Participating states may also designate one member and at least one alternate member to the RRT. Indian tribal governments may arrange with the RRT for representation appropriate to their geographical location. All agencies and states may also provide additional representatives as observers to meetings of the RRT.

(e) RRT members should designate representatives and alternates from their agencies as resource personnel for RRT activities, including RRT work planning, and membership on incident-specific teams in support of the OSCs.(f) Federal RRT members or their representatives should provide OSCs with assistance from their respective federal agencies commensurate with agency responsibilities, resources, and capabilities within the region. During a response action, the members of the RRT should seek to make available the resources of their agencies to the OSC as specified in the RCP and ACP.

(g) RRT members should nominate appropriately qualified representatives from their agencies to work with OSCs in developing and maintaining ACPs.

(h) Affected states are encouraged to participate actively in all RRT activities. Each state Governor is requested to assign an office or agency to represent the state on the

appropriate RRT; to designate representatives to work with the RRT in developing RCPs; to plan for, make available, and coordinate state resources for use in response actions; and to serve as the contact point for coordination of response with local government agencies, whether or not represented on the RRT. The state's RRT representative should keep the State Emergency Response Commission(SERC) apprised of RRT activities and coordinate RRT activities with the SERC. Local governments are invited to participate in activities on the appropriate RRT as

provided by state law or as arranged by the state's representative. Indian tribes are also invited to participate in such activities.

(i) The standing RRT shall recommend changes in the regional response organization as needed, revise the RCP as needed, evaluate the preparedness of the participating agencies and the effectiveness of ACPs for the federal response to discharges, and provide technical assistance for preparedness to the response community. The RRT should:

(1) Review and comment, to the extent practicable, on local emergency response plans or other issues related to the preparation, implementation, or exercise of such plans upon request of a local emergency planning committee;

(2) Evaluate regional and local responses to discharges on a continuing basis, considering available legal remedies, equipment readiness, and coordination among responsible public agencies and private organizations, and recommend improvements;

(3) Recommend revisions of the NCP to the NRT, based on observations of response operations;

(4) Review OSC actions to ensure that RCPs and ACPs are effective;(5) Encourage the state and local response community to improve its preparedness for response;

(6) In coordination with the Area Committee and in accordance with any applicable laws, regulations, or requirements, conduct advance planning for use of dispersants, surface washing agents, surface collecting agents, burning agents, bioremediation agents, or other chemical agents in accordance with subpart J of this part;

(7) Be prepared to provide response resources to major discharges or releases outside the region;

(8) Conduct or participate in training and exercises as necessary to encourage preparedness activities of the response community within the region;

(9) Meet at least semiannually to review response actions carried out during the preceding period, consider changes in RCPs, and recommend changes in ACPs;

(10) Provide letter reports on RRT activities to the NRT twice a year, no later than January 31 and July 31; and(11) Ensure maximum participation in the national exercise program for announced and unannounced exercises.

(j)(1) The RRT may be activated by the chair as an incident-specific response team when a discharge:

(a) Exceeds the response capability available to the OSC in the place where it occurs;

(b) Transects state boundaries;

(c) May pose a substantial threat to the public health or welfare, or to regionally significant amounts of property; or

(d) Is a worst case discharge, as defined in section 1.5 of this appendix.

(2) The RRT shall be activated during any discharge upon a request from the OSC, or from any RRT representative, to the chair of the RRT. Requests for RRT activation shall later be confirmed in writing. Each representative, or an appropriate alternate, should be notified immediately when the RRT is activated.(3) During prolonged removal or remedial action, the RRT may not

need to be activated or may need to be activated only in a limited sense, or may need to have available only those member agencies of the RRT who are directly affected or who can provide direct response assistance.

(4) When the RRT is activated for a discharge or release, agency representatives will meet at the call of the chair and may:

(a) Monitor and evaluate reports from the OSC, advise the OSC on the duration and extent of response, and recommend to the OSC specific actions to respond to the discharge;

(b) Request other federal, state, or local governments, or private agencies, to provide resources under their existing authorities to respond to a discharge or to monitor response operations;

(c) Help the OSC prepare information releases for the public and for communication with the NRT;

(d) If the circumstances warrant, make recommendations to the regional or district head of the agency providing the OSC that a different OSC should be designated; and(e) Submit pollution reports to the NRC as significant developments occur.

(5) RCPs shall specify detailed criteria for activation of RRTs.

(6) At the regional level, a Regional Response Center(RRC) may provide facilities and personnel for communications, information storage, and other requirements for coordinating response. The location of each RRC should be provided in the RCP.

(7) When the RRT is activated, affected states may participate in all RRT deliberations. State government representatives participating in the RRT have the same status as any federal member of the RRT.

(8) The RRT can be deactivated when the incident-specific RRT chair determines that the OSC no longer requires RRT assistance.

(9) Notification of the RRT may be appropriate when full activation is not necessary, with systematic communication of pollution reports or other means to keep RRT members informed as to actions of potential concern to a particular agency, or to assist in later RRT evaluation of regionwide response effectiveness.(k) Whenever there is insufficient national policy guidance on a matter before the RRT, a technical matter requiring solution, a question concerning interpretation of the NCP, or a disagreement on discretionary actions among RRT members that cannot be resolved at the regional level, it may be referred to the NRT for advice.

3.3 Area.

3.3.1 On-scene coordinator. The OSC is the federal official predesignated by EPA or the USCG to coordinate and direct federal responses under subpart D of the NCP. The USCG shall provide OSCs for oil discharges, including discharges from facilities and vessels under the jurisdiction of another federal agency, within or threatening the coastal zone. EPA shall provide OSCs for discharges into or threatening the inland zone. In carrying out a response, the OSC may direct or monitor all federal, state, and private actions to remove a discharge. In contingency planning and removal, the OSC coordinates, directs, and reviews the work of other agencies, Area Committees, responsible parties, and contractors to assure compliance with the NCP, decision document, consent decree, administrative order, and lead agency-approved plans applicable to the response.

3.3.2 Area committees.(a) Area Committees shall be responsible for:(1) preparing an ACP for their areas;(2) working with appropriate federal, state, and local officials to enhance the contingency planning of those officials and to assure pre-planning of joint response efforts, including appropriate procedures for mechanical recovery, dispersal, shoreline cleanup, protection of sensitive environmental areas, and protection, rescue, and rehabilitation of fisheries and wildlife; and(3) working with appropriate federal, state, and local officials to expedite decisions for the use of dispersants and other mitigating substances and devices.

(b) The OSC is responsible for overseeing development of the ACP in the area of the OSC's responsibility. The ACP, when implemented in conjunction with other provisions of the NCP, shall be adequate to remove a worst case discharge, and to mitigate and prevent a substantial threat of such a discharge, from a vessel, offshore facility, or onshore facility operating in or near the area.

3.3.3 Special teams.(a) Special teams include: NOAA/EPA's SSCs; EPA's Environmental Response Team(ERT); and USCG's NSF; DRGs; and NPFC(see Figure 2).

(b) SSCs may be designated by the OSC as the principal advisors for scientific issues, communication with the scientific community, and coordination of requests for assistance from state and federal agencies regarding scientific studies. The SSC strives for a consensus on scientific issues affecting the response, but ensures that differing opinions within the community are communicated to the OSC.

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(1) Generally, SSCs are provided by NOAA in the coastal zones, and by EPA in the inland zone. OSC requests for SSC support may be made directly to the SSC assigned to the area or to the agency member of the RRT. NOAA SSCs may also be requested through NOAA's SSC program office in Seattle, WA. NOAA SSCs are assigned to USCG Districts and are supported by a scientific support team that includes expertise in environmental chemistry, oil slick tracking, pollutant transport modeling, natural resources at risk, environmental tradeoffs of countermeasures and cleanup, and information management.

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Figure 2

National Response System Special Terms

/ PIAT / National ----------/ National Strike / Strike ---------- Force Coordination / Force Center / / /District Atlantic / / Response Gulf Pacific / / Groups Strike Teams / / / / National District / / Pollution Response / / / Funds Advisory Team / / / Center OSC ---------- Scientific Support Cordinator Environmental Response Team Radiological Emergency Response Team

(2) During a response, the SSC serves on the federal OSC's staff and may, at the request of the OSC, lead the scientific team and be responsible for providing scientific support for operational decisions and for coordinating on-scene scientific activity. Depending on the nature and location of the incident, the SSC integrates expertise from governmental agencies, universities, community representatives, and industry to assist the OSC in evaluating the hazards and potential effects of releases and in developing response strategies.

(3) At the request of the OSC, the SSC may facilitate the OSC's work with the lead administrative trustee for natural resources to ensure coordination between damage assessment data collection efforts and data collected in support of response operations.

(4) SSCs support the RRTs and the Area Committees in preparing regional and area contingency plans and in conducting spill training and exercises. For area plans, the SSC provides leadership for the synthesis and integration of environmental information required for spill response decisions in support of the OSC.

(c)(1) SUPSALV has an extensive salvage/search and recovery equipment inventory with the requisite knowledge and expertise to support these operations, including specialized salvage, firefighting, and petroleum, oil and lubricants offloading capability.

(2) When possible, SUPSALV will provide equipment for training exercises in support of national and regional contingency planning objectives.

(3) The OSC/RPM may request assistance directly from SUPSALV. Formal requests are routed through the Chief of Naval Operations(N312).

(d) The ERT is established by the EPA in accordance with its disaster and emergency responsibilities. The ERT has expertise in treatment technology, biology, chemistry, hydrology, geology and engineering.

(1) The ERT can provide access to special decontamination equipment and advice to the OSC in hazard evaluation; risk assessment; multimedia sampling and analysis program; on-site safety, including development and implementation plans; cleanup techniques and priorities; water supply decontamination and protection; application of dispersants; environmental assessment; degree of cleanup required; and disposal of contaminated material. The ERT also provides both introductory and intermediate level training courses to prepare response personnel.

(2) OSC or RRT requests for ERT support should be made to the EPA representative on the RRT; EPA Headquarters, Director, Emergency Response Division; or the appropriate EPA regional emergency coordinator.

(e) The NSF is a special team established by the USCG, including the three USCG Strike Teams, the Public Information Assist Team(PIAT), and the NSFCC. The NSF is available to assist OSCs in their preparedness and response duties.

(1) The three Strike Teams(Atlantic, Gulf, and Pacific) provide trained personnel and specialized equipment to assist the OSC in training for spill response, stabilizing and containing the spill, and in monitoring or directing the response actions of the responsible parties and/or contractors. The OSC has a specific team designated for initial contact and may contact that team directly for any assistance.

(2) The NSFCC can provide the following support to the OSC:

-Technical assistance, equipment and other resources to augment the OSC staff during spill response;

-Assistance in coordinating the use of private and public resources in support of the OSC during a response to or a threat of a worst case discharge of oil;

-Review of the ACP, including an evaluation of equipment readiness and coordination among responsible public agencies and private organizations;

-Assistance in locating spill response resources for both response and planning, using the NSFCC's national and international computerized inventory of spill response resources;

-Coordination and evaluation of pollution response exercises; and

-Inspection of district prepositioned pollution response equipment.(3) PIAT is an element of the NSFCC staff which is available to assist OSCs to meet the demands for public information during a response or exercise. Its use is encouraged any time the OSC requires outside public affairs support. Requests for PIAT assistance may be made through the NSFCC or NRC.

(f)(1) The DRG assists the OSC by providing technical assistance, personnel, and equipment, including pre-positioned equipment. Each DRG consists of all Coast Guard personnel and equipment, including marine firefighting equipment, in its district, additional pre-positioned equipment, and a District Response Advisory Team(DRAT) that is available to provide support to the OSC in the event that a spill exceeds local response capabilities. Each DRG:

(a) Shall provide technical assistance, equipment, and other resources as available when requested by an OSC through the USCG representative to the RRT;

(b) Shall ensure maintenance of all USCG response equipment within its district;

(c) May provide technical assistance in the preparation of the ACP; and(d) Shall review each of those plans that affect its area of geographic responsibility.

(2) In deciding where to locate personnel and pre-positioned equipment, the USCG shall give priority emphasis to:

(a) The availability of facilities for loading and unloading heavy or bulky equipment by barge;

(b) The proximity to an airport capable of supporting large military transport aircraft;

(c) The flight time to provide response to oil spills in all areas of the Coast Guard district with the potential for marine casualties;

(d) The availability of trained local personnel capable of responding in an oil spill emergency; and

(e) Areas where large quantities of petroleum products are transported.

(g) The NPFC is responsible for implementing those portions of Title I of the OPA that have been delegated to the Secretary of the department in which the Coast Guard is operating. The NPFC is responsible for addressing funding issues arising from discharges and threats of discharges of oil. The NPFC:

(1) Issues Certificates of Financial Responsibility to owners and operators of vessels to pay for costs and damages that are incurred by their vessels as a result of oil discharges;(2) Provides funding for various response organizations for timely abatement and removal actions related to oil discharges;

(3) Provides equitable compensation to claimants who sustain costs and damages from oil discharges when the responsible party fails to do so;

(4) Recovers monies from persons liable for costs and damages resulting from oil discharges to the full extent of liability under the law; and

(5) Provides funds to initiate natural resources damage assessment.

(h) The organizational concepts of the national response system discussed above are depicted in Figure 3.

4.0 Preparedness activities. 4.1 Federal contingency plans. This section summarizes emergency preparedness activities relating to discharges of oil and describes the three levels of contingency planning under the national response system.

4.1.1 National contingency plan.(a) The NCP provides for efficient, coordinated, and effective response to discharges of oil in accordance with the authorities of the CWA. It provides for:

(1) The national response organization that may be activated in response actions and specifies responsibilities among the federal, state, and local governments and describes resources that are available for response;

(2) The establishment of requirements for federal, regional, and area contingency plans;

(3) Procedures for undertaking removal actions pursuant to section 311 of the CWA;

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Figure 3

National Response System Organization

/ PIAT NRT / National ----------/ National Strike / Strike ---------- Force Coordination / Force Center National / Response / / DRG Atlantic Center / / Gulf Pacific / / Strike Teams / / RRT / / /NPFC / / DRAT / / /OSC---------- / Area ERT Committee SSC RERT

(4) Procedures for involving state governments in the initiation, development, selection, and implementation of response actions;

(5) Listing of federal trustees for natural resources for purposes of the CWA;

(6) Procedures for the participation of other persons in response actions; and

(7) National procedures for the use of dispersants and other chemicals in removals under the CWA.(b) In implementing the NCP, consideration shall be given to international assistance plans and agreements, security regulations and responsibilities based on international agreements, federal statutes, and executive orders. Actions taken pursuant to the provisions of any applicable international joint contingency plans shall be consistent with the NCP, to the greatest extent possible. The Department of State shall be consulted, as appropriate, prior to taking action which may affect its activities.

4.1.2 Regional contingency plans. The RRTs, working with the states, shall develop federal RCPs for each standard federal region, Alaska, Oceania in the Pacific, and the Caribbean to coordinate timely, effective response by various federal agencies and other organizations to discharges of oil. RCPs shall, as appropriate, include information on all useful facilities and resources in the region, from government, commercial, academic, and other sources. To the greatest extent possible, RCPs shall follow the format of the NCP and be coordinated with state emergency response plans, ACPs, and Title III local emergency response plans. Such

coordination should be accomplished by working with the SERCs in the region covered by the RCP. RCPs shall contain lines of demarcation between the inland and coastal zones, as mutually agreed upon by the USCG and the EPA. 4.1.3 Area contingency plans.(a) Under the direction of an OSC and subject to approval by the lead agency, each Area Committee, in consultation with the appropriate RRTs, DRGs, the NSFCC, SSCs, Local Emergency Planning Committees(LEPCs), and SERCs, shall develop an ACP for its designated area. This plan, when implemented in conjunction with other provisions of the NCP, shall be adequate to remove a worst case discharge, and to mitigate or prevent a substantial threat of such a discharge, from a vessel, offshore facility, or onshore facility operating in or near the area.

(b) The areas of responsibility may include several Title III local planning districts, or parts of such districts. In developing the ACP, the OSC shall coordinate with affected SERCs and LEPCs. The ACP shall provide for a well coordinated response that is integrated and compatible to the greatest extent possible with all appropriate response plans of state, local, and non-federal entities, and especially with Title III local emergency response plans.

(c) The ACP shall include the following:

(1) A description of the area covered by the plan, including the areas of special economic or environmental importance that might be impacted by a discharge;

(2) A description in detail of the responsibilities of an owner or operator and of federal, state, and local agencies in removing a discharge, and in mitigating or preventing a substantial threat of a discharge;

(3) A list of equipment(including firefighting equipment), dispersants, or other mitigating substances and devices, and personnel available to an owner or operator and federal, state, and local agencies, to ensure an effective and immediate removal of a discharge, and to ensure mitigation or prevention of a substantial threat of a discharge(this may be provided in an appendix or by reference to other relevant emergency plans(e.g., state or LEPC plans), which may include such equipment lists);

(4) A description of procedures to be followed for obtaining an expedited decision regarding the use of dispersants; and

(5) A detailed description of how the plan is integrated into other aCPs and tank vessel, offshore facility, and onshore facility response plans approved by the President, and into operating procedures of the NSFCC. 4.1.4 Fish and Wildlife and sensitive environments plan annex.(a) In order to provide for coordinated, immediate and effective protection, rescue, and rehabilitation of, and minimization of risk of injury to, fish and wildlife resources and habitat, Area Committees shall incorporate into each ACP a detailed annex containing a Fish and Wildlife and Sensitive Environments Plan that is consistent with the RCP and NCP. The annex shall be prepared in consultation with the U.S. Fish and Wildlife Service(FWS) and NOAA and other interested natural resource management agencies and parties. It shall address fish and wildlife resources and their habitat, and shall include other areas considered sensitive environments in a separate section of the annex, based upon Area Committee recommendations. The annex shall provide the necessary information and procedures to immediately and effectively respond to discharges that may adversely affect fish and wildlife and their habitat and sensitive environments, including provisions for a response to a worst case discharge. Such information shall include the identification of appropriate agencies and their responsibilities, procedures to notify these agencies following a discharge or threat of a discharge; protocols for obtaining required fish and wildlife permits and other necessary permits, and provisions to ensure compatibility of annex-related activities with removal operations.

(b) The annex shall:(1) Identify and establish priorities for fish and wildlife resources and their habitats and other important sensitive areas requiring protection from any direct or indirect effects from discharges that may occur. These effects include, but are not limited to, any seasonal or historical use, as well as all critical, special, significant or otherwise designated protected areas.

(2) Provide a mechanism to be used during a spill response for timely identification of protection priorities of those fish and wildlife resources and habitats and sensitive environmental areas that may be threatened or injured by a discharge. These include as appropriate, not only marine and freshwater species, habitats, and their food sources, but also terrestrial wildlife and their habitats that may be affected directly by onshore oil or indirectly by oil-related factors, such as loss or contamination of forage. The mechanism shall also provide for expeditious evaluation and appropriate consultations on the effects to fish and wildlife, their habitat, and other sensitive environments from the application of chemical countermeasures or other countermeasures not addressed under paragraph(3) of this section.

(3) Identify potential environmental effects on fish and wildlife, their habitat, and other sensitive environments resulting from removal actions or countermeasures, including the option of no removal. Based on this evaluation of potential environmental effects, the annex should establish priorities for application of countermeasure and removal actions to habitats within the geographic region of the ACP. The annex should establish methods to minimize the identified effects on fish and wildlife because of response activities, including, but not limited to, disturbance of sensitive areas and habitats; illegal or inadvertent taking or disturbance of fish and wildlife or specimens by response personnel; and fish and wildlife, their habitat, and environmentally sensitive areas coming in contact with various cleaning or bioremediation agents. Furthermore, the annex should identify the areas where the movement of oiled debris may pose a risk to resident, transient, or migratory fish and wildlife, and other sensitive environments and should discuss measures to be considered for removing such oiled debris in a timely fashion to reduce such risk.

(4) Provide for pre-approval of application of specific countermeasures or removal actions that, if expeditiously applied, will minimize adverse spill-induced impacts to fish and wildlife resources, their habitat, and other sensitive environments. Such pre-approval plans must be consistent with paragraphs(2) and(3) of this section and subpart J requirements of the NCP, and must have the concurrence of the natural resource trustees.(5) Provide monitoring plan(s) to evaluate the effectiveness of different countermeasures or removal actions in protecting the environment. Monitoring should include "set-aside" or "control" areas, where no mitigative actions are taken.

(6) Identify and plan for the acquisition and utilization of necessary response capabilities for protection, rescue, and rehabilitation of fish and wildlife resources and habitat. This may include appropriately permitted private organizations and individuals with appropriate expertise and experience. The suitable organizations should be identified in cooperation with natural resource law enforcement agencies. Such capabilities shall include, but not be limited to, identification of facilities and equipment necessary for deterring sensitive fish and wildlife from entering oiled areas, and for capturing, holding, cleaning, and releasing injured wildlife. Plans for the provision of such capabilities shall ensure that there is no interference with other OSC removal operations.

(7) Identify appropriate federal and state agency contacts and alternates responsible

for coordination of fish and wildlife rescue and rehabilitation and protection of sensitive environments; identify and provide for required fish and wildlife handling and rehabilitation permits necessary under federal and state laws; and provide guidance on the implementation of law enforcement requirements included under current federal and state laws and corresponding

regulations. Requirements include, but are not limited to procedures regarding the capture, transport, rehabilitation, release of wildlife exposed to or threatened by oil, and disposal of contaminated carcasses of wildlife.

(8) Identify and secure the means for providing, if needed, the minimum required Occupational Safety and Health Administration(OSHA) training for volunteers, including those who assist with injured wildlife.

(9) Evaluate the compatibility between this annex and non-federal response plans(including those of vessels, facilities and pipelines) on issues affecting fish and wildlife, their habitat, and sensitive environments.

4.2 OPA facility and vessel response plans

This section describes and cross-references the regulations that implement section 311(j)(5) of the CWA. A tank vessel, as defined under section 2101 of title 46, U.S. Code, an offshore facility, and an onshore facility that, because of its location, could reasonably expect to cause substantial harm to the environment by discharging into or on the navigable waters, adjoining shorelines, or exclusive economic zone must prepare and submit a plan for responding, to the maximum extent practicable, to a worst case discharge, and to a substantial threat of such a discharge, of oil or a hazardous substance. These response plans are required to be consistent with applicable Area Contingency Plans. These regulations are codified as follows:

(a) For tank vessels, these regulations are codified in 33 CFR part 155;

(b) For offshore facilities, these regulations are codified in 30 CFR part 254;

(c) For non-transportation related onshore facilities, these regulations are codified in 40 CFR part 112.20;

(d) For transportation-related onshore facilities, these regulations are cofidied in 33 CFR part 154;

(e) For pipeline facilities, these regulations are codified in 49 CFR part 194; and(f) For rolling stock, these regulations are codified in 49 CFR part 106 et al.

4.3 Relation to others plans.

4.3.1 Federal response plans. In the event of a declaration of a major disaster by the President, the FEMA may activate the Federal Response Plan(FRP). A Federal Coordinating Officer(FCO), designated by the President, may implement the FRP and coordinate and direct emergency assistance and disaster relief of impacted individuals, business, and public services under the Robert T. Stafford Disaster Relief Act. Delivery of federal assistance is facilitated through twelve functional annexes to the FRP known as Emergency Support Functions(ESFs). EPA coordinates activities under ESF 10-Hazardous Materials, which addresses preparedness and response to hazardous materials and oil incidents caused by a natural disaster or other catastrophic event. In such cases, the OSC should coordinate response activities with the FCO, through the incident-specific ESF 10 Chair, to ensure consistency with federal disaster assistance activities.

4.3.2 Tank Vessel and Facility Response Plans.(a) Under CWA section 311(j)(5), tank vessels, offshore facilities, and certain onshore facilities are required to prepare and submit response plans for review and approval by the President for the carriage, storage, and transportation of oil and hazardous substances. Separate regulations published by the appropriate federal agencies provide for required response plan development and/or approval.

(b) These plans shall be developed to coordinate responsible party actions with the OSC and the ACP response strategies, for response to oil discharges within the inland and coastal zones of the United States.

4.4 Pre-approval authority.

(a) RRTs and Area Committees shall address, as part of their planning activities, the desirability of using appropriate dispersants, surface washing agents, surface collecting agents, bioremediation agents, or miscellaneous oil spill control agents listed on the NCP Product Schedule, and the desirability of using appropriate burning agents. RCPs and ACPs shall, as appropriate, include applicable preauthorization plans and address the specific contexts in which such products should and should not be used. In meeting the provisions of this paragraph, preauthorization plans may address factors such as the potential sources and types of oil that might be spilled, the existence and location of environmentally sensitive resources that might be impacted by spilled oil, available product and storage locations, available equipment and adequately trained operators, and the available means to monitor product application and effectiveness. The RRT representatives from EPA and the states with jurisdiction over the waters of the area to which a preauthorization plan applies and the DOC and DOI natural resource trustees shall review and either approve, disapprove, or approve with modification the preauthorization plans developed by Area Committees, as appropriate. approved preauthorization plans shall be included in the appropriate RCPs and ACPs. If the RRT representatives from EPA and the states with jurisdiction over the waters of the area to which a preauthorization plan applies and the DOC and DOI natural resource trustees approve in advance the use of certain products under specified circumstances as described in the preauthorization plan, the OSC may authorize the use of the products without obtaining the specific concurrences described in paragraphs(b) and(c) of this section.

(b) For spill situations that are not addressed by the preauthorization plans developed pursuant to paragraph(a) of this section, the OSC, with the concurrence of the EPA representative to the RRT and, as appropriate, the concurrence of the RRT representatives from the states with jurisdiction over the navigable waters threatened by the discharge, and in consultation with the DOC and DOI natural resource trustees, when practicable, may authorize the use of dispersants, surface washing agents, surface collecting agents, bioremediation agents, or miscellaneous oil spill control agents on the oil discharge, provided that the products are listed on the NCP Product Schedule.

(c) The OSC, with the concurrence of the EPA representative to the RRT and, as appropriate, the concurrence of the RRT representatives from the states with jurisdiction over the navigable waters threatened by the discharge, and in consultation with the DOC and DOI natural resource trustees, when practicable, may authorize the use of burning agents on a case-by-case basis.

(d) The OSC may authorize the use of any dispersant, surface washing agent, surface collecting agent, other chemical agent, burning agent, bioremediation agent, or miscellaneous oil spill control agent, including products not listed on the NCP Product Schedule, without obtaining the concurrence of the EPA representative to the RRT and, as appropriate, the RRT representatives from the states with jurisdiction over the navigable waters threatened by the discharge, when, in the judgment of the OSC, the use of the product is necessary to prevent or substantially reduce a hazard to human life. Whenever the OSC authorizes the use of a product pursuant to this paragraph, the OSC is to inform the EPA RRT representative and, as appropriate, the RRT representatives from the affected states and, when practicable, the DOC/DOI natural resource trustees of the use of a product, including products not on the Schedule, as soon as possible. Once the threat to human life has subsided, the continued use of a product shall be in accordance with paragraphs(a),(b), and(c) of this section.

(e) Sinking agents shall not be authorized for application to oil discharges.

(f) When developing preauthorization plans, RRTs may require the performance of supplementary toxicity and effectiveness testing of products, in addition to the test methods specified inSec. 300.915 and described in Appendix C to part 300, due to existing site-specific or area- specific concerns.

4.5 Area response drills. The OSC periodically shall conduct drills of removal capability(including fish and wildlife response), without prior notice, in areas for which ACPs are required and under relevant tank vessel and facility response plans.

5.0 Response operations.(a) The OSC shall direct response efforts and coordinate all other efforts at the scene of a discharge. As part of the planning and preparation for response, OSCs shall be predesignated by the regional or district head of the lead agency.

(b) The first federal official affiliated with an NRT member agency to arrive at the scene of a discharge should coordinate activities

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under the NCP and is authorized to initiate, in consultation with the OSC, any necessary actions normally carried out by the OSC until the arrival of the predesignated OSC. This official may initiate federal OSLTF-financed actions only as authorized by the OSC or, if the OSC is unavailable, the authorized representative of the lead agency.

(c) The OSC shall, to the extent practicable, collect pertinent facts about the discharge, such as its source and cause; the identification of responsible parties; the nature, amount, and location of discharged materials; the probable direction and time of travel of discharged materials; whether the discharge is a worst case discharge; the pathways to human and environmental exposure; the potential impact on human health, welfare, and safety and the environment; whether the discharge poses a substantial threat to the public health or welfare; the potential impact on natural resources and property which may be affected; priorities for protecting human health and welfare and the environment; and appropriate cost documentation.

(d) The OSC's efforts shall be coordinated with other appropriate federal, state, local, and private response agencies. OSCs may designate capable persons from federal, state, or local agencies to act as their on-scene representatives. State and local governments, however, are not authorized to take actions under subpart D of the NCP that involve expenditures of the OSLTF unless an appropriate contract or cooperative agreement has been established.

(e) The OSC should consult regularly with the RRT and NSFCC, as appropriate, in carrying out the NCP and keep the RRT and NSFCC, as appropriate, informed of activities under the NCP.

(f) The OSC should evaluate incoming information and immediately advise FEMA of potential major disaster situations.

(g) The OSC is responsible for addressing worker health and safety concerns at a response scene.

(h) In those instances where a possible public health emergency exists, the OSC should notify the HHS representative to the RRT. Throughout response actions, the OSC may call upon the OSHA and HHS representative for assistance on worker health and safety issues.

(i) All federal agencies should plan for emergencies and develop procedures for dealing with oil discharges and releases of hazardous substances, pollutants, or contaminants from vessels and facilities under their jurisdiction. All federal agencies, therefore, are responsible for designating the office that coordinates response to such incidents in accordance with the NCP and applicable federal regulations and guidelines.

(j)(1) The OSC shall ensure that the natural resource trustees are promptly notified of discharges.

(2) The OSC shall coordinate all response activities with the affected natural resource trustees and shall consult with the affected trustees on the appropriate removal action to be taken.

(3) Where the OSC becomes aware that a discharge may affect any endangered or threatened species, or their habitat, the OSC shall consult with DOI, DOC / NOAA, and, if appropriate, the cognizant federal land managing agency.(k) The OSC shall submit pollution reports(POLREPs) to the RRT and other appropriate agencies as significant developments occur during response actions, through communications networks or procedures agreed to by the RRT and covered in the RCP.

(l) The OSC should ensure that all appropriate public and private interests are kept informed and that their concerns are considered throughout a response, to the extent practicable.

5.1 Phase I-Discovery or notification.(a) A discharge of oil may be discovered through:

(1) A report submitted by the person in charge of a vessel or facility, in accordance with statutory requirements;

(2) Deliberate search by patrols;

(3) Random or incidental observation by government agencies or the public; or

(4) Other sources.(b) Any person in charge of a vessel or a facility shall, as soon as he or she has knowledge of any discharge from such vessel or facility in violation of section 311(b)(3) of the CWA, immediately notify the NRC. Notification shall be made to the NRC Duty Officer, HQ USCG, Washington, DC, telephone(800) 424-8802 or(202) 267-2675. If direct reporting to the NRC is not practicable, reports may be made to the USCG or EPA predesignated OSC for the geographic area where the discharge occurs. The EPA predesignated OSC may also be contacted through the regional 24-hour emergency response telephone number. All such reports shall be promptly relayed to the NRC. If it is not possible to notify the NRC or predesignated OSC immediately, reports may be made immediately to the nearest Coast Guard unit. In any event, such person in charge of the vessel or facility shall notify the NRC as soon as possible.

(c) Any other person shall, as appropriate, notify the NRC of a discharge of oil.

(d) Upon receipt of a notification of discharge, the NRC shall promptly notify the OSC. The OSC shall ensure notification of the appropriate state agency of any state which is, or may reasonably be expected to be, affected by the discharge. The OSC shall then proceed with the following phases as outlined in the RCP and ACP. 5.2 Phase II-Preliminary assessment and initiation of action

(a) The OSC is responsible for promptly initiating a preliminary assessment.

(b) The preliminary assessment shall be conducted using available information, supplemented where necessary and possible by an on-scene inspection. The OSC shall undertake actions to:

(1) Evaluate the magnitude and severity of the discharge or threat to public health or welfare or the environment;

(2) Assess the feasibility of removal; and

(3) To the extent practicable, identify potentially responsible parties.

(c) Where practicable, the framework for the response management structure is a system(e.g., a unified command system), that brings together the functions of the federal government, the state government, and the responsible party to achieve an effective and efficient response, where the OSC maintains authority.(d) Except in a case when the OSC is required to direct the response to a discharge that may pose a substantial threat to the public health or welfare(including, but not limited to fish, shellfish, wildlife, other natural resources, and the public and private beaches and shorelines of the United States), the OSC may allow the responsible party to voluntarily and promptly perform removal actions, provided the OSC determines such actions will ensure an effective and immediate removal of the discharge or mitigation or prevention of a substantial threat of a discharge. If the responsible party does conduct the removal, the OSC shall ensure adequate surveillance over whatever actions are initiated. If effective actions are not being taken to eliminate the threat, or if removal is not being properly done, the OSC should, to the extent practicable under the circumstances, so advise the responsible party. If the responsible party does not respond properly, the OSC shall take appropriate response actions and should notify the responsible party of the potential liability for federal response costs incurred by the OSC pursuant to the OPA and CWA. Where practicable, continuing efforts should be made to encourage response by responsible parties.

(1) In carrying out a response under this section, the OSC may:

(a) Remove or arrange for the removal of a discharge, and mitigate or prevent a substantial threat of a discharge, at any time;

(b) Direct or monitor all federal, state, and private actions to remove a discharge; and

(c) Remove and, if necessary, destroy a vessel discharging, or threatening to discharge, by whatever means are available.

(2) If the discharge results in a substantial threat to the public health or welfare of the United States(including, but not limited to fish, shellfish, wildlife, other natural resources, and the public and private beaches and shorelines of the United States), the OSC must direct all response efforts, as provided in section 5.3.4 of this appendix. The OSC should declare as expeditiously as practicable to spill response participants that the federal government will direct the response. The OSC may act without regard to any other provision of the law governing contracting procedures or employment of personnel by the federal government in removing or arranging for the removal of such a discharge.

(e) The OSC shall ensure that the natural resource trustees are promptly notified in the event of any discharge of oil, to the maximum extent practicable as provided in the Fish and Wildlife and Sensitive Environments Plan annex to the ACP for the area in which the discharge occurs. The OSC and the trustees shall coordinate assessments, evaluations, investigations, and planning with respect to appropriate removal actions. The OSC shall consult with the affected trustees on the appropriate removal action to be taken. The trustees will provide timely advice concerning recommended actions with regard to trustee resources potentially affected. The trustees also will

assure that the OSC is informed of their activities in natural resource damage assessment that may affect response operations. The trustees shall assure, through the lead administrative trustee, that all data from the natural resource damage assessment activities that may support more effective operational decisions are provided in a timely manner to the OSC. When circumstances permit, the OSC shall share the use of non- monetary response resources(i.e., personnel and equipment) with the trustees, provided trustee activities do not interfere with response actions. The lead administrative trustee facilitates effective and efficient communication between the OSC and the other trustees during response operations and is

responsible for applying to the OSC for non-monetary federal response resources on behalf of all trustees. The lead administrative trustee is also responsible for applying to the National Pollution Funds Center for funding for initiation of damage assessment for injuries to natural resources. 5.3 Patterns of response.

5.3.1 Determinations to initiate response and special conditions.

(a) In accordance with the CWA, the Administrator of EPA or the Secretary of the department in which the USCG is operating, as appropriate, is authorized to act for the United States to take response measures deemed necessary to protect the public health or welfare or environment from discharges of oil.

(b) The Administrator of EPA or the Secretary of the department in which the USCG is operating, as appropriate, is authorized to initiate and, in the case of a discharge posing a substantial threat to public health or welfare is required to initiate and direct, appropriate response activities when the Administrator or Secretary determines that any oil is discharged or there is a substantial threat of such discharge from any vessel or offshore or onshore facility into or on the navigable waters of the United States, on the adjoining shorelines to the navigable waters, into or on the waters of the exclusive economic zone, or that may affect natural resources belonging to, appertaining to, or under exclusive management authority of the United States.(c) In addition to any actions taken by a state or local government, the Administrator of EPA or the Secretary of the department in which the USCG is operating may request the U.S. Attorney General to secure the relief from any person, including the owner or operator of the vessel or facility necessary to abate a threat or, after notice to the affected state, take any other action authorized by section 311 of the CWA, including issuing administrative orders, that may be necessary to protect the public health or welfare, if the Administrator or Secretary determines that there may be an imminent and substantial threat to the public health or welfare or the environment of the United States, including fish, shellfish, and wildlife, public and private property, shorelines, beaches, habitats, and other living and nonliving natural resources under the jurisdiction or control of the United States, because of an actual or threatened discharge of oil from any vessel or offshore or onshore facility into or upon the navigable waters of the United States.

(d) Response actions to remove discharges originating from operations conducted subject to the Outer Continental Shelf Lands Act shall be in accordance with the NCP.

(e) Where appropriate, when a discharge involves radioactive materials, the lead or support federal agency shall act consistent with the notification and assistance procedures described in the appropriate Federal Radiological Plan. For the purpose of the NCP, the Federal Radiological Emergency Response Plan(FRERP)(50 FR 46542, November 8, 1985) is the appropriate plan. Most radiological discharges and releases do not result in FRERP activation and should be handled in accordance with the NCP. However, releases from nuclear incidents subject to requirements for financial protection established by the Nuclear Regulatory Commission under the Price-Anderson amendments(section 170) of the Atomic Energy Act are specifically excluded from CERCLA and NCP requirements.

(f) Removal actions involving nuclear weapons should be conducted in accordance with the joint Department of Defense, Department of Energy, and FEMA Agreement for Response to Nuclear Incidents and Nuclear Weapons Significant Incidents(January 8, 1981).

(g) If the situation is beyond the capability of state and local governments and the statutory authority of federal agencies, the President may, under the Disaster Relief Act of 1974, act upon a request by the Governor and declare a major disaster or emergency and appoint a FCO to coordinate all federal disaster assistance activities. In such cases, the OSC would continue to

carry out OSC responsibilities under the NCP, but would coordinate those activities with the FCO to ensure consistency with other federal disaster assistance activities.

(h) In the event of a declaration of a major disaster by the President, FEMA may activate the FRP. An FCO, designated by the President, may implement the FRP and coordinate and direct emergency assistance and disaster relief of impacted individuals, business, and public services under the Robert T. Stafford Disaster Relief Act. Delivery of federal assistance is facilitated through twelve functional annexes to the FRP known as ESFs. EPA coordinates activities under ESF 10- Hazardous Materials, which addresses preparedness and response to hazardous materials and oil incidents caused by a natural disaster or other catastrophic event. In such cases, the OSC/RPM should coordinate response activities with the FCO, through the incident-specific ESF 10 Chair, to ensure consistency with federal disaster assistance activities.

5.3.2 General pattern of response.(a) When the OSC receives a report of a discharge, actions normally should be taken in the following sequence:

(1) Investigate the report to determine pertinent information such as the threat posed to public health or welfare or the environment, the type and quantity of polluting material, and the source of the discharge.(2) Officially classify the size(i.e., minor, medium, major) and type(i.e., substantial threat to the public health or welfare, worst case discharge) of the discharge and determine the course of action to be followed to ensure effective and immediate removal, mitigation, or prevention of the discharge. Some discharges that are classified as a substantial threat to the public health or welfare may be further classified as a spill of national significance by the Administrator of EPA or the Commandant of the USCG. The appropriate course of action may be prescribed in 5.3.4, 5.3.5, and 5.3.6 of this appendix.

(a) When the reported discharge is an actual or potential major discharge, the OSC shall immediately notify the RRT and the NRC.

(b) When the investigation shows that an actual or potential medium discharge exists, the OSC shall recommend activation of the RRT, if appropriate.

(c) When the investigation shows that an actual or potential minor discharge exists, the OSC shall monitor the situation to ensure that proper removal action is being taken.

(3) If the OSC determines that effective and immediate removal, mitigation, or prevention of a discharge can be achieved by private party efforts, and where the discharge does not pose a substantial threat to the public health or welfare, determine whether the responsible party or other person is properly carrying out removal. Removal is being done properly when:

(a) The responsible party is applying the resources called for in its response plan to effectively and immediately remove, minimize, or mitigate threat(s) to public health and welfare and the environment; and

(b) The removal efforts are in accordance with applicable regulations, including the NCP. Even if the OSC supplements responsible party resources with government resources, the spill response will not be considered improper, unless specifically determined by the OSC.

(4) Where appropriate, determine whether a state or political subdivision thereof has the capability to carry out any or all removal actions. If so, the OSC may arrange funding to support these actions.

(5) Ensure prompt notification of the trustees of affected natural resources in accordance with the applicable RCP and ACP.(b) Removal shall be considered complete when so determined by the OSC in consultation with the Governor or Governors of the affected states. When the OSC

considers removal complete, OSLTF removal funding shall end. This determination shall not preclude additional removal actions under applicable state law.

5.3.3 Containment, countermeasures, and cleanup.(a) Defensive actions shall begin as soon as possible to prevent, minimize, or mitigate threat(s) to the public health or welfare or the environment. Actions may include but are not limited to: analyzing water samples to determine the source and spread of the oil; controlling the source of discharge; source and spread control or salvage operations; placement of physical barriers to deter the spread of the oil and to protect natural resources and sensitive ecosystems; measuring and sampling; control

of the water discharged from upstream impoundment; and the use of chemicals and other materials in accordance with subpart J of Part 300 of the NCP to restrain the spread of the oil and mitigate its effects. The ACP should be consulted for procedures to be followed for obtaining an expedited decision regarding the use of dispersants and other products listed on the NCP Product Schedule.

(b) As appropriate, actions shall be taken to recover the oil or mitigate its effects. Of the numerous chemical or physical methods that may be used, the chosen methods shall be the most consistent with protecting public health and welfare and the environment. Sinking agents shall not be used.

(c) Oil and contaminated materials recovered in cleanup operations shall be disposed of in accordance with the RCP, ACP, and any applicable laws, regulations, or requirements. RRT and Area Committee guidelines may identify the disposal options available during an oil spill response and may describe what disposal requirements are mandatory or may not be waived by the OSC. ACP guidelines should address: the sampling, testing, and classifying of recovered oil and oiled debris; the segregation and stockpiling of recovered oil and oiled debris; prior state disposal approvals and permits; and the routes; methods(e.g. recycle / reuse, on-site burning, incineration, landfilling, etc.); and sites for the disposal of collected oil, oiled debris, and animal carcasses; procedures for obtaining waivers, exemptions, or authorizations associated with handling or transporting waste materials. The ACPs may identify a hierachy of preferences for disposal alternatives, with recycling(reprocessing) being the most preferred, and other alternatives preferred based on priorities for health or the environment. 5.3.4 Response to a substantial threat to the public health or welfare.(a) The OSC shall determine whether a discharge results in a substantial threat to public health or welfare(including, but not limited to, fish, shellfish, wildlife, other natural resources, the public and private beaches, and shorelines of the United States). Factors to be considered by the OSC in making this determination include, but are not limited to, the size of the discharge, the character of the discharge, and the nature of the threat to public health or welfare. Upon obtaining such information, the OSC shall conduct an evaluation of the threat posed, based on the OSC's experience in assessing other discharges and consultation with senior lead agency officials and readily available authorities on issues outside the OSC's technical expertise.

(b) If the investigation by the OSC shows that the discharge poses or may present a substantial threat to public health or welfare, the OSC shall direct all federal, state, or private actions to remove the discharge or to mitigate or prevent the threat of such a discharge, as appropriate. In directing the response in such cases, the OSC may act without regard to any other provision of law governing contracting procedures or employment of personnel by the federal government to:

(1) Remove or arrange for the removal of the discharge;(2) Mitigate or prevent the substantial threat of the discharge; and

(3) Remove and, if necessary, destroy a vessel discharging, or threatening to discharge, by whatever means are available.

(c) In the case of a substantial threat to the public health or welfare, the OSC shall:

(1) Assess opportunities for the use of various special teams and other assistance, including the use of the services of the NSFCC, as appropriate;

(2) Request immediate activation of the RRT; and

(3) Take whatever additional response actions are deemed appropriate, including but not limited to implementation of the ACP or relevant tank vessel or facility response plan.

(d) When requested by the OSC, the lead agency or RRT shall dispatch appropriate personnel to the scene of the discharge to assist the OSC. This assistance may include technical support in the agency's areas of expertise and disseminating information to the public. The lead agency shall ensure that a contracting officer is available on scene, at the request of the OSC.

5.3.5 Enhanced activities during a spill of national significance.(a) a discharge may be classified as an SONS by the Administrator of EPA for discharges occurring in the inland zone and the Commandant of the USCG for discharges occurring in the coastal zone.

(b) For an SONS in the inland zone, the EPA Administrator may name a senior Agency official to assist the OSC in:(1) Communicating with affected parties and the public; and(2) coordinating federal, state, local, and international resources at the national level. This strategic coordination will involve, as appropriate, the NRT, RRT(s), the Governor(s) of affected state(s), and the mayor(s) or other chief executive(s) of local government(s).

(c) For an SONS in the coastal zone, the USCG Commandant may name a National Incident Commander(NIC) who will assume the role of the OSC in:(1) Communicating with affected parties and the public; and(2) coordinating federal, state, local, and international resources at the national level. This strategic coordination shall involve, as appropriate, the NRT, RRT(s), the Governor(s) of affected state(s), and the mayor(s) or other chief executive(s) of local government(s). 5.3.6 Response to worst case discharges.(a) If the investigation by the OSC shows that a discharge is a worst case discharge as defined in the aCP, or there is a substantial threat of such a discharge, the OSC shall:

(1) Notify the NSFCC;

(2) Require, where applicable, implementation of the worst case portion of an approved tank vessel or facility response plan;

(3) Implement the worst case portion of the ACP, if appropriate; and

(4) Take whatever additional response actions are deemed appropriate.

(b) Under the direction of the OSC, the NSFCC shall coordinate use of private and public personnel and equipment, including strike teams, to remove a worst case discharge and mitigate or prevent a substantial threat of such a discharge.

5.3.7 Multi-regional responses.(a) If a discharge moves from the area covered by one ACP or RCP into another area, the authority for response actions should likewise shift. If a discharge affects areas covered by two or more ACPs or RCPs, the response mechanisms of each applicable plan may be activated. In this case, response actions of all regions concerned shall be fully coordinated as detailed in the RCPs and ACPs.

(b) There shall be only one OSC at any time during the course of a response operation. Should a discharge affect two or more areas, EPA, the USCG, DOD, DOE, or other lead agency, as appropriate, shall give prime consideration to the area vulnerable to the greatest threat, in determining which agency should provide the OSC. The RRT shall designate the OSC if the RRT member agencies who have response authority within the affected areas are unable to agree on the designation. The NRT shall designate the OSC if members of one RRT or two adjacent RRTs are unable to agree on the designation.

5.3.8 Worker health and safety.(a) Response actions under the NCP shall comply with the provisions for response action worker safety and health in 29 CFR 1910.120. The national response system meets the requirements of 29 CFR 1910.120 concerning use of an incident command system.

(b) In a response action taken by a responsible party, the responsible party must assure that an occupational safety and health program consistent with 29 CFR 1910.120 is made available for the protection of workers at the response site.

(c) In a response taken under the NCP by a lead agency, an occupational safety and health program should be made available for the protection of workers at the response site, consistent with, and to the extent required by, 29 CFR 1910.120. Contracts relating to a response action under the NCP should contain assurances that the contractor at the response site will comply with this program and with any applicable provisions of the Occupational Safety and Health Act of 1970(OSH Act) and state laws with plans approved under section 18 of the OSH Act.

(d) When a state, or political subdivision of a state, without an OSHA-approved state plan is the lead agency for response, the state or political subdivision must comply with standards in 40 CFR part 311, promulgated by the EPA pursuant to section 126(f) of the Superfund amendments and Reauthorization Act of 1986(SARA).

(e) Requirements, standards, and regulations of the OSH Act and of state OSH laws not directly referenced in paragraphs(a) through(d) of this section, must be complied with where applicable. Federal OSH Act requirements include, among other things, Construction Standards(29 CFR part 1926), General Industry Standards(29 CFR part 1910), and the general duty requirement of section 5(a)(1) of the OSH Act(29 U.S.C. 654(a)(1)). No action by the lead agency with respect to response activities under the NCP constitutes an exercise of statutory authority within the meaning of section 4(b)(1) of the

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OSH Act. All governmental agencies and private employers are directly responsible for the health and safety of their own employees.

5.4 Disposal

Oil recovered in cleanup operations shall be disposed of in accordance with the RCP, ACP, and any applicable laws, regulations, or requirements. RRT and ACP guidelines may identify the disposal plans to be followed during an oil spill response and may address: the sampling, testing, and classifying of recovered oil and oiled debris; the segregation and stockpiling of recovered oil and oiled debris; prior state disposal approvals and permits; and the routes; methods(e.g., recycle/reuse, on-site burning, incineration, landfilling, etc.); and sites for the disposal of collected oil, oiled debris, and animal carcasses.

5.5 Natural Resource Trustees

5.5.1 Damage assessment.(a) Upon notification or discovery of injury to, destruction of, loss of, or threat to

natural resources, trustees may, pursuant to section 1006 of the OPA, take the following actions as appropriate:

(1) Conduct a preliminary survey of the area affected by the discharge to determine if trust resources under their jurisdiction are, or potentially may be, affected;

(2) Cooperate with the OSC in coordinating assessments, investigations, and planning;

(3) Carry out damage assessments; or

(4) Devise and carry out a plan for restoration, rehabilitation, replacement, or acquisition of equivalent natural resources. In assessing damages to natural resources, the federal, state, and Indian tribe trustees have the option of following the procedures for natural resource damage assessments located at 43 CFR part 11.

(b) Upon notification or discovery of injury to, destruction of, loss of, or loss of use of, natural resources, or the potential for such, resulting from a discharge of oil occurring after August 18, 1990, the trustees, pursuant to section 1006 of the OPA, are to take the following actions:

(1) In accordance with OPA section 1006(c), determine the need for assessment of natural resource damages, collect data necessary for a potential damage assessment, and, where appropriate, assess damages to natural resources under their trusteeship; and

(2) As appropriate, and subject to the public participation requirements of OPA section 1006(c), develop and implement a plan for the restoration, rehabilitation, replacement, or acquisition of the equivalent, of the natural resources under their trusteeship.

(c)(1) The trustees, consistent with procedures specified in the Fish and Wildlife and Sensitive Environments Annex to the Area Contingency Plan, shall provide timely advice on recommended actions concerning trustee resources that are potentially affected by a discharge of oil. This may include providing assistance to the OSC in identifying/recommending pre-approved response techniques and in predesignating shoreline types and areas in ACPs.

(2) The trustees shall assure, through the lead administrative trustee, that the OSC is informed of their activities regarding natural resource damage assessment that may affect response operations in order to assure coordination and minimize any interference with such operations. The trustees shall assure, through the lead administrative trustee, that all data from the natural resource damage assessment activities that may support more effective operational decisions are provided in a timely manner to the OSC.

(3) The OSC deploys federal response resources, including but not limited to aircraft, vessels, and booms to contain and remove discharged oil. When circumstances permit, the OSC shall share the use of federal response resources with the trustees, providing trustee activities do not interfere with response actions. The lead administrative trustee facilitates effective and efficient communication between the OSC and the other trustees during response operations and is responsible for applying to the OSC for non- monetary federal response resources on behalf of all trustees. The lead administrative trustee is also responsible for applying to the National Pollution Funds Center for funding for initiation of damage assessment for injuries to natural resources.

(d) The authority of federal trustees includes, but is not limited to the following actions:(1) Requesting that the Attorney General seek compensation from the responsible parties for the damages assessed and for the costs of an assessment and of restoration planning;

(2) Participating in negotiations between the United States and potentially responsible parties(PRPs) to obtain PRP-financed or PRP-conducted assessments and restorations for injured resources or protection for threatened resources and to agree to covenants not to sue, where appropriate; and

(3) Initiating damage assessments, as provided in OPA section 6002.

(e) Actions which may be taken by any trustee pursuant to section 311(f)(5) of the CWA or section 1006 of the OPA include, but are not limited to, any of the following:

(1) Requesting that an authorized agency issue an administrative order or pursue injunctive relief against the parties responsible for the discharge; or

(2) Requesting that the lead agency remove, or arrange for the removal of any oil from a contaminated medium pursuant to section 311 of the CWA. 5.5.2 Lead administrative trustee. The lead administrative trustee is a natural resource trustee who is designated on an incident-by-incident basis and chosen by the other trustees whose natural resources are affected by the incident. The lead administrative trustee facilitates effective and efficient communication between the OSC and the other trustees during response operations and is responsible for applying to the OSC for non-monetary federal response resources on behalf of all trustees. The lead administrative trustee is also responsible for applying to the National Pollution Funds Center for funding for initiation of damage assessment for injuries to natural resources.

5.5.3 OSC coordination.(a) The OSC shall ensure that the natural resource trustees are promptly notified in the event of any discharge of oil, to the maximum extent practicable, as provided in the Fish and Wildlife and Sensitive Environments Plan annex to the ACP for the area in which the discharge occurs. The OSC and the trustees shall coordinate assessments, evaluations, investigations, and planning with respect to appropriate removal actions. The OSC shall consult with the affected trustees on the appropriate removal action to be taken.

(b) The trustees will provide timely advice concerning recommended actions with regard to trustee resources that are potentially affected. This may include providing assistance to the OSC in identifying/recommending pre-approved response techniques, and in predesignating shoreline types and areas in ACPs.

(c) The trustees also will assure that the OSC is informed of their activities regarding natural resource damage assessment that may affect response operations.

5.5.4 Dissemination of information.(a) When an incident occurs, it is imperative to give the public prompt, accurate information on the nature of the incident and the actions underway to mitigate the damage. OSCs and community relations personnel should ensure that all appropriate public and private interests are kept informed and that their concerns are considered throughout a response. They should coordinate with available public affairs/community relations resources to carry out this responsibility by establishing, as appropriate, a Joint Information Center bringing together resources from federal and state agencies and the responsible party.

(b) An on-scene news office may be established to coordinate media relations and to issue official federal information on an incident. Whenever possible, it will be headed by a representative of the lead agency. The OSC determines the location of the on-scene news office, but every effort should be made to locate it near the scene of the incident. If a participating agency believes public interest warrants the issuance of statements and an on-scene news office has not been established, the affected agency should recommend its establishment. All federal news releases or statements by participating agencies should be cleared through the OSC. Information dissemination relating to natural resource damage assessment activities shall be

coordinated through the lead administrative trustee. The designated lead administrative trustee may assist the OSC by disseminating information on issues relating to damage assessment activities. Following termination of the removal activity, information dissemination on damage assessment activities shall be through the lead administrative trustee.

5.5.5 Responsibilities of trustees.(a) Where there are multiple trustees, because of coexisting or contiguous natural resources or concurrent jurisdictions, they should coordinate and cooperate in carrying out these responsibilities.

(b) Trustees are responsible for designating to the RRTs and the Area Committees, for inclusion in the RCP and the ACP, appropriate contacts to receive notifications from the OSCs of discharges.(c)(1) Upon notification or discovery of injury to, destruction of, loss of, or threat to natural resources, trustees may, pursuant to section 311(f)(5) of the CWA, take the following or other actions as appropriate:

(a) Conduct a preliminary survey of the area affected by the discharge or release to determine if trust resources under their jurisdiction are, or potentially may be, affected;

(b) Cooperate with the OSC in coordinating assessments, investigations, and planning;

(c) Carry out damage assessments; or

(d) Devise and carry out a plan for restoration, rehabilitation, replacement, or acquisition of equivalent natural resources. In assessing damages to natural resources, the federal, state, and Indian tribe trustees have the option of following the procedures for natural resource damage assessments located at 43 CFR part 11.

(2) Upon notification or discovery of injury to, destruction of, loss of, or loss of use of, natural resources, or the potential for such, resulting from a discharge of oil occurring after August 18, 1990, the trustees, pursuant to section 1006 of the OPA, are to take the following actions:

(a) In accordance with OPA section 1006(c), determine the need for assessment of natural resource damages, collect data necessary for a potential damage assessment, and, where appropriate, assess damages to natural resources under their trusteeship; and

(b) As appropriate, and subject to the public participation requirements of OPA section 1006(c), develop and implement a plan for the restoration, rehabilitation, replacement, or acquisition of the equivalent, of the natural resources under their trusteeship;

(3)(A) The trustees, consistent with procedures specified in the Fish and Wildlife and Sensitive Environments Annex to the Area Contingency Plan, shall provide timely advice on recommended actions concerning trustee resources that are potentially affected by a discharge of oil. This may include providing assistance to the OSC in identifying/recommending pre-approved response techniques and in predesignating shoreline types and areas in ACPs.

(b) The trustees shall assure, through the lead administrative trustee, that the OSC is informed of their activities regarding natural resource damage assessment that may affect response operations in order to assure coordination and minimize any interference with such operations. The trustees shall assure, through the lead administrative trustee, that all data from the natural resource damage assessment activities that may support more effective operational decisions are provided in a timely manner to the OSC.

(c) When circumstances permit, the OSC shall share the use of federal response resources(including but not limited to aircraft, vessels, and booms to contain and remove discharged oil) with the trustees, providing trustee activities do not interfere with response

actions. The lead administrative trustee facilitates effective and efficient communication between the OSC and the other trustees during response operations and is responsible for applying to the OSC for non-monetary federal response resources on behalf of all trustees. The lead administrative trustee also is responsible for applying to the National Pollution Funds Center for funding for initiation of damage assessment for injuries to natural resources.

(d) The authority of federal trustees includes, but is not limited to the following actions:(1) Requesting that the Attorney General seek compensation from the responsible parties for the damages assessed and for the costs of an assessment and of restoration planning; and

(2) Initiating damage assessments, as provided in OPA section 6002.

(e) Actions which may be taken by any trustee pursuant to section 1006 of the OPA include, but are not limited to, any of the following:

(1) Requesting that an authorized agency issue an administrative order or pursue injunctive relief against the parties responsible for the discharge or release; or

(2) Requesting that the lead agency remove, or arrange for the removal of, or provide for remedial action with respect to, any oil from a contaminated medium pursuant to section 311 of CWA.

5.6 Oil spill liability trust fund.

5.6.1 Funding.(a) The OSLTF is available under certain circumstances to fund removal of oil performed under section 311 of the CWA. Those circumstances and the procedures for accessing the OSLTF are described in 33 CFR Subchapter M. The responsible party is liable for costs of federal removal and damages in accordance with section 311(f) of the CWA, section 1002 of the OPA, and other federal laws.

(b) Response actions other than removal, such as scientific investigations not in support of removal actions or law enforcement, shall be provided by the agency with legal responsibility for those specific actions.

(c) The funding of a response to a discharge from a federally owned, operated, or supervised facility or vessel is the responsibility of the owning, operating, or supervising agency if it is a responsible party.

(d) The following agencies have funds available for certain discharge removal actions:

(1) DOD has two specific sources of funds that may be applicable to an oil discharge under appropriate circumstances. This does not consider military resources that might be made available under specific conditions.

(i) Funds required for removal of a sunken vessel or similar obstruction of navigation are available to the Corps of Engineers through Civil Works Appropriations, Operations and Maintenance, General.

(ii) The U.S. Navy(USN) may conduct salvage operations contingent on defense operational commitments, when funded by the requesting agency. Such funding may be requested on a direct cite basis.

(2) Pursuant to Title I of the OPA, the state or states affected by a discharge of oil may act where necessary to remove such discharge. Pursuant to 33 CFR subchapter M, states may be reimbursed from the OSLTF for the reasonable costs incurred in such a removal.

5.6.2 Claims.(a) Claims are authorized to be presented to the OSLTF under section 1013 of the OPA of 1990, for certain uncompensated removal costs or uncompensated damages resulting from the discharge, or substantial threat of discharge, of oil from a vessel or facility into or upon the navigable waters, adjoining shorelines, or exclusive economic zone of the United States.

(b) Anyone desiring to file a claim against the OSLTF may obtain general information on the procedure for filing a claim from the Director, National Pollution Funds Center, Suite 1000, 4200 Wilson Boulevard, arlington, Virginia, 22203-1804,(703) 235- 4756. 5.7 Documentation and Cost Recovery.

(a) All OSLTF users need to collect and maintain documentation to support all actions taken under the CWA. In general, documentation shall be sufficient to support full cost recovery for resources utilized and shall identify the source and circumstances of the incident, the responsible party or parties, and impacts and potential impacts to public health and welfare and the environment. Documentation procedures are contained in 33 CFR subchapter M.

(b) When appropriate, documentation shall also be collected for scientific understanding of the environment and for research and development of improved response methods and technology. Funding for these actions is restricted by section 6002 of the OPA.

(c) As requested by the NRT or RRT, the OSC shall submit to the NRT or RRT a complete report on the removal operation and the actions taken. The OSC report shall record the situation as it developed, the actions taken, the resources committed, and the problems encountered. The RRT shall review the OSC report with its comments or recommendations within 30 days after the RRT has received the OSC report.(d) OSCs shall ensure the necessary collection and safeguarding of information, samples, and reports. Samples and information shall be gathered expeditiously during the response to ensure an accurate record of the impacts incurred. Documentation materials shall be made available to the trustees of affected natural resources. The OSC shall make available to the trustees of affected natural resources information and documentation in the OSC's possession that can assist the trustees in the determination of actual or potential natural resource injuries.

(e) Information and reports obtained by the EPA or USCG OSC shall be transmitted to the appropriate offices responsible for follow-up actions.

5.8 National response priorities

(a) Safety of human life must be given the top priority during every response action. This includes any search and rescue efforts in the general proximity of the discharge and the insurance of safety of response personnel.

(b) Stabilizing the situation to preclude the event from worsening is the next priority. All efforts must be focused on saving a vessel that has been involved in a grounding, collision, fire, or explosion, so that it does not compound the problem. Comparable measures should be taken to stabilize a

situation involving a facility, pipeline, or other source of pollution. Stabilizing the situation includes securing the source of the spill and/or removing the remaining oil from the container(vessel, tank, or pipeline) to prevent additional oil spillage, to reduce the need for follow-up response action, and to minimize adverse impact to the environment.

(c) The response must use all necessary containment and removal tactics in a coordinated manner to ensure a timely, effective response that minimizes adverse impact to the environment.

(d) All parts of this national response strategy should be addressed concurrently, but safety and stabilization are the highest priorities. The OSC should not delay containment and removal decisions unnecessarily and should take actions to minimize adverse impact to the environment that begin as soon as a discharge occurs, as well as actions to minimize further adverse environmental impact from additional discharges.

(e) The priorities set forth in this section are broad in nature, and should not be interpreted to preclude the consideration of other priorities that may arise on a site-specific basis. 6.0 Response coordination

6.1 Nongovernmental participation.(a) Industry groups, academic organizations, and others are encouraged to commit resources for response operations. Specific commitments should be listed in the RCP and ACP. Those entities required to develop tank vessel and facility response plans under CWA section 311(j) must be able to respond to a worst case discharge to the maximum extent practicable, and should commit sufficient resources to implement other aspects of those plans.

(b) The technical and scientific information generated by the local community, along with information from federal, state, and local governments, should be used to assist the OSC in devising response strategies where effective standard techniques are unavailable. Such information and strategies will be incorporated into the ACP, as appropriate. The SSC may act as liaison between the OSC and such interested organizations.

(c) ACPs shall establish procedures to allow for well organized, worthwhile, and safe use of volunteers, including compliance with requirements regarding worker health and safety. ACPs should provide for the direction of volunteers by the OSC or by other federal, state, or local officials knowledgeable in contingency operations and capable of providing leadership. ACPs also should identify specific areas in which volunteers can be used, such as beach surveillance, logistical support, and bird and wildlife treatment. Unless specifically requested by the OSC, volunteers generally should not be used for physical removal or remedial activities. If, in the judgment of the OSC, dangerous conditions exist, volunteers shall be restricted from on-scene operations.

(d) Nongovernmental participation must be in compliance with the requirements of subpart H of the NCP if any recovery of costs will be sought.

6.2 Natural resource trustees.

6.2.1 Federal agencies.(a) The President is required to designate in the NCP those federal officials who are to act on behalf of the public as trustees for natural resources. These designated federal officials shall act pursuant to section 1006 of the OPA. "Natural resources" means land, fish, wildlife, biota, air, water, ground water, drinking water supplies, and other such resources belonging to, managed by, held in trust by, appertaining to, or otherwise controlled(hereinafter referred to as "managed or controlled") by the United States, including the resources of the exclusive economic zone.

(b) The following individuals shall be the designated trustee(s) for general categories of natural resources, including their supporting ecosystems. They are authorized to act pursuant to section 1006 of the OPA when there is injury to, destruction of, loss of, or threat to natural resources, including their supporting ecosystems as a result of a discharge of oil. Notwithstanding the other designations in this section, the Secretaries of Commerce and the Interior shall act as trustees of those resources subject to their respective management or control.

(1) The Secretary of Commerce shall act as trustee for natural resources managed or controlled by DOC and for natural resources managed or controlled by other federal agencies and that are found in, under, or using waters navigable by deep draft vessels, tidally influenced waters or waters of the contiguous zone, the exclusive economic zone, and the outer continental shelf. However, before the Secretary takes an action with respect to an affected resource under the management or control of another federal agency, he shall, whenever practicable, seek to obtain concurrence of that other federal agency. Examples of the Secretary's trusteeship include the following natural resources and their supporting ecosystems: marine fishery resources; anadromous fish; endangered species and marine mammals; and the resources of National Marine Sanctuaries and National Estuarine Research Reserves.

(2) The Secretary of the Interior shall act as trustee for natural resources managed or controlled by DOI. Examples of the Secretary's trusteeship include the following natural resources and their supporting ecosystems: migratory birds; anadromous fish; endangered species and marine mammals; federally owned minerals; and certain federally managed water resources. The Secretary of the Interior shall also be trustee for those natural resources for which an Indian tribe would otherwise act as trustee in those cases where the United States acts on behalf of the Indian tribe.

(3) Secretary for the land managing agency. For natural resources located on, over, or under land administered by the United States, the trustee shall be the head of the department in which the land managing agency is found. The trustees for the principal federal land managing agencies are the Secretaries of DOI, USDA, DOD, and DOE.

(4) Head of Authorized Agencies. For natural resources located within the United States but not otherwise described in this section, the trustee is the head of the federal agency or agencies authorized to manage or control those resources. 6.2.2 State.(a) State trustees shall act on behalf of the public as trustees for natural resources, including their supporting ecosystems, within the boundary of a state or belonging to, managed by, controlled by, or appertaining to such state. For the purposes of section 6.1, the definition of the term "state" does not include Indian tribes.

(b) The Governor of a state is encouraged to designate a lead state trustee to coordinate all state trustee responsibilities with other trustee agencies and with response activities of the RRT and OSC. The state's lead trustee would designate a representative to serve as a contact with the OSC. This individual should have ready access to appropriate state officials with environmental protection, emergency response, and natural resource responsibilities. The EPA Administrator or USCG Commandant or their designees may appoint the lead state trustee as a member of the Area Committee. Response strategies should be coordinated between the state and other trustees and the OSC for specific natural resource locations in an inland or coastal zone, and should be included in the Fish and Wildlife and Sensitive Environments Plan annex of the ACP.

6.2.3 Indian tribes. The tribal chairmen(or heads of the governing bodies) of Indian tribes, as defined in section 1.5, or a person designated by the tribal officials, shall act on behalf of the Indian tribes as trustees for the natural resources, including their supporting ecosystems, belonging to, managed by, controlled by, or appertaining to such Indian tribe, or held in trust for the benefit of such Indian tribe, or belonging to a member of such Indian tribe, if such resources are subject to a trust restriction on alienation. When the tribal chairman or head of the tribal governing body designates another person as trustee, the tribal chairman or head of the tribal governing body shall notify the President of such designation.

6.2.4 Foreign trustees. Pursuant to section 1006 of the OPA, foreign trustees shall act on behalf of the head of a foreign government as trustees for natural resources belonging to, managed by, controlled by, or appertaining to such foreign government.

6.3 Federal agencies.

(a) Federal agencies listed in this appendix have duties established by statute, executive order, or Presidential directive which may apply to federal response actions following, or in prevention of, the discharge of oil. Some of these agencies also have duties relating to the restoration, rehabilitation, replacement, or acquisition of equivalent natural resources injured or lost as a result of such discharge. The NRT, RRT, and Area Committee organizational structure, and the NCP, RCPs, and ACPs provide for agencies to coordinate with each other in carrying out these duties.

(b) Federal agencies may be called upon by an OSC during response planning and implementation to provide assistance in their respective areas of expertise, consistent with the agencies' capabilities and authorities.

(c) In addition to their general responsibilities, federal agencies should:

(1) Make necessary information available to the Secretary of the NRT, RRTs, Area Committees, and OSCs;

(2) Provide representatives to the NRT and RRTs and otherwise assist RRTs and OSCs, as necessary, in formulating RCPs and ACPs; and

(3) Inform the NRT, RRTs, and Area Committees consistent with national security considerations, of changes in the availability of resources that would affect the operations implemented under the NCP.

(d) All federal agencies must report discharges of oil, as required in 40 CFR part 110, from vessels or facilities under their jurisdiction or control to the NRC.

6.4 Other Federal agencies.

6.4.1 Department of Commerce.(a) The DOC, through NOAA, provides scientific support for response and contingency planning in coastal and marine areas, including assessments of the hazards that may be involved, predictions of movement and dispersion of oil through trajectory modeling, and information on the sensitivity of coastal environments to oil and associated cleanup and mitigation methods; provides expertise on living marine resources and their habitats, including endangered species, marine mammals and National Marine Sanctuary ecosystems; and provides information on actual and predicted meteorological, hydrological, ice, and oceanographic conditions for marine, coastal, and inland waters, and tide and circulation data for coastal and territorial waters and for the Great Lakes. In addition to this expertise, NOAA provides SSCs in the coastal zone, as described under section 3.3.3 of this appendix, Special teams.

6.4.2 Department of Justice. The DOJ can provide expert advice on complicated legal questions arising from discharges, and federal agency responses. In addition, the DOJ represents the federal government, including its agencies, in litigation relating to such discharges. Other legal issues or questions shall be directed to the federal agency counsel for the agency providing the OSC for the response.

6.4.3 Department of Defense. The DOD has responsibility to take all action necessary with respect to discharges where either the discharge is on, or the sole source of a discharge is from, any facility or vessel under the jurisdiction, custody, or control of DOD. In addition to those capabilities provided by SUPSALV, DOD may also, consistent with its operational requirements and upon request of the OSC, provide locally deployed USN oil spill response equipment and

provide assistance to other federal agencies upon request. The following two branches of DOD have particularly relevant expertise:

(a) The United States Army Corps of Engineers has specialized equipment and personnel for maintaining navigation channels, for removing navigation obstructions, for accomplishing structural repairs, and for performing maintenance to hydropower electric generating equipment. The Corps can also provide design services, perform construction, and provide contract writing and contract administrative services for other federal agencies.

(b) The U.S. Navy Supervisor of Salvage(SUPSLAV) is the branch of the service within DOD most knowledgeable and experienced in ship salvage, shipboard damage control, and diving. The USN has an extensive array of specialized equipment and personnel available for use in these areas as well as specialized containment, collection, and removal equipment specifically designed for salvage-related and open-sea pollution incidents.

6.4.4 Department of Health and Human Services.(a) The HHS assists with the assessment, preservation, and protection of human health and helps ensure the availability of essential human services. HHS provides technical and nontechnical assistance in the form of advice, guidance, and resources to other federal agencies as well as state and local governments.

(b) The principal HHS response comes from the U.S. Public Health Service and is coordinated from the Office of the Assistant Secretary for Health, and various Public Health Service regional offices. Within the Public Health Service, the primary response to a hazardous materials emergency comes from the Agency for Toxic Substances and Disease Registry(ATSDR) and the Centers for Disease Control(CDC). Both ATSDR and CDC have a 24-hour emergency response capability wherein scientific and technical personnel are available to provide technical assistance to the lead federal agency and state and local response agencies on human health threat assessment and analysis, and exposure prevention and mitigation. Such assistance is used for situations requiring evacuation of affected areas, human exposure to hazardous materials, and technical advice on mitigation and prevention. CDC takes the lead during petroleum releases regulated under the CWA and OPA while ATSDR takes the lead during chemical releases under CERCLA. Both agencies are mutually supportive.

(c) Other Public Health Service agencies involved in support during hazardous materials incidents either directly or through ATSDR/CDC include the Food and Drug Administration, the Health Resources and Services administration, the Indian Health Service, and the National Institutes of Health.

(d) Statutory authority for HHS/National Institutes for Environmental Health Sciences(NIEHS) involvement in hazardous materials accident prevention is non-regulatory in nature and focused on two primary areas for preventing community and worker exposure to hazardous materials releases:(1) worker safety training and(2) basic research activities. Under section 126 of the SARA, NIEHS is given statutory authority for supporting development of curricula and model training programs for waste workers and chemical emergency responders. Under section 118(b) of the Hazardous Materials Transportation and Uniform Safety Act, NIEHS also administers the Hazmat Employee Training Program to prepare curricula and training for hazardous materials transportation workers. In the basic research arena, NIEHS is authorized under section 311 of SARA to conduct a hazardous substance basic research and training program to evaluate toxic effects and assess human health risks from accidental releases of hazardous materials. Under Title IX, section 901(h) of the Clean Air Act Amendments, NIEHS also is authorized to conduct basic research on air pollutants, as well as train physicians in environmental health. Federal research and training in hazardous materials release prevention represents an important non-regulatory activity and supplements ongoing private sector programs.

6.4.5 Department of the Interior. The DOI may be contacted through Regional Environmental Officers, who are the designated members of RRTs. Department land managers have jurisdiction over the national park system, national wildlife refuges and fish hatcheries, the public lands, and certain water projects in western states. In addition, bureaus and offices have relevant expertise as follows:

(a) United States Fish and Wildlife Service and other Bureaus: anadromous and certain other fishes and wildlife, including endangered and threatened species, migratory birds, and certain marine mammals; waters and wetlands; and effects on natural resources.(b) The National Biological Survey performs research in support of biological resource management; inventories, monitors, and reports on the status and trends in the Nation's biotic resources; and transfers the information gained in research and monitoring to resource managers and others concerned with the care, use, and conservation of the Nation's natural resources. The National Biological Survey has laboratory / research facilities.

(c) Geological Survey: Geology, hydrology(ground water and surface water), and natural hazards.

(d) Bureau of Land Management: Minerals, soils, vegetation, wildlife, habitat, archaeology, and wilderness.

(e) Minerals Management Service: Oversight of offshore oil and gas exploration and production facilities and associated pipeline facilities under the Outer Continental Shelf Lands Act and the CWA; oil spill response technology research; and establishing oil discharge contingency planning requirements for offshore facilities.

(f) Bureau of Mines: Analysis and identification of inorganic hazardous substances and technical expertise in metals and metallurgy relevant to site cleanup.

(g) Office of Surface Mining: Coal mine wastes and land reclamation.

(h) National Park Service: General biological, natural, and cultural resource managers to evaluate, measure, monitor, and contain threats to park system lands and resources; archaeological and historical expertise in protection, preservation, evaluation, impact mitigation, and restoration of cultural resources; emergency personnel.

(i) Bureau of Reclamation: Operation and maintenance of water projects in the West; engineering and hydrology; and reservoirs.

(j) Bureau of Indian Affairs: Coordination of activities affecting Indian lands; assistance in identifying Indian tribal government officials.

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(k) Office of Territorial Affairs: Assistance in implementing the NCP in American Somoa, Guam, the Pacific Island Governments, the Northern Mariana Islands, and the Virgin Islands.

6.4.6 Department of Justice. The DOJ can provide expert advice on complicated legal questions arising from discharges, and federal agency responses. In addition, the DOJ represents the federal government, including its agencies, in litigation relating to such discharges. Other legal issues or questions shall be directed to the federal agency counsel for the agency providing the OSC for the response.

6.4.7 Department of Labor. The DOL, through OSHA and the states operating plans approved under section 18 of the OSH Act, has authority to conduct safety and health inspections of

hazardous waste sites to assure that employees are being protected and to determine if the site is in compliance with:

(a) Safety and health standards and regulations promulgated by OSHA(or the states) in accordance with section 126 of SARA and all other applicable standards; and

(b) Regulations promulgated under the OSH Act and its general duty clause. OSHA inspections may be self-generated, consistent with its program operations and objectives, or may be conducted in response to requests from EPA or another lead agency, or in response to accidents or employee complaints. On request, OSHA shall provide advice and consultation to EPA and other NRT/RRT agencies as well as to the OSC regarding hazards to persons engaged in response activities. OSHA may also take any other action necessary to assure that employees are properly protected at such response activities. Any questions about occupational safety and health at these sites may be referred to the OSHA Regional Office.

6.4.8 Federal Emergency Management Agency. FEMA provides guidance, policy and program advice, and technical assistance in hazardous materials, chemical, and radiological emergency preparedness activities(including planning, training, and exercising). FEMA's primary point of contact for administering financial and technical assistance to state and local governments to support their efforts to develop and maintain an effective emergency management and response capability is the Preparedness, Training, and Exercises Directorate.

6.4.9 Department of Energy. The DOE generally provides designated OSCs that are responsible for taking all response actions with respect to releases where either the release is on, or the sole source of the release is from, any facility or vessel under its jurisdiction, custody, or control, including vessels bareboat-chartered and operated. In addition, under the FRERP, DOE provides advice and assistance to other OSCs/RPMs for emergency actions essential for the control of immediate radiological hazards. Incidents that qualify for DOE radiological advice and assistance are those believed to involve source, by-product, or special nuclear material or other ionizing radiation sources, including radium, and other naturally occurring radionuclides, as well as particle accelerators. assistance is available through direct contact with the appropriate DOE Radiological Assistance Program Regional Office.

6.4.10 Department of State. The DOS will lead in the development of international joint contingency plans. It will also help to coordinate an international response when discharges or releases cross international boundaries or involve foreign flag vessels. Additionally, DOS will coordinate requests for assistance from foreign governments and U.S. proposals for conducting research at incidents that occur in waters of other countries.

6.4.11 General Services Administration. The GSA provides logistic and telecommunications support to federal agencies. During an emergency situation, GSA quickly responds to aid state and local governments as directed by other Federal Agencies. The type of support provided might include leasing and furnishing office space, setting up telecommunications and transportation services, and advisory assistance.

6.4.12 Department of Transportation. DOT provides response expertise pertaining to transportation of oil by all modes of transportation. DOT, through RSPA, establishes oil discharge contingency planning requirements for pipelines, transport by rail and containers or bulk transport of oil.

6.5 States and local participation in response.

(a) Each state Governor is requested to designate one state office/representative to represent the state on the appropriate RRT. The state's office/representative may participate fully in all activities of the appropriate RRT. Each state Governor is also requested to designate a lead state

agency that shall direct state-lead response operations. This agency is responsible for designating the OSC for state-lead response actions, and coordinating/communicating with any other state agencies, as appropriate. Local governments are invited to participate in activities on the appropriate RRT as may be provided by state law or arranged by the state's representative. Indian tribes wishing to participate should assign one person or office to represent the tribal government on the appropriate RRT.

(b) Appropriate state and local officials(including Indian tribes) shall participate as part of the response structure as provided in the ACP.(c) In addition to meeting the requirements for local emergency plans under SARA section 303, state and local government agencies are encouraged to include contingency planning for responses, consistent with the NCP, RCP, and ACP in all emergency and disaster planning.

(d) For facilities not addressed under the CWA for oil discharges, states are encouraged to undertake response actions themselves or to use their authorities to compel potentially responsible parties to undertake response actions.

(e) Because state and local public safety organizations would normally be the first government representatives at the scene of a discharge or release, they are expected to initiate public safety measures that are necessary to protect the public health and welfare and that are consistent with containment and cleanup requirements in the NCP, and are responsible for directing evacuations pursuant to existing state or local procedures. INTERNAL DATA: FR Doc. 94-22347; Filed 9-14-94; 8:45 am; BILLING CODE 6560-50-P