

USCG Regulations for Group V Oils and OSRO Classification Guidelines for Non-Floating oils



Mark Gregory, USCG District 11
District Response Advisory Team

Definitions

- Group IV—specific gravity equal to or greater than .95 and less than or equal to 1.0.
- Group V—specific gravity greater than 1.0.
- *Oil spill removal organization (OSRO)* means an entity that provides oil spill response resources.
- FRP-Facility Response Plan
- VRP-Vessel Response Plan

The Regulations

- **§ 154.1047** Response plan development and evaluation criteria for facilities that handle, store, or transport Group V petroleum oils.
- **§ 155.1052** Response plan development and evaluation criteria for vessels carrying group V petroleum oil as a primary cargo.

33 CFR 154.1047(a)(1) and 33 CFR 155.1052(a)(1)

- plan holders must identify procedures and strategies for responding to a Worst Case Discharge of Group V petroleum oils to the maximum extent practicable.
- Both facility and vessel regulations require the plan holder take in to account operating conditions such as, Ice conditions, Debris, Temperature ranges and Weather-related visibility.

Equipment

- Sonar, sampling equipment, or other methods for locating the petroleum oil on the bottom or suspended in the water column;
- Containment boom, sorbent boom, silt curtains, or other methods for containing the petroleum oil that may remain floating on the surface or to reduce spreading on the bottom;
- Dredges, pumps, or other equipment necessary to recover petroleum oil from the bottom and shoreline;
- Equipment necessary to assess the impact of such discharges; and
- Other appropriate equipment necessary to respond to a discharge involving the type of petroleum oil handled, stored, or transported.

24 Hours!

- **§ 154.1047 (d)** Response resources identified in a response plan for a facility that handles, stores, or transports Group V petroleum oils under paragraph (c) of this section must **be capable of being at the spill site within 24 hours of discovery of a discharge.**
- **§ 155.1052 (d)** Response resources identified in a response plan under paragraph (c) of this section must **be capable of being deployed within 24 hours of discovery of a discharge to the port nearest the area where the vessel is operating.**

Reason for NFO Vs. Group V OSRO Classification

- The Non-Floating Oil (NFO) classification is an attempt by CG-HQ to address a short fall in regulation by incorporating “heavy” oils and group V oils into a single classification.
- What has been observed in the field is that some group IV oils have acted similar to group V oils in that they sank given the correct conditions (weathering, water/air temperature, sea state, etc.)
- Since these oils are defined as group IV oils the FRPs/VRPs didn't have the correct tools or possibly capable OSROs to respond.

Classification Process

- Working with CG-HQ, the National Strike Force Coordination center updated the Classified OSRO Guidelines.
- The guidelines included a new portion for NFO classification, and a NFO application process.
- CG-HQ & NSFCC worked together to create an evaluation guide, created using API NFO reports. This evaluation guide is used to ensure unbiased review meeting minimum standards.
- The evaluation guide breaks down essential and optional equipment standards needed for classification. This will be applied to each District/COTP the OSRO applies for.
- Each application will be reviewed by at least, one CG-HQ rep, one NSFCC rep, and one DRAT for each district the OSRO is applying for. NOAA Scientific Support Coordinators (SSC) can be called on for further support.

API Tech RPT 1154-1

Table 3-2—Matrix to Evaluate Technologies For Detection, Delineation, and Characterization of Sunken Oil


	Sonar Systems	Camera/ Video	Acoustic Camera	Diver Observations	Towed Sorbents	Stationary Sorbents	Visual Observations	Bottom Sampling	Manual Shovel Pits	Laser Fluoresensor	Water Column Sampling
Water Depth (ft)	10 to 1000	10 to 1000	10 to 1000	5 to 190	5 to 100	5 to 100	0 to 30	0 to 1000	0 to 5	10 to 100	5 to >1000
Water Visibility											
— >30 ft	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green
— 5 to 30 ft	Green	Yellow	Green	Green	Green	Green	Yellow	Green	Red	Yellow	Green
— <5 ft	Green	Red	Green	Yellow	Green	Green	Red	Green	Green	Red	Yellow
Availability	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Yellow
Substrate Type											
— Sand	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
— Silty sand	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
— Mud	Green	Green	Green	Green	Green	Green	Yellow	Green	Yellow	Green	Green
Bottom Obstruction	Green	Green	Green	Yellow	Yellow	Green	Green	Green	Red	Green	Green
Oil Patch Size											
— <0.1 ft ²	Red	Green	Yellow	Green	Yellow	Green	Yellow	Red	Yellow	Green	Yellow
— 0.1 to 1 ft ²	Red	Green	Green	Green	Yellow	Green	Green	Red	Yellow	Green	Yellow
— >1 to 10 ft ²	Yellow	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow
— >10 ft ²	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow
Oil Thickness	Yellow	Yellow	Red	Green	Yellow	Red	Yellow	Green	Green	Red	Red
Buried Oil	Yellow	Red	Red	Yellow	Green	Red	Red	Green	Green	Red	Yellow
Sensitive Habitat	Green	Green	Green	Green	Red	Green	Green	Yellow	Yellow	Green	Green
False Positives	Yellow	Green	Green	Green	Green	Green	Yellow	Green	Green	Green	Green
Coverage Rate	Green	Green	Green	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Data Turnaround	Green	Green	Green	Green	Green	Green	Green	Yellow	Green	Yellow	Yellow
NOTE	Red = not likely effective; yellow = may be effective; green = most likely effective										

NFO Classification Review

**OSROs Submit Application IAW
Guidelines**



**NSFCC, CG-MER & District Review
Application – Focus on Administrative
Requirements & Concept of Operations**



**Upon Success, Resources Added To The
Response Resource Inventory (RRI)**



Resources Validated With A (Joint) PAV

Challenges/Goals

- Voluntary Program
- Hold to minimum standards
- Area of expertise not widely known
- Completion of NFO GIUEs and NFO PAVs
- Limited CG personnel to complete review

References

- **Reading**
 - API tech report 1154-1 Sunken Oil Detection and Recovery
 - CG-D-09-13 report Development of Bottom Oil Recovery Systems
 - National Research Council ISBN:0-309-52015-0 Spills of Nonfloating Oils: Risk and Response
- **Guidance**
 - OSRO Classification Guidelines 03/2016
 - Preparedness Assessment Visit TTP, PAV Team Leader Qualification
 - 33 CFR parts 154 and 155