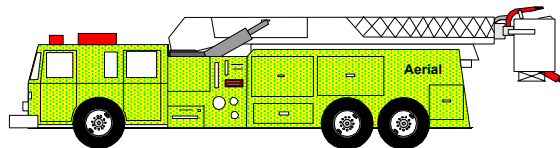


The EPA developed a guidance document that was released in early 1995, which is recognizing and authorizing local governmental responders to use “chemical countermeasures” on small roadway fuel spills. It should be noted that only after reasonable mechanical recovery has been employed would chemical countermeasures be used. The chemical countermeasures are authorized for use on small fuel spills on the road due to vehicle accidents. The chemical countermeasures are to only be used to remove the slickness from the road and to protect the integrity of the asphalt or concrete impacted by the spill. The chemical countermeasure should not be applied to roadside ditches or shoulders unless the State and RRT approval is granted on a case-by-case basis. The chemical countermeasures should be used after all free product has been removed from the spill site and all that is left is the slick sheen or film on the road. **Note: This brochure only applies to “chemical Countermeasures” not Bio-remediation products. Products claiming to conduct Bio-remediation are “not” approved for application. Bio-remediation products will require an extensive state and/or federal permitting process that will only be applicable at the actual site location of a spill.**

US ENVIRONMENTAL
PROTECTION AGENCY
REGION 4
EMERGENCY RESPONSE AND
REMOVAL BRANCH



GUIDANCE ON THE USE OF
CHEMICAL COUNTERMEASURES
ON ROADSIDE FUEL SPILLS



*INFORMATION FOR LOCAL
GOVERNMENT RESPONDERS*

Introduction

The US Environmental Protection Agency Region IV (EPA) office recognizes the major role of local government responders as the first line of defense for mitigating threats to public health and the environment from spills of oil and hazardous substances. In recognition of this role, EPA tries to provide local responders with the tools necessary to safely and effectively mitigate such incidents.

Chemical countermeasures are one of the tools available to local responders. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) at Subpart J requires the On-Scene Coordinator (OSC) to approve the use of chemical countermeasures on spills not threatening human life. In some situations, this approval process places delays on local responders and hampers their ability to properly address roadside spills.

The EPA therefore recognizes and authorizes, through this guidance, that under certain conditions, local responders will be allowed to use chemical countermeasures to mitigate small roadside fuel spills.

What are Chemical Countermeasures?

Any element, compound, or mixture that coagulates, disperses, dissolves, emulsifies, foams, neutralizes, precipitates, reduces, solubilizes, oxidizes, concentrates, congeals, entraps, fixes, makes the oil more rigid or viscous, reduces the harmful effects or otherwise helps remove the oil from the environment. This includes dispersant, surface washing agents, surface collecting agents, gelling agents and any other miscellaneous oil spill control agents.

When can Countermeasures be used?

The EPA authorizes the use of certain chemical countermeasures **ONLY** for mitigating small roadside fuel spills, primarily to reduce the slickness of the highway or roadway surface thereby preventing secondary accidents and to preserve and maintain the integrity of the pavement surface which may be degraded by the solvent action of the spilled fuel.

Local responders, or their contractors, must first remove the majority of the spilled fuel by conventional physical or mechanical means (i.e. granular absorbents or absorbent pads). When the amount of fuel present has been reduced to a visible sheen, chemical countermeasures may be applied per manufacturer's instructions.

What countermeasures can be used?

For spills that have the potential to reach surface water or groundwater, either by runoff or through a storm drain, the chemical countermeasure must be listed on the NCP Product Schedule. Chemical countermeasures listed on the Product Schedule have not been approved for use by the EPA, merely they have met the testing criteria set forth in the NCP.

ARE THERE ANY RESTRICTIONS???

YES! Chemical countermeasures **CANNOT** be applied to spills on inland surface waters or to spills that may reach a waterway, through storm drains or nearby creeks, without permission of the EPA and the Region IV Regional Response Team (RRT). Refer to the next section for further information on surface water applications.

Also, chemical countermeasures **CANNOT** be applied in areas where there is a concern with groundwater contamination (i.e. shallow aquifers, karst geology). Local response authorities should consult with their State environmental department when groundwater contamination may be of concern.

Upon RRT approval or to immediately mitigate a hazard to human life, caution must be used when applying chemical countermeasures into a closed conduit, such as a sanitary sewer or a storm sewer. Many countermeasures, especially dispersant, break the fuel into smaller parts and increase vaporization, hence flammability. Be sure to only use products specifically designed for vapor suppression.

Many States have their own policy regarding the use of chemical countermeasures. Local response authorities should consult with their State's environmental agency before using any product.

Authorization to use chemical countermeasures for fuel slick reduction applies only to local government responders. Contractors may use countermeasures as long as a local government representative is on-scene to provide oversight. Nothing in this policy is intended to allow pre-authorization of use to private concerns.

When is approval necessary?

In general, EPA strongly discourages the use of chemical countermeasures on inland waterways. However, if chemical countermeasures are being considered for use on a spill that does not meet the authorization criteria discussed earlier (i.e. small highway fuel spill), then EPA, in coordination with the Region 4 Regional Response Team (RRT), must grant approval prior to any

application of the desired countermeasure. The **only** exception is when a local government responder determines the use of a product will prevent or substantially reduce an **immediate hazard to human life**.

How to obtain approval when necessary

During a spill event, the EPA, in coordination with the Region 4 Regional Response Team (RRT), may verbally authorize the use of a chemical countermeasure provided it is listed on the NCP Product Schedule. EPA's 24-hour number is (404) 562-8700. An answer should be available within one hour of the inquest.

Information needed to grant approval.

- * Exact location of spill
- * Type of material spilled
- * Amount spilled or potentially spilled
- * Name of product
- * MSDS on product
- * Rate and method of application
- * Nearest surface water
- * Forecasted weather conditions
- * Monitoring strategy

Note: This brochure only applies to the use of "Chemical Countermeasures" not "Bio-remediation" products. Products claiming to conduct Bio-remediation are "not" pre-approved for application. Approval of Bio-remediation products usually requires an extensive state and/or federal permitting process that is only applicable for long term mitigation at the actual site location of a spill or release. Please contact your State environmental agency for consultation if you are considering the use of any Bio-remediation products.

Additional Sources of Information

National Oil and Hazardous Substances Pollution Contingency Plan (NCP); 40 CFR Part 300 Subpart J.

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.

"The Behavior of Dispersed and Non-Dispersed Fuels in a Sewer System", M.F. Fingas, K.A. Hughes, and A. M. Bobra in *Oil Dispersant: New Ecological Approaches, ASTM STP 1018*, 1989, pp.274-289.

Questions?

For additional information that is not addressed in this pamphlet, please call (404) 347-393 1. Or write to Mary Jo Bragan, US Environmental Protection Agency (4NM-ERRB), Emergency Response and Removal Branch, 345 Courtland Street, Atlanta, GA, 30365.

24-HOUR NUMBERS

USEPA Region 4 (404) 562-8700	KENTUCKY 1-800-928-2380
NATIONAL RESPONSE CENTER 1-800-424-8802	MISSISSIPPI (601) 352-9100 1-800-222-6362
ALABAMA 1-800-843-0699	NORTH CAROLINA (919) 733-5083 After Hours (919) 899-4500
FLORIDA 1-800-320-0519	SOUTH CAROLINA (803) 253-6488
GEORGIA (404) 656-4300	TENNESSEE 1-800-258-3300 In-State 1-800-262-3300