

EPA 910/9-88-234

copy 2

REPORT

POLLUTANT LOADING ANALYSIS

TASK 3.0 IDENTIFICATION OF SPILL RECORDS

WORK ASSIGNMENT NO. 6

CONTRACT NO. 68-03-1972

Submitted to

U.S. Environmental Protection Agency

Region 10

Prepared by

Cooper Consultants, Inc.
1750 - 112th Avenue NE, Suite C-225
Bellevue, Washington 98004

and

Envirosphere Company
400 - 112th Avenue NE
Bellevue, Washington 98004

October 1985

TABLE OF CONTENTS

	<u>Page</u>
Responsible Agencies	1
Marine Safety Information System	1
Pollution Incident Reporting System (PIRS)	1
Intra-Agency Notification.	4
Utility of the Database.	7
Recommendations.	7
Appendix A - Pollution Incidents Reporting System -- Codes	A-1

Task 3.0 Identification of Spill Records

Responsible Agencies.

The United States Coast Guard (USCGS) is the principal agency responsible for spill reporting in navigable marine waters and for maintenance of records. The Environmental Protection Agency (EPA) Emergency Response Team receives reports and maintains spill records for inland waters. On the basis of a USCGS/EPA joint Memorandum of Agreement the first bridge or highway crossing of Puget Sound waterways is recognized as the jurisdictional boundary between the two agencies (W. Longston, personal communication).

The Seattle Marine Safety Office of the USCGS 13th District receives reports from a variety of sources including the National Emergency Response Toxic Chemical and Oil Spill Hotline (based in Washington, D.C.), the EPA, the Washington State Department of Ecology (WDOE), other agencies, the maritime industry and private citizens (R. Rochon, personal communication).

Marine Safety Information System

The Marine Safety Information System (MSIS) is a database system for spills information management initiated in 1973 and maintained by USCGS Headquarters in Washington, D.C. (M. Robbey, personal communication). Typically, a reported spill is encoded and entered into the MSIS in terms of time, location (by latitude and longitude), source, cause, material, quantity, type of operation, and affected type of industry, marine traffic system or affected resources.

Pollution Incident Reporting System (PIRS). The Pollution Incident Reporting System (PIRS) R:Base 4000 database management system was used by USCGS Districts prior to October 1, 1985 to receive spill information from local USCGS Marine Safety Offices for entry into the MSIS. A PIRS database form (Figure 3.1) was used by the Marine Safety Offices for organization of information and transmission of data to Districts. Appendix A provides a detailed representation of these data parameters. Inasmuch as the USCGS is the agency in charge of coordinating spill response, the complete PIRS database also included cleanup operation type and costs as well as penalty information.

The October 1, 1985 initiation of the Pollution Module for the MSIS eliminated the PIRS system for entry and local database access. Terminals in local Marine Safety Offices now provide for direct entry of spill information into the MSIS. By January 1, 1986, the USCGS will have completed the process of loading all Puget Sound PIRS data collected prior to October 1, 1985 into the MSIS into a format which will enable local access of data. Optimally, data will be retrievable at local Marine Safety Office terminals, following a period for training of technicians. A notable improvement provided by the Pollution Module is the ability to locate spills to the nearest 0.1 minute of latitude or longitude (M. Robbey, personal communication). All data entered prior to October 1, 1985 were limited to the nearest minute of longitude or latitude, resulting in a spatial resolution to approximately the nearest square nautical mile.

Since the greatest number of spill notifications are from private citizens, unless a specific source quantity is known it is usually difficult to accurately quantify amounts of spilled materials. The USCGS Marine Safety Office Field Units typically employ nomographs to estimate spilled quantities on the basis of the type of material discharged and areal coverage under average ambient conditions.

Intra-Agency Notification

Oil samples from investigated spills are processed by USCGS laboratories for identification. Samples of spills of other potentially hazardous materials are referred to EPA for determination of specific chemical constituents.

Although EPA jurisdiction is limited to spills on land and inland portions of Puget Sound waterways as defined above, USCGS provides routine spill notification by telex to EPA. EPA does not maintain a computerized database in EPA Region 10, but relies on the handwritten Emergency Report Form (Figure 3.2) for spills reporting. In those circumstances where potential impacts to Puget Sound might occur as a result of a reported or identified spill, EPA routinely notifies USCGS and provides a copy of the Emergency Report Form (W. Longston, personal communication). As these notifications are received they are processed for inclusion into the MSIS.

Like EPA, WDOE relies on handwritten complaint forms alone (Figures 3.3 and 3.4), and does not maintain a computerized database of Puget Sound spills information (D. Nunnallee, personal communication). Reports are taken, filed solely by date and maintained by the agency regional offices. Annually, 400-500 complaints are processed in Washington state. No statewide coordination of data is conducted.

Only in cases involving a significant spill does WDOE proceed beyond preparation of a report form. In those cases, either a narrative is prepared or an enforcement action is specified. Approximately 10 percent of reported spills are thoroughly investigated. As a result of general field measurement difficulties, the accuracy of estimates of material quantity for these investigated spills can be \pm 200 percent (D. Nunnallee, personal communication).

For comparison, and to underscore the field measurement difficulties, the original USCGS quantity estimate for the Whidbey Island 5,000 gallon intermediate fuel spill (December 1984) was corrected upward by 100 percent 24 hours later on the basis of more detailed field information. Although this spill was technically considered to be a "minor spill", it was upgraded to a "medium spill", based on the environmental setting (R. Rochon, personal communication).

Emergency Report Form

Date 8/8/85 Time 16:10

1. Type of Emergency: Water, Air, Solid Wastes, Radiation, Other _____

2. Name of Person Reporting NPC / Tom Renner Matthew Inc.
and Telephone Number 8101 NE 11th St Portland OR 97211 503/285-3691

3. Spill Information:

a. Source of Spill Leaking dome lid on a truck

b. Material Name(s) HFI occurred @ 12:00 8/8
and Quantity Spilled ~ 3 gallons

c. Spill Location on city street in Astington

d. Amount Reaching Water N/A

e. Name of Receiving Water N/A
and Location Where Entered Water _____

f. Actions Taken for Containment spill cleaned by F.D. personnel
Clean-up, if any _____

g. State and Local Agencies Contacted ODEQ notified

4. General Information _____

and Follow-up Actions _____

(continue on back if necessary)

Longston
Signature

RECEIVED
SEP 11 1985

National Response Center (800) 442-8802
Environmental Protection Agency (206) 442-1263
Puget Sound Air Pollution Control Agency (206) 344-7330

U.S. Coast Guard, Seattle, (206) 442-1856, Portland, (503) 221-6323
Washington DOE, Redmond, (206) 885-1900, Olympia, 753-2353; Spokane, (509) 456-2926; Yakima, 575-2490
Oregon DEQ, Portland, (503) 229-6202; Salem, 378-8240; Medford, 729-8657
Oregon Emergency Services (800) 452-0311 (in Oregon), (503) 378-4128 (outside Oregon)
IDHW, Boise, (208) 384-2433; Pocatello, 378-8240, Ext. 291; Coeur d'Alene, 667-3524

COOPER CONSULTANTS, INC.

Figure 3.3

WASHINGTON STATE DEPARTMENT OF ECOLOGY
POLLUTION COMPLAINT REPORT FORM

I. Complaint No. _____ 2. Date of Complaint _____
3. Date of Investigation _____

I. Complaint Reported By:

Name _____ Phone No. _____
Address _____
Date and time complaint first noted _____
Other information _____

II. Location:

4. Watercourse _____
5. Region Northwest () Southwest () Eastern ()
6. District (1) _____ (2) _____
7. County and Town _____

III. Pollutant:

8. Pollutant Source _____
9. Material _____
10. Quantity _____
Area or miles affected _____
(If dead or dying fish are visible, fill out Nos. IX, X and XI)

IV. Responsibility:

11. Person or entity: Name _____
Address _____ Phone No. _____
Violator: Confirmed () Suspected () Unknown ()

V. Cause:

12. Brief Description: _____

VI. Complaint Received By:

Name _____
Time and date _____

VII. Complaint Investigated By: _____

VIII. Miscellaneous:

Were pictures taken? _____
Were samples taken? _____
Individuals and agencies notified _____
Witnesses: Name _____
Address _____
Attachments _____

IX. Fish Kill:

Estimated number of dead fish _____
Estimated percent scrapfish _____
Predominant species and size _____

X. Suspected Agent or Reason for Kill:

Agent _____
Describe effects _____
Action taken _____

XI. Additional Information:

Figure 3.4



ENVIRONMENTAL COMPLAINT

DATE _____

TIME _____ a.m. p.m.

- WATER QUALITY WATER RIGHTS SHORELANDS AIR
 - HAZARDOUS WASTES SOLID WASTES OTHER _____
- Region _____ District _____ County _____

Complaint received by _____

1. Does the complainant wish to remain anonymous? Yes No

2. Complaint reported by:

Name _____ Telephone No. _____

Address _____

City State Zip

3. Date(s) of violation _____

4. Type or kind of pollutant, if known _____

5. Statement of problem _____

6. Alleged violator or source:

Name _____

Address _____

City State Zip

7. Where did the violation occur?: Street _____

City _____ County _____

Directions to place of incident: _____

Use reverse side for notes

Watercourse, if any _____

8. Description of damage (dead fish, etc.) _____

Referred to _____ Name for investigation on _____ Date

(Use back of this form for sketch, map, additional notes, etc.)

Utility of the Database

It is anticipated at this time that there will be no capability to provide for communication with data management systems outside the USCGS and requests for information will be processed on a time-available basis (M. Robbey, personal communication).

The database is generally updated on a weekly basis or as new information is received (R. Rochon, personal communication). Tape dumps of MSIS information will be available on a quarterly basis, probably beginning in February or March, 1986 (M. Robbey, personal communication).

At its ultimate development, the MSIS database will allow a USCGS Marine Safety Office to access data and assess trends in terms of such parameters as area or specific location, discharge (type and individual), type of operation, or type and amount of material. Data search for repeated problems and violators could then be routinely performed and there is the potential that information regarding quantity and type of spilled material could be evaluated on the basis of location.

The lack of standardization of reporting methods or data formats employed by WDOE and EPA does not encourage interaction with either the MSIS or other databases. There are no current WDOE or EPA plans for providing the extensive computerization time which would be required for integration of their records into the MSIS database.

Although data entered prior to October 1, 1985 do not provide for pinpoint fixes of spills, the quality of the data for location, type of material, discharger or source and most other information is generally good.

However, estimating spill quantity in the absence of direct information from the discharger is a problem with all reporting systems. In response to potential enforcement actions and penalties, a discharger is more likely to feel the need to minimize quantities reported. Accordingly, the accuracy of quantity information becomes a limiting factor in utilizing the database for pollutant loading calculations. In the absence of an index for reliability of spill material quantity information, background information for each spill may be required for optimal evaluation of quantity estimates.

Recommendations

Because it would enable improved capability for screening data for trends, spill location information should include seconds of latitude and longitude whenever possible. Furthermore, available nomographs for estimating quantity of spilled materials should be expanded to include more reliable discriminatory methods and should be field-tested to cover a wide range of local ambient conditions.

USCGS has principal responsibility for maintenance of spill reporting information in Puget Sound. However, the other agencies receiving spill reports do not always share data in a timely fashion or report that information in a MSIS-useable format (J. Oberlander, personal

communication) and there is the potential that data for individually less significant spills might not be transmitted to MSIS. The overall utility and completeness of the database could be improved if all agencies ensured that data were submitted in a timely fashion to USCGS for inclusion to MSIS.

Routine transmittal of agency information to USCGS in a MSIS-compatible format would reduce potential for omission of subthreshold spills whose cumulative impacts could be significant.

A convenient method of providing for EPA and other agency computer access to the MSIS database would encourage the development of more complete evaluation of local and national spill trends. Such a capability would heighten the potential of development of a meaningful portrayal of the impacts of spills on the pollutant loading of Puget Sound.

PERSONAL COMMUNICATIONS

<u>Contact</u>	<u>Agency</u>	<u>Date</u>
Longston, W.	EPA	September 9, 1985
Nunnallee, D.	WDOE	September 11, 1985
Oberlander, J.	WDOE	September 8, 1985
Robbey, M.	USCGS, Headquarters	October 23, 1985
Rochon, R., Lt.	USCGS, Seattle	August - October 1985

APPENDIX A

POLLUTION INCIDENTS REPORTING SYSTEM -- Codes

LOCATION

Latitude - Longitude

L XX OO ZZZ YY

XX = Latitude Degrees
 OO = Latitude Minutes
 ZZZ = Longitude Degrees
 YY = Longitude Minutes

River Mile

R XX YYYYY

XX = River Designation
 YYYYY = River to nearest tenth of a mile
 .00123--mile 12.3 on the XX River

RIVERS

AL	Allegheny	KY	Kentucky
AR	Arkansas	KK	Kill van Kull
AT	Arthur Kill	LK	Licking
AF	Atchafalaya	MU	Maumee
BS	Big Sandy	MI	Miami
BW	Black Warrior	MW	Milwaukee
BU	Buffalo	MN	Minnesota
CF	Cape Fear	LM	Mississippi (Lower)
CC	Chicago Ship Canal	UM	Mississippi (Upper)
CL	Clinch	MO	Missouri
CM	Columbia	ME	Monongahela
CB	Cumberland	OH	Ohio
CY	Cuyahoga	PS	Passaic
DE	Delaware	PT	Patascho
Dt	Detroit	RT	Roritan
EL	Elizabeth	RU	Rouge
GR	Green	SA	Sacramento
HI	Hiwassee	SK	Schuylkill
HU	Hudson	SS	Suislaw
IL	Illinois	SC	St. Croix
IE	Intracoastal Waterway (East)	SL	St. Lawrence
IW	Intracoastal Waterway (West) (Gulf of Mexico)	TN	Tennessee
JA	James	WL	Willamette
KN	Kanawha	YK	York
		YU	Yukon

STATE

AL	Alabama	MT	Montana
AK	Alaska	NE	Nebraska
AZ	Arizona	NV	Nevada
AR	Arkansas	NH	New Hampshire
CA	California	NJ	New Jersey
CO	Colorado	NM	New Mexico
CT	Connecticut	NY	New York
DE	Delaware	NC	North Carolina
DC	District of Columbia	ND	North Dakota
FL	Florida	OH	Ohio
GA	Georgia	OK	Oklahoma
HI	Hawaii	OR	Oregon
ID	Idaho	PA	Pennsylvania
IL	Illinois	RI	Rhode Island
IN	Indiana	SC	South Carolina
IA	Iowa	SD	South Dakota
KS	Kansas	TN	Tennessee
KY	Kentucky	TX	Texas
LA	Louisiana	UT	Utah
ME	Maine	VT	Vermont
MD	Maryland	VA	Virginia
MA	Massachusetts	WA	Washington
MI	Michigan	WV	West Virginia
MN	Minnesota	WI	Wisconsin
MS	Mississippi	WY	Wyoming
MO	Missouri		

Outside Contiguous Zone

AS	American Samoa	SA	South Atlantic
CZ	Canal Zone	SP	South Pacific
GU	Guam	TT	Trust Territories
NA	Northern Marianas	VI	Virgin Islands
PR	Puerto Rico		

Coastal Codes

EC	East Coast	WC	West Coast	GC	Gulf Coast
----	------------	----	------------	----	------------

WATERBODY

- | | | | |
|-----|----------|-----|--|
| 1__ | Inland | _01 | Bay, Estuary, or Sound |
| 2__ | Atlantic | | INLAND ONLY-Lake, Roadstead, or other |
| 3__ | Pacific | | large body of Open Internal Water |
| 4__ | Gulf | | LAKES ONLY-Bay, Estuary, Sound or Open Lake |
| 5__ | Lakes | | |
| | | _02 | River Area, Canal, or other Restricted Navigable Waterway |
| | | _03 | Port or Harbor Area (including Terminal or Dock) |
| | | _04 | Non-navigable Tributary to Navigable Water |
| | | _05 | Other Non-navigable area |
| | | _06 | Beach or Shore adjoining Navigable Water or a Tributary to Navigable Water |
| | | _07 | Other Beach or Shore |
| | | _08 | Territorial Sea (Baseline to 3 Miles) |
| | | _09 | Contiguous Zone (More than 3 Miles to 12 Miles) |
| | | _10 | High Seas (More than 12 Miles to 50 Miles) |
| | | _11 | High Seas (More than 50 Miles to 100 Miles) |
| | | _12 | High Seas (More than 100 Miles) |

(Example, 312 = Pacific Coast High Seas (More than 100 Miles))

MATERIAL

Crude Oil

1000 Light crude oil
1001 Heavy crude oil
1002 Medium crude oil

Asphalt or Other Residual

1060 Creosote
1061 Asphalt or road oil
1062 Coal tar or pitch

Gasoline

✓1010 Natural (casing head) gasoline
✓1011 Gasoline (aviation or automotive)

Animal or Vegetable Oil

1070 Animal oil
1071 Vegetable oil

Other Distillate Fuel Oil

1020 Jet fuel (JP-1 through JP-5)
1021 Kerosene
1022 Other distillate fuel oil

Waste Oil

✓1080 Waste oil

Solvents

1030 Naptha
1031 Mineral spirits
1032 Other petroleum solvent

Other Oil

1089 Lube oil
1090 Liquefied petroleum gas
1091 Hydraulic fluid
1092 Lacquer-based paint
1093 Paraffin wax
1094 Grease
1095 Mixture of two or more petroleum products
1096 Oil-based pesticides
1097 Unidentified light oil
1098 Unidentified heavy oil
1099 Other oil or unknown

Diesel Oil

✓1040 Light diesel oil
✓1041 Heavy diesel oil

Residual Fuel Oil

1050 #4 Fuel oil
1051 #5 Fuel oil
1052 #6 Fuel oil

Hazardous Substances Other than Oil

2001	Acetaldehyde	2030	Chlorosulphonic Acid
2101	Acetic Acid	2120	Chromium Compounds
2002	Acetic Anhydride	2121	Cobalt Compounds
2003	Acetone	2122	Copper Compounds
2004	Acetone Cyanohydrin	2123	Coumaphos
2005	Acetronitrile (Methyl cyanide)	2033	Cresol
2102	Acetyl Bromide	2034	Crotonaldehyde
2006	Acetyl Chloride	2124	Cyanide Compound
2007	Acrolein	2035	Cyclo-hexane
2008	Acrylic Acid	2036	Chloroacetic Acid
2009	Acrylonitrile		
2010	Adiponitrile	2125	2, 4-D (acid)
2011	Allyl Alcohol	2126	2, 4-D (esters)
2012	Allyl Chloride	2127	Dalapon
2103	Aluminum Sulfate (alum)	2128	DDT
2013	Ammonia	2129	Diazinon
2104	Ammonium Compounds	2037	Dibenzyl Ether
2014	Amyl Acetate	2130	Dicamba
2015	n-Amyl Alcohol	2131	Dichlobenil
2016	tertiary-Amyl Alcohol	2132	Dichlone
2017	Aniline	2038	O-Dichloro Benzene
2105	Antimony Compounds	2039	Dichloropropane-
2106	Arsenic Compounds		Dichloro-propane mixture
			(D. D. soil fumigant)
2018	Benzene	2133	Dichlorvos
2107	Benzoic Acid	2134	Dieldren
2108	Benzonitrile	2040	Diethanolamine
2109	Benzoyl Chloride	2041	Diethylamine
2019	Benzyl Alcohol	2042	Diethylenetriamine
2020	Benzyl Chloride	2043	Diethyl Ether
2110	Beryllium Compounds	2044	Dimethylamine (40% aqueous)
		2045	Dimethyl Formamide
2111	Brucine	2045	Dimethyl Formamide (Formadimethylamide)
2021	n-Butyl Acetate		
2022	n-Butyl Acrylate	2135	Dinitrobenze
2023	n-Butyl Alcohol	2136	Dinitriphenol
2212	Butylamine	2137	Diquat
2024	Butyl Ether	2138	Disulfoton
2025	n-Bulyraldehyde	2139	Duiron
2026	Butyric Acid	2140	Dodecylbenzenesufuric Acid
2027	Bromine	2141	Dursban
2113	Cadmium Compounds	2142	Endosulfun
2114	Calcium Compounds	2143	Endrin
2115	Captan	2047	Epichlorohydrin
2116	Carbaryl	2144	Ethion
2028	Carbon Disulphide	2048	Ethyl Acetate
2029	Carbon Tetrachloride	2049	Ethyl Acrylate
2030	Caustic Soda	2050	Ethyl Alcohol
2117	Chlordane	2145	Ethylbenzine
2118	Chlorine	2051	Ethylene Cyanohydrin
2119	Chlorobenzene	2052	Ethylenedianine
2031	Chloroform		

2053	Ethylene Glycol	2169	Nitrogen Dioxide
		2170	Nitrophenol
2146	Flourine Compounds		
2055	Formaldehyde	2076	iso-Octane
2056	Formic Acid	2077	n-Octanol
2147	Fumaric Acid	2078	Oleum
2057	Furfural		
		2171	Paraformaldehyde
2058	Glycerine	2172	Parathion
2046	Glycol	2173	PCB's
2148	Guthion	2174	Pentachlorophenol
		2079	Perchloroethylene
2149	Heptachlor	2079	Perchloroethylene (Tetrachloroethylene)
2059	n-Hexane	2080	Phenol
2060	Hydrochloric Acid	2175	Phosgene
2061	Hydrofluoric Acid (40% aqueous)	2082	Phosphoric Acid
2062	Hydrogen Peroxide (greater than 60%)	2181	Phosphorus
2150	Hydroxylamine	2176	Phosphorus Oxychloride
		2177	Phosphorus Pentasulfide
2151	Iron Compounds	2178	Phosphorus Trichloride
2063	Isoprene	2179	Potassium Hydroxide
2064	Isopropyl Alcohol	2180	Potassium Permanganate
		2181	Propionic Acid
2152	Kelthane	2182	Propionic Anhydride
		2083	n-Propyl Alcohol
2153	Lead Compounds	2085	Propylene Oxide
2154	Lindane	2183	Pyrethrins
2065	Liquid Sulphur	2084	Pyridine
2155	Malathion	2184	Quinoline
2156	Maleic Acid		
2157	Maleic Anhydride	2185	Resorcinol
2158	Mercury Compounds		
2159	Methoxychlor	2186	Selenium Compounds
2066	Methyl Acrylate	2187	Sodium
2067	Methyl Alcohol	2188	Sodium Bisulfite
2068	Methyl Chloride	2189	Sodium Hydrosulfide
2069	Methyl ethyl ketone (2-butanone)	2190	Sodium Hydroxide
2070	Methyl iso-butyl ketone	2191	Sodium Hypochlorite
2160	Methyl Mercaptan	2192	Sodium Methylate
2161	Methyl Parathion	2193	Sodium Nitrite
2171	Methylene Chloride	2194	Sodium phosphate, dibasic
2072	Methyl Methacrylate	2195	Sodium phosphate, monobasic
2162	Mevinphos	2196	Sodium phosphate, tribasic
2073	Monoethanolamine	2197	Sodium Sulfide
2163	Monomethylamine	2198	Strychnine
2074	Morpholine	2089	Styrene
		2199	Sulfur Monochloride
2164	Naled	2087	Sulphuric Acid
2165	Napthalene		
2166	Napthenic Acid	2200	2, 4, 5-T (acid)
2075	Nitric Acid	2201	2, 4, 5-T (esters)
2168	Nitrobenzene	2202	TDE

2088 Tetraethyl Lead
 2203 Tetraethyl Pyrophosphate
 2089 Toluene
 2204 Toxaphene
 2205 Tuchlorfon
 2090 Trichloroethane
 2091 Trichloroethylene
 2206 Trichlorophenol
 2092 Triethanolamine
 2207 Triethylamine
 2208 Trimethylamine
 2093 Turpentine

2209 Uranium Compounds

2210 Vanadium Compounds
 2094 Vinyl Acetate
 2095 Vinylidene Chloride
 2096 Xylene
 2211 Xylenol
 2212 Zectran
 2213 Zinc Compounds
 2214 Zirconium Compounds
 2097 Other hazardous substances

Other Pollutant

7001 Dredged spoil
 7002 Solid waste
 7003 Incinerator residue
 7004 Sewage
 7005 Sewage sludge
 7006 Garbage
 7007 Munitions
 7008 Chemical wastes
 7009 Biological materials
 7010 Radioactive materials
 7011 Heat

7012 Wrecked or discarded equipment
 7013 Rock
 7014 Sand
 7015 Cellar dirt
 7016 Industrial waste
 7017 Municipal waste
 7018 Agricultural waste
 7019 Coal dust
 7020 Coke
 7021 Salt water

8000 Natural Substance

9000 Other Material

9999 Unknown Material

UNIT

Actual Spill

G = Gallons
 P = Pounds
 S = Sheen
 U = Unknown

"Potential" Spill

X = Gallons
 Y = Pounds

SOURCE

Marine Traffic Systems

VESSEL:

000 Other vessel
001 Unknown but suspected vessel
01_ Tankship __0 0 - 149 Gross Tons
 __1 150 - 299 Gross Tons
03_ Tank Barge __2 300 - 499 Gross Tons
 __3 500 - 999 Gross Tons
 __4 1,000 - 9,999 Gross Tons
 __5 10,000 - 19,999 Gross To
 __6 20,000 - 34,999 Gross To
 __7 35,000 - 49,999 Gross To
 __8 50,000 - 99,999 Gross To
 __9 100,000 Gross Tons or mo

050 Dry Cargoship
051 Dry Cargo Barge
052 Tugboat or Towboat
053 Fishing Vessel
054 Passenger Vessel
055 Recreational Vessel
056 Combatant Vessel (All Naval vessels except Tank Vessels)
057 Other Public Vessels
058 Coast Guard Vessel
059 Service Vessel
060 Research Vessel
061 Crew Boat

MARINE FACILITY:

100 Other transportation-related marine facility
101 Onshore bulk cargo transfer
102 Onshore Fueling
103 Onshore non-bulk cargo transfer

- 104 Offshore bulk cargo transfer
- 105 Offshore Fueling
- 106 Offshore non-bulk cargo transfer
- 107 Deepwater Port Complex
- 108 Single Point Mooring
- 109 Gas Freeing Plant

Other Transportation Systems

VEHICLE:

- 200 Other land vehicle
- 201 Rail vehicle liquid bulk
- 202 Rail vehicle dry bulk
- 203 Rail vehicle general cargo
- 204 Rail vehicle transfer
- 205 Highway vehicle liquid bulk
- 206 Highway vehicle dry bulk
- 207 Highway vehicle general cargo
- 208 Highway vehicle passenger
- 209 Aircraft
- 210 Tank Truck
- 250 Unknown type of land vehicle

LAND FACILITIES:

- 300 Other land transportation facility
- 301 Railway cargo transfer
- 302 Railway fueling facility
- 303 Highway cargo transfer
- 304 Highway fueling
- 305 Unknown type of land transportation facility

TRANSPORTATION RELATED PIPELINES:

- 401 Onshore pipeline
- 402 Offshore pipeline

NON-TRANSPORTATION-RELATED FACILITIES:

- 500 Other onshore non-transportation-related facility
- 501 Onshore refinery
- 502 Onshore bulk storage facility (includes tank farms)
- 503 Onshore industrial plant or processing facility
- 504 Onshore oil or gas production facility
- 505 Other offshore non-transportation-related facility
- 506 Offshore production facility
- 507 Power plant
- 508 Pipeline within non-transportation-related facility

MISCELLANEOUS:

- 900 Miscellaneous - or natural source - any source not listed above. (Use this code if cause is natural seepage or if material is natural substance.)
- 901 Natural Oil Seep
- 902 Natural Material other than oil or hazardous substances
- 999 Unknown type of source

INDUSTRY CODES

00 Not applicable (discharge did not occur at commercial facility)

Mining.

10 Metal mining
13 Crude petroleum and natural gas
14 Nonmetallic minerals, except fuel

Manufacturing.

19 Ordnance and accessories
20 Food and kindred products
22 Textile mills
24 Lumber and wood products
26 Paper and allied products
28 Chemical and allied products
29 Petroleum refining and related industries
30 Rubber and miscellaneous plastic products
32 Stone, clay, glass, and concrete
33 Primary metal products
34 Fabricated metal products
35 Machinery
36 Electrical machinery and equipment
37 Transportation equipment
39 Miscellaneous manufacturing

Transportation, Communication, Electric, Gas, and Sanitary Services.

40 Railroad
42 Motor freight and warehousing
44 Water transportation
46 Pipeline
49 Electric, gas, and sanitary services

Services.

70 Hotels and other lodging places
75 Automobile repair, services and garages
76 Miscellaneous repair services
82 Educational services
89 Miscellaneous services

Government.

91 Federal
92 State
93 Local
94 International

Nonclassifiable.

99 Nonclassified

CAUSE

IMMEDIATE CAUSE:

CONTRIBUTING FACTOR:

Structural Failure or Loss

- A Hull rupture or leak
- B Tank rupture or leak
- C Transportation pipeline rupture or leak
- D Dike rupture or leak
- E Container lost intact
- F Well blow-out

- H Other structural failure

- A Collision
- B Grounding
- C Fire/Explosion
- D Capsizing/Overturning
- E Sinking
- F Other casualty
- G Adverse weather or sea condition
- H Earthquake or other natural disaster
- I Minor damage
- J Material fault
- K Design fault
- L Personnel error (PE) improper maintenance
- M PE - overpressurization
- N Other personnel error
- O Corrosion
- P Sand cutouts
- Q Other or unknown factor
- R Ramming

Equipment Failure

- I Pipe rupture or leak
- J Hose rupture or Leak
- K Manifold rupture or leak
- L Loading arm failure, rupture or leak
- M Valve failure
- N Pump Failure
- O Flange failure
- P Gasket failure

- A Minor damage
- B Excessive wear
- C Corrosion
- D Material fault
- E Design fault
- F PE -improper installation
- G PE -improper maintenance
- H PE-Hose, pipe, or loading arm cut or severed

R Other equipment failure

I PE-Hose, pipe, or loading a twisted or kinked
J PE-improper valve operation
K PE-Flanges improperly secured
L PE-overpressureization
M Other personnel error

Personnel Error (Unintentional Discharge)

S Tank overflow

T Improper equipment handling or operation

W Other personnel error

A Inadequate sounding
B Failure to shut down
C Topping off at excessive rate
D Loading too many tanks simultaneously
E Overfilling (and subsequent overflow)
F Improper hose handling
G Improper valve operation
H Flanges improperly secured
I Failure to communicate
J Inattention to duty
K Other or unknown factor
L Improper training

Intentional Discharge

X Intentional discharge

- A Bilge pumping
- B Ballast pumping
- C Tank cleaning or stripping
- D Emergency discharge
- E Disposal or waste
- F Discharge under COE/EPA permit
- G Sabotage or vandalism
- H Salvage operations

- J Other or unknown factor

Other Transportation Casualty

Q Railroad accident
U Highway accident
V Aircraft accident

- A Personnel error
- B Adverse weather
- C Overturning
- D Equipment failure
- E Collision/crash
- F Other or unknown factor

Natural or Chronic Phenomenon

Y Natural or chronic phenomenon

- A Natural seepage from sea bottom
- B Natural substance reported a oil slick
- C Leaching from saturated ground

- E Other factor

Unknown Cause

Z Unknown

- A No discharge at site
- Z Unknown

Type of Operation

00 No operation in progress

Facility and Land Transportation-related Operations

- 01 Routine industrial or manufacturing process
- 02 Starting, stopping, or changing industrial or manufacturing process
- 03 Repair, modification, or maintenance of plant or equipment
- 04 Internal transfer or shifting of liquid
- 05 Transfer of bulk liquid to or from transportation mode
- 06 Transport of bulk liquid by pipeline or vehicle
- 07 Receiving fuel
- 08 Storage of bulk liquid
- 09 Tank stripping process
- 10 Tank cleaning process
- 11 Other cleaning process
- 12 Ship breaking
- 13 Deepwater port (DWP) cargo transfer PLEM (pipeline end manifold) to platform
- 14 DWP - cargo transfer platform to shoreside
- 20 Other facility or land transportation-related operation

Non-Transportation-related Operation

- 40 Exploration for natural resources
- 41 Industrial or manufacturing process
- 42 Repair, modification, or maintenance of plant or equipment
- 43 Internal transfer or shifting of liquid
- 44 Receiving fuel
- 45 Production from a natural resource
- 46 Storage of bulk liquid
- 47 Tank stripping or cleaning process
- 48 Other cleaning process
- 49 Other non-transportation-related operation

Vessel-related Operations

- 50 Receiving dry cargo
- 51 Off-loading dry cargo
- 52 Receiving liquid cargo at an onshore facility
- 53 Discharging liquid cargo at an onshore facility
- 54 Receiving fuel
- 55 Taking on ballast
- 56 Discharging ballast
- 57 Pumping bilges
- 58 Stripping tanks
- 59 Cleaning tanks
- 60 Other cleaning process
- 61 Transfer or shifting of liquid within vessel
- 62 Repair, modification, or maintenance of vessel
- 63 Repair, modification, or maintenance of equipment
- 64 Mooring at dock
- 65 Departing from dock
- 66 Moored (not engaged in any operation listed above)
- 67 Anchored (not engaged in any operation listed above)
- 68 Underway
- 69 Lightering
- 70 Dredging
- 71 DWP - cargo transfer vessel to PLEM (pipeline end manifold)
- 80 Other vessel-related operation
- 99 Unknown operation

AFFECTED RESOURCES

Affected Resources (Marine-related)

Enter the degree of impact
from the following codes

WATER SUPPLY

A	Municipal drinking water	0	Potential
B	Other municipal intake	1	Negligible
C	Power plant intake	2	Slight
D	Other industrial intake	3	Moderate
E	Agricultural intake or use	4	Heavy
		5	Total destruction
		6	Discharge affected only areas already badly polluted

RECREATIONAL RESOURCE

F	Public beach
G	Other public recreation facility
H	Private beach
I	Other private recreational facility
J	Recreational boats
K	Sport fish

NATURAL RESOURCE

L	Fin fish
M	Shellfish
N	Other marine biota
O	Waterfowl or other birds
P	Marine mammals
Q	Marine sanctuary, wildlife refuge, or wilderness area
R	Reef

COMMERCIAL RESOURCE

S	Fin fisheries
T	Shell fisheries
V	Vessels
W	Transportation
X	Other commercial resource or operation
Y	Residential resource
Z	Other resource

NOTIFIER

Indicates who reported the spill and within what time frame.

First character position codes:

A	Party responsible for discharge	L	Other Federal agency
B	Coast Guard fixed-wing aircraft	M	State agency
C	Coast Guard helicopter	N	Local agency
D	Coast Guard ship	O	Commercial aircraft
E	Coast Guard boat	P	Commercial ship
F	Coast Guard shore unit	Q	Commercial boat
G	Coast Guard personnel engaged in MEP function as defined in COMDTINST 3120.11 (except patrol activity)	R	Offshore facility
H	Coast Guard personnel off-duty	S	Onshore facility
I	Coast Guard vehicle	T	Private boater
J	Coast Guard Auxiliary	U	Private individual
K	EPA	V	Anonymous
		W	News media
		Z	Unknown

Second character position codes:

A	No Coast Guard detection	G	Tank Vessel Boarding
B	Coastal Aircraft Patrol - non- sensor equipped	H	Facility Spot Check
C	Coastal Aircraft Patrol - sensor equipped	I	Facility Inspection or Survey
D	Harbor Patrol (boat/vehicle/aircraft)	J	SAR Mission
E	Remote Area Patrol (boat/vehicle)	K	PSS Mission
F	Transfer Operation Monitoring	L	CVS Mission
		M	ELT Patrol
		Z	Other Coast Guard Activity

Third character position codes:

1	Immediate	6	Within 48 hours
2	Within 1 hour	7	Within 1 week
3	Within 6 hours	8	Over one week
4	Within 12 hours	9	Unknown/Potential Spill
5	Within 24 hours		

ANTICIPATED RESPONSE

- 0 Containment, removal, or other countermeasure anticipated - water or adjoining land
- 1 No response - discharge dissipated by weather/current or unable to locate discharge (mystery spill)
- 2 No response - area inaccessible
- 3 No response - no threat due to location
- 4 No response - no threat due to size
- 5 No response - potential spill only
- 6 No response - non-removable substance
- 7 No response - on-scene coordinator did not enforce removal regulations
- 8 No response - natural substance
- 9 EPA response anticipated

REMOVAL UNDERTAKEN BY (PARTY)

CODES

- 1 Responsible party in accordance with Section 311(c),
FWPCA
- 2 Responsible party with limited support from Federal
resources
- 3 Federal government under the authority of Section
311(c), FWPCA; pursuant to the National Oil and
Hazardous Substances Pollution Contingency Plan
- 4 State government pursuant to the regional contingency
plan
- 5 State government unilaterally
- 6 Other party or agency

RECOVERY DEVICES

1. Suction skimmers
 2. Vacuum systems
 3. Weirs
 4. Inverted planes
 5. Floating discs & drums
 6. Absorbent belts
 7. Grates and nets
 8. Pumping equipment
 9. Dredging equipment
 0. Absorbent pads
- A. Hand equipment
 - B. Conweb
 - C. Heavy equipment
(e.g., Bulldozers)
 - X. Other/unknown

AUTH
(Authority)

- 01 Federal Water Pollution Control Act (FWPCA) - Failure to notify (311(b)(5))
- 02 FWPCA - Discharge without permit (CG civil penalty - 311(b)(6))
- 03 FWPCA - Discharge in violation of terms of permit (311(b)(6))
- 04 FWPCA - Violation of other regulations (311(j))
- 05 Refuse Act of 1899 (33 USC 407-411)
- 06 R. S. 4450
- 07 International Convention for the Prevention of Pollution of the Sea by Oil, 1954, as amended
- 08 Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972, Title I - Dumping without permit - (107(c))
- 09 MPRSA, Title I - Dumping in Violation of terms of permit - (107(c))
- 10 MPRSA Title I - Violation of other regulations - (107(c))
- 11 MPRSA Title III - Violation of regulations - (303(a))
- 12 Outer Continental Shelf Lands Act
- 13 Other Federal authority
- 14 State authority
- 15 Local authority
- 16 Deepwater Port Act - 18(a)(2) - Discharge
- 17 FWPCA - Violation of Section 301-309

ACTN
TAKEN
AGNST
(Action taken against (Party))

- 1 Owner or Operator
- 2 Person in charge
- 3 Tankerman or other licensed or certified employee
- 4 Other person or party

REFRL
TO US
ATTNY
(Referral to U.S. Attorney)

- 1 Not forwarded
 - 2 Forwarded for information or "action" as deemed appropriate
 - 3 Forwarded recommending criminal prosecution
 - 4 Forwarded for collection of civil penalty
 - 5 Forwarded for other action
-

REFRL
TO CMDT

- 1 Not forwarded
 - 2 Forwarded to Commandant for referral to Department of State (DOS)
 - 3 Forwarded to Commandant for other action
 - 4 Forwarded to EPA for action
 - 5 Forwarded to DOI for action
 - 6 Forwarded to DOC for action
 - 7 Forwarded to other agency for action
-

ACTN
BY US
ATTNY
(Action by U.S. Attorney)

- 1 U.S. Attorney prosecuted the case (regardless of outcome)
- 0 U.S. Attorney declined to prosecute
- Blank Unknown

SUSPN
REVOC
PROBTN
(Suspension, Revocation, or Probation)

<u>Code</u>	<u>Penalty</u>	<u>Action Type</u>
S	Suspension	Criminal/civil
P	Probation	"
R	Revocation	Civil
W	Warning	"
A	Admonition	"

Hring
OR
TRIAL
(Hearing or Trail)

- 1 No hearing or trial held, no letter response received
- 2 Penalty assessed or upheld in hearing or trail
- 3 Penalty mitigated or case dismissed in hearing or trial
- 4 Penalty upheld on basis of letter
- 5 Penalty mitigated or case dismissed onbasis of letter.

1st
APPL
(First Appeal)

- 1 No Appeal
 - 2 Penalty mitigated or case dismissed.
-

2nd
APPL
(Second Appeal)

- 1 No Appeal
 - 2 Penalty upheld or appeal denied
 - 3 Penalty mitigated or case dismissed
-

CIV
ACTN
TO
USC

(Civil action appealed to U.S. Court)

- 1 Appeal is made
 - 0 Appeal is not made
-

STATUS

- 0 Open
- 1 Closed