Oil and Hazardous Materials Response Reports

October 1984-September 1985

National Oceanic and Atmospheric Administration
National Ocean Service
Office of Oceanography and Marine Assessment
Ocean Assessments Division
Hazardous Materials Response Branch

Summary:

During FY1985 (October 1, 1984-September 30, 1985), one hundred and ninety-nine incidents were responded to by the NOAA Hazardous Materials Response Branch, Ocean Assessments Division. These incidents are listed in chronological order in the first section of this report. One hundred and two of these responses involved oil or fuel products, and ninety-seven involved hazardous substances other than oil.

Following the chronology is a listing of responses by U.S. Coast Guard district. There are eleven Coast Guard districts, including the Great Lakes, for which nine NOAA Scientific Support Coordinators have been assigned.

Each of the response reports addresses the nature of the incident, the level of NOAA involvement, and the final disposition of the incident. These reports are abbreviated and meant to serve only as a summary of the Hazardous Materials Response Branch's response to requests from Federal On-Scene Coordinators for each of the 199 events. Additional details on any of the responses can be obtained from the appropriate Scientific Support Coordinator or the U.S. Coast Guard office.

CHRONOLOGY OF FY 1985 INCIDENT RESPONSES

DATE	INCIDENT NUMBER	REPORT NAME INCIDENT LOCATION	COMMODITY SPILLED	USCG DISTRICT
02 Oct 84	001	M/V Louisiane Port Everglades, Florida	Leaking phenol drums	07
03 Oct 84	002	Apalachicola Pride Port Arthur, Texas	Fuel oil	08
06 Oct 84	003	American Cyanamid Linden, New Jersey	Malathion	03
17 Oct 84	004	Consolidated Railroad derailment Port Deposit, Maryland	Acrylonitrile Chlorine, LPG, polyvinyl chloride	05
19 Oct 84	005	Celanese Chemical Newark, New Jersey	Formaldehyde	03
21 Oct 84	006	Southern Pacific Railroad Oakland, California	Dursban	12
22 Oct 84	007	Mystery spill Harbor Beach, Michigan	Oil	09
23 Oct 84	008	Eastern Oil Jersey City, New Jersey	Oil cleanup advice	03
25 Oct 84	009	NOAA Sand Point Seattle, Washington	Microcide L-36	13
26 Oct 84	010	Zapata Scotian Off Sable Island, Nova Scotia	Potential blowout of offshore oil rig	01
30 Oct 84	011	ABM Eddystone Philadelphia, Pennsylvania	Drum site survey	03
30 Oct 84	012	F/V Rainbow Virginia Beach, Virginia	Diesel fuel	05
31 Oct 84	013	T/V Puerto Rican off San Francisco, California	Assorted petroleum products	12

DATE	INCIDENT NUMBER	REPORT NAME INCIDENT LOCATION	COMMODITY SPILLED	USCG DISTRICT
01 Nov 84	014	Padre Island Drums Corpus Christi, Texas	Assorted oil and chemicals	08
01 Nov 84	015	Waste oil spill Budd Inlet Olympia, Washington	Used oil	13
05 Nov 84	016	Aluminum chloride disposal Buffalo, New York	Aluminum chloride	09
06 Nov 84	017	F/V Banjo McCaw Bay, Washington	Diesel fuel	13
09 Nov 84	018	DuPont Chemical Linden, New Jersey	Sulfur trioxide	03
09 Nov 84	019	Bethlehem Steel Sparrows Point Baltimore, Maryland	Toluene, benzene, xylene	05
11 Nov 84	020	Foss Barge 244 Off Apple Point Bainbridge Island, Washington	Calcium ligno-sulfonate and diesel	13
16 Nov 84	021	F/V Provider New Bedford, Massachusetts	7,000 gallons potential diesel spill	01
16 Nov 84	022	M/V Lake Shadaka Lake Erie, Michigan	Potential grounding and fuel spill	09
19 Nov 84	023	Tug Celtic Long Island Sound, New York	Oil dispersant advice	03
21 Nov 84	024	F/V Rute and Tony Nantucket Island, Massachusetts	4,000 gallons potential diesel spill	01
26 Nov 84	025	Mystery oil spill Connecticut River Middletown, Connecticut	Approx. 1,000 gallons of oil	03
26 Nov 84	026	M/V Warnemunde Seven Foot Knoll Baltimore, Maryland	Oil	05

DATE	INCIDENT NUMBER	REPORT NAME INCIDENT LOCATION	COMMODITY SPILLED	USCG DISTRICT
26 Nov 84	027	T/V Ratna Kirti 200 miles off Humboldt Bay, California	Potash	12
27 Nov 84	028	Mystery "toxic cloud" Linden, New Jersey	Fuming sulfuric acid	03
27 Nov 84	029	Rowdy Creek Humboldt Bay, California	15-20 gallons PCBs	12
28 Nov 84	030	F/V Theodora Maria Ocracoke Inlet North Carolina	Diesel fuel	05
29 Nov 84	031	Railcars in harbor New York, New York	Soybean oil	03
04 Dec 84	032	Paint remover advice, Milwaukee, Wisconsin	Methylene chloride	09
06 Dec 84	033	Gilbert Enterprises Havre de Grace, Maryland	Kerosene	05
07 Dec 84	034	Mystery oil spill Horn Island, Mississippi	Bunker oil	08
11 Dec 84	035	Locke Industries Baltimore, Maryland	"Betz 1110" Floculating agent with clay	05
12 Dec 84	036	Barge 1102 Watts Island, Chesapeake Bay, Virginia	Urea	05
12 Dec 84	037	F/V Patty B. Off Ocean City, Maryland	10,000 gallons diesel (potential)	05
13 Dec 84	038	M/V Akranes St. Lawrence Seaway Clayton, New York	Oil spill potential	09

DATE	INCIDENT NUMBER	REPORT NAME INCIDENT LOCATION	COMMODITY SPILLED	USCG DISTRICT
13 Dec 84	039	Barge Phoenix 120 Adrift off San Miguel Island, California	200,000 gallons oily waste	11
13 Dec 84	040	Port of Oakland Oakland, California	Toluene diisocyanate	12
17 Dec 84	041	Barge Elizabeth Turner Potomac River, Maryland	31,000 gallons potential hot asphalt spill	05
17 Dec 84	042	Pleasure Island seep Port Arthur, Texas	Iron reducing bacteria and oil	08
18 Dec 84	043	F/V Cinco de Mayo Morro Bay, California	4,000 gallons diesel	12
19 Dec 84	044	Argus Chemical Brooklyn, New York	Hexane release	03
19 Dec 84	045	Mystery spill Entrance to the Potomac River, Maryland	Oiled beaches	05
19 Dec 84	046	Koch Refinery Corpus Christi, Texas	Pseudocumene-xylene	08
20 Dec 84	047	DuPont Chemical Linden, New Jersey	Oleum release	03
20 Dec 84	048	Wards Island Control Plant New York, New York	1200 drums of oily waste and unknown material	03
20 Dec 84	049	Port of Anchorage Cook Inlet, Alaska	106,000 gallons Jet A-50 fuel spill	17
21 Dec 84	050	Mystery spill Whidbey Island, Washington	Bunker oil	13
02 Jan 85	051	T/B BMT 2001 Port Arthur, Texas	Pyro-naphtha	08
03 Jan 85	052	Shippers Imperial Terminal Oakland, California	Crystallized cyanide	12

D7ATE	INCIDENT NUMBER	REPORT NAME INCIDENT LOCATION	COMMODITY SPILLED	USCG DISTRICT
04 Jan 85	053	Fresh Kills Landfill Staten Island, New York	Unknown materials	03
15 Jan 85	054	Niagara River, Niagara Falls, New York	Methyl ethyl ketone	09
16 Jan 85	055	NOAA National Marine Fisheries Service Seattle, Washington	Rope end burning advice	13
17 Jan 85	056	Mystery spill Pt. Piedras Blancas Morro Bay, California	Oil and tar balls	12
18 Jan 85	057	M/V Nememcha Key West, Florida	30 tons heavy fuel oil spilled	07
18 Jan 85	058	Yellow Freight South San Francisco, California	2,4,5-trichloro-phenoxy acetic acid	12
19 Jan 85	059	Barge Richard K. Block Island Sound	20,000 gallons gasoline potential	01
20 Jan 85	060	F/V Maureen Martha's Vineyard, Massachusetts	5,000 gallons diesel potential	01
21 Jan 85	061	Chesapeake Paper Corp., West Point, Virginia	Sodium Hydrate 50,000 Gallons Pipe Rupture	05
21 Jan 85	062	Stone Container Corp., James River Hopewell, Virginia	600,000 Gallons Sodium Sulfate into River	05
21 Jan 85	063	M/V Isla Plaza Port of Miami Miami, Florida	Fire in Banana Cargo Hold	07
22 Jan 85	064	Allis Chalmers Oak Creek, Wisconsin	Naphthylamine	09
24 Jan 85	065	Barge Corpus Christi Sun, Buzzards Bay, Massachusetts	100 gallons #2 spilled w/100,000 barrel potential	01
24 Jan 85	066	T/V Delaware Trader Delaware Bay, Pennsylvania	Potential 343,000 barrels of crude oil	03

DATE	INCIDENT NUMBER	REPORT NAME INCIDENT LOCATION	COMMODITY SPILLED	USCG DISTRICT
26 Jan 85	067	Fishers Island Long Island Sound, New York	500 gallons #2 fuel oil	03
29 Jan 85	068	T/V William H. Bennett New Bedford Harbor, Massachusetts	4,000 gallons potential	01
01 Feb 85	069	T/V Mobil Aladdin Delaware Bay, Delaware	Potential 586,000 barrels Arabian crude oil	03
01 Feb 85	070	C/V American Pioneer Howland Hook, Staten Island, New York	55 gallon drum N, N-Dimethylaniline	03
01 Feb 85	071	F/V Atlantic Mist Assateague Island Chincoteague, Virginia	Spill/9,000 gallons diesel (potential)	05
02 Feb 85	072	Magnificent Venture Honolulu, Hawaii	Sea water - copper ore mix	14
08 Feb 85	073	F/V Miss Radford Pamlico Sound, North Carolina	Potential 2,000 gallons diesel spill	05
09 Feb 85	074	Long Island Hospital Power Plant Quincy Bay, Massachusetts	5,000 gallons #6 oil	01
10 Feb 85	075	Long Island Lighting Company Long Island, New York	100,000 gallons #2 oil	03
11 Feb 85	076	T/S British Wye Weymouth Fore River Weymouth, Massachusetts	Gasoline spill	01
11 Feb 85	077	C&O Railway, St. Clair River Port Huron, Sarnia, Ontario	Propylene oxide	09

DATE	INCIDENT NUMBER	REPORT NAME INCIDENT LOCATION	COMMODITY SPILLED	USCG DISTRICT
12 Feb 85	078	Baltimore & Maine Railyard, Boston, Massachusetts	Hydrochloric acid spill	01
13 Feb 85	079	L.C.P. Chemical Co. Orrington, Maine	Chloropicrin	01
14 Feb 85	080	Container Spill Savannah, Georgia	Leaking azinphos methyl in van	07
15 Feb 85	081	M/V A. Regina Mona Island Caribbean Sea Off Puerto Rico	Grounding W/oil spill	07
21 Feb 85	082	Barge Jeanne Marie Wicomico River Maryland	Grounding W/gasoline	05
21 Feb 85	083	Shell Oil Pipeline Mississippi Sound, Louisiana	Crude Oil	08
22 Feb 85	084	Contaminated Dredge Spoils, Gloucester, Massachusetts	Oil and heavy metals mix	01
23 Feb 85	085	NOAA Sand Point, Seattle, Washington	Bird kill from diazinon spraying	13
24 Feb 85	086	Portsmouth Marine Terminal, Portsmouth, Virginia	Acrylamide	05
24 Feb 85	087	Ammonium Nitrate Spill, Whittier, Alaska	Ammonium nitrate	17
26 Feb 85	088	Lott Industries Ottawa River Toledo, Ohio	3,000 gallons #5 oil	09
28 Feb 85	089	F/V Christina J. Martha's Vineyard, Massachusetts	Sinking W/1,500 gallons diesel	01
28 Feb 85	090	Mystery Spill Pt. Reyes, California	Algae	12

DATE	INCIDENT NUMBER	REPORT NAME INCIDENT LOCATION	COMMODITY SPILLED	USCG DISTRICT
02 Mar 85	091	Pesticide Spill Chatham Hall Pond Virginia Beach, Virginia	Cygon 2E	05
02 Mar 85	092	Barge Apex Houston Off Pt. Piedras Blancas, Morrow Bay, California	30,000 barrels #2 Fuel potential	12
04 Mar 85	093	T/B John A. Downs Bartlett Reef, Long Island Sound New London, Connecticut	46,620-gallon #2 oil spill	03
04 Mar 85	094	Northwest Fur Breeders Co-op Edmonds, Washington	Orthodichloro-benzene	13
06 Mar 85	095	Mystery Spill Houston Ship Channel, Houston, Texas	Oil & Acrylo-nitrile	08
13 Mar 85	096	Seaboard Systems Train Derailment Evergreen, Alabama	Mixed chemicals	08
17 Mar 85	097	U.S.S. Belleau Wood Bremerton, Washington	500 gallons of diesel fuel	13
18 Mar 85	098	Barge Pennwalt Totem, Humboldt, California	Chlorine, caustic soda, & sodium chlorate	12
19 Mar 85	099	Niagara Mohawk Power Plant Buffalo, New York	Sulfuric acid	09
21 Mar 85	100	Eastern Barge #47 Charles River, Boston, Massachusetts	Heavy metal contaminated dredge spoils	01
22 Mar 85	101	Matlack Trucking Baltimore, Maryland	Methyl acrylate	05

DATE	INCIDENT NUMBER	REPORT NAME INCIDENT LOCATION	COMMODITY SPILLED	USCG DISTRICT
27 Mar 85	102	F/V Allen E. Salmon Creek, California	400 gallons #2 fuel oil spill	12
28 Mar 85	103	Oil spill off Akutan Island, Unimak Pass, Alaska	3,400 gallons of #2 fuel	17
31 Mar 85	104	Mystery oil spill off Neah Bay Strait of Juan de Fuca, Washington	Oily bilge waste	13
01 Apr 85	105	M/V Morant Bay Port of Miami Lummus Island Miami, Florida	Flammable liquid	07
03 Apr 85	106	Hercules, Inc. Hopewell, Virginia	Ethyl chloride, ethyl ether, ethyl alcohol	05
03 Apr 85	107	United Technologies Tank Truck Stevensville, Maryland	300 gallons printers ink	05
03 Apr 85	108	Ole Nordhaven Electroplating Facility, Hayward, California	Fire with mixed chemicals	12
06 Apr 85	109	DuPont Chem. Corp. Repauo Plant Gibbstown, New Jersey	25,000 lbs. sodium hydroxide	03
08 Apr 85	110	Dupont Chem. Corp. Edgemoor, Delaware	1200 gallons methylene chloride	03
11 Apr 85	111	Mystery Spill San Juan Islands Strait of Juan de Fuca, Washington	Oil, unknown amount	13
12 Apr 85	112	"Black Liquor" Humboldt Bay Harbor, California	70,000-gallon discharge of lignosulfonic acid	12

DATE	INCIDENT NUMBER	REPORT NAME INCIDENT LOCATION	COMMODITY SPILLED	USCG DISTRICT
15 Apr 85	113	Tanker Fuji broke in half off Chesapeake Bay, Virginia	24,000 gallons #2, 79,000 gallons #4	05
15 Apr 85	114	Chrysler Parts Depot, Marysville, Michigan	200 gallons paint stripper	09
16 Apr 85	115	Southern Pacific Railroad, Oakland California	Dinitrotoluene	12
17 Apr 85	116	Tank Barge Smithtown Ninigret Pond N. of Block Island Sound, Rhode Island	800 gallons diesel	01
18 Apr 85	117	USS Coral Sea Tanker Collision South of Cuba	7,600 barrels #6 spilled	07
20 Apr 85	118	Shippers Imperial Terminal, Oakland California	Maleic Anhydride	12
23 Apr 85	119	M/V Allstar Delaware Bay Entrance	Grounding with 600,000 barrels of crude on board	03
23 Apr 85	120	Clipper Yacht Harbor, Sausalito, California	1,900 gallons #6 oil	12
24 Apr 85	121	M/V Honduras Collision with tug Andrew McAllister Pier 8, San Juan Harbor, San Juan, Puerto Rico	Fire on M/V Honduras, Potential chemical spill	07
24 Apr 85	122	Shell Oil Pipeline Bay Vacherie, Louisiana	Pipeline leak of crude oil	08
29 Apr 85	123	New Haven Terminal New Haven, Connecticut	Styrene spill revisit	03

DATE	INCIDENT NUMBER	REPORT NAME INCIDENT LOCATION	COMMODITY SPILLED	USCG DISTRICT
06 May 85	124	C/V TFL Adams Maher Terminal Elizabeth, New Jersey	Leaking container of methyl parathion drums	03
09 May 85	125	American Cyanamid Trimley Point, Linden, New Jersey	Diisoamy dithiophosphoric acid spill	03
13 May 85	126	U.S. Coast Guard Marine Safety Office Baltimore, Maryland	Request for information on chemical disposal	05
14 May 85	127	American President Lines, Oakland, California	Damaged container of tetramethylthiuram monosulfide barrels	12
16 May 85	128	Mystery slick Straits of Mackinac, Michigan	Slick w/dead fish	09
21 May 85	129	Tug Ajax sinking Chesapeake Bay, Virginia	Diesel potential	05
21 May 85	130	F/V Cheryl Ray Hyannis Harbor, Massachusetts	Diesel potential	01
23 May 85	131	Grayling Platform Cook Inlet, Alaska	Gas blowout with oil spill potential	17
24 May 85	132	U.S. Army Training Reserve Center Miami, Florida	Calcium hypochlorite spill in warehouse/offices	07
25 May 85	133	M/V Reefer Merchant 2.8 miles S. of Foley Rocks Light Ledbury Reef, Florida	Grounding with oil spill potential	07
29 May 85	134	Anheuser Busch Factory Jacksonville, Florida	"Betz 45"	07

DATE	INCIDENT NUMBER	REPORT NAME INCIDENT LOCATION	COMMODITY SPILLED	USCG DISTRICT
02 Jun 85	135	Bulk Carrier Georgia S. Ambrose Channel, New York	Grounding with oil and gypsum spill potential	03
02 Jun 85	136	Tank Truck San Rafael, California	Hydrogen peroxide	12
04 Jun 85	137	Container ship American Rigel Baltimore Harbor, Maryland	Yellow phosphorus involved in fire	05
10 Jun 85	138	M/V Zenovia Superior Harbor Basin, Superior, Wisconsin	100 gallons #6 fuel & lube oil	09
12 Jun 85	139	F/V Nina South Jetty, Shark River, Belmar, New Jersey	Diesel potential	03
12 Jun 85	140	Alameda Gateway, Ltd., Alameda, California	PCBs in soil	12
13 Jun 85	141	Allied Chemical Tank Truck Over-turned, New York State Thruway	6,500 gallons acetone	03
19 Jun 85	142	Beached ammonia cylinder Hallandale, Florida	Anhydrous ammonia	07
22 Jun 85	143	Mystery oil slick off Cape Hatteras, North Carolina	Oil	05
24 Jun 85	144	Alameda Bait Shop Fish Kill, Alameda, California	Bunker C	12
25 Jun 85	145	Owens Corning Morehead City, North Carolina	20-100 gallons asphalt	05

DATE	INCIDENT NUMBER	REPORT NAME INCIDENT LOCATION	COMMODITY SPILLED	USCG DISTRICT
26 Jun 85	146	F/V Kathryn Marie Barnstable Harbor, Massachusetts	500 gallons diesel	01
26 Jun 85	147	Truck Chemical spill, Thonotosassa, Florida	Mixed chemicals	07
29 Jun 85	148	U.S. Navy Flight Deck, Monterey Bay, California	Hazardous Waste cleaning fluid drum	12
01 Jul 85	149	Unknown Drum St. John, U.S. Virgin Islands	Assorted chemicals	07
03 Jul 85	150	Union Oil Carteret, New Jersey	Xylene solvent release	03
08 Jul 85	151	Mystery oil slick 40 mi. East of Manasquan Inlet, New Jersey	Oil	03
09 Jul 85	152	Weber Oil Co. Tank truck accident Revere, Massachusetts	Gasoline spill	01
10 Jul 85	153	Holiday Inn Carteret, New Jersey	Hydrogen cyanide discharge	03
11 Jul 85	154	M/V Constellation Faros, Cape Fear River, North Carolina	Bomb threat oil spill potential	05
12 Jul 85	155	F/V Yankee Rose Woods Hole Passage, Massachusetts	Grounding and diesel potential	01
12 Jul 85	156	Mystery Slick Buzzards Bay, Massachusetts	Diesel oil	01

DATE	INCIDENT NUMBER	REPORT NAME INCIDENT LOCATION	COMMODITY SPILLED	USCG DISTRICT
13 Jul 85	157	F/V Miss Margie Naushon Island Vineyard Sound, Massachusetts	Potential diesel spill	01
15 Jul 85	158	Mystery Spill Puget Sound, Washington	Oil	13
19 Jul 85	159	Mystery Spill Wiley Dondero Channel St. Lawrence Seaway Massena, New York	Bilge oil	09
20 Jul 85	160	Pier 46 Port of Seattle, Washington	Benzaldehyde spill	13
21 Jul 85	161	F/V Four Brothers Block Island Rhode Island Sound	Diesel leak	01
23 Jul 85	162	Black Bayou Lake Charles Louisiana	Oil spill	08
24 Jul 85	163	Guardian Pool Co. Hollywood, Florida	Chlorine gas	07
26 Jul 85	164	Illegal pesticide dumping, Nantucket Island, Massachusetts	Pesticides	01
28 Jul 85	165	M/V Pilgrim Belle Sow and Pigs Reef Vineyard Sound, Massachusetts	Grounding, diesel potential	01
29 Jul 85	166	Borden Remington Co. Fall River, Massachusetts	Caustic soda, 50 gallons	01
01 Aug 85	167	F/V New Moon Martha's Vineyard, Massachusetts	Grounding w/diesel potential	01
06 Aug 85	168	T/V Zenit Aurora Neches River Port Arthur, Texas	10,000 gallons Ninian crude oil	08

DATE	INCIDENT NUMBER	REPORT NAME INCIDENT LOCATION	COMMODITY SPILLED	USCG DISTRICT
06 Aug 85	169	Tar balls on beach Lake Superior, White Fish Point, Michigan	Oil	09
07 Aug 85	170	Warehouse Fire Norfolk, Virginia	Dye in creek	05
07 Aug 85	171	M/V Fotini D.E. Bajo Nuevo, Colombia	Grounding w/oil spill potential	07
12 Aug 85	172	Pomponic State Park San Mateo, California	Methanol & tetra-hydrofuran drums	12
13 Aug 85	173	H-Kohnstamm Co. Camden, New Jersey	3,000 gallons aniline	03
13 Aug 85	174	PCB Spill Atlantic City, New Jersey	PCB's	03
14 Aug 85	175	Major Fire Queens, New York City, New York	Threatened cyanide containers	03
15 Aug 85	176	Transformer Vault Fire, New York City, New York	PCB's	03
16 Aug 85	177	Port Hueneme Santa Barbara Channel, California	4,000 gallons diesel spilled	11
19 Aug 85	178	U.S. Coast Guard Cape Disappointment, Washington	Aluminum phosphide fumigant	13
19 Aug 85	179	T/V Exxon Barge 32 James River, Virginia	Gasoline & diesel	05
21 Aug 85	180	Tank Barge RF-1001 Mississippi River Chalmette, Louisiana	#6 oil slurry	08
21 Aug 85	181	Berkeley Marina Landfill, Berkeley, California	Methyl ethyl ketone and asbestos	12

DATE	INCIDENT NUMBER	REPORT NAME INCIDENT LOCATION	COMMODITY SPILLED	USCG DISTRICT
23 Aug 85	182	Port Huron Algae Bloom, Port Huron, Michigan	Mistaken as oil	09
29 Aug 85	183	Richmond Shipyard Richmond, California	PCBs	12
29 Aug 85	184	Return Visit Fisher's Island Spill of 26 Jan 85	#2 oil spill	03
30 Aug 85	185	Dow Chemical of Canada, St. Clair River S. of Sarnia, Ontario	2,000-6,000 gallons tetra-chloroethene & perchloroethylene	09
03 Sep 85	186	Kalama Chemical Co. Kalama, Washington	Toluene spill	13
04 Sep 85	187	Waimea Dump Fire Honolulu, Hawaii	Unknowns on fire Mixed chemicals	14
06 Sep 85	188	Tire Fire Norfolk, Virginia	Oil	05
09 Sep 85	189	Tank Barge Sea Horse I, Jamestown Anchorage, Narragansett Bay, Rhode Island	#6 oil	01
14 Sep 85	190	F/V Becky Monterey Bay, California	#2 diesel	12
15 Sep 85	191	Powell Duffryn Corp. Bayonne, New Jersey	Allyl alcohol	03
15 Sep 85	192	M/V Kazimierz Pulaski Kill Van Kull, New York	80,000 gallons of Bunker C	03
16 Sep 85	193	Bunker C Spill Off Oregon Coast	1.5 metric tons of Bunker C	13
19 Sep 85	194	T/V Dixie Challenger and T/V Senor Picou Collision, Intra-coastal Waterway, Port O'Connor, Texas	Methyltertbutyl-ether, cumene, and dripolene	08

DATE	INCIDENT NUMBER	REPORT NAME INCIDENT LOCATION	COMMODITY SPILLED	USCG DISTRICT
23 Sep 85	195	Buckeye Pipeline Staten Island, New York	35,000 gallons gasoline	03
24 Sep 85	196	Naval Communications Station Stockton, California	"Econo Chrome" chromic acid flakes	12
25 Sep 85	197	Alameda Naval Air Station, Oakland, California	1,500 gallons J.P. 5 fuel	12
26 Sep 85	198	F/V Lady Gabriela New Bedford Harbor, Massachusetts	Fire-diesel potential	01
29 Sep 85	199	T/V Grand Eagle Grounding, Marcus Hook, Delaware River, Pennsylvania/Delaware	11,000 barrels Ninian crude oil	03

NOAA Incident Responses
by U.S. Coast Guard District

Abbreviations

	NOAA
SSC	Scientific Support Coordinator
	U.S. Coast Guard
COTP	Captain of the Port
MSO	Marine Safety Office
MIO	Marine Inspection Office
MSD	Marine Safety Detachment
MID	Marine Inspection Detachment

Northeast Atlantic States

1. First Coast Guard District - Boston, Massachusetts

MSO's: Boston, Massachusetts
Providence, Rhode Island
Portland, Maine

MID's: Bangor, Maine (detachment under MIO, Portland)
Hyannis, Massachusetts (detachment under MSO, Boston)

SSC: LTjg Sharon Christopherson, Boston, Massachusetts

Date	Report Name	Commodity Involved
26 Oct 84	Zapata Scotian Off Sable Island Nova Scotia	Potential Offshore Oil Rig Blowout
16 Nov 84	F/V Provider New Bedford, Massachusetts	7,000 Gallon Potential Diesel Fuel Spill
21 Nov 84	F/V Rute and Tony Nantucket Island Massachusetts	4,000 Gallon Potential Diesel Spill
19 Jan 85	Barge Richard K. Long Island Sound to Block Island Sound	20,000 Gallon Potential Gasoline Spill
20 Jan 85	F/V Maureen Martha's Vineyard Massachusetts	5,000 Gallon Potential Diesel Spill
24 Jan 85	Barge Corpus Christi Sun Buzzards Bay, Massachusetts	Small #2 Oil Spill with 100,000 barrel potential

SSC: LTjg Sharon Christopherson, Boston, Massachusetts (cont.)

Date	Report Name	Commodity Involved
29 Jan 85	T/V William H. Bennett New Bedford Harbor, Massachusetts	4,000 Gallon Potential
09 Feb 85	Long Island Hospital Power Plant, Quincy Bay, Massachusetts	5,000 Gallon #6 Oil
11 Feb 85	T/S British Wye Weymouth Fore River, Massachusetts	Gasoline Spill
12 Feb 85	Baltimore & Maine Railyard, Boston, Massachusetts	Hydrochloric Acid Spill
13 Feb 85	L.C.P. Chemical Co. Orrington, Maine	Chloropicrin Spill
22 Feb 85	Contaminated Dredge Spoils Gloucester, Massachusetts	Oil and Heavy Metals Mix
28 Feb 85	F/V Christina J. Martha's Vineyard, Massachusetts	1,500 Gallons of Diesel Fuel
21 Mar 85	Eastern Barge No. 47 Charles River, Boston, Massachusetts	Heavy Metal-Contaminated Dredge Spoils
17 Apr 85	Tank Barge Smithtown Ninigret Pond N. of Block Island Sound, Rhode Island	800 gallons diesel
21 May 85	F/V Cheryl Ray Hyannis Harbor, Massachusetts	Diesel potential
26 Jun 85	F/V Kathryn Marie Barnstable Harbor, Massachusetts	500 gallons diesel
09 Jul 85	Weber Oil Co. Tank truck accident Revere, Massachusetts	Gasoline spill
12 Jul 85	F/V Yankee Rose Woods Hole Passage, Massachusetts	Grounding and diesel potential

SSC: Ltjg Sharon Christopherson, Boston, Massachusetts (cont.)

Date	Report Name	Commodity Involved
12 Jul 85	Mystery Slick Buzzards Bay, Massachusetts	Diesel oil
13 Jul 85	F/V Miss Margie Naushon Island Vineyard Sound, Massachusetts	Potential diesel spill
21 Jul 85	F/V Four Brothers Block Island Rhode Island Sound	Diesel leak
26 Jul 85	Illegal pesticide dumping, Nantucket Island, Massachusetts	Pesticides
28 Jul 85	M/V Pilgrim Belle Sow and Pigs Reef Vineyard Sound, Massachusetts	Grounding, diesel potential
29 Jul 85	Borden Remington Co. Fall River, Massachusetts	Caustic soda, 50 gallons
01 Aug 85	F/V New Moon Martha's Vineyard, Massachusetts	Grounding w/diesel potential
09 Sep 85	Tank Barge Sea Horse I Jamestown Anchorage, Narragansett Bay, Rhode Island	#6 oil
26 Sep 85	F/V Lady Gabriela New Bedford Harbor, Massachusetts	Fire-diesel potential

North Central Atlantic States

2. Third Coast Guard District - Governors Island, New York
   COTP: Governors Island, New York
   MIO's: Battery Park Building, New York
   Philadelphia, Pennsylvania
   MID: New London, Connecticut (detachment under MIO, New York)

SSC: Mr. Gary Ott, Governors Island, New York

Date	Report Name	Commodity Involved
06 Oct 84	American Cyanamid Linden, New Jersey	Malathion Release
19 Oct 84	Celanese Chemical Newark, New Jersey	Formaldehyde
23 Oct 84	Eastern Oil Jersey City, New Jersey	Oil Cleanup Advice
30 Oct 84	ABM Eddystone Philadelphia, Pennsylvania	Drum Site Survey
09 Nov 84	DuPont Chemical Linden, New Jersey	Sulfur Trioxide
19 Nov 84	Tug Celtic Long Island Sound, New York	Oil Dispersant Advice
26 Nov 84	Mystery Spill Connecticult River, Middletown, Connecticut	Approximately 1,000 Gallons of oil
27 Nov 84	Mystery "Toxic Cloud" Linden, New Jersey	Fuming sulfuric acid
29 Nov 84	Rail Cars in New York Harbor, New York, New York	Soybean Oil
19 Dec 84	Argus Chemical Brooklyn, New York	Hexane
20 Dec 84	DuPont Chemical Linden, New Jersey	Oleum
20 Dec 84	Wards Island Pollution Control Plant New York, New York	1200 Drums of Oily Waste and Unknown Material
04 Jan 85	Fresh Kills Landfill Staten Island, New York	Unknown Materials
24 Jan 85	T/V Delaware Trader Delaware Bay, Pennsylvania	343,000 barrels Potential Crude Oil Spill

SSC: Mr. Gary Ott, Governors Island, New York (cont.)

Date	Report Name	Commodity Involved
26 Jan 85	Fishers Island Long Island Sound, New York	500 Gallons #2 Fuel Oil
01 Feb 85	C/V American Pioneer Howland Hook, Staten Island, New York	N,N-Dimethylaniline
01 Feb 85	T/V Mobil Aladdin Delaware Bay, Delaware	586,000 Barrel Potential Arabian Crude Oil Spill
01 Feb 85	American Pioneer Howland Hook Port of New York	55-gallon Drum N, N-Dimethylaniline
10 Feb 85	Long Island Lighting Co. Long Island, New York	100,000 Gallon #2 Oil Spill
04 Mar 85	T/B John A. Downs Bartlett Reef Long Island Sound New London, Connecticut	46,620 Gallon #2 Oil Spill
06 Apr 85	DuPont Chemical Corp. Repauo Plant Gibbstown, New Jersey	25,000 lbs. sodium hydroxide
08 Apr 85	Dupont Chemical Corp. Edgemoor, Delaware	1200 gallons methylene chloride
23 Apr 85	M/V Allstar Delaware Bay Entrance	Grounding with 600,000 barrels of crude on board
29 Apr 85	New Haven Terminal New Haven, Connecticut	Styrene spill revisit
06 May 85	C/V TFL Adams Maher Terminal Elizabeth, New Jersey	Leaking container of methyl parathion drums
09 May 85	American Cyanamid Trimley Point Linden, New Jersey	Diisoamyldithio-phosphoric acid spill
02 Jun 85	Bulk Carrier Georgia S. Ambrose Channel, New York	Grounding with oil and gypsum spill potential
12 Jun 85	F/V Nina South Jetty, Shark River Belmar, New Jersey	Diesel potential

SSC: Mr. Gary Ott, Governors Island, New York (cont.)

Date	Report Name	Commodity Involved
13 Jun 85	Allied Chemical Tank Truck overturned New York State Thruway	6,500 gallons acetone
03 Jul 85	Union Oil Carteret, New Jersey	Xylene solvent release
08 Jul 85	Mystery oil slick 40 mi. East of Manasquan Inlet, New Jersey	Oil
10 Jul 85	Holiday Inn Carteret, New Jersey	Hydrogen cyanide discharge
13 Aug 85	H-Kohnstamm Company Camden, New Jersey	3,000 gallons aniline
13 Aug 85	PCB Spill Atlantic City, New Jersey	PCB's
14 Aug 85	Major Fire Queens, New York City, New York	Threatened cyanide containers
15 Aug 85	Transformer Vault Fire New York City, New York	PCB's
29 Aug 85	Return Visit Fisher's Island Spill of 26 Jan 85	#2 oil spill
15 Sep 85	Powell Duffryn Corp Bayonne, New Jersey	Allyl alcohol
15 Sep 85	M/V Kazimierz Pulaski Kill Van Kull, New York	80,000 gallons of Bunker C
23 Sep 85	Buckeye Pipeline Staten Island, New York	35,000 gallons gasoline
29 Sep 85	T/V Grand Eagle Grounding, Marcus Hook, Delaware River, Pennsylvania/Delaware	11,000 barrels Ninian crude oil

South Central Atlantic States

3. Fifth Coast Guard District - Portsmouth, Virginia
MSO's: Norfolk, Virginia
Baltimore, Maryland
Wilmington, North Carolina
MID's: Solomons, Maryland (detachment under MSO, Baltimore)
Morehead City, North Carolina (detachment under MSO, Wilmington)

SSC: Ms. Ann Hayward Rooney, Portsmouth, Virginia

Date	Report Name	Commodity Involved
17 Oct 84	Consolidated Railroad Derailment, Port Deposit, Maryland	Acrylonitrile, LPG, Chlorine, and Polyvinyl Chloride
30 Oct 84	F/V Rainbow Virginia Beach, Virginia	Diesel Fuel
09 Nov 84	Bethlehem Steel Sparrows Point Baltimore, Maryland	Toluene, Benzene, Xylene
26 Nov 84	M/V Warnemunde Seven Foot Knoll Baltimore, Maryland	Oil
28 Nov 84	F/V Theodora Maria Ocracoke Inlet, North Carolina	Diesel Fuel
06 Dec 84	Gilbert Enterprises Havre de Grace, Maryland	Kerosene
11 Dec 84	Locke Industries Baltimore, Maryland	"BETZ 1110" Floculating Agent with Clay
12 Dec 84	Barge 1102 Watts Island Chesapeake Bay, Virginia	Urea
12 Dec 84	F/V Patty B. Off Ocean City, Maryland	10,000 Gallon Potential Diesel Spill
17 Dec 84	Barge Elizabeth Turner Potomac River, Maryland	31,000 Gallon Potential Hot Asphalt Spill
19 Dec 84	Mystery Spill Potomac River Entrance, Maryland	Oil

SSC: Ms. Ann Hayward Rooney, Portsmouth, Virginia (cont.)

Date	Report Name	Commodity Involved
21 Jan 85	Chesapeake Paper Corp. West Point, Virginia	50,000 Gallon Sodium Hydrate Pipe Rupture
21 Jan 85	Stone Container Corp. James River Hopewell, Virginia	600,000 Gallons of Sodium Sulfate
01 Feb 85	F/V Atlantic Mist Assateague Island Chincoteague, Virginia	9,000 Gallon Potential Oil Spill
08 Feb 85	F/V Miss Radford Pamlico Sound, North Carolina	2,000 Gallon Potential Diesel Oil Spill
21 Feb 85	Barge Jeanne Marie Wicomico River, Maryland	Gasoline
24 Feb 85	Portsmouth Marine Terminal Portsmouth, Virginia	Acrylamide
02 Mar 85	Pesticide Spill Chatham Hall Pond, Virginia Beach, Virginia	Cygon 2E
22 Mar 85	Matlack Trucking Baltimore, Maryland	Methyl Acrylate
03 Apr 85	Hercules, Inc. Hopewell, Virginia	Ethyl Chloride, Ethyl Ether, Ethyl Alcohol
03 Apr 85	United Technologies Tank Truck Spill Stevensville, Maryland	300 Gallons of Printers Ink
15 Apr 85	Tanker Fuji Broke in Half Off Chesapeake Bay, Virginia	24,000 Gallons #2 & 79,000 Gallons #4
13 May 85	U.S. Coast Guard Marine Safety Office Baltimore, Maryland	Request for Information on Chemical Disposal
21 May 85	Tug Ajax Chesapeake Bay Smithpoint Bay, Virginia	Diesel Spill Potential
04 Jun 85	Container Ship American Rigel Berth 12, Baltimore, Maryland	Yellow Phosphorus involved in fire

SSC: Ms. Ann Hayward Rooney, Portsmouth, Virginia

Date	Report Name	Commodity Involved
22 Jun 85	Mystery Oil Slick Off Cape Hatteras, North Carolina	Oil
25 Jun 85	Owens Corning Morehead City, North Carolina	20 - 100 Gallons Asphalt
04 Jul 85	U.S. Coast Guard Training Center Yorktown, Virginia	Bomb Threat - Potential Oil Storage Tank Damage
11 Jul 85	M/V Constellation Faros Cape Fear River, North Carolina	Bomb Threat - Oil Spill Potential
07 Aug 85	Warehouse Fire Norfolk, Virginia	Dye in Creek
19 Aug 85	T/V Exxon Barge #32 James River, Virginia	Gasoline and Diesel
06 Sep 85	Tire Fire Norfolk, Virginia	Oil

Southeast Atlantic and East Gulf States

4. Seventh Coast Guard District - Miami, Florida

COTP/MSO's: Miami, Florida
Tampa, Florida

MSO's: Jacksonville, Florida
Savannah, Georgia
Charleston, South Carolina
Old San Juan, Puerto Rico

MSD's: Key West, Florida (detachment under MSO, Miami)
West Palm Beach, Florida (detachment under MSO, Miami)
Port Ponce, Puerto Rico (detachment under MSO, San Juan)
St. Thomas, U.S. Virgin Islands (detachment under MSO, San Juan)
Christiansted, St. Croix, U.S. Virgin Islands (detachment under MSO, San Juan)

SSC: LT David Kruth, Miami, Florida

Date	Report Name	Commodity Involved
02 Oct 84	M/V Louisiane Port Everglades, Florida	Leaking Phenol Drums

SSC: LT David Kruth, Miami, Florida (cont.)

Date	Report Name	Commodity Involved
18 Jan 85	M/V Nememcha Off Key West, Florida	30 Tons of Heavy Fuel Oil
21 Jan 85	M/V Isla Plaza Miami, Florida	Fire in banana cargo hold
14 Feb 85	Container Spill Savannah, Georgia	Leaking azinphos methyl container in van
15 Feb 85	M/V A. Regina Mona Island, Caribbean Sea Off Puerto Rico	IFO 40 Fuel
01 Apr 85	M/V Morant Bay Port of Miami Lummus Island Miami, Florida	Flammable Liquid
18 Apr 85	USS Coral Sea Tanker Collision South of Cuba	7,600 barrels #6 spilled
24 Apr 85	M/V Honduras Collision with tug Andrew McAllister Pier 8, San Juan Harbor, San Juan, Puerto Rico	Fire on M/V Honduras potential chemical spill
24 May 85	U.S. Army Training Reserve Center Miami, Florida	Calcium hypochlorite spill in warehouse/ offices
25 May 85	M/V Reefer Merchant 2.8 miles S. of Foley Rocks Light Ledbury Reef, Florida	Grounding with oil spill potential
29 May 85	Anheuser Busch Factory Jacksonville, Florida	"Betz 45"
19 Jun 85	Beached ammonia cylinder Hallandale, Florida	Anhydrous ammonia
26 Jun 85	Truck chemical spill Thonotosassa, Florida	Mixed chemicals
01 Jul 85	Unknown Drum St. John, U.S. Virgin Islands	Assorted chemicals

SSC: LT David Kruth, Miami, Florida (cont.)

Date	Report Name	Commodity Involved
24 Jul 85	Guardian Pool Company Hollywood, Florida	Chlorine gas
07 Aug 85	M/V Fotini D.E. Bajo Nuevo, Colombia	Grounding w/oil spill potential

Central and West Gulf States

5. Eighth Coast Guard District - New Orleans, Louisiana

MSO's: Corpus Christi, Texas
Galveston, Texas
Mobile, Alabama
Port Arthur, Texas

MIO's: New Orleans, Louisiana
Houston, Texas

MSD's: Brownsville, Texas (detachment under MSO, Corpus Christi)
Lake Charles, Louisiana (detachment under MSO, Port Arthur)

MID's: Morgan City, Louisiana (detachment under MIO, New Orleans)
Baton Rouge, Louisiana (detachment under MIO, New Orleans)
Houma, Louisiana (detachment under MIO, New Orleans)
New Iberia, Louisiana (detachment under MIO, New Orleans)

SSC: LCDR Todd Baxter, New Orleans, Louisiana

Date	Report Name	Commodity Involved
03 Oct 84	Apalachicola Pride Port Arthur, Texas	Fuel Oil
01 Nov 84	Padre Island Drums Corpus Christi, Texas	Oil and Chemicals
07 Dec 84	Mystery Spill Horn Island, Mississippi	Bunker Oil
17 Dec 84	Pleasure Island Seep Port Arthur, Texas	Iron-Reducing Bacteria and oil
19 Dec 84	Koch Refinery Corpus Christi, Texas	Pseudocumene-Xylene
02 Jan 85	T/B BMT 2001 Port Arthur, Texas	Pyro-Naphtha

SSC: LCDR Todd Baxter, New Orleans, Louisiana (cont.)

Date	Report Name	Commodity Involved
21 Feb 85	Shell Oil Pipeline Mississippi Sound, Louisiana	Crude Oil
06 Mar 85	Mystery Spill Houston Ship Channel Houston, Texas	Oil and Acrylonitrile
13 Mar 85	Seaboard Systems Train Derailment Evergreen, Alabama	Mixed Chemicals
24 Apr 85	Shell Oil Pipeline Bay Vacherie, Louisiana	Pipeline leak of crude oil
06 Aug 85	T/V Zenit Aurora Neches River Port Arthur, Texas	10,000 gallons Ninian crude oil
21 Aug 85	Tank Barge RF-1001 Mississippi River Chalmette, Louisiana	#6 oil slurry
19 Sep 85	T/V Dixie Challenger and T/V Senor Picou Collision, Intracoastal Waterway, Port O'Connor Texas	Methyltertbutylether, cumene, and dripolene

Great Lakes States

6. Ninth Coast Guard District - Cleveland, Ohio

COTP/MSO's: Milwaukee, Wisconsin
Sault Ste. Marie, Michigan
Cleveland, Ohio
Buffalo, New York
Chicago, Illinois
Detroit, Michigan
Duluth, Minnesota
Toledo Ohio
Muskegon, Michigan

MIO's: St. Ignace, Michigan
Sturgeon Bay, Wisconsin

MSD: Alexandria Bay, New York (detachment under MSO, Buffalo)

SSC: LCDR Ted Kaiser, Ann Arbor, Michigan

Date	Report Name	Commodity Involved
22 Oct 84	Mystery Spill Harbor Beach, Michigan	Oil

SSC: LCDR Ted Kaiser, Ann Arbor, Michigan (cont.)

Date	Report Name	Commodity Involved
05 Nov 84	Aluminum Chloride Disposal Buffalo, New York	Aluminum Chloride
16 Nov 84	M/V Lake Shadaka Lake Erie, Michigan	Potential Grounding and Fuel Oil Spill
04 Dec 84	Paint Remover Advice Milwaukie, Wisconsin	Methylene Chloride
13 Dec 84	M/V Akranes St. Lawrence Seaway Clayton, New York	Potential Oil Spill
15 Jan 85	Niagara River Niagara Falls, New York	Methyl Ethyl Ketone
22 Jan 85	Allis Chalmers Oak Creek, Wisconsin	Naphthylamine
11 Feb 85	C&O Railway St. Clair River Pt. Huron, Sarnia, Ontario	Propylene Oxide
26 Feb 85	Lott Industries Ottawa River Toledo, Ohio	3,000 Gallons of #5 Oil
19 Mar 85	Niagara Mohawk Power Plant Buffalo, New York	Sulfuric Acid
15 Apr 85	Chrysler Parts Depot Marysville, Michigan	200 gallons paint stripper
16 May 85	Mystery Slick Straits of Mackinac Michigan	Slick w/dead fish
10 Jun 85	M/V Zenovia Superior Harbor Basin, Superior, Wisconsin	100 gallons #6 fuel & lube oil
19 Jul 85	Mystery Spill Wiley Dondero Channel St. Lawrence Seaway Massena, New York	Bilge oil
06 Aug 85	Tar Balls on Beach Lake Superior White Fish Point, Michigan	Oil

SSC: LCDR Ted Kaiser, Ann Arbor, Michigan (cont.)

Date	Report Name	Commodity Involved
23 Aug 85	Port Huron Algae Bloom Port, Huron, Michigan	Mistaken as oil
30 Aug 85	Dow Chemical of Canada St. Clair River S. of Sarnia, Ontario	2,000 - 6,000 gallons tetrachloroethene & perchloroethylene

Southern California

7. Eleventh Coast Guard District - Long Beach, California
   MSO's: Long Beach, California
   San Diego, California
   MSD: Santa Barbara, California (detachment under MSO, Long Beach)

   SSC: Mr. Robert Pavia, Seattle, Washington

Date	Report Name	Commodity Involved
13 Dec 84	Barge Phoenix 120 Off San Miguel Island, California	200,000 Gallons of oily waste
16 Aug 85	Port Hueneme Santa Barbara Channel California	4,000 gallons diesel spilled

Northern California (San Francisco Bay)

8. Twelfth Coast Guard District - Alameda, California
   MSO: Alameda, California

   SSC: CDR Stewart McGee, Jr.

Date	Report Name	Commodity Involved
21 Oct 84	Southern Pacific Railroad Oakland, California	Dursban
31 Oct 84	T/V Puerto Rican Off San Francisco, California	Petroleum Products
26 Nov 84	T/V Ratna Kirti 200 Miles Off Humboldt, California	Potash
27 Nov 84	Rowdy Creek Humboldt, California	15-20 Gallons of PCBs
13 Dec 84	Port of Oakland Oakland, California	Toluene Diisocyanate

SSC: CDR Stewart McGee, Jr., Alameda, California (cont.)

Date	Report Name	Commodity Spilled
18 Dec 84	F/V Cinco de Mayo Morro Bay, California	4,000 Gallons of Diesel Fuel
03 Jan 85	Shippers Imperial Terminal, Oakland, California	Crystallized Cyanide
17 Jan 85	Mystery Spill Pt. Piedras Blancas, Morro Bay, California	Oil and tar balls
18 Jan 85	Yellow Freight Co. South San Francisco, California	2,4,5-Trichloro-phenoxy Acetic Acid
28 Feb 85	Mystery Spill Pt. Reyes, California	Algae
02 Mar 85	Barge Apex Houston Off Pt. Piedras Blancas Morro Bay, California	30,000 Barrel Potential #2 Fuel Oil Spill
18 Mar 85	Barge Pennwalt Totem Humboldt, California	Chlorine, Caustic Soda, and Sodium Chlorate
27 Mar 85	F/V Allen E. Salmon Creek, California	400 Gallons of #2 Diesel fuel
03 Apr 85	Ole Nordhaven Electroplating Facility Hayward, California	Fire with Mixed Chemicals
12 Apr 85	"Black Liquor" Humboldt Bay Harbor, California	Discharge of 70,000 Gallons Lignosulfonic Acid
16 Apr 85	Southern Pacific Railroad Oakland, California	Dinitrotoluene
20 Apr 85	Shippers Imperial Terminal Oakland, California	Maleic Anhydride
23 Apr 85	Clipper Yacht Harbor Sausalito, California	1,900 Gallons #6 Oil
14 May 85	American President Lines Oakland, California	Damaged Container of Tetramethyl Thiuram Monosulfide Barrels

SSC: CDR Stewart McGee, Jr., Alameda, California (cont.)

Date	Report Name	Commodity Involved
02 Jun 85	Tank Truck San Rafael, California	Hydrogen Peroxide
12 Jun 85	Alameda Gateway Limited Alameda, California	PCBs in Soil
24 Jun 85	Alameda Bait Shop Fish Kill Alameda, California	Bunker C
29 Jun 85	U.S. Navy Flight Deck Monterey Bay, California	Hazardous Waste Drum Cleaning Fluid
12 Aug 85	Pomponic State Park San Mateo, California	Methanol and Tetrahydrofuran Drums
21 Aug 85	Berkeley Marina Landfill Berkeley, California	Methyl Ethyl Ketone and Asbestos
29 Aug 85	Richmond Shipyard Richmond, California	PCBs
14 Sep 85	F/V Becky Monterey Bay, California	#2 Diesel
24 Sep 85	Naval Communications Station Stockton, California	"Econo Chrome" Chromic Acid Flakes
25 Sep 85	Alameda Naval Air Station Oakland, California	1,500 Gallons J.P.5 Fuel

Pacific Northwest States

9. Thirteenth Coast Guard District - Seattle, Washington
   COTP/MSO: Seattle, Washington
   MSO: Portland, Oregon
   MSD's: Astoria, Oregon (detachment under MSO, Portland)
   Aberdeen, Washington (detachment under MSO, Portland)
   Coos Bay, Oregon (detachment under MSO, Portland)

SSC: Mr. Robert Pavia, Seattle, Washington

Date	Report Name	Commodity Involved
25 Oct 84	NOAA/Sand Point Seattle, Washington	Microcide L-36
01 Nov 84	Waste Oil Spill Budd Inlet Olympia, Washington	Used Oil

SSC: Mr. Robert Pavia, Seattle, Washington (cont.)

Date	Report Name	Commodity Involved
06 Nov 84	F/V Banjo McCaw Bay, Washington	Diesel Fuel
11 Nov 84	Foss Barge 244 Off Apple Cove Point Bainbridge Island, Washington	Calcium Lignosulfate and Diesel
21 Dec 84	Mystery Spill Whidbey Island, Washington	Bunker Oil
16 Jan 85	NOAA National Marine Fisheries Service, Seattle, Washington	Rope End Burning Advice
23 Feb 85	NOAA/Sand Point Seattle, Washington	Diazinon Bird Kill
04 Mar 85	Northwest Fur Breeders Cooperative Edmonds, Washington	Orthodichlorobenzene
17 Mar 85	U.S.S. Belleau Wood Bremerton, Washington	500 Gallons of Diesel fuel
31 Mar 85	Mystery Spill Off Neah Bay, Strait of Juan de Fuca, Washington	Oil Sheen
11 Apr 85	Mystery Spill San Juan Islands Strait of Juan de Fuca, Washington	Oil, unknown amount
15 Jun 85	F/V Half Shell W. Side Hood Canal, Washington	60 gallons diesel
15 Jul 85	Mystery Spill Puget Sound, Washington	Oil
20 Jul 85	Pier 46, Port of Seattle Washington	Benzaldehyde spill
19 Aug 85	U.S. Coast Guard Cape Disappointment, Washington	Aluminum phosphide fumigant
03 Sep 85	Kalama Chemical Company Kalama, Washington	Toluene spill

SSC: Mr. Robert Pavia, Seattle, Washington (cont.)

Date	Report Name	Commodity Involved
16 Sep 85	Bunker C Spill Off Oregon Coast	1.5 metric tons of Bunker C

Pacific Ocean

10. Fourteenth Coast Guard District - Honolulu, Hawaii
MSO: Honolulu, Hawaii
USCG Liaison: American Samoa (detachment under MSO, Honolulu)

SSC: Mr. Robert Pavia, Seattle, Washington

Date	Report Name	Commodity Involved
02 Feb 85	Magnificent Venture Honolulu, Hawaii	Copper Ore-Sea Water Mix
04 Sep 85	Waimea Dump Fire Honolulu, Hawaii	Unknowns on fire mixed chemicals

Alaska

11. Seventeenth Coast Guard District - Juneau, Alaska
MSO's: Juneau, Alaska (southeast Alaska)
Anchorage, Alaska (northern Alaska, western Alaska, and Aleutian Islands, Alaska)
Valdez, Alaska (Prince William Sound)
MSD's: Ketchikan, Alaska (detachment under MSO, Juneau)
Kodiak, Alaska (detachment under MSO, Anchorage)
Kenai, Alaska (detachment under MSO, Anchorage)

SSC: Mr. David Kennedy, San Juan Islands, Washington

Date	Report Name	Commodity Involved
20 Dec 84	Port of Anchorage Cook Inlet, Alaska	106,000 Gallons of Jet A-50 fuel
24 Feb 85	Ammonium Nitrate Spill Whittier, Alaska	Ammonium Nitrate
28 Mar 85	Oil Spill Off Akutan Island, Unimack Pass, Alaska	3,400 Gallons of #2 Fuel lost during fuel transfer
23 May 85	Grayling Platform Cook Inlet, Alaska	Gas blowout with oil spill potential

NOAA Response Report

American Cyanamid Company
Linden, New Jersey
October 6, 1984

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 1005 on October 6, 1984, a chemical reaction involving crude malathion occurred in a holding tank at the American Cyanamid facility in Linden, New Jersey. Malathion, a common pesticide, was explosively released along with other decomposition by-products into the air through a 24-inch manhole on the top of the tank.

Much of the liquid product immediately fell back onto the top of the holding tank and onto the roof and grounds of the facility, but some fell into the Arthur Kill, a navigable waterway in the Port of New York-New Jersey. The gaseous cloud from the chemical reaction and release was carried downwind through the New Jersey communities of Carteret, Port Reading, Woodbridge, Edison, and Perth Amboy, and the New York City communities of Rossville and Tottenville on Staten Island. In addition, the Mobil Chicago, docked downwind of the spill at the General American Transportation Corporation, and the Tropic Sun, steaming in the Arthur Kill, were exposed to the plume from the reaction.

NOAA RESPONSE

NOAA/OAD was notified of the incident on October 6, 1984, by the U.S. Coast Guard and requested to assist in determining response options. Four components of this incident required consideration:

1. Immediate response to the downwind vapor cloud;
2. Evacuation and decontamination of two manned vessels which passed through the vapor cloud;
3. Cleanup of the liquid product from the facility; and
4. Determination of the residual downwind contamination of affected communities by the liquid product and evaluation of its effects on public health.

NOAA/OAD's first task was to notify the emergency response organization of the Centers for Disease Control (CDC) in Atlanta. CDC's representative was contacted and all details of advice regarding the downwind vapor cloud was relayed by NOAA/OAD to the U.S. Coast Guard On-Scene Coordinator (OSC).

At the American Cyanamid facility the OSC, with the assistance of NOAA/OAD, continued to advise other government agencies of the status of the downwind cloud, the affected malathion holding tank, and the facilities cleanup. A sampling analysis plan was developed and implemented to determine the extent of contamination of the two

NOAA RESPONSE, cont.

vessels involved in the vapor cloud, as well as the downwind communities. At the same time, NOAA/OAD discussed with industry and Federal agencies the establishment of a measurement standard for malathion contamination to which the sampling and analysis results could be compared.

FINAL DISPOSITION OF THE INCIDENT

Laboratory results of the wipe sampling aboard the Mobil Chicago and Tropic Sun indicated that the vessels were contaminated by only low levels of malathion. These levels were, in fact, below that of normal application rates of malathion for mosquito control. NOAA/OAD recommended that the vessels be washed down, exposed foodstuffs destroyed, and exposed clothing and bed linen be washed.

The sampling and analysis results from the downwind sampling in the New Jersey communities showed even less contamination by malathion. In fact, the levels noted approached zero and considerable efforts between government and industry representatives were spent in discussing the degree of accuracy issues to reach zero values. Clearly, all concerned were satisfied that malathion contamination, if any, was below the levels required to kill mosquitoes using normal application rates, and, as such, was not harmful to humans.

Cleanup of the American Cyanamid Warners Plant facility proceeded without further incident. On November 16, American Cyanamid signed an Administrative Consent Order with the State of New Jersey outlining production actions required before American Cyanamid could begin further malathion production.

REFERENCES

1. Administrative Consent Order, November 16, 1984. New Jersey State Department of Environmental Protection.

2. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp.135-140.

3. Malathion Incident/Prevention Report, 1984. American Cyanamid.

4. Sax, N. Irving, ed., 1984. Dangerous Properties of Industrial Materials. Sixth Edition. Van Nostrand Reinhold Company, New York.

NOAA Response Report

Celanese Chemical
Newark, New Jersey
October 19, 1984

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

At 0530 on October 19, 1984, tank number 13 at the Celanese Chemical Corporation's Newark, New Jersey plant overflowed, releasing a reported 7,000 gallons of 50 percent formaldehyde into a four-foot concrete-walled containment area 100 yards from the Passaic River. None of the product was reported to have escaped the containment area, which was floored with light soil, gravel, and sand. Groundwater level at the facility is reported to be less than two feet from the soil surface.

The product was removed from the containment area by Celanese Chemical staff using on-site pumping and storage facilities. Water was used to wash and dilute the product, to hold down the fumes, and recover 20,000 gallons of water and product. Work was in progress to replace the soil bottom with a concrete pad. Some excavation for the footing for the concrete pad floor had been accomplished.

NOAA RESPONSE

NOAA/OAD was notified of the incident on October 19, 1984 by the U.S. Coast Guard Captain of the Port, New York, and requested to participate in the investigation of the incident. NOAA/OAD was further requested to advise the EPA's Emergency Response Team and the New Jersey Department of Environmental Protection (DEP) Division of Water Resources of observations and progress. In this capacity, NOAA/OAD coordinated the proposed Celanese Chemical sampling and analysis plans with concerned agencies and requested that ongoing analysis results be forwarded as required.

FINAL DISPOSITION OF THE INCIDENT

The formaldehyde product has been removed from the surface of the soil and the areas that were under construction for the concrete footings needed for the installation of a concrete pad. U.S. Environmental Systems, Celanese's cleanup contractor, also removed contaminated soils which were disposed of as hazardous waste.

Celanese Chemical collected samples in the Passaic River at the tide line, in shallow holes near the river, and in groundwater collected at the bottom of shallow holes dug in the containment area. None of these samples indicated high levels of formaldehyde.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp.135-140.

2. Sax, N. Irving, ed., 1984. Dangerous Properties of Industrial Materials. Sixth Edition. Van Nostrand Reinhold Company, New York.

3. Unconsolidated Monitoring Well Specifications, 1983. New Jersey State Department of Environmental Protection.

NOAA Response Report

Eastern Oil
Jersey City, New Jersey
October 23, 1984

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On September 16, 1984, the Eastern Oil terminal in Jersey City, New Jersey, experienced a valve failure which released 17,000 gallons of number 4 fuel oil into the Hackensack River. Sip Creek, a small creek downstream of the Eastern Oil facility, was heavily oiled as a result. However, Sip Creek had been contaminated in the past by other oilings and oil-soaked bottom sand and soils extend downward in places at least one foot in the creek bed. The site borders the PJP Landfill, a site on the U.S. Environmental Protection Agency's National Priority List of Hazardous Waste Sites, and begins at a culvert at New Jersey State Route 440 from which oil also now seeps.

NOAA RESPONSE

NOAA/OAD was initially notified of the incident on September 16, 1984 by the U.S. Coast Guard, and on October 23, 1984, was requested to assist in the evaluation of Sip Creek contamination and to discuss "how clean is clean" issues. NOAA/OAD recommended that extensive removal of oil-soaked soils and other debris not be accomplished on an emergency priority.

CURRENT DISPOSITION OF THE INCIDENT

As of this writing, Clean Venture, Eastern Oil's cleanup contractor, intends to maintain a sorbent boom at the mouth of Sip Creek at the Hackensack River to collect oil and oil sheen emitted from the bottom of Sip Creek.

REFERENCES

1. Gundlach, Erich R., Michael J. Vogel, and Bart J. Baca, 1985. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware, New Jersey, and Pennsylvania. An Atlas of Coastal Resources. National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

ABM Eddystone
Philadelphia, Pennsylvania
October 30, 1984

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

The ABM Eddystone site contains up to two hundred greatly deteriorated 55-gallon drums. Four years ago, an inspector for New Jersey State Department of Environmental Protection (DEP) counted 340 drums at this location. Hazardous materials on the site can be generally characterized as paint and paint solvents/sludges, pickling liquor, and plating solutions. A minimal amount of liquid materials (less than the contents of ten 55-gallon drums) was observed.

The site is located on fill material over what was once a marsh on the Delaware River south of the Philadelphia airport. Surface pathways of any chemical materials from the drums to the tidal waters of the Delaware River would be in excess of 100 yards. Subsurface pathways of chemicals from the drums to tidal waters is possible through the fill material.

NOAA RESPONSE

NOAA/OAD was briefed on the site on October 30, 1984, by the U.S. Environmental Protection Agency's (EPA) On-Scene Coordinator (OSC), and requested to provide information on environmental resources at risk in the area of the site.

NOAA/OAD provided the resources at risk assessment, as requested, and participated with EPA's Emergency Response Team in the site evaluation.

CURRENT DISPOSITION OF THE INCIDENT

EPA Region III may elect to make an "immediate response" removal of these drums based on the drums' contents being an immediate danger to the public through contact. Future NOAA/OAD involvement requested by the EPA OSC will be to participate in assessment of the contamination remaining on the site once the drums and stained soils have been removed.

REFERENCES

1. Gundlach, Erich R., Michael J. Vogel, and Bart J. Baca, 1985. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware, New Jersey, and Pennsylvania. An Atlas of Coastal Resources. National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

DuPont Chemical
Linden, New Jersey
November 9, 1984

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

At 1500 on November 9, 1984, the staff at DuPont Chemical facility in Linden, New Jersey removed a valve in a line containing sulfur trioxide, accidentally releasing an estimated ten gallons of product in a downwind toxic vapor cloud. The duration of the incident from initial release to the replacement of the valve (and end of the release) was 40 minutes.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 9, 1984 by the U.S. Coast Guard Captain of the Port, New York, and requested to provide technical information regarding the properties of sulfur trioxide. NOAA/OAD and the U.S. Coast Guard On-Scene Coordinator notified Federal and other concerned agencies.

FINAL DISPOSITION OF THE INCIDENT

The downwind vapor cloud quickly dispersed. The Linden City Fire Department and DuPont staff used foam on the leaking valve area and were successful in attacking the close-in vapor cloud until the valve was replaced.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

2. Sax, N. Irving, ed., 1984. Dangerous Properties of Industrial Materials. Sixth Edition. Van Nostrand Reinhold Company, New York.

3. U.S. Coast Guard, 1978. Chemical Hazardous Response Information System (CHRIS). GPO No. 050-012-00147-2. U.S. Government Printing Office, Washington, D.C.

4. U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials-Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

5. Windholz, Martha A., ed., 1983. The Merck Index, An Encyclopedia of Chemicals and Drugs. Tenth Edition. Merck & Co., Inc., Rahway, New Jersey.

NOAA Response Report

Tug Celtic
Connecticut River
November 19, 1984

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

During severe weather on November 17-18, 1984 the tug Celtic, towing a scrap iron cargo in a barge, was reported missing on Long Island Sound. On November 19, the U.S. Coast Guard was notified of an oil slick and, upon investigation, the Celtic was found on the bottom in 70 feet of water two miles south of Norton Point, Connecticut.

Initial diving efforts were directed at recovering the bodies of the six persons who had been onboard the Celtic, with secondary efforts directed at stopping up the tank vents and the flow of fuel oil from the casualty.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 19, 1984, by the U.S. Coast Guard Captain of the Port, New Haven, and requested to provide a trajectory for the oil slick and an assessment of the environmental resources at risk.

NOAA/OAD participated with the On Scene Coordinator in the decision-making process outlined in Subpart H to the Region II Contingency Plan regarding dispersant use. NOAA/OAD predicted that the spilled oil would not impact environmentally sensitive areas and suggested that the use of dispersants therefore not be considered.

FINAL DISPOSITION OF THE INCIDENT

The bodies were removed and fuel oil vents plugged. No further oil was observed coming from the wreck. As of this writing, salvage efforts are still pending, including plans for removal of some 10,000 gallons of fuel oil believed to be remaining onboard the Celtic.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite element routines for the analysis and simulation of nearshore circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

REFERENCES, cont.

3. Gundlach, Erich R., Daniel D. Domeracki, and Stephen A. Covell, 1984. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Connecticut. An Atlas of Coastal Resources. National Oceanic and Atmospheric Administration, Seattle, Washington.

4. National Oil and Hazardous Substances Contingency Plan, 1982. Federal Register, v47, n137, July 16. (40 CFR Part 300.34(d).) U.S. Government Printing Office, Washington, D.C.

5. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Mystery Oil Spill
Middletown, Conneticut
November 26, 1984

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On November 26, 1984, the U. S. Coast Guard Captain of the Port (COTP), New London, received complaints of a spill of heavy oil in a tributary of the Connecticut River near Middletown, Connecticut.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 26, 1984, by the U.S. Coast Guard COTP, New London, and requested to participate in the investigation of the spill source. This investigation included tracing the source to a culvert at the head of the Connecticut River tributary and then attempting to trace that source to one of numerous potential locations in both active and abandoned industrial areas in Middletown, Connecticut. NOAA/OAD also worked with the U.S. Coast Guard in reviewing sewerage maps and advising on the use of tracing dyes, and met several times with local area officials and property owners.

CURRENT DISPOSITION OF THE INCIDENT

The discharge of oil from the culvert area was stopped by installation of a plug into the lower culvert and allowing only the upper or newer culvert to discharge water into the stream. Although the source of the ongoing seepage of oil is probably in the abandoned industrial areas of Middletown, this has not yet been verified.

The removal of the oil from the bank of the Connecticut River tributary and the establishment of boom and filter fences to prevent further loss of oil from the culvert was funded under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

REFERENCES

1. National Oil and Hazardous Substances Contingency Plan, 1982. Federal Register, v47, n137, July 16. (40 CFR Part 300.34(d).) U.S. Government Printing Office, Washington, D.C.

NOAA Response Report

Mystery "Toxic Cloud"
Linden, New Jersey
November 27, 1984

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On November 27, 1984, a white cloud of noxious fumes drifting from New Jersey over the Arthur Kill made at least 32 people ill on the Staten Island side of the Goethals Bridge. The New Jersey Department of Environmental Protection (DEP) attributed the situation to a spill of fuming sulfuric acid at the DuPont plant in Linden, New Jersey, but the plant manager disclaimed any responsibility.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 27, 1984 by the U. S. Coast Guard Captain of the Port (COTP), New York, and requested to analyze fuming sulfuric acid, sulfur trioxide, and oleum for any similarities. This information was provided and NOAA/OAD participated with the On-Scene Coordinator (OSC) in the notification of appropriate Federal, state, and local agencies.

FINAL DISPOSITION OF THE INCIDENT

Twenty-three people, most of them suffering from dizziness, nausea, and respiratory ailments, were taken to four hospitals on Staten Island where they were treated and released. Nine others declined treatment.

The case was closed by the U.S. Coast Guard and, as of April 1985, the source of the release has not been determined.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

2. Mackison, Frank W., R. Scott Stricoff, and Lawrence J. Partridge, Jr., eds., 1981. NIOSH/OSHA Occupational Health Guidelines for Chemical Hazards. Department of Health and Human Services (National Institute for Occupational Safety and Health) Publication No. 81-123. U.S. Government Printing Office, Washington, D.C.

3. Sax, N. Irving, ed., 1983. Dangerous Properties of Industrial Materials. Sixth Edition. Van Nostrand Reinhold Company, New York.

4. U.S. Coast Guard, 1978. Chemical Hazardous Response Information System (CHRIS). GPO No. 050-012-00147-2. U.S. Government Printing Office, Washington, D.C.

REFERENCES, cont.

5. U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials-Technical Assistance Data System (OHMTADS). NIH/CIS Chemical Information System, Falls Church, Virginia.

6. Windholz, Martha, ed., 1983. The Merck Index, An Encyclopedia of Chemicals and Drugs. Tenth Edition. Merck & Co., Inc., Rahway, New Jersey.

NOAA Response Report

Rail Cars in New York Harbor
New York, New York
November 29, 1984

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On November 14, 1984 railroad car float number 29 of the New York Cross Harbor Railroad sank in New York Harbor near the Brooklyn Army Terminal. Two of the 14 rail tank cars on the float contained liquid product soybean oil. Severe weather on the first day of the response hampered operations, but salvage and pumping operations were initiated on November 15.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 29, 1984 by the U.S. Coast Guard Captain of the Port, New York, and requested to assist in calculating the amount of soybean product in the tank cars. NOAA/OAD obtained this information and converted cargo manifest weights to gallons as requested.

CURRENT DISPOSITION OF THE INCIDENT

Both rail tank cars were raised without further incident. One tank car, when raised, contained only water, indicating a potential release of up to 25,000 gallons of soybean oil. The estimated release of soybean oil from the second car has not been received as of this writing.

REFERENCES

1. GATX Tank Car Manual, 1984. Fourth Edition. General American Transportation Corporation, Chicago, Illinois.

NOAA Response Report

Argus Chemical
Brooklyn, New York
December 19, 1984

Gary Ott, Scientific Support Coordiantor

INCIDENT SUMMARY

On December 19, 1984, U.S. Coast Guard personnel reported a chemical odor apparently emanating from an area of the Brooklyn piers near the Gowanus Canal.

NOAA RESPONSE

NOAA/OAD was notified of the incident on December 19, 1984 by the U. S. Coast Guard Captain of the Port (COTP), New York, and requested to participate in the investigation of the unknown chemical odors. NOAA/OAD and the U.S. Coast Guard On-Scene-Coordinator (OSC) coordinated the response to the scene by chemists assigned to the New York City Department of Environmental Protection (NYC DEP) and New York City Fire and Police Departments.

Subsequent investigation disclosed that Argus Chemical Company, a chemical facility within one city block of the waterfront, had a leaking valve that had released unknown quantities of hexane. Argus Chemical obtained hazardous materials contractor support during the investigation, response, and clean up efforts. NOAA/OAD provided safety briefings to Coast Guard COTP New York teams involved in the investigation.

FINAL DISPOSITION OF INCIDENT

Argus Chemical Company repaired the leaking valve in their hexane system and supervised their contractor's use of sorbants to remove the unknown quantity of hexane from New York Harbor.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Materials Spills Conference, pp.135-140.

2. Sax, N. Irving, ed., 1984. Dangerous Properties of Industrial Materials. Sixth Edition. Van Nostrand Reinhold Company, New York, New York.

3. U.S. Coast Guard, 1978. Chemical Hazardous Response Information System (CHRIS). GPO No. 050-012-00147-2. U.S. Government Printing Office, Washington, D.C.

NOAA Response Report

DuPont Chemical
Linden, New Jersey
December 20, 1984

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On December 20, 1984, the DuPont Chemical facility at Linden, New Jersey reported a brief release of fumes from the manufacturing process of chemical oleum when a valve was being changed. The fumes were reported to have been quickly dissipated towards the New York City boroughs of Staten Island and Brooklyn.

NOAA RESPONSE

NOAA/OAD was notified of the incident on December 20, 1984, by the U. S. Coast Guard Captain of the Port, New York, and requested to assist in the spill response and the notification of appropriate Federal, state, and local agencies. NOAA/OAD also provided a detailed chemical analysis of oleum for reference during this emergency notification process.

FINAL DISPOSITION OF THE INCIDENT

The case was closed by the U.S. Coast Guard when no reports of the release were received from the Staten Island and Brooklyn communities.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

REFERENCES

Sax, N. Irving, 1979. Dangerous Properties of Industrial Materials. Fifth Edition. Van Nostrand Reinhold Company, New York.

Windholz, Martha, ed., 1976. The Merck Index: An Encyclopedia of Chemicals and Drugs. Ninth Edition. Merck and Company, Inc., Rahway, New Jersey.

NOAA Response Report

C/V TFL Adams
Maher Terminal, Elizabeth, New Jersey
May 6, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On May 6, 1985, the container vessel TFL Adams arrived at Maher Terminal in Elizabeth, New Jersey, carrying an unknown number of leaking 55-gallon drums of methyl parathion, an inflammable liquid pesticide, in two 20-foot containers.

NOAA RESPONSE

NOAA/OAD was notified of the incident on May 6, 1985 by the U.S. Coast Guard Captain of the Port (COTP), New York, and requested to recommend appropriate levels of personnel protection, as well as to suggest cleanup and neutralization techniques for operations which involved safely removing and overpacking the two leaking containers, and decontaminating the vessel and other affected cargo.

NOAA/OAD recommended that entry personnel wear Level A protection if entering an insufficiently ventilated confined space, or Level B protection if the work area was well-ventilated and no vapor cloud, mist, or fumes were present. NOAA/OAD further recommended that cleanup and neutralization should be accomplished by washing all surfaces with a detergent and a basic material such as household ammonia.

FINAL DISPOSITION OF THE INCIDENT

Decontamination of the vessel and investigation of the damaged and leaking drums were completed by midnight on May 6, 1985. The removal of the two damaged drums was accomplished with a recorded total release of 110 gallons of methyl parathion. Finally, by May 7, the floor of the container which had held the damaged drums was neutralized as recommended.

REFERENCES

Dreisbach, Robert H., 1983. Handbook of Poisoning. Lange Medical Publications, Los Altos, California.

Hawley, Gessner G., 1981. The Condensed Chemical Dictionary. Van Nostrand Reinhold Company, New York.

Little, Arthur D., 1980. The Effectiveness of Tyvek and Tyvek Composites as Barriers to Methyl Parathion. Cambridge, Massachusetts.

Occupational Health Services, Inc., 1985. Hazardline. Secaucus, New Jersey.

REFERENCES, cont.

Stutz, Douglas R., Robert C. Ricks, and Michael F. Olsen, 1982. Hazardous Materials Injuries. Bradford Communications Corporation, Greenbelt, Maryland.

U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

NOAA Response Report

American Cyanamid
Linden, New Jersey
May 9, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

American Cyanamid spilled di-isoamyldithiophosphoric acid in April 1985, and reported that the chemical was not hazardous as defined in 40 CFR Part 116, the Code of Federal Regulations chapter dealing with designation of hazardous substances.

NOAA RESPONSE

NOAA/OAD was notified of the incident on May 9, 1985, by the U.S. Coast Guard, New York, and requested to advise whether the chemical was a solution, mixture, isomer, or hydrate of either phosphoric acid or thiophosphoric acid.

NOAA/OAD reported that the chemical is a different chemical compound than either phosphoric acid or thiophosphoric acid, and is thus not hazardous.

FINAL DISPOSITION OF THE INCIDENT

The case was closed by the Coast Guard on May 10, 1985.

NOAA Response Report

B/C Georgia S
Ambrose Channel, New York Bay, New York
June 2, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On May 31, 1985, the bulk carrier Georgia S, carrying 25,000 long tons of gypsum, grounded in Ambrose Channel in the Lower New York Bay, approximately two and one-half miles north of Sandy Hook, New Jersey. Initial attempts to refloat the vessel using increasing numbers of tugs on the high tides of May 31, June 1, and June 2 failed.

NOAA RESPONSE

NOAA/OAD was notified of the incident on June 2, 1985, by the U.S. Caost Guard Captain of the Port (COTP), New York, and requested to advise on the nature of the gypsum cargo and on the environmental consequences of dumping gypsum into Lower New York Bay, and provide weather forecasts for the area.

NOAA/OAD advised that little environmental damage would be caused by the discharge of gypsum into the ocean waters surrounding the grounded vessel because gypsum, or calcium carbonate, is a natural product of the ocean. However, the policy issues regarding ocean dumping of gypsum into ocean waters would have to be addressed by NOAA, the U.S. Environmental Protection Agency, and other Federal and state agencies.

On June 3, 1985, the Coast Guard COTP, New York; the Regional Response Team (RRT); and NOAA/OAD met to discuss the Coast Guard's options regarding refloating the Georgia S. One of the key topics of discussion was the possibility of discharging some of the gypsum cargo overboard into the ocean waters of Lower New York Bay if all other methods failed and the vessel was threatened by weather or low tides. Although all RRT members agreed that dumping gypsum into Lower New York Bay would result in little environmental damage, the consensus was that this would be a last resort. The New York State representative to the RRT suggested that the finer or smaller portions of the golf ball-sized cargo might float and be a problem on beaches and downwind of the cargo's entry into the water.

FINAL DISPOSITION OF THE INCIDENT

The Georgia S was refloated on June 3, 1985, following lightering of approximately 4,700 tons of gypsum int two open barges using a crane and a clamshell.

REFERENCES

Ott, Gary, 1985. Experiment with 25 pounds of finely powdered gypsum. EPA vessel P. W. Anderson, Yankee Pier, Governors Island, New York.

Research Planning Institute, 1985. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: New York Harbor and the Hudson River. An Atlas of Coastal Resources. Prepared for National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

F/V Nina
South Jetty, Shark River
Belmar, New Jersey
June 12, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On June 11, 1985, the fishing vessel Nina, carrying 200 gallons of diesel fuel, was reported aground on the south jetty in the entrance to the Shark River at Belmar, New Jersey.

NOAA RESPONSE

NOAA/OAD was notified of the incident on June 12, 1985 by the U.S. Coast Guard Captain of the Port (COTP), New York, and requested to provide a trajectory analysis should the Nina's fuel be spilled during attempts to free the vessel. The Coast Guard also requested information on resources at risk and weather forecasts for the area.

NOAA/OAD advised that oil would flow in and out of the Shark River according to tidal stage at the time of the leak. Based on this data, the Coast Guard developed contingency plans for oil recovery prior to the first, failed attempt to refloat the vessel. NOAA/OAD recommended time frame "windows" at which the floating crane could remove the vessel with the least environmental damage to the marshlands in the vicinity of the vessel. These windows would optimize the use of the ebb tide to flush any fuel oil spilled away from the environmentally sensitive Shark River area.

FINAL DISPOSITION OF THE INCIDENT

The Nina was removed from the south jetty without incident on June 13, 1985. The removal of the vessel, as a hazard to navigation, was Federally funded and performed by U.S. Army Corps of Engineers contractors on June 13, 1985.

REFERENCES

Research Planning Instiute, Inc., 1985. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware, New Jersey, Pennsylvania. An Atlas of Coastal Resources. Prepared for National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

Allied Chemical
New York State Thruway
June 13, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On June 13, 1985, a tank truck containing 6,500 gallons of acetone overturned on the New York State Thruway. Emergency response to this incident was coordinated by the New York State Police utilizing the technical advice of the Hudson River Spill Committee.

NOAA RESPONSE

NOAA/OAD was notified of the incident on June 13, 1985 by the U.S. Coast Guard Captain of the Port, New York, a member of the Hudson River Spill Committee, and requested to provide technical information on acetone.

NOAA/OAD provided safety and health protection recommendations for personnel responding to the incident.

FINAL DISPOSITION OF THE INCIDENT

The acetone cargo was transferred under the supervision of an Allied Chemical technician into another chemical tank truck, and the overturned tank truck righted and removed without further incident.

REFERENCES

Bierlein, Lawrence, 1977. Red Book on Transportation of Hazardous Materials. Cahners Books International, Inc., Boston.

Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Materials Spill Conference, pp. 135-140.

NOAA Response Report

Union Oil Company
Carteret, New Jersey
July 3, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On July 1, 1985, the U.S. Coast Guard National Response Center was informed by the Plant Manager of the Union Oil Company, Union Chemicals Division, in Carteret, New Jersey of a release of chemicals into Noes Creek, a tributary of the Arthur Kill. This facility had been previously owned by Benjamin Moore, a paint manufacturer. Containment and cleanup actions were contracted to IT Corporation, a hazardous waste contractor. A boom was deployed into Noes Creek, and sorbent pads were used to absorb floating chemicals, while the source of the chemical discharge was sought.

NOAA RESPONSE

NOAA/OAD was notified of the incident on July 3, 1985, by the U.S. Coast Guard Captain of the Port (COTP), New York, and requested to participate in the initial investigation of the incident. NOAA/OAD and Union Oil discussed the company's sampling and analysis plans, with NOAA/OAD requesting ongoing analysis results.

On July 3, one possible source of the chemical release was discovered as solvent-saturated soil was being removed from the Union Oil facility. A six-inch underground pipe was uncovered which contained xylene, benzene, naphtha, toluene, and other trace aromatic solvents. During testing of all chemical feed lines on the facility by a Union Oil contractor, one of the lines containing xylene failed a pressure test. Union Oil representatives suggested that the abandoned six-inch line, which was not on facility blueprints, may have served as an underground collector for chemical releases on the site.

FINAL DISPOSITION OF THE INCIDENT

U.S. Environmental Protection Agency Federal Region II assumed On-Scene Coordinator responsibilities on July 3, 1985. Saturated soils were removed from the surface of the facility. IT Corporation, Union Oil Company's hazardous materials contractor, removed 1,400 gallons of product. Soils removed from the site were disposed of as hazardous waste.

REFERENCES

Hawley, Gessner G., 1981. The Condensed Chemical Dictonary. Tenth Edition. Van Nostrand Reinhold Company, New York.

REFERENCES, cont.

Sax, N. Irving, 1984. Dangerous Properties of Industrial Materials. Sixth Edition. Van Nostrand Reinhold Company, New York.

Windholz, Martha, ed., 1983. The Merck Index: An Encyclopedia of Chemicals, Drugs, and Biologicals. Tenth Edition. Merck & Co., Inc., Rahway, New Jersey.

NOAA Response Report

Mystery Oil Slick
Hudson Canyon, Manasquan Inlet, New Jersey
July 8, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On July 8, 1985, the U.S. Coast Guard Captain of the Port (COTP), New York, received a report of a large black oil slick extending five miles by five miles at a location 40 miles east of Manasquan Inlet, New Jersey.

NOAA RESPONSE

NOAA/OAD was notified of the incident on July 8, 1985, by the Coast Guard COTP, and requested to provide a trajectory analysis, information on resources at risk, and weather forecasts for the area.

NOAA/OAD advised that the slick would trend in a circular pattern and would move less than one mile from the area in which it was reported. Data also indicated that the oil slick would not strike sensitive resources for at least several days. Based on this information, the Coast Guard COTP scheduled an overflight for July 9.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard's overflight of the reported spill site on July 9 could not detect any slick.

REFERENCES

Research Planning Institute, 1985. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware, New Jersey, and Pennsylvania. An Atlas of Coastal Resources. Prepared for National Oceanic and Atmospheric Administration, Seattle, Washington.

Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Holiday Inn
Carteret, New Jersey
July 10, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On July 10, 1985, the Carteret, New Jersey Police Department, Office of Emergency Management, reported to the U.S. Coast Guard Captain of the Port (COTP), New York, that there was a severe chemical odor and possible chemical release in the tractor-trailer parking lot of the local Holiday Inn.

Initial analytical investigation by the IT Corporation, a hazardous waste contractor, suggested that the chemicals present in the stained soils in the parking lot contained cyanide materials. All persons on scene believed the stain to be a result of accidental or intential dumping of a chemical material from a tanker truck. IT Corporation employees wearing Level B personnel protection began to remove the saturated soils on July 10.

NOAA RESPONSE

NOAA/OAD was notified of the incident on July 10, 1985 by the U.S. Coast Guard COTP, New York, and requested to participate in the initial investigation and to provide information on cyanide compounds. NOAA/OAD advised that an acid is required to react with the cyanide compounds before hydrogen cyanide gas can be produced. During the initial investigation, the stain was observed to be approximately 20 feet by 25 feet and did emit a strong putrifying odor. Estimated spill size would therefore be over 55 gallons and less than 100 gallons.

FINAL DISPOSITION OF THE INCIDENT

The U.S. Environmental Protection Agency, Federal Region II, assumed On-Scene Coordinator responsibilities at 1800 on July 10. Saturated soils were removed from the parking lot by IT Corporation on the same day.

REFERENCES

Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Materials Spills Conference, pp. 135-140.

Sax, N. Irving, 1984. Dangerous Properties of Industrial Materials. Sixth Edition. Van Nostrand Reinhold Company, New York.

Windholz, Martha, ed., 1983. The Merck Index: An Encyclopedia of Chemicals, Drugs, and Biologicals. Tenth Edition. Merck & Co., Inc., Rahway, New Jersey.

NOAA Response Report

H. Kohnstamm and Company
Camden, New Jersey
August 13, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On August 12, 1985, the U.S. Coast Guard Captain of the Port (COTP), Philadelphia, was notified by H. Kohnstamm and Company, a dye plant in Camden, New Jersey, that a fork lift had damaged the discharge line on a storage tank containing aniline. Approximately 3,500 gallons of aniline had been released to flow across a parking lot and into a sewer system on the facility. The Camden Fire Department ordered an evacuation of almost 200 residents in a nearby apartment complex and of approximately 40 people at the facility as a precautionary measure. Thirty-six people, including 18 firefighters, were treated at the nearby medical center for chemical fume inhalation; all were released without hospitalization.

H. Kohnstamm employees used sand to create barriers to contain the spilled aniline. O.H. Materials, the cleanup contractor hired by H. Kohnstamm, used an "s-boom" to plug the connection between the Kohnstamm drainage system and city sewers while firefighters opened fire hydrants outside the facility to disperse any aniline that might have reached the sewers. O.H. Materials also deployed booms in the sewers to prevent aniline from reaching the municipal treatment plant.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 13, 1985, by the Coast Guard COTP, Philadelphia, and requested to provide information on aniline, to assist the owners in designing a sampling plan, and to evaluate resources at risk. Finally, NOAA/OAD was requested to advise on the fate and effects of aniline that might pass through the treatment plant process into the Delaware River.

Sewage treatment plant operators noted that there was some reduction in the capability of the sewage facility to perform biological treatment. The estimated aniline discharge from the sewage treatment plant, however, was not seen as causing a significant impact on the environment.

FINAL DISPOSITION OF THE INCIDENT

O.H. Materials removed contaminated soils and approximately 2,000 gallons of aniline-contaminated water from the underground cistern and sewer system. Concentrations of aniline that, during one short time frame, entered the sewage treatment plant at concentrations of 40 parts

FINAL DISPOSITION OF THE INCIDENT, cont.

per million (ppm) soon dropped to 14 ppm at the inlet for two days. Sewage effluent leaving the plant at a volume of 3,000,000 gallons per day revealed aniline levels at approximately 7 ppm for an estimated two days.

REFERENCES

Research Planning Institute, 1985. Sensitivity of Coastal Resources and Wildlife to Spilled Oil: Delaware, New Jersey, and Pennsylvania. An Atlas of Coastal Resources. Prepared for the National Oceanic and Atmospheric Administration, Seattle, Washington.

Sax, N. Irving, 1984. Dangerous Properties of Industrial Materials. Sixth Edition. Van Nostrand Reinhold Company, New York.

Windholz, Martha, ed., 1983. The Merck Index: An Encyclopedia of Chemicals, Drugs, and Biologicals. Tenth Edition. Merck & Co., Rahway, New Jersey.

NOAA Response Report

PCB Transformer Spill
Atlantic City, New Jersey
August 13, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On August 13, 1985, the U.S. Coast Guard Captain of the Port, Philadelphia, received a report that three transformers known to contain polychlorinated biphenyls (PCBs) were dropped into the Atlantic Ocean as they were being removed from a pier. The PCB transformer oil had been removed from the transformers prior to the attempt to remove them from the pier. Removal of the third transformer, however, resulted in some damage to the casing, and light sheen was observed in the area of the transformer.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 14, 1985, by the U.S. Coast Guard Captain of the Port, Philadelphia, and requested to estimate the fate and effects of PCB transformer oil. NOAA/OAD advised that there would be little observable environmental effect from the small release of PCB oil as reported.

FINAL DISPOSITION OF THE INCIDENT

No further oil was reported, and the case was closed by the U.S. Coast Guard on August 14, 1985.

REFERENCES

40 CFR Part 761, PCBs Manufacturing, Processing, Distribution in Commerce and Use Prohibitions, 1980. U.S. Government Printing Office, Washington, D.C.

NOAA Response Report

Building Fire with Cyanide Contents
Queens, New York, New York
August 14, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On August 14, 1985, the U.S. Coast Guard Captain of the Port, New York, was notified by the New York City Office of Emergency Management that a major building fire was in progress in the borough of Queens. The building contained unknown quantities of a chemical compound known to include cyanide and other chemical formulations, including acids, bases, and unknowns.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 14, 1985 by the U.S. Coast Guard Captain of the Port, New York, and requested to provide information on the chemicals known to contain cyanide, and to advise on response options and a sampling plan.

In its advice to the Coast Guard, NOAA/OAD stressed the importance of keeping cyanide compounds away from acids, and coordinated the development of a sampling plan with the New York City Department of Environmental Protection. As a precaution, all sewers in the area were tested for low pH, which would have indicated a potential danger of the release of hydrogen cyanide gas if cyanide-contaminated materials had entered the sewer system. All pH tests indicated that the sewer water was in the neutral range.

FINAL DISPOSITION OF THE INCIDENT

The fire was extinguished on the afternoon of August 14. Radiac, a hazardous waste contractor, entered the facility at that time to begin the removal of the undamaged cyanide containers and to pump the contaminated firefighting water into suitable containers.

REFERENCES

Hawley, Gessner G., 1981. The Condensed Chemical Dictionary. Tenth Edition. Van Nostrand Reinhold Company, New York.

Sax, N. Irving, 1984. Dangerous Properties of Industrial Materials. Sixth Edition. Van Nostrand Reinhold Company, New SYork.

Windholz, Martha, ed., 1983. The Merck Index: An Encyclopedia of Chemicals, Drugs, and Biologicals. Tenth Edition. Merck & Co., Rahway, New Jersey.

NOAA Response Report

PCB Transformer Fires
New York, New York
August 15, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

Five transformer vault fires occurred on August 15, 1985 in the financial district of Manhattan. Response to these fires by the New York City emergency community, including the fire and police departments, emergency medical services, municipal agencies, and the Mayor of New York, was conducted as if each transformer contained polychlorinated biphenyls (PCBs).

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 15, 1985, by the U.S. Coast Guard Captain of the Port, New York, and requested to meet with the New York City Office of Emergency Management to develop a sampling plan to include the design of mutually agreeable sampling procedures.

NOAA/OAD coordinated the development of a sampling plan which included a "wipe sampling" program to be conducted at the site of each transformer fire. Actual sampling was conducted by the City of New York's Department of Environmental Protection.

FINAL DISPOSITION OF THE INCIDENT

The U.S. Environmental Protection Agency, Region II, assumed Federal On-Scene Coordinator responsibilities at 1800 on August 15; all transformer fires were extinguished by that afternoon. None of the transformers were determined to contain PCBs above 500 parts per million concentrations.

NOAA Response Report

January 20, 1985 No. 2 Fuel Oil Spill Update
Fishers Island, New York
August 29, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On January 20, 1985, 2,000 gallons of No. 2 fuel oil spilled onto the grounds of a facility on the West Harbor of Fishers Island, New York. Large holes were dug into the sandy soils of the facility in an attempt to remove the product before it entered the cove.

NOAA RESPONSE

NOAA/OAD was notified of the incident on January 20, 1985, and worked with the U.S. Coast Guard to mitigate effects of the spill. On August 29, 1985, NOAA/OAD and the Coast Guard Captain of the Port, New London, inspected the facility to observe progress and assess the potential for environmental impact from the small sheen that was occasionally seen emanating from the banks of the facility.

The impact of this sheen was compared to impacts which would occur from a similar amount of sheen emitted by treated wood pilings and piers. The local expert on clams reported no measurable impacts on his nearby seed clam bed.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard case was closed with recommendations to the owner of the facility to remove any product which accumulated in the recovery trench, and to maintain booms as required.

NOAA Response Report

M/V Kazimierz Pulaski
Kill Van Kull, New York
September 15, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 1900 on September 15, 1985, the 650-foot Kazimierz Pulaski struck bottom at Bergen Point, Bayonne, New Jersey, on a transit from Newark Bay to Upper New York Harbor. Port tank number three released an estimated 80,000 gallons of Bunker C oil along the Kill Van Kull before spillage was stopped when the vessel anchored. Initial site investigations could not determine the exact magnitude of the spill.

On September 16, the magnitude of the spill became obvious when reports of impacts were received. The northern Staten Island and southern Bayonne shoreline were stained with oil pocketed around structures. Some oil was observed in the southern portion of Newark Bay and along the Arthur Kill and along Staten Island beaches. Further reports indicated stranded oil on Sandy Hook and Ocean Point off Coney Island.

NOAA RESPONSE

NOAA/OAD was notified of the incident on September 15, 1985 by the U.S. Coast Guard, New York. On September 17, NOAA/OAD was requested to determine resources at risk and provide a trajectory of the spilled product. Information provided indicated that much of the spilled oil would have moved out of the Narrows to sea by September 17. Oil stranded along the shoreline, if not removed by the cleanup contractors, similarly would be swept to sea in an estimated two-day cycle.

By early September 17, Clean Venture and Marine Pollution Control cleanup contractors were removing pocketed oil using vacuum trucks and deploying sweeps along the Bayonne and Staten Island shorelines. On September 17-18, contractors cleaned the hull of the Kazimierz Pulaski where it was stained by oil, and raked and shoveled the beaches on Staten Island and Sandy Hook. Beach cleanup was performed manually, with no reports of bird or animal impact. Tarballs equal to approximately one shovelful every six to eight feet were observed during beach surveys.

During the entire response effort, NOAA/OAD participated in meetings, field investigations, and coordinated the cleanup and "how clean is clean" discussion with contractors and chemists.

FINAL DISPOSITION OF THE INCIDENT

By early September 18, contractors had cut entry ports into the vessel tank vent system so that lines could be inserted into the number three tank to pump out the remaining 45,000 gallons of oil. Pumping was initiated at 1400 on September 18, and the tanks were successfully emptied. The Kazimierz Pulaski was then towed to Pier No. 7 for repair.

REFERENCES

Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

Research Planning Institute, 1985. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: New York Harbor and the Hudson River. An Atlas of Coastal Resources. Prepared for National Oceanic and Atmospheric Administration.

NOAA Response Report

Powell Duffryn Corporation
Bayonne, New Jersey
September 15, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

Early on September 15, 1985, the U.S. Coast Guard Captain of the Port (COTP), New York, was notified that a leak had developed in the shoreside reception tank during the early morning transfer of allyl alcohol from the chemical tanker, Stolt Spirit, at the Powell Duffryn facility in Bayonne, New Jersey. Allyl alcohol leaked from the bolts surrounding a manhole at the bottom of the tank. Pumping operations were stopped while unsuccessful attempts were made by facility personnel to stop the leak by tightening the bolts. Two terminal personnel, wearing modified Level B protection, were exposed to the chemical during this operation; they were treated and released by a local hospital.

An estimated 600 gallons of allyl alcohol was contained by a separate collection system. No material entered navigable waters, and the product was pumped from the leaking shoreside tank back into the Stolt Spirit until the level of the product was below that of the manhole. At this point, the gasket on the manhole was replaced by terminal personnel wearing Level A protection.

NOAA RESPONSE

NOAA/OAD was notified of the incident early on September 15, 1985 by the Coast Guard COTP, New York, and requested to participate in the initial investigation in Bayonne, and to provide information on allyl alcohol. NOAA/OAD warned the Coast Guard of the poisonous and irritating effects on eyes and mucous membranes of allyl alcohol fumes. None of the Coast Guard personnel noted any allyl alcohol odors.

FINAL DISPOSITION OF THE INCIDENT

Allyl alcohol was pumped from the leaking tank into the Stolt Spirit and the manhold gasket repaired by 1200 on September 15. Product captured in the containment area was removed by vacuum truck for further testing to determine contamination levels and further disposition. The Stolt Spirit left the Powell Duffryn facility at 2100 on September 15 without further incident.

REFERENCES

Hawley, Gessner G., 1981. The Condensed Chemical Dictionary. Tenth Edition. Van Nostrand Reinhold Company, New York.

REFERENCES, cont.

Sax, N. Irving, 1984. Dangerous Properties of Industrial Materials. Sixth Edition. Van Nostrand Reinhold Company, New York.

Windholz, Martha, ed., 1983. The Merck Index: An Encyclopedia of Chemicals, Drugs, and Biologicals. Rahway, New Jersey.

NOAA Response Report

Buckeye Pipeline
Staten Island, New York, New York
September 23, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

At 1300 on September 23, 1985, a back-hoe damaged a 300-PSI high pressure gasoline line owned by Buckeye Pipeline Corporation in Staten Island, New York. An estimated 35,000 gallons of gasoline erupted from the line in a fountain which bathed several homes in the area in gasoline, spilled into nearby streets, and flowed into Signs Creek, a tributary of the Arthur Kill.

NOAA RESPONSE

NOAA/OAD was notified of the incident in the early afternoon on September 23, 1985 by the U.S. Coast Guard Captain of the Port, New York, and requested to estimate the trajectory of the gasoline fumes. The prevailing calm and variable winds made it difficult to predict the path of the gasoline fumes. However, NOAA/OAD participated in the response effort and coordinated booming strategies to maximize skimmer operations.

The New York City Fire Department and Buckeye Pipeline spread foam, deployed booms, and built containment berms using a PVC spillway in an effort to both trap the gasoline and reduce explosive vapor levels. Fire hydrants were opened to flush sewer lines. Vacuum trucks used in conjunction with deflection booms to reduce the interference of the protein foam deployed by the New York City Fire Department resulted in the successful collection of considerable quantities of the gasoline product.

FINAL DISPOSITION OF THE INCIDENT

Vacuum skimmer operations removed gasoline product from Signs Creek and the bermed areas. Gasoline-saturated soils were removed from the residential spill area and washed with large quantities of water in a less populated area. On September 25, Coast Guard investigators reported that saturated soils were still being removed from the spill area. Maintenance of the berm and sorbent booms was recommended until all flow of gasoline from the spill site could be terminated.

The extensive response to this event by the New York City emergency community included considerable fire protection equipment, police, and emergency medical services, as well as upper-level involvement of several City agencies, including the Mayor. Media coverage of this event was extensive and aggressive.

REFERENCES

Sax, N. Irving, 1984. Dangerous Properties of Industrial Materials. Sixth Edition. Van Nostrand Reinhold Company, New York.

Windholz, Martha, ed., 1983. The Merck Index: An Encyclopedia of Chemicals, Drugs, and Biologicals. Tenth Edition. The Merck Co., Rahway, New Jersey.

NOAA Response Report

T/V Grand Eagle
Delaware River
September 29, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

At 2330 on September 28, 1985, the tank vessel Grand Eagle ran aground on a bar in the Delaware River near Marcus Hook, Pennsylvania, causing the release of about 11,000 barrels of Ninian crude oil. By 0230 the vessel had been towed off the bar to the Sun Oil Facility at Marcus Hook where it was surrounded by booms.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0100 on September 29, 1985 by the U. S. Coast Guard, Captain of the Port (COTP) of Philadelphia, and requested to provide a trajectory analysis and information on the properties of crude oil. During the next 20 days, NOAA/OAD provided a Scientific Support Coordinator (SSC) on-scene to act as a member of the OSC's staff. The SSC provided the OSC with oil trajectory and tidal updates; identification, documentation and prioritization of oil impacted areas; environmental resources at risk information; dispersant use recommendations; and cleanup recommendations.

By September 30, the oil had moved down the Delaware River to the vicinity of the Salem River, an area of major environmental concern. The prevailing winds had shifted to the south, which, while slowing the progress of oil downstream, seriously threatened to drive the free floating oil into the Salem River wetlands on the next incoming tide.

On the evening of September 30, the On-Scene Coordinator (OSC) declared a Federal response effort for the Delaware River areas south of the Delaware Memorial Bridge. The OSC's actions were prompted by the following considerations:

1. highly sensitive wetlands in the Salem River area;

2. oil trajectory information indicated that free-floating oil moving downriver could be driven into the Salem River wetlands by the flood tide on the late evening of October 1;

3. lack of action by the Grand Eagle owner's representative to protect the Salem River wetlands from the free-floating oil moving downstream; and

4. lead time requirements for the OSC to move Government-contracted oil spill response equipment into place to protect the environmentally sensitive area at the Salem River and downriver in the Delaware Bay.

Coordination of Research

NOAA/OAD coordinated the flow of detailed spill information among the scientific community and those government agencies involved in wildlife and environmental protection. The OSC's support encouraged the initiation of three research projects during the Grand Eagle response effort as a result of these discussions:

1. A study by Rutgers University of the impact of hydrocarbons downstream on the Delaware Bay oyster beds in both of the states of Delaware and New Jersey;

2. A study by the State of Delaware of the impact of the oil spill on aquatic habitat and fish populations in the Delaware River in the Wilmington, Delaware area (ths study was not actually implemented);

3. A study by NOAA of the impact of the oil spill on the Delaware River estuary.

Trajectory Information

Initial trajectory analyses indicated that the oil would move downriver mainly under the influence of the tides, with a minor contribution to the movement of oil from the increased water flow associated with the recent passing of Hurricane Gloria. The New Jersey shore was initially thought to be the main area of impact, based on wind conditions at the time of the spill. Oil movement was expected to be fairly rapid, such that by daybreak on September 29, oil would reach south to the Delaware Memorial Bridge. The oil was expected to flow back and forth with the tides, causing it to enter Raccoon Creek, Oldmans Creek, and as far south as the Christiana River if these areas were not protected by adequate booming techniques.

However, by September 30, the oil had not stranded on the New Jersey side of the shoreline and considerable volumes of oil were observed to float in uncontrolled slicks on the Delaware River from Sun Oil's Marcus Hook terminal as far south as New Castle, Delaware and Pennsville, New Jersey.

The leading edge of the oil on October 1 was predicted to reach as far south as Reedy Island, with major oil concentrations moving into the vicinity of the C & D canal. The flood cycle late on October 1, combined with the predicted southwest winds, would threaten to drive free-floating oil into the Salem River wetlands. Oil not stranded on the shore was expected to move downriver at eight to ten miles per day through Delaware Bay.

Resources at Risk

NOAA/OAD advised that this region of the Delaware River has relatively large stands of marshes, with very large wetlands further south near the Salem River, which are considered to be the most sensitive to spilled oil, and are also important habitats for aquatic birds. The Delaware Bay is also an important migratory and over-

Resources at Risk, cont.

wintering area for many species of birds, including cormorants, ducks, geese, and gulls.

NOAA/OAD recommended that the wetlands south to the Salem River be protected as much as possible, particularly the entrances to the numerous creeks and rivers that drain into the Delaware River. The Salem River was identified as an area of major concern since it has extensive wetlands and is an important habitat for migratory waterfowl. Most of these birds had not arrived at the time of the spill, but were expected within the next few weeks.

Cleanup Recommendations

Cleanup recommendations were given for the various habitats present in this area. For man-made structures (including seawalls and riprap), NOAA/OAD recommended low or high pressure flushing into curtain or sorbent booms combined with sorbents or surface skimmers to remove oil. NOAA/OAD further advised that pooled oil be flushed out of riprap into booms, and high pressure or steam should be used to remove oil stain from seawalls.

For coarse-grain sand beaches, NOAA/OAD advised the Coast Guard to wait until all oil was onshore before starting cleanup. The beaches could then be manually cleaned with rakes and shovels. NOAA/OAD further suggested that oil not be buried in coastal areas.

Finally, NOAA/OAD suggested sorbent and low-pressure flushing of wetlands if access allowed; pickup of oily debris, while avoiding trampling on any marsh grass.

Cutting was not recommended for any of the oiled marshes since this procedure has been shown to be harmful to oiled marsh plants(Baca and Getter, 1985). It can allow oil to enter the inner tissues of the plants, and cutting operations can lead to trampling of sensitive root systems and the introduction of oil into previously uncontaminated sediments.

Dispersant Use

NOAA/OAD did not recommend dispersant use in this area as a primary response measure. Response recommendations were limited to mechanical measures (primarily containment booms) to protect the entrances to sheltered wetlands.

At present, preplanning policy guidelines for the use of dispersants in the Third Coast Guard District consider dispersants to be a viable option to protect wildlife resources. Dispersants are to be used when dispersant-treated oil can be shown to rapidly dissipate in the water column. Dispersant use is recommended in situations where oil spills occur in deep, offshore waters where the response community can be assured of rapid dispersion and dilution of dispersed oil. The Grand Eagle spill did not occur in an area previously approved for dispersant

Dispersant Use, cont.

use by the response community in the local contingency plan. In addition, a key point in the contingency planning policy guidance was not met, as no wildlife resource threatened by the Grand Eagle spill would be protected by dispersing the oil.

Further, dispersants were not implemented because the Grand Eagle owner's representative never proposed a plan for the use of dispersants, including the availability of dispersants and application equipment, for consideration of the OSC; the effectiveness of many commonly used dispersants is reduced in low salinity waters. The Delaware River, following very high rainfall from Hurricane Gloria, was mostly freshwater at this location; and the relatively shallow water depths in the Delaware River channel at the spill site would not have assured the response community that there would be rapid dilution of dispersed oil to low or very low concentrations.

On-Site Surveys

During October 1-4 and October 9-10, ground and aerial surveys were coordinated by NOAA/OAD to identify and (where possible) prioritize oiled shorelines for cleanup efforts; quantify and document the area of wetlands affected; and determine the behavior and pattern of oil on the shorelines to identify future cleanup requirements.

The initial observations made during an aerial survey on October 1 indicated that oil had stranded on both shorelines of the Delaware River. Most of the oil had come ashore between Deemers Beach and Edgemoor, including New Castle on the Delaware shore. This area was uniformly exposed to a heavy coating of black oil. The amount of oil on the shoreline progressively decreased south of Deemers Beach. North of Marcus Hook, oil was present in isolated patches. On the New Jersey shore, oil was present in relatively small patches at various locations between Monds Island and Penns Grove. The areas of heaviest accumulation in New Jersey were just south of the Commodore Barry Bridge, Oldmans Creek, Oldmans Point, and at Penns Grove. On the main channel of the river, oil was present as large patches of sheen with isolated streamers of black oil.

At the Christiana River, the protective booming strategies implemented by the Grand Eagle owner's representative had been inadequate. Untended booms deflected oil aimlessly, sometimes into wetland areas, and oil had penetrated the mouth of the Christiana River, where it was observed as a light-to-moderate sheen and as light-to-heavy shore oiling for a distance of six miles up the river.

On October 2, ground observations were made in New Castle, Delaware, at the Battery Park, a high-use recreational area with an observation deck, and associated riprap, beaches, and marshes. The Battery at the park was heavily oiled in the intertidal area, and some oil had splashed over the edge onto the dock of the Battery. Riprap located on the south edge of the Battery was heavily oiled. Most of the

On-Site Surveys, cont.

oil present was in the form of a thick water-in-oil emulsion. On either side of the Battery small Spartina alterniflora marshes fringing the shoreline to the north and south were heavily oiled up to a height of about one meter. Oil was present mostly on the plants themselves, with very little oil was on the sediments except at the high tide swash line. The water-in-oil emulsion was also seen coating debris present in the marsh.

Immediately adjacent to the marshes are small tidal flats with soft muddy sediments. Oil was scattered across the flats in small patches ranging in size from 1 to 10 centimeters in width. Further south of the Battery, a small, coarse-grained sand beach was coated with a band of oil about one meter wide, extending from the low water level up past the high water mark. The oil emulsion coated the sand and formed fairly large mats. Oiled debris were also present.

Based on these observations, recommendations were made to catch oil by placing sorbent booms across those areas with oil patches present, and spraying the marshes with low-pressure flushing to help remove the oil. Sorbent booms and water sprayers were not available at that time, so containment booms were placed across the coves on each side of the Battery, with oil sorbents placed inside the booms.

On October 4, a boat survey was made on the Delaware River between Delaware City and Marcus Hook to verify aerial observations made on October 1, to determine the extent of oiling of marshes, and identify cleanup operations underway on the shoreline.

Inspection of the shorelines indicated heavy oiling of the shoreline from Deemers Beach north to Marcus Hook, including the Christiana River. Marshes in this area were heavily coated by oil, with the plants being completely coated in most cases. Some oil was observed as small patches on the surface of the tidal flats, and sheen was frequently observed flowing across the flats with water draining from the marshes.

The October 4 survey established that the largest area of oiled marsh extended from Battery Park at New Castle north to the Christiana River. In the Christiana River, the shorelines were heavily oiled, including some small marsh areas on the north and south shores. Heavy sheen was observed in the river up to a point west of the Christiana Avenue Bridge, where cleanup crews had deployed sorbent booms.

The shoreline in Oldmans Creek and Marcus Hook had thick, floating oil along both shorelines near the mouth where the marshes were moderately to heavily oiled. A containment boom placed across the creek was being overtopped by the rising flood currents. At the bridge crossing the creek, sorbent booms had been deployed. The shoreline south of Oldmans Creek was moderately to heavily oiled.

On-Site Surveys, cont.

Overall impressions from surveys conducted during the first week indicated that the marshes on the Delaware shore south of the Delaware Memorial Bridge were the most heavily impacted areas. Oldmans Creek and Oldmans Point were also considered to be problem areas because of the presence of floating oil slicks and the relatively sheltered environments in these areas. In Oldmans Creek, the degree of oiling appeared to have actually increased since October 1. The Christiana River and Battery Park at New Castle, Delaware were the main socio-economic areas of concern.

FINAL DISPOSITION OF THE INCIDENT

Observations made on October 9 and 10 indicated that the extent of oiling and its distribution on the oiled shorelines had not changed since surveys conducted the previous week. These observations supported projections made by NOAA/OAD that most of the oil had come ashore and would stay there. The general appearance of the oil had changed somewhat because of weathering and natural flushing, and it appeared much more viscous. During the previous surveys, the oil had appeared as a thick water-in-oil emulsion on the shorelines and marshes. By October 9, oil was present in this form only at Battery Park, New Castle, in a heavily oiled marsh that had been boomed off. The remaining oil on the shoreline was a sticky black coating that adhered tightly to plants and most hard rock surfaces.

In muddy tidal flats and marshes, the oil was observed in a few instances to be on the mud surface, but was not adhering to the substrate. This was observed at almost all marshes and associated tidal flats, where the vast bulk of the oil was present on the plants rather than the sediments. However, at Deemers Beach a very large accumulation of oil had come ashore at a long, thin fringe of Spartina alterniflora. The intertidal area here was relatively narrow, and the oil was deposited in a band about 10-15 feet wide onto sandy sediments. At this location, the oil coated the marsh plants and was deposited on the sediments.

The vegetation at Deemers Beach, and in limited and carefully selected areas at Battery Park, New Castle, Delaware, was cut to allow removal of considerable oil present on the sediments. Other less radical cleanup methods, particularly low pressure flushing combined with sorbents and containment booms, were not considered sufficient at these locations. Cleanup techniques for the New Castle public areas were discussed at great length by Federal Government representatives, State of Delaware, and the City of New Castle. In the public access park areas, the value of grasses in the intertidal zone as an erosion barrier and environmental resource was balanced against the risk of the public's contact with the oiled vegetation. Limited cutting of vegetation in these New Castle public park areas would not have exceeded a total of 50 linear yards of the river's shoreline and a total of less than one-fourth of an acre of grasses.

FINAL DISPOSITION OF THE INCIDENT, cont.

The only other marsh area cut was a mixed strand of marsh plants just south of the Commodore Barry Bridge on the New Jersey shore. This area was cut at the specific request of the New Jersey Department of Environmental Protection in order to reduce the threat of oiling to aquatic birds. The marsh here was much larger than that at Deemers Beach. The cutting was done using a hand-held circular saw, and the cut plants raked into piles and placed in plastic bags. The cutting operation at this site differed in several ways from that at Deemers Beach; no oil was present on the sediments, and only the heavily oiled plants were cut. Collection of cut plants was accomplished with much less trampling of plants and sediments.

Cutting operations at both sites were documented with photographs. Based on NOAA/OAD ground observations, it was determined that the cutting operations at Deemers Beach would have the greatest potential for long-term damage to the vegetation.

Detailed measurements were made by the NOAA/OAD of impacted marshland at 17 locations on the Delaware River. A total of 78.51 areas of wetlands were determined to be moderately to heavily oiled, making this spill one of the largest recorded incidents involving oil impacts on marshes.

REFERENCES

Baca, Bart J. and Charles Getter, 1985, Freshwater Oil Spill Considerations: Protection and Cleanup. Proceedings of the 1985 Oil Spill Conference, pp. 385-390.

Lesser, Charles, 1985. Environmental Assessment on Delaware River Estuarine Habitat as a Result of the Oil Spill. Letter October 1, 1985.

Lesser, Charles, 1985. An Aquatic Ecological Study of the Proposed Wilmington Harbor Dredged Material Disposal Area And Environs. V. J. Schuler Associates, Inc., Middletown, Delaware.

Research Planning Institute, 1985. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Delaware, New Jersey, and Pennsylvania. An Atlas of Coastal Resources. Prepared for National Oceanic and Atmospheric Administration, Seattle, Washington.

Subpart H, Use of Dispersants and Other Chemicals, Regional Oil and Hazardous Substances Contingency Plan, U.S. Federal Region II, Regional Response Team.

Subregional Area Oil and Hazardous Substance Polluting Contingency Plan. U.S. Coast Guard Captain of the Port, Philadelphia.

NOAA Response Report

Drilling Rig Zapata Scotian
Sable Island, Nova Scotia
October 22, 1984

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

On September 25, 1984, a team on the drilling rig Zapata Scotian, located in 16 meters of water at the eastern tip of Sable Island, Nova Scotia, felt a small tremor while reviewing proposed procedures for killing the Western Venture well. The Zapata Scotian had been evacuated on August 22 and again on September 20 when the rig lost circulation in the drilling fluid system. A third evacuation was necessary when it was found the pressure in the casing had risen to 12,000 psi. Two hours later, the pressure dropped to 3,000-3,500 psi, leading experts to conclude that the innermost casing had ruptured and high pressure gas was escaping into a shallower geological horizon. The exact depth of the rupture was not known, but assumed to be between 9,404 feet and 15,510 feet where there was only one layer of casing to penetrate. There was concern that this newly-charged horizon could pose increased risk for new wells drilled in the area. If a new well suddenly hit a high pressure (circa 13,000 psi) zone at a significantly shallower depth, the crew might not be able to control it, and a well blowout could result.

NOAA RESPONSE

NOAA/OAD was notified of the incident on October 26, 1984, by the co-Chairman of the Regional Response Team (RRT), and requested to provide a spill trajectory and resources at risk information for a potential well blowout at the Zapata Scotian rig. The RRT was concerned about the possibility of the product impacting United States waters if the well blew. The exact characteristics of the product for that particular oil field were not known, so NOAA/OAD calculated trajectories and resource information based on the "worst case" scenario, using current patterns characteristic of winter and a series of different weather situations.

Based on these trajectories, NOAA/OAD prepared an analysis of what environmental resources might be impacted for the period November through March. NOAA/OAD briefed the RRT co-Chairman and the U.S. Coast Guard Marine Environmental Pollution office on November 5, and briefed the Chief of Staff for U.S. Coast Guard District One on December 6. NOAA/OAD was requested to give periodic updates on trajectories and resources until the well was brought under control.

CURRENT DISPOSITION OF THE INCIDENT

A two-pronged approach to controlling the Western Venture well is currently underway. Mobil contracted a second rig to drill a relief

CURRENT DISPOSITION OF THE INCIDENT, cont.

well one kilometer to the northeast of the Western Venture location, while at the same time attempting to bring the well under control and regain circulation through a "snubbing" operation involving removal of damaged pipes without letting high pressure gas escape on the Zapata Scotian rig. The relief well was to be drilled down vertically for its first part, and then slanted to the southwest in the lower part to intersect the gas bearing horizon near the base of the Western Venture well. Mobil was able to determine from logging inside the drill pipe, that the innermost casing at a 152-meter depth had ruptured on September 25, 1984. Gas escaped from the drill pipe and travelled down between the innermost casing and the next outer casing to 888 meters, where a second rupture in the casing had occurred. The gas escaped out into the surrounding rock formation to at least the 722 meter depth where the first relief well encountered it. The well, begun October 27 by the Glomar Labrador I, had to be abandoned and plugged on November 1 when it encountered high pressure at the 722 meter depth.

A second relief well was begun in mid-January by the Rowan Gorilla III approximately two kilometers northwest of the Zapata Scotian. The second well will be used to pump down the heavy mud to stop the flow of gas (4). The blowout preventers on this well have been set at a shallower depth than those on the first relief well to allow them to be used earlier in case shallow gas is encountered again. By February 18, 1985, the second relief well had reached a depth of 863 meters. Drilling on the relief well will continue until the snubbing operation succeeds in bringing the well under control. It is estimated that it will take 80 to 85 days before removal of the pipe is completed, so it may be late April before a "top kill" of the well can be attempted.

REFERENCES

1. Atlantic Energy News, Vol. 3, No. 11, November 1984.

2. Atlantic Energy News, Vol. 4, No. 3, March 1985.

3. Eastern United States Coastal and Ocean Zones. Council on Environmental Quality and Office of Coastal Zone Management. National Oceanic and Atmospheric Administration, Washington, D.C.

4. Galt, J.A. and D.L. Payton, 1981. Finite Element Routines for Analysis and Simulation of Nearshore Circulation. In Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

5. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

F/V Provider
New Bedford Harbor, Massachusetts
November 16, 1984

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

At 1215 on November 16, 1984, the U.S. Coast Guard Marine Safety Office (MSO) in Providence, Rhode Island received a report that the fishing vessel Provider was aground and on fire just outside the entrance to New Bedford Harbor. Approximately 1,000 gallons of diesel was reported to be on board. The U.S. Coast Guard arrived on scene one hour later and found the fire had been contained and put out. No pollution was observed.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 16, 1984 by the U.S. Coast Guard MSO, Providence, and requested to provide trajectory and environmental resources at risk information for the grounded fishing vessel. NOAA/OAD predicted that any impact to marine life would probably be restricted to the immediate vicinity of the vessel and at Sconticut Neck. Potential resources at risk included shellfish beds along the western shore of Sconticut Neck and two sheltered marsh areas that could be boomed off to prevent oil from entering. Considering the high winds and sea conditions at the time of the grounding, unless most of the oil were released at one time it could be expected to break up and disperse naturally before any severe shoreline impacts occurred.

FINAL DISPOSITION OF THE INCIDENT

At 1420 on November 16, 1984, the F/V Provider was successfully refloated and towed to Eastern Fisheries pier in New Bedford Harbor where onboard repairs could be made. Inspection by the U.S. Coast Guard showed the fire had been contained to the engine room of the vessel with no damage to the fuel tanks. No pollution was observed.

REFERENCES

1. Galt, J.A. and D.L. Payton, 1981. Finite Element Routines for Analysis and Simulation of Nearshore Circulation. In Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Gundlach, E.R., D.D. Domeracki, C.D. Getter and L.C. Thebeau, 1980. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Massachusetts. An Atlas of Coastal Resources. National Oceanic and Atmospheric Administration, Seattle, Washington.

3. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

F/V Rute and Tony
Nantucket Island, Massachusetts
November 21, 1984

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

On November 21, 1984, the 70-foot fishing vessel Rute and Tony lost steerage and ran aground 200 yards off Tom Nevers Head on the southeast end of Nantucket Island. Although no pollution was sighted, the vessel was reported to have 4,000 gallons of diesel on board. Initial attempts to refloat the vessel were unsuccessful.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 21, 1984 by the U.S. Coast Guard Marine Safety Office, Providence, Rhode Island, and requested to provide trajectory and resources at risk information in the event oil was spilled. NOAA/OAD predicted that the strong northwest winds (reported to be 20-30 knots) and the offshore currents in the Nantucket area would both work to carry any spilled oil out to sea in an easterly direction. Oil spilled very close to shore would also be affected by the alongshore currents, which are controlled by the local wave pattern set up by the last weather system and influenced by interaction with the shoals lying east and west of the grounded vessel. Assuming the worst case scenario of an instantaneous release of all 4,000 gallons of fuel, a slick could form which would extend two to three miles before dissipating. No biologically sensitive areas should be impacted.

FINAL DISPOSITION OF THE INCIDENT

The Rute and Tony was successfully refloated on the morning of November 22 and towed to New Bedford Harbor before being overhauled at the Noralantic Shipyard in Fairhaven on November 26. No pollution was reported.

REFERENCES

1. Gundlach, E.R., D.D. Domeracki, C.D. Getter and L.C. Thebeau, 1980. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Massachusetts. An Atlas of Coastal Resources. National Oceanic and Atmospheric Administration, Seattle, Washington.

2. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

T/B Richard K.
Long Island Sound to Block Island Sound
January 19, 1985

Sharon Christopherson and Gary Ott, Scientific Support Coordinators

INCIDENT SUMMARY

At 1921 on January 19, 1985, the U.S. Coast Guard Captain of the Port, New London, Connecticut, received a radio call from the tug Emily S. reporting that the T/B Richard K., carrying 20,000 barrels of gasoline, had broken loose from its tow two miles north-northeast of Little Gull Island in Long Island Sound. Weather conditions, consisting of northwest winds gusting to 50 knots and eight to 10-foot seas, prevented rerigging the tow. The Emily S. began to ice up and was forced to take shelter in the Thames River at New London, Connecticut.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 2220 on January 19, 1985, by the U.S. Coast Guard Captain of the Port, New York, and requested to provide a trajectory for the drifting barge to assist in tracking the vessel. NOAA/OAD also provided a resources at risk assessment and protection strategies for Block Island Sound in the event the barge grounded on Fishers Island or Block Island before it could be brought under control.

Between 2100 on January 19 and 0700 on January 20, the Richard K. drifted at a speed of approximately two knots from Long Island Sound to a position four miles northwest of Block Island. Contact with the drifting barge was lost between midnight and 0300 on January 20 when a combination of mechanical problems, deteriorating weather conditions, and a medical emergency required recall of the U.S. Coast Guard vessels on scene. Contact was re-established at 0300, just prior to the barge entering U.S. Coast Guard District One waters.

FINAL DISPOSITION OF THE INCIDENT

At 0300 on January 20 weather conditions moderated to west winds of 25 knots and three-foot seas. At 0630 the U.S. Coast Guard cutter Evergreen was alongside the Richard K., and by 1115 the tug Emily S. had re-established the tow and and was underway with the Richard K. to the Texaco Terminal in Providence, Rhode Island. Upon arrival in Providence, the barge was inspected by the U.S. Coast Guard. The case was closed by the U.S. Coast Guard when no signs of damage or pollution were detected.

REFERENCES

1. Coastal Resources Center, University of Rhode Island, 1980. State of Rhode Island Oil Spill Contingency Guide: Protection Strategies For Vulnerable Coastal Features. University of Rhode Island Department of Environmental Management, Providence, Rhode Island.

2. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

3. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

4. Gundlach, E.R., S. S. Covell, and M. A.Bise, 1983. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Rhode Island (and Fall River, Massachusetts). An Atlas of Coastal Resources. National Oceanic and Atmospheric Administration, Seattle, Washington.

5. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

F/V Maureen S
Martha's Vineyard, Massachusetts
January 20, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 0230 on January 20, 1985, the fishing vessel Maureen S grounded at Squibnocket Beach on the south shore of Martha's Vineyard with 4,000 gallons of diesel on board. The vessel was reported to be hard aground with waves breaking over the deck surface. No pollution was sighted at the time of the grounding.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0900 on January 20, 1985, by the U.S. Coast Guard Marine Safety Office, Providence, Rhode Island, and requested to provide a spill trajectory and an environmental resources at risk analysis for the grounded fishing vessel. NOAA/OAD advised that oil released this close to shore would be carried by wind-driven currents and surf to impact beaches immediately to the west of the grounded vessel. Oil making it into the offshore current would travel in a westerly direction and dissipate without impacting any more land. The biologically sensitive areas of concern west of Squibnocket Beach consist of salt marshes which are protected from any potential spill impact by the mixed sand and gravel beaches fronting them.

FINAL DISPOSITION OF THE INCIDENT

The U.S. Coast Guard monitored the vessel's condition until the weather moderated and salvage operations were completed. On January 24, 1985, the Maureen S was successfully refloated with no observed pollution and towed to New Bedford, Massachusetts for repairs.

REFERENCES

1. Galt, J.A. and D.L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

3. Gundlach, Erich R., Daniel D. Domeracki, Charles D. Getter and Larry C. Thebeau, 1980. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Massachusetts. An Atlas of Coastal Resources. National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

T/B Corpus Christi Sun
Buzzards Bay, Massachusetts
January 24, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

At 0930 on January 24, 1985, the U.S. Coast Guard Marine Safety Office (MSO) in Providence, Rhode Island, was notified by the U.S. Army Corps of Engineers that the barge Corpus Christi Sun, carrying 100,000 barrels of diesel, had developed a leak in her no. 2 port tank as a result of ice damage. An estimated 50 to 100 gallons of oil were spilled before the leak was patched. The barge was anchored one half mile south of Buoy 11 near Cleveland Ledge Light in Buzzards Bay.

The U.S. Coast Guard reported that 80% of Buzzards Bay was covered by pancake and brash ice compacted by 10-20 knot west winds. The channel leading into Cape Cod Canal was characterized as full of slush moving with the current.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1000 on January 24, 1985, by the U.S. Coast Guard Marine Safety Office, Providence, and requested to provide a trajectory and resources at risk information for a potential major spill of diesel in Buzzards Bay. The NOAA/OAD trajectory indicated that if any oil was spilled, it would be carried west by the wind and would impact the shoreline near Chappaquoit Point within six hours. The ice coverage would act to hold the oil off the shore, but some fraction of the oil would probably become incorporated into the ice. This oil would move with the ice when it broke up and be redistributed. Recommendations were made for cleaning up oil in ice based on NOAA/OAD's experience when the Bouchard #65 grounded on Cleveland's Ledge in 1977 under similar ice conditions, spilling an estimated 81,000 gallons of diesel fuel.

Buzzards Bay is a very environmentally sensitive area with numerous sheltered embayments. A fringing estuarine marsh is characteristically found at the head of each embayment. Natural resources at risk include soft shell clams, lobster, blue crab, and numerous species of finfish present throughout Buzzards Bay. In addition, a number of coastal and nearshore birds overwinter in Buzzards Bay. Diesel fuel is very toxic to all these organisms. Further, diesel which gets into marsh vegetation and sediments would remain as a chronic source of pollution.

FINAL DISPOSITION OF THE INCIDENT

Following partial lightering of the number 2 port tank and inspections by the U.S. Coast Guard and U.S. Army Corps of Engineers, the T/B Corpus Christi Sun was given permission to enter Cape Cod Canal.

FINAL DISPOSITION OF THE INCIDENT, cont.

At 1600, the barge was under tow by the tug Dace Reinauer, en route to the Revere Terminal in Revere, Massachusetts. A U.S. Coast Guard overflight did not observe any pollution from the tank barge as she transited the canal.

Upon arriving at the Revere Terminal on January 25, the Corpus Christi Sun was inspected by the U.S. Coast Guard MSO, Boston, and the number 2 port tank completely offloaded. With the exception of a small sheen arising from oily water from an improperly plugged deck scupper, no pollution was reported and the case was closed.

REFERENCES

1. Environmental Assessment of the Alaskan Continental Shelf: Bouchard #65 Oil Spill in Ice Covered Waters of Buzzard Bay, 1977. Environmental Research Laboratories, National Oceanic and Atmospheric Administration, Boulder, Colorado.

2. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

3. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

4. Gundlach, E. R., D. D. Domeracki, C. D. Getter, and L. C. Thebeau, 1980. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Massachusetts. An Atlas of Coastal Resources. National Oceanic and Atmospheric Administration, Seattle, Washington.

5. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Long Island Chronic Disease Hospital Power Plant
Quincy Bay, Massachusetts
February 9, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

At 1800 on February 9, 1985, the U.S. Coast Guard Marine Safety Office (MSO), Boston, was notified by a concerned citizen of a black oil spill from the Long Island Chronic Disease Hospital Plant into Quincy Bay. The U.S. Coast Guard learned that the spill had actually occurred at approximately 1000 on February 9, when an estimated 3,000 gallons of no. 6 fuel oil was spilled through an overflow vent during a transfer from the power plant's storage tanks to its service tanks. The immediate impact of the spill was noted to be a one-half mile section of heavily oiled beach on the southeast side of Long Island. The U.S. Coast Guard estimated 1,200 gallons of oil were present in the water and on the beach.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 2025 on February 9, 1985, by the U.S. Coast Guard MSO, Boston, and requested to provide a spill trajectory and information on resources at risk. NOAA/OAD predicted that the oil would be pushed towards the north shore of Rainsford Island, where it would be picked up on the ebbing tide and carried out through Nantasket Roads. The flooding tide would then carry the oil back towards shore around both ends of Peddocks Island in the direction of the Weymouth Fore River and Hingham Harbor. Maximum impact, in addition to Long Island, was expected to be on the north shore of Hull and Peddocks Islands as the oil was pushed ashore by 25 knot, northwesterly winds. The harbor islands closest to Long Island were also expected to be impacted as a result of local eddy currents which circulate around them.

NOAA/OAD identified primary natural resources at risk as the environmentally sensitive tidal flats and salt marsh habitats in the Weymouth Fore and Back Rivers, Weir River, and Town River Bay; the Weymouth Back River has been designated an Area of Critical Environmental Concern by the Commonwealth of Massachusetts. Although these areas were essentially iced in at the time of the spill, there was concern that the oil might become incorporated into the ice and be released when the ice melted later in the year. If this did happen, the anadromous fish runs of alewives and rainbow smelt in the spring could be impacted by the residual contamination.

Conversations with the Massachusetts Division of Marine Fisheries and Wildlife indicated that several species of waterfowl in the area might also be at risk.

FINAL DISPOSITION OF THE INCIDENT

On February 10, oil was observed to have impacted nearby Gallops Island, Georges Island, and Stoney Beach on Hull Peninsula. U.S. Coast Guard overflights of the surrounding area showed that the oil had been carried out with the tide through Nantasket Roads and bands of it could be seen mixed in with the pack ice extending into Hingham Bay.

Nightfall and sea conditions prevented containment and cleanup of the oil on Long Island until February 10. The oil which impacted Stoney Beach on Hull Peninsula had dissipated by February 10. It is generally considered that this oil was refloated during high tide, and probably represented at least part of the oil observed mixed in with the pack ice extending in Hingham Bay.

On February 12, a second weather front with strong onshore winds washed most of the remaining contamination off Long Island. Following an overflight of the harbor islands on February 15, the U.S. Coast Guard and Massachusetts Department of Environmental Quality Engineering determined that cleanup was complete. No detectable quantities of oil were observed to reach the environmentally sensitive areas of the Weymouth Fore River or Weymouth Back River. One oiled bird was reported from Long Island.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

3. Gundlach, E. R., D. D. Domeracki, C. D. Getter, and L. C. Thebeau, 1980. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Massachusetts. An Atlas of Coastal Resources. National Oceanic and Atmospheric Administration, Seattle, Washington.

4. Metropolitan Area Planning Commission, 1984. Massachusetts Coastal Oil Spill Response Plan: North and South Shores. Massachusetts Coastal Zone Management, Boston, Massachusetts.

5. National Ocean Survey, 1977. Boston Harbor Tidal Current Charts. National Oceanic and Atmospheric Administration, Rockville, Maryland.

6. Savitski, B., D. Imperato and T. McKinney, 1985. Oil and Hazardous Substances--Planning and Response Considerations: Boston Massachusetts. National Oceanic and Atmospheric Administration, Seattle, Washington.

7. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

T/S British Wye
Braintree, Massachusetts
February 11, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

At 0910 on February 11, 1985, the master of the T/S British Wye notified the U.S. Coast Guard that the vessel was leaking gasoline at its mooring at the CITGO Braintree dock on the Weymouth Fore River. Gasoline was spraying out of a hole one foot above the waterline in the hull of the vessel's number 1 starboard cargo tank. The tank was apparently holed as a result of ice damage during her recent transit. Adsorbent booms had been placed around the affected area but vessel personnel were unable to pump out the tank due to a broken reach rod to the valve control box. A cleanup contractor was en route to the scene to offload the damaged tank.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1000 on February 11, 1985, by the U.S. Coast Guard Marine Safety Office, Boston, and requested to provide a trajectory and resources at risk analysis. NOAA/OAD predicted that the presence of ice (approximately 80% coverage) around the vessel's hull would result in the majority of the spilled gasoline evaporating without impacting the shoreline. However, if the leak increased significantly, the trajectory would be determined by the tidal cycle.

NOAA/OAD determined that natural resources at risk at this time of year are the shellfish beds in the sheltered salt flats and salt marshes found in this area.

FINAL DISPOSITION OF THE INCIDENT

The T/S British Wye crew manufactured a handle to open the transfer valve and offloaded the gasoline from the damaged tank by 1220 on February 11. The U.S. Coast Guard determined that, due to the limited quantity and type of product discharged, no cleanup was warranted. The vessel was ordered to make permanent repairs to the damaged tank. The case was closed on February 12, 1985.

REFERENCES

1. Gundlach, E. R. , D. D. Domeracki, C. D. Getter, and L. C. Thebeau, 1980. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Massachusetts. An Atlas of Coastal Resources. National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

Baltimore & Maine Railroad
Somerville, Massachusetts
February 12, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 0700 on February 12, 1985, a tankcar in the Baltimore and Maine Railroad Somerville Yard was found with its dome valve open and a cloud of vapors releasing through the valve. The tankcar, which had arrived in the yard sometime the previous night, was loaded with 200,000 pounds of hydrochloric acid, en route from L.C.P.Chemicals in Orrington, Maine, to Eastman Gelatin Company in Peabody, Massachusetts. The Somerville Fire Department isolated the tankcar and used water spray to knock down the vapor cloud. At 0800 the Emergency Response Team from the Cambridge Fire Department arrived on scene with self-contained breathing apparatus and fully encapsulated suits. They closed the valve but were unable to bolt it shut because of a missing locking nut. A small amount of vapors continued to be released.

NOAA RESPONSE

NOAA/OAD was notified of the incident on February 12, 1985, by the U.S. Coast Guard Marine Safety Office, Boston, when it was determined that the incident was in the U.S. Coast Guard zone of response. NOAA/OAD was requested to provide chemical information on hydrochloric acid, and were further requested to remain on standby for trajectory assistance until the leak was secured in the event that evacuation planning became necessary.

FINAL DISPOSITION OF THE INCIDENT

Public awareness and media interest in this incident were high because a release of phosphorous trichloride from a railcar in the Somerville yard in 1980 had resulted in a significant toxic vapor cloud problem for the surrounding community.

The leaking dome valve was secured by the clean up contractor, Jet Line Services, and the railcar was offloaded without requiring evacuation of any of the neighboring residences. Federal On-Scene Coordinator responsibility for cleanup was transferred to the U.S. Enviromental Protection Agency representative on scene at 1050 on February 12, and the U.S. Coast Guard pollution case closed.

REFERENCES

1. Special Investigation Report - Phosphorus Trichloride Release in Boston and Maine Yard 8 During Switching Operations, Somerville, Massachusetts, April 3, 1980, 1981. National Trasportation Safety Board, Bureau of Technology, Washington, D. C.

REFERENCES, cont.

2. U.S. Environmental Protection Agency, 1983. Hazardline. NIH/EPA Chemical Information System, Falls Church, Virginia.

3. U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

NOAA Response Report

L.C.P. Chemical Company
Orrington, Maine
February 13, 1985

John Robinson and Sharon Christopherson, Scientific Support Coordinators

INCIDENT SUMMARY

On February 13, 1985, the U.S. Coast Guard Marine Safety Detachment at Bangor, Maine, was notified by the facility manager of L.C.P. Chemical Company that approximately 1,500 gallons of chloropicrin had been spilled. The release occurred as a result of a ruptured disc failure during transfer of the chloropicrin from a storage tank to a railroad tank car. The majority of the chemical released was contained in a holding pond, but the runoff from heavy rain had caused the pond to overflow a small quantity of chloropicrin into the Penobscot River. L.C.P. Chemical personnel used a back hoe to divert rain runoff from entering the pond and set up a sump pump to pump the chloropicrin from the bottom of the holding pond to a portable holding tank. Water and sediment samples were taken along the path of release to the river to determine the level of residual contamination.

NOAA RESPONSE

NOAA/OAD was notified of the incident on February 13, 1985, by the U.S. Coast Guard Marine Safety Office, Portland, Maine, and requested to research the legal status of chloropicrin as a hazardous material. NOAA/OAD was also requested to review the cleanup and disposal procedures being carried out by the L.C.P. Chemical Company.

NOAA/OAD determined that chloropicrin was not listed as a hazardous waste substance, as defined in section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, but is designated as a hazardous material for the purpose of transportation (49 CFR 172.101). NOAA/OAD found the L.C.P. Chemical Company's cleanup and disposal procedures adequate to protect human health and the environment from further harmful impact.

FINAL DISPOSITION OF THE INCIDENT

On February 14, the L.C.P. Chemical Company completed pumping chloropicrin from the bottom of the pond into the portable holding tank. Water remaining in the holding pond was pumped back into the facility system for distillation. Analysis of samples from water and sediments collected along the discharge pathway to the river showed no detectable levels of residual contamination.

REFERENCES

1. U.S. Environmental Protection Agency, 1983. Hazardline. NIH/EPA Chemical Information System, Falls Church, Virginia.

REFERENCES, cont.

2. U. S. Environmental Protection Agency, 1983. Oil and Hazardous Materials-Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

NOAA Response Report

Contaminated Dredge Spoils
Gloucester Harbor, Massachusetts
February 22, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

At 1950 on February 20, 1985, the U.S. Coast Guard Station at Gloucester, Massachusetts, notified the U.S. Coast Guard Marine Safety Office (MSO), Boston, that there was oil in Gloucester Harbor as a result of dredging operations being carried out by the City of Gloucester under a U.S. Army Corps of Engineers dredging permit. The oil had coated docks and a seawall located adjacent to the dredging operation.

As a result of continued oil discharge from the dredging operations on February 21, the U.S. Coast Guard requested that the operation be suspended. The City of Gloucester agreed to hire a contractor to clean up the oiled docks and seawall.

Discussions with the U.S. Army Corps of Engineers office revealed that tests done prior to issuing the dredging permit indicated up to 34,890 mg/kg grease and oil and high levels of heavy metals (lead, arsenic, zinc, copper and mercury) in some of the harbor sediments to be dredged. However, no significant quantities of oil had been expected to be released into the harbor by the dredging operations.

NOAA RESPONSE

NOAA/OAD was notified of the incident on February 22, 1985 by the U.S. Coast Guard MSO, and requested to meet with the U.S. Coast Guard, U.S. Army Corps of Engineers, City of Gloucester, and Massachusetts State Department of Environmental Quality Engineering (DEQE) to discuss options for containment of discharges arising out of any future dredging operations. In addition to the surfacing oil, NOAA/OAD and the U.S. Coast Guard were concerned with the possible impact of heavy metal-contaminated sediments in the water column on anadromous fish runs which normally occur in this region beginning in the early spring.

FINAL DISPOSITION OF THE INCIDENT

Cleanup of the oiled docks and seawall was completed on February 22. As a result of the February 22 meeting, the City of Gloucester agreed to provide a standby containment boom at the dredging site and to discontinue operations if product surfaces, until adequate containment is put in place. The City of Gloucester also agreed to have any surfaced oil cleaned up and removed in accordance with Massachusetts DEQE regulations. (The dredging permit issued by the U.S. Army Corps of Engineers already had a provision that dredging operations be completed before the beginning of anadromous fish runs in March.)

REFERENCES

1. Application for Department of the Army Corps of Engineers Permit MA-GLOU-84-239, September 14, 1984. U.S. Army Corps of Engineers, Area Engineers, Rivers and Harbors, Waltham, Massachusetts.

NOAA Response Report

F/V Christina J
Martha's Vineyard, Massachusetts
February 28, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

On February 28, 1985, the fishing vessel Christina J, reported to have 1,500 gallons of diesel on board, sank 15 nautical miles southeast of Nomans Land off Martha's Vineyard, Massachusetts. The crew abandoned ship and reported the sinking to the U.S. Coast Guard Marine Safety Detachment in Hyannis, Massachusetts when their life raft was picked up on March 2. A U.S. Coast Guard overflight of the area on March 4 failed to find any signs of pollution.

NOAA RESPONSE

NOAA/OAD was notified of the incident on March 4, 1985, by the U.S. Coast Guard Marine Safety Office (MSO), Providence, Rhode Island, and requested to provide a spill trajectory and an environmental resources at risk analysis to address the following cases:

1. Based on the assumption that the 1,500 gallons of diesel were lost when the vessel sank, where would the slick impact and what resources would be at risk?

2. Based on the assumption that the diesel was still on board the vessel, what is the future pollution threat to nearby land masses if the fuel is released?

NOAA/OAD determined that any slick resulting from a release of the 1,500 gallons of diesel on the F/V Christina J would dissipate before impacting any land mass or environmentally sensitive area.

FINAL DISPOSITION OF THE INCIDENT

The U.S. Coast Guard closed the pollution case after determining that the Christina J was outside the 12 mile limit and did not pose a serious pollution threat. The U.S. Coast Guard MSO in Providence, Rhode Island, will prepare a casualty report to determine the cause of the sinking.

REFERENCES

1. Gundlach, Erich R., Daniel D. Domeracki, Charles D. Getter, and Larry Thebeau, 1980. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Massachusetts. An Atlas of Coastal Resources. National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

Eastern Barge No. 47
Charles River, Boston, Massachusetts
March 21, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

On March 21, 1985, Eastern Barge No. 47, an open hopper barge, was reported to have sunk in 22 feet of water just west of the MDC locks on the north side of the Charles River. The barge had been chartered by the Constitution Marina to transport dredge spoils from the site of dredging operations in Boston Harbor to the Boston Port Dock on the Charles River to be offloaded to trucks for land disposal. Due to the high lead content of the spoils (300 ppm), permission for open ocean dumping had been refused by the U.S. Army Corps of Engineers. The barge contained 600 cubic yards of these dredge spoils when it sank.

NOAA RESPONSE

NOAA/OAD was notified of the incident on March 21, 1985, by the U.S. Coast Guard Marine Safety Office, Boston, and requested to comment on the environmental impact of barge salvage operations, for, in order to raise the barge, the dredge spoils would first have to be removed. This would result in resuspension of the contaminated sediment in the water column.

In discussions with the Massachusetts State Department of Marine Resources, NOAA/OAD determined that large numbers of alewives and blueback herring are in the harbor in preparation for the spawning run up the Mystic and Chales Rivers. These fish are actively feeding as they do not feed in freshwater. Both species are planktonic feeders, and although there is some avoidance behavior of dense sediment plumes, they would definitely be at risk to lead contamination by the suspended sediments from the salvage operations. In addition, a herring fish weir is located at the mouth of the Charles River very near to the location of the sunken barge. NOAA/OAD recommended that if salvage operations are carried out at this time, a siltation boom should be used to contain the resulting suspended sediments and prevent them from being carried into the Charles River. A siltation boom would probably be effective as currents are minimal in this section of the river.

FINAL DISPOSITION OF THE INCIDENT

The U.S. Coast Guard determined that the sunken barge was not a navigational hazard. Since the barge sank west of the MDC locks, the state will monitor the salvage operations. Massachusetts State Department of Environmental Quality Engineering is requiring a siltation boom be put in place prior to any salvage operations to contain the suspended sediment.

REFERENCES

1. Anadromous Fishes of the Continental United States: Their Distribution and Sensitivity to Hazardous Materials. National Oceanic and Atmospheric Administration, Rockville, Maryland.

NOAA Response Report

T/B Smithtown
Charlestown Inlet, Charlestown, Rhode Island
April 17, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

On April 17, 1985, the barge Smithtown sank in seven to ten feet of water approximately 100 yards seaward of the mouth of the Charlestown Breachway while engaged in routine maintenance dredging of the channel leading into the Breachway. Approximately 800 gallons of diesel were on board, and a light sheen was reported to be coming from the vessel.

NOAA RESPONSE

NOAA/OAD was notified of the incident on April 17, 1985, by the U.S. Coast Guard Marine Safety Office in Providence, Rhode Island, and requested to provide a spill trajectory and resources at risk analysis.

The Charlestown Breachway is a 125-yard wide manmade channel through a barrier beach which opens into a series of environmentally sensitive ponds and salt marshes. NOAA/OAD advised that maximum tidal currents through this channel are on the order of four to six knots, and that once through the inlet, the current decreases and fans out very quickly on the landward side of the Breachway. NOAA/OAD's trajectory indicated that a release of oil on a flooding tide would be carried through the Breachway into the adjacent marshland, to be smeared along the southern portion of Ward Island by the wind. The forecasted shift in winds to the southwest could possibly push the slick around the end of Ward Island further into the pond. The placement of a deflection or absorbent boom at the southeast corner of Ward Island, where the current slows down, was recommended to reduce the amount of oil getting into the main body of Ninigret Pond.

NOAA/OAD further advised that a release of diesel fuel into the Charlestown Breachway would impact the plants and associated animal communities in the protected salt marshes present beyond the Breachway. The typical salt marsh community includes a mixture of spartina, phragmites, and juncus plant species, as well as associated resident animals such as fiddler crabs, wharf crabs, mussels, clams, and periwinkles. In addition, NOAA/OAD reported that the common tern was currently nesting in areas of Ninigret Pond, a potential problem if adult birds were oiled while feeding.

FINAL DISPOSITION OF THE INCIDENT

An adsorbent boom was placed around the sunken barge. Lightering of the diesel fuel from the Smithtown was completed at midnight on April 17 and the barge was towed to Pt. Judith Harbor until a drydock could be arranged. The Coast Guard Marine Safety Office in Providence contacted

FINAL DISPOSITION OF THE INCIDENT, cont.

the Coast Guard Captain of the Port, New London, Connecticut, to advise of the vessel's history and request that an investigation be conducted. The pollution case was closed April 19, 1985.

REFERENCES

Research Planning Institute, 1983. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Rhode Island (and Fall River, Mass.). An Atlas of Coastal Resources. Prepared for the National Oceanic and Atmospheric Administration, Seattle, Washington.

State of Rhode Island Oil Spill Contingency Guide: Protection Strategies for Vulnerable Coastal Features. 1980. Rhode Island Department of Environmental Management, Providence, Rhode Island.

NOAA Response Report

F/V Cheryl Ray
Hyannis, Massachusetts
May 21, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 0900 on May 21, 1985 in 20-25 knot winds, the fishing vessel Cheryl Ray hit the Bishop and Clerks Shoals in Nantucket Sound and capsized. The three persons on board were picked up by Maranatha, another fishing boat, and transferred to the Barnstable Fire Department boat with no injuries reported. A slick measuring 150 feet by 150 feet was observed moving northwest. Two tugs and one Coast Guard vessel were on scene but unable to assist because of adverse weather conditions and the Cheryl Ray's location in shoal water. During the evening, the vessel drifted with the tide and sank approximately 500 yards east of the original position in 21 feet of water, two and one-half miles due south of Point Gammon.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1440 on May 21, 1985, by the U.S. Coast Guard Marine Safety Office, Providence, Rhode Island, and requested to provide a spill trajectory and resources at risk analysis.

NOAA/OAD determined that there was no threat of pollution from the Cheryl Ray reaching land. Under the worst case scenario (instantaneous release of all 800 gallons onboard), NOAA/OAD advised that the slick would be expected to break up within less than a mile. However, given the current four foot seas and waves breaking over the nearby shoals, it was possible that the diesel slick in the immediate vicinity of the vessel would be mixed into the water column and cause a localized impact on fish and invertebrates.

NOAA/OAD advised that other resources at risk included birds feeding in the slick area. Of special concern were the common tern and least tern, known to be nesting on Cape Cod at this time of the year. Harbor seals and endangered leatherneck turtles are also reported to reside in nearby areas. However, local marine biologists advised that marine mammals and turtles would not be expected to be present in any numbers at this time of the year.

CURRENT DISPOSITION OF THE INCIDENT

On June 13, 1985, the Coast Guard received word from the Cheryl Ray's owner that no attempt would be made to salvage the vessel. When the Coast Guard apprised the Army Corps of Engineers of the situation, it was determined that the vessel did not present a hazard to navigation. The Coast Guard Marine Safety Office was further advised by the Corps of Engineers that there would be no plans for salvage or removal of the vessel.

CURRENT DISPOSITION OF THE INCIDENT, cont.

The Coast Guard conducted periodic overflights to monitor for pollution. As of September 30, the case was still open.

REFERENCES

Galt, J.A. and D.L. Payton, 1981. Finite Element Routines for Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

Payne, Mike, 1985. Personal Communication. Monamet Bird Observatory, Monamet, Massachusetts.

Research Planning Institute, 1980. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Massachusetts. An Atlas of Coastal Resources. Prepared for the National Oceanic and Atmospheric Administration, Seattle, Washington.

Sieswerda, Paul, 1985. Personal Communication. New England Aquarium, Boston, Massachusetts.

Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

Trull, Peter, 1985. Personal Communication. Wellfleet Sanctuary, Wellfleet, Massachusetts.

NOAA Response Report

F/V Kathryn Marie
Cape Cod Bay, Massachusetts
June 26, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

On June 26, 1985, the fishing vessel Kathryn Marie sank in approximately 75 feet of water five nautical miles north of Scorton Neck, in the southwest portion of Cape Cod Bay. Five hundred gallons of diesel were reported to be on board at the time of the sinking.

NOAA RESPONSE

NOAA/OAD was notified of the incident on June 26, 1985, by the U.S. Coast Guard Marine Safety Office, Providence, Rhode Island, and requested to provide a spill trajectory.

NOAA/OAD advised that a 500 gallon diesel spill would not threaten land. An overflight by a Coast Guard helicopter on June 28 reported the presence of a light sheen of oil measuring approximately one nautical mile by 10 yards in the vicinity of the sunken vessel.

FINAL DISPOSITION OF THE INCIDENT

No attempts were made by the owner to salvage the vessel. The Coast Guard monitored the sunken vessel with periodic helicopter overflights and routine harbor patrols. Between June 26 and August 18, an estimated 500 gallons of diesel released by the sunken vessel dissipated in Cape Cod Bay. The Coast Guard case was closed on August 18 when no further pollution was sighted in the vicinity of the sunken vessel.

REFERENCES

Galt, J.A. and D.L. Payton, 1981. Finite Element Routines for Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Weber Oil Co. Tank Truck Gasoline Spill
Diamond Creek, Revere, Massachusetts
July 9, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

At 0600 on July 9, 1985, the U.S. Coast Guard Marine Safety Office in Boston received a call that a Weber Oil Company tank truck carrying 9,500 gallons of unleaded gasoline had overturned in the vicinity of Broadway Circle in Revere, Massachusetts. Upon investigation, the Coast Guard discovered the tank truck on its side leaking approximately 50 gallons of gasoline per minute into the street. The gasoline was observed to be flowing down the street, into a storm drain and out into a five foot wide culvert. A slick of approximately 3,000 gallons of gasoline extended three-quarters of a mile down the culvert and tributary stream that empties into Diamond Creek.

The Fire Department spread foam on the gasoline spilled around the truck and a series of absorption booms were laid along the culvert to contain the gasoline and prevent it from spilling into Diamond Creek. No oil was observed entering Diamond Creek. Suction hoses were used to remove the pooled oil from the culvert. Test wells ordered by Massachusetts Department of Environmental Quality Engineering (DEQE) revealed several inches of pure product floating on the water table approximately five feet down.

NOAA RESPONSE

NOAA/OAD was notified of the incident on July 9, 1985 by the Coast Guard Marine Safety Office in Boston, and requested to advise on the environmental impacts of washing the foam spread by the Fire Department into the culvert. Massachusetts DEQE was concerned that the foam might act to disperse the oil in the culvert into the water column and allow it to pass under the booms and into Diamond Creek.

NOAA/OAD determined that, while the foam might act to slightly increase dispersion of the oil, this effect would be minimal. The problem, however, was that the foam entering the wetlands at the entrance to Diamond Creek could act to increase biodegradation of the product. The State of Massachusetts decided to wash the foam into a containment pit and suction it up with the trapped oil, rather than wash the foam into Diamond Creek.

On July 11, NOAA/OAD accompanied Coast Guard personnel to the spill scene to meet with representatives from Massachusetts DEQE to evaluate the progress of the cleanup. Cleanup of the gasoline in the culvert was essentially completed, with only minimal patches of sheen observed behind the first absorbent boom. The first recovery well was in place and

suction had begun to remove the gasoline from the water table. Further test wells were scheduled to be drilled the following week to determine the size of the underground plume.

FINAL DISPOSITION OF THE INCIDENT

On July 17, the Coast Guard Marine Safety Office, Boston, in conjunction with Massachusetts DEQE, determined that immediate response and cleanup of the spill had been sufficiently completed. Remedial cleanup of the groundwater will be continued under DEQE supervision.

As of August 12, DEQE had supervised the installation of five monitoring wells and initiated recovery operations. Two to three inches of product were still visible on top of the water in the monitoring wells closest to the spill site. However, the lack of tidal influence on the water level in the monitoring wells and the presence of a clay layer 10-12 feet down indicate that the contamination was not a threat to the nearby wetland areas and would be cleaned up within the next month.

REFERENCES

Bester, Mary, 1985. Personal Communication. Massachusetts Department of Environmental Quality Engineering, Boston.

Overton, Dr. Edward, 1985. Personal Communication. Louisiana State University Institute for Environmental Studies, Baton Rouge, Louisiana.

NOAA Response Report

F/V Yankee Rose
Woods Hole Passage, Woods Hole, Massachusetts
July 12, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

At 2145 on July 12, 1985, the U.S. Coast Guard Marine Safety Office, Providence, Rhode Island, was notified that the fishing vessel Yankee Rose was aground and taking on water at Middle Ledge in Woods Hole Passage between Nonamesset Island and Cape Cod. The vessel was reported to be hard aground with holes visible in the hull and 500-600 gallons of diesel on board. No pollution was sighted.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 2305 on July 12, 1985, by the Coast Guard Marine Safety Office, Providence, and requested to provide a spill trajectory and resources at risk analysis.

NOAA/OAD's spill trajectory indicated that, in the event of a spill, oil could be expected to beach on the west and east shores of Penzance, and southeast along Great Harbor to Juniper Point. The shoreline in this area consists of exposed tidal flats and mixed sand and gravel beaches.

NOAA/OAD advised that resources potentially at risk included lobster, several species of birds, and quahog beds in the more protected areas of Great Harbor. Two species of turtles, the Endangered Atlantic Ridley and the threatened leatherneck, have been reported to be present in the area at this time of the year. NOAA/OAD notified the dock master at the Woods Hole Oceanographic Institute of the potential threat should it become necessary to shut the saltwater intakes to the laboratory's aquariums and holding tanks.

FINAL DISPOSITION OF THE INCIDENT

Salvage operations commenced on July 13, with divers patching the holes in the vessel's hull and plugging fuel vents. The vessel was successfully refloated at 1545 on July 13 and towed to Fairhaven, Massachusetts, for repairs. No pollution was observed and the case was closed on July 14.

REFERENCES

Galt, J.A. and D. L. Payton, 1981. Finite Element Routines for Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

REFERENCES, cont.

Research Planning Institute, 1980. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Massachusetts. An Atlas of Coastal Resources. Prepared for National Oceanic and Atmospheric Administration, Seattle, Washington.

Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Mystery Diesel Spill
Buzzards Bay, Massachusetts
July 12, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

On July 12, 1985, Airstation Cape Cod notified the U.S. Coast Guard Marine Safety Office, Providence, Rhode Island, of a spill from an unknown source of a light diesel or lube oil mixture approximately one mile southeast of Wilkes Ledge in Buzzards Bay, Massachusetts. On-scene weather conditions were described as calm, with insufficient wind and wave action to facilitate dissipation of the slick. No apparent source of the spill was observed.

NOAA RESPONSE

NOAA/OAD was notified of the incident on July 12, 1985, by the U.S. Coast Guard Marine Safety Office, Providence, and requested to provide an oil spill trajectory.

The NOAA/OAD trajectory indicated that the sheen would extend a maximum of three nautical miles to the northeast and two nautical miles to the southwest as a result of the predicted tidal excursion in this area before dissipating completely. No land masses would be impacted by this trajectory.

FINAL DISPOSITION OF THE INCIDENT

No source for the oil slick was located and the pollution case was closed on July 12, 1985.

REFERENCES

Galt, J.A. and D.L. Payton, 1981. Finite Element Routines for Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

F/V Miss Margie
Robinson's Hole, Vineyard Sound
Elizabeth Islands, Massachusetts
July 13, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

At 0415 on July 13, 1985, the fishing vessel Miss Margie ran aground on the south side of Robinson's Hole in Vineyard Sound. The vessel was reported to have 14,000 gallons of diesel on board, but no signs of pollution were observed. Tugs were standing by to refloat the vessel on the evening high tide.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1015 on July 13, 1985, by the U.S. Coast Guard Marine Safety Office, Providence, Rhode Island, and requested to provide an oil spill trajectory and resources at risk analysis. NOAA/OAD advised that the trajectory would vary considerably according to the part of the tidal cycle in which the release occurred. The maximum impact on land would be expected from a release which occurred during or just prior to slack flow through Robinson's Hole. Under this worst case scenario, oil could be expected to impact the north and south shores of portions of Naushon Island, Pasque Island, and Nashawena Island.

Shore types in the potential impact area include mixed sand/gravel beaches and wave-cut platforms. Although the south shores of Naushon, Pasque, and Nashawena Islands are relatively insensitive to oil, there are several small salt marsh areas potentially at risk which should be protected by appropriate boom placement in the event of a spill. These marshes are located at West Beach on Naushon Island, the east end of Pasque Island, and Quicks Hole Pond on the east end of Nashawena Island. There is also a marsh and tidal flat area on the north shore of Nashawena Island which supports a quahog population year-round. NOAA/OAD advised that diesel is very toxic to marsh vegetation and its associated invertebrates, and any diesel getting into the sediments would remain as a chronic source of pollution. The herring gull, common tern, least tern, and glossy ibis frequent the marsh areas on Nashawena Island in the summer and would also be at risk from a slick in their feeding area.

FINAL DISPOSITION OF THE INCIDENT

The Miss Margie was successfully refloated at 1515 on July 13 with no pollution observed. The vessel was towed by tug to Fairhaven, Massachusetts, and hauled out of the water for inspection by 2030 on the same day. At this time, the Coast Guard determined that the vessel had only 5,000 gallons of diesel on board. No further pollution was observed and the case was closed.

REFERENCES

Galt, J.A. and D.L. Payton, 1981. Finite Element Routines for Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

Research Planning Institute, 1980. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Massachusetts. An Atlas of Coastal Resources. Prepared for the National Oceanic and Atmospheric Administration, Seattle, Washington.

Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

F/V Four Brothers
Block Island, Rhode Island Sound, Rhode Island
July 21, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 2318 on July 20, 1985, the 63-foot fishing vessel Four Brothers, carrying 2,800 gallons of diesel fuel, sank three and one-half nautical miles south of Block Island's Southeast Light. In an overflight of the area following the rescue of the three people aboard the vessel, oil was observed to be bubbling to the surface and forming a slick 50 feet wide and one nautical mile long. A second overflight in the afternoon determined the slick to be one-half nautical mile wide and three to four nautical miles long. The sheen was dissipating very slowly due to calm sea conditions.

NOAA RESPONSE

NOAA/OAD was notified of the incident on July 21, 1985 by the U.S. Coast Guard Marine Safety Office, Providence, Rhode Island, and requested to provide an oil spill trajectory.

NOAA/OAD's oil spill trajectory indicated maximum spreading of the slick would be three nautical miles to the southwest and two nautical miles to the northeast before dissipating. No impact on land was expected.

FINAL DISPOSITION OF THE INCIDENT

On August 12, the Coast Guard determined that there was no further threat of pollution to the environment and the case was closed.

REFERENCES

Galt, J.A. and D.L. Payton, 1981. Finite Element Routines for Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Alleged Pesticide Dumping
Hummock Pond, Nantucket Island, Massachusetts
July 26, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

On July 22, 1985, the U.S. Coast Guard Marine Safety Office in Providence, Rhode Island received a report from a concerned citizen that illegal dumping of pesticides into the north end of Hummock Pond had been observed on Nantucket Island. The product in question was identified as Pratt Combination Shrub Spray, which contained malathion, kelthane, and methoxychlor. No concentrations or percentages of these ingredients were given.

The Coast Guard was concerned that the dumping was a chronic occurrence, with the most recent dumping the only reported incidence. The Coast Guard notified the U.S. Environmental Protection Agency (EPA) and Massachusetts Department of Environmental Quality Engineering (DEQE), and directed the Coast Guard Marine Safety Detachment in Hyannis, Massachusetts, to investigate the report.

NOAA RESPONSE

NOAA/OAD was notified of the incident on July 26, 1985, by the Coast Guard Marine Safety Office, Providence, and requested to provide technical information on the toxicity and persistence of the pesticide in question, as well as to advise if immediate sampling and/or containment should be undertaken prior to action by either Massachusetts DEQE or EPA.

The Boston Poison Control Center identified the manufacturer of the Pratt Combination Shrub Spray as the Pratt Company of New Jersey. This company was sold to Miller Chemical and Fertilizer Company in 1968; the company chemist had no knowledge of the product and could not help in identifying the relative percentages of the three components on the label.

Technical information on the persistence and toxicity of the individual components (malathion, kelthane and methoxychlor) were provided to the Coast Guard and Massachusetts DEQE. The U. S. Coast and Geodetic Survey was contacted for information on private wells which might be adjacent to Hummock Pond.

It was determined that all three components are chlorinated hydrocarbons and therefore have a risk of food chain contamination, especially the more persistant kelthane and methoxychlor. Malathion persists for a period of days to weeks, while methoxychlor and kelthane persist on a scale of weeks to months. Further, kelthane is generally contaminated with DDT, DDE, and chemically related compounds, and

NOAA RESPONSE, cont.

thus, poses a special threat to wildlife. For this reason, EPA has proposed the prohibition of such products by canceling all Federal registrations of products containing kelthane.

NOAA/OAD advised that Hummock Pond is normally separated by a barrier beach, and is only occasionally open to the sea. If long-term spraying of the herbicide combination has occurred in Hummock Pond, contamination would probably be restricted to the pond itself. Organisms present in the area include crabs, clams, mussels, mummichogs, killifish, and numerous other non-commercial species. All of these organisms are relatively sensitive to pesticides.

NOAA/OAD further advised that sampling of the area should include water column and sediment samples. If pesticide levels appear high in these samples, biota samples should also be collected and analyzed.

FINAL DISPOSITION OF THE INCIDENT

On August 22, Coast Guard personnel from the Marine Safety Detachment in Hyannis, Massachusetts DEQE, and members of the State of Massachusetts Pesticide Board visited the alleged dumping site. After surveying the area and interviewing Albert Glowacki Landscaping Company representatives on the site, DEQE determined that no release had taken place and the State Pesticide Board representatives determined that the company disposal of the unused pesticide was not unlawful. The pollution case was closed.

REFERENCES

Curley, J.R., R.P. Lawton, D.L. Chadwick, K. Reback, and J.M. Hickey, 1974. A Study of the Marine Resources of the Taunton River and Mount Hope Bay. Massachusetts Department of Natural Resources, Monograph Series No. 15.

Morelli, Dr., 1985. Personal Communication. Rahm and Hass Co., Philadelphia.

Occupational Health Services, Inc., 1985. Hazardline. Secaucus, New Jersey.

Olympio, Julio, 1985. Personal Communicaiton. U.S. Geological Service, Boston Office.

Sittig, Marshall (ed.), 1980. Pesticide Manufacturing and Toxic Materials Control Encyclopedia, Noyes Data Corporation, Park Ridge, New Jersey.

U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

REFERENCES, cont.

Vid, Mr., 1985. Personal Communication. Miller Chemical and Fertilizer Company, New Jersey.

Wyckoff, Dr. John, 1985. Personal Communication. American Cyanamid Co., Wayne, New Jersey.

NOAA Response Report

M/V Pilgrim Belle
Sow and Pigs Reef
Vineyard Sound, Massachusetts
July 28, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 1745 on July 28, 1985, the passenger vessel Pilgrim Belle, carrying 2,000 gallons of diesel, broadcasted a Mayday signal stating that the vessel was aground on Sow and Pigs Reef on the west side of Cuttyhunk Island and taking on water. Private boats from Cuttyhunk Island evacuated all 84 passengers. A Coast Guard 41-foot patrol boat evacuated the Pilgrim Belle's non-essential crew members and assisted in dewatering the vessel. No pollution was observed.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1915 on July 28, 1985, by the U.S. Coast Guard, and requested to provide a spill trajectory. The spill trajectory indicated that a 2,000 gallon spill of diesel would travel in a north-northwest direction for approximately one nautical mile and dissipate without impacting land.

FINAL DISPOSITION OF THE INCIDENT

After a massive effort involving some 25 pumps, the flooding on the vessel was brought under control and the crippled ship was towed to Fairhaven, Massachusetts. The Coast Guard inspected the vessel and found a three foot by nine foot hole on the port side of the Pilgrim Belle, as well as damage to the rudder and shaft.

The Coast Guard's pollution case was closed August 29.

REFERENCES

Galt, J.A. and D.L. Payton, 1981. Finite Element Routines for Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Borden Remington Company
Battleship Cove, Fall River, Massachusetts
July 29, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

At 1835 on July 28, 1985, the U.S. Coast Guard Marine Safety Office (MSO), Providence, Rhode Island, received a call from the Borden Remington Company in Fall River, Massachusetts. While transferring caustic soda from the chemical ship Bird Island to the facility, a transfer hose parted and, of approximately 725 gallons spilled, an estimated 50 gallons entered the water. The remaining material spilled was contained on the deck of the ship and the facility dock and was successfully cleaned up. No cleanup of the material in the water was possible.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1635 on July 29, 1985 by the Coast Guard MSO, Providence, and requested to estimate the sphere of influence of the caustic soda spilled into the water and to determine possible environmental impacts. NOAA/OAD calculated that the material would be diluted and neutralized by the salt water within ten yards of the point of entry.

The shoreline in this area consists primarily of man-made structures. NOAA/OAD advised that environmental impact would be transient and limited to the water column in the immediate vicinity of the spill.

FINAL DISPOSITION OF THE INCIDENT

The spill on shore was cleaned up and disposed of by Remington Borden personnel. The damaged facility piping was replaced and hydrostatically tested. Following inspection of all repairs by Coast Guard MSO personnel, the transfer of caustic soda was resumed on July 30. On July 31, the Coast Guard completed the followup inspection and closed the case.

REFERENCES

Research Planning Institute, 1983. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Rhode Island (and Fall River, Mass.). An Atlas of Coastal Resources. Prepared for National Oceanic and Atmospheric Administration, Seattle, Washington.

Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

F/V New Moon
Watcha Pond, Martha's Vineyard, Massachusetts
August 1, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 1030 on July 31, 1985, the fishing vessel New Moon, carrying 500 gallons of diesel fuel, ran aground just below Watcha Pond on Martha's Vineyard. The grounding resulted when a fishing net fouled the vessel's propeller and caused it to lose headway. A sheen measuring 500 feet by 100 feet was observed emanating from the stern of the vessel.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 1, 1985 by the U.S. Coast Guard Marine Safety Office, Providence, Rhode Island, and asked to provide a trajectory and resources at risk analysis.

NOAA/OAD's trajectory indicated that, with the reported ten to 15 knot northeast winds, the sheen could be expected to dissipate within one quarter of a mile and be carried away from the shore, a well-developed barrier beach which protects the more sensitive marsh habitat of Watcha Pond.

NOAA/OAD further advised that the least tern is reported to nest in this area in the summer, and might be impacted during feeding if the slick were extensive. However, since the slick was expected to be restricted in size, the risk would be minimal.

FINAL DISPOSITION OF THE INCIDENT

Three hundred fifty gallons of diesel were lightered following the initiation of salvage operations on August 1. An estimated 150 gallons of diesel were spilled into the Atlantic Ocean; cleanup of oil in the water was not possible due to rapid dissipation. On August 8, the decision was made by the salvage company to remove all machinery from the vessel and then cut the hull into pieces to remove it from the beach. The Coast Guard determined that no threat of further pollution existed and the case was closed.

REFERENCES

Galt, J.A. and D.L. Payton, 1981. Finite Element Routines for Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

REFERENCES, cont.

Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

Research Planning Institute, 1980. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Massachusetts. An Atlas of Coastal Resources. Prepared for the National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

T/B Sea Horse I
Jamestown Anchorage, Narragansett Bay, Rhode Island
September 9, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 1700 on September 9, 1985, approximately 100 gallons of No. 6 oil was spilled into the water at the Jamestown Anchorage in Narragansett Bay. The spill occurred when a fuel transfer line broke during the lightering of oil from the tanker Esso Danica to the barge Sea Horse I.

NOAA RESPONSE

NOAA/OAD was notified of the incident on September 9, 1985 by the U.S. Coast Guard Marine Safety Office, Providence, Rhode Island, and requested to provide an oil spill trajectory and resources at risk analysis.

With the spill occurring just before slack water at high tide, NOAA/OAD advised that the oil could be expected to impact around The Dumplings (off Bull Point) and northwest along the Old Salt Works Beach towards Jamestown. Oil carried past Bull Point and out the channel by the ebbing tide would not be expected to pose any further threat to land since the net outward movement of each tidal cycle and the easterly winds would tend to hold it offshore until the slick broke up.

NOAA/OAD further advised that the shoreline in the predicted impact area was primarily comprised of sand and gravel beaches or exposed rocky ledges and is not particularly sensitive to No. 6 oil. Common terns and gulls are reported to be present in the vicinity of Bull Point in the spring and summer, but would not be expected to be present in large numbers this late in the season.

FINAL DISPOSITION OF THE INCIDENT

During the night of September 9, oil impacted sections of the southeast end of Conanicut Island, as predicted by NOAA/OAD's trajectory. The area of impact included sections of the beach from just south of the Jamestown Marina to Bull Point. Cleanup of the impacted beaches began on the morning of September 10. Between September 10 and September 18, 405 bags of contaminated material (primarily oiled seaweed and debris washed up on the beach) were removed from the beach by the cleanup contractor. Oiled rocks were pressure-cleaned and a narrow, eight-inch wide band of oiled sand along a 25-yard stretch of beach was removed. On September 18, an inspection by the Coast Guard and the Rhode Island Department of Environmental Management concluded that the cleanup was complete and the pollution case was closed.

REFERENCES

Galt, J.A. and D.L. Payton, 1981. Finite Element Routines for Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

Research Planning Institute, 1983. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Rhode Island (and Fall River, Mass.). An Atlas of Coastal Resources. Prepared for National Oceanic and Atmospheric Administration, Seattle, Washington.

State of Rhode Island Oil Spill Contingency Guide: Protection Strategies for Vulnerable Coastal Features. Rhode Island Department of Environmental Management, Providence, Rhode Island.

Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

F/V Lady Gabriela
New Bedford Harbor, Massachusetts
September 26, 1985

Sharon Christopherson, Scientific Support Coordinator

INCIDENT SUMMARY

On September 26, 1985, the fishing vessel Lady Gabriela, reported to have 10,000 gallons of diesel on board, caught fire while docked at the New Bedford Seafood Coop Dock. At least one of the vessel's fuel tanks was ruptured by the fire and leaking into the bilges. The fire was believed to have resulted from a ruptured sight glass on the fuel tanks. The fire was extinguished and a containment boom placed around the vessel. An inspection by the Coast Guard revealed the vessel had a five-to-ten degree starboard list as a result of the water used in fighting the fire, but no hull damage was observed. The owner was ordered to offload any remaining fuel on board. No pollution was observed in the water.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0930 on September 26, 1985, by the U.S. Coast Guard Marine Safety Office, Providence, Rhode Island, and requested to provide a spill trajectory and resources at risk in the area of the Lady Gabriela.

NOAA/OAD predicted that, with the weak and variable tidal currents present in the harbor, the oil would be pushed up into the upper region of the estuary and held there by the wind. Impact would be heaviest on the western shore, an area characterized by man-made structures and tidal flats and known to be heavily contaminated with sewage, heavy metals, and polychlorinated biphenyls (PCBs). As a result of this contamination, the harbor area north of the hurricane barrier is closed to all fishing and shellfish activity. However, this area contains resources which may contribute significantly to the production of the outer bay areas.

Resources at risk within New Bedford Harbor include shellfish beds containing quahogs, oysters, soft shell clams, and mussels, as well as rainbow smelt and alewives returning to deep waters for the winter.

FINAL DISPOSITION OF THE INCIDENT

On September 26, a total of 7,000 gallons of oil and water were offloaded from the Lady Gabriela. A followup inspection on October 2 revealed no pollution in the water and the case was closed.

REFERENCES

Galt, J.A. and D.L. Payton, 1981. Finite Element Routines for Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

New Bedford Remedial Action Master Plan, Final Report, 1 May 1983. Prepared by Roy F. Weston, Inc. for U.S. Environmental Protection Agency Region One, Boston, Massachusetts.

Research Planning Institute, 1980. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Massachusetts. An Atlas of Coastal Resources. Prepared for National Oceanic and Atmospheric Administration, Seattle, Washington.

Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Consolidated Railroad Derailment
Port Deposit, Maryland
October 17, 1984

Ann Hayward Rooney and Robert Pavia, Scientific Support Coordinators

INCIDENT SUMMARY

On October 17, 1984, a Consolidated Railroad train derailed eight cars in the vicinity of the intersection of Interstate 95 and the Susquehanna River, south of Port Deposit, Maryland. Four of the cars contained acrylonitrile, liquefied petroleum gas (LPG), chlorine, and possibly polyvinyl chloride. Following the derailment, the acrylonitrile car lay on its side adjacent to the track and the LPG car was upside down. The status of the other cars was unknown.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1645 on October 17, 1984, by the U.S. Coast Guard Marine Safety Office (MSO), Baltimore, and requested to provide information on the four materials and their reactivity. NOAA/OAD prepared a summary report and detailed chemical analyses of acrylonitrile, LPG, and chlorine for the U.S. Coast Guard MSO, Baltimore.

NOAA/OAD advised that, if released, all three materials would produce heavy vapors which would hug the ground and pose a potential flashback and explosion problem. Also, the chlorine could react with the LPG and acrylonitrile to cause a possible explosion. Because of the significant explosion hazard associated with these substances, NOAA/OAD recommended that any leakage be treated with extreme caution, including securing ignition sources and evacuating non-essential personnel from the threatened area.

A literature search revealed that polyvinyl chloride is not usually shipped in a tank car, but would be in a solid form, relatively inert and stable. It would burn, however, and could pose a fire, explosion, and toxicity problem. NOAA/OAD suggested that the U.S. Coast Guard confirm the contents of the fourth car.

FINAL DISPOSITION OF THE INCIDENT

At 0430 on October 19, 1984, the four cars were successfully rerailed without incident or leakage.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

REFERENCES, cont.

2. Olishifski, Julian B., ed., 1979. Fundamentals of Industrial Hygiene. National Safety Council, Chicago, Illinois.

3. U.S. Environmental Protection Agency, 1983. Hazardline. NIH/EPA Chemical Information System, Falls Church, Virginia.

4. U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials-Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

NOAA Response Report

F/V Rainbow
Sandbridge, Virginia Beach, Virginia
October 30, 1984

Ann Hayward Rooney, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 0600 on October 30, 1984, the fishing vessel Rainbow, reportedly loaded with 1,500 gallons of diesel fuel, grounded about 50 yards off the beach at Sandbridge, Virginia. The U.S. Coast Guard was concerned about the potential for spillage if salvage efforts were unsuccessful.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0815 on October 30, 1984 by the U.S. Coast Guard Marine Safety Office, Hampton Roads, and requested to provide an evaluation of environmental impacts in the event of oil spillage. In particular, the U.S. Coast Guard asked whether recovery and cleanup operations would be practical given the situation.

NOAA/OAD advised that, because of the on-scene weather conditions (three to five-foot seas) and proximity of the vessel to shore, an intermittent release of fuel would be likely to break up quickly and it would therefore not be feasible to attempt recovery. Some minor stranding of oil along the adjacent beachfront could be expected; however, shoreline cleanup would probably be unnecessary.

NOAA/OAD further advised that the only resources at risk would be a very small population of resident shorebirds. The actual threat to the birds would be insignificant given the rapid dispersion and minor stranding of any diesel oil released.

FINAL DISPOSITION OF THE INCIDENT

The Rainbow was refloated using a tow line from another vessel around 1100 on October 30. No pollution to the marine environment occurred.

REFERENCES

1. Virginia Institute of Marine Science, 1983. Environmental Sensitivity Atlas - Virginia. Gloucester Point, Virginia.

2. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

REFERENCES, cont.

3. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

4. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Bethlehem Steel
Sparrows Point, Baltimore, Maryland
November 9, 1984

Ann Hayward Rooney, Scientific Support Coordinator

INCIDENT SUMMARY

The heating exchange system at the Bethlehem Steel coal facility at Sparrows Point, Baltimore, Maryland, leaked between 560 and 1,200 gallons of a liquid chemical mixture of toluene, benzene, and xylene during the night of November 8, 1984. This mixture ran through pipes immersed in cooling water from the Patapsco River. The pipes broke, releasing the chemical mixture into the cooling water which would in turn release into the river via an outfall if containment were unsuccessful. The leak was discovered around 0230 on November 9 and was secured at approximately 0400.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0840 on November 9, 1984 by the U.S. Coast Guard Marine Safety Office, Baltimore, and requested to provide an assessment regarding the feasibility of recovering the spilled coolant from the containment area, and an evaluation of any possible reactivity problems between the coolant and coal dust in the river which originated from the adjacent coal facility.

NOAA/OAD advised that recovery of the spilled chemicals probably would not be feasible because the vapor pressures of the chemicals indicated that they would readily evaporate, and the chemicals had would be rapidly diluted due to the large size of the Patapsco River. Finally, NOAA/OAD determined that no hazardous chemicals reaction would occur between the spilled materials and the coal dust because the coal particulates, even with impurities, is a stable substance.

NOAA/OAD also provided recommendations on personnel protection for cleanup workers, detection strategies, and an evaluation of potential adverse effects on aquatic life in the vicinity of the outfall.

FINAL DISPOSITION OF THE INCIDENT

Efforts to contain the chemicals in the cooling water were successful and none of the chemical mixture entered the river via the outfall. No pollution of the marine environment occurred. The case was closed by the U.S. Coast Guard on November 9.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

REFERENCES, cont.

2. Virginia Institute of Marine Science, 1983. Environmental Sensitivity Atlas - Maryland. Gloucester Point, Virginia.

NOAA Response Report

M/V Warnemunde
Baltimore, Maryland
November 26, 1984

Ann Hayward Rooney, Scientific Support Coordinator

INCIDENT SUMMARY

On November 26, 1984, the M/V Warnemunde, carrying 341,000 gallons of heavy bunker oil, grounded at Seven Foot Knoll near Baltimore as a result of pilot error and possible radar failure.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1100 on November 26, 1984 by the U.S. Coast Guard Marine Safety Office, Baltimore, and requested to provide trajectory information and an evaluation of resources at risk in the event that some spillage occurred from the Warnemunde. Tidal height information was also provided in support of strategies to refloat the vessel. NOAA/OAD advised that, if a release of oil occurred during the late afternoon of November 26, the area between Sparrows Point Channel and Hart Island would be threatened, but very few resources would be affected because the shoreline is predominantly rip-rap structures and there are no marine resources associated with the nearshore environment. Of some concern, however, would be fresh water marshes and wildfowl behind an inlet in the threatened area, although the inlet could be readily protected by booming.

FINAL DISPOSITION OF THE INCIDENT

The vessel was refloated at 1427 with the assistance of two tugs and the wake of a passing vessel. There was no pollution of the marine environment.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

3. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

4. Virginia Institute of Marine Science, 1983. Environmental Sensitivity Atlas - Maryland. Gloucester Point, Virginia.

NOAA Response Report

F/V Theodora Maria
Ocracoke Inlet, North Carolina
November 29, 1984

Ann Hayward Rooney, Scientific Support Coordinator

INCIDENT SUMMARY

During the evening of November 28, 1984, the fishing vessel Theodora Maria grounded inside Ocracoke Inlet less than a mile off the North Carolina coast. The 80-foot, wooden-hulled vessel was laden with fish and 1,500 gallons of diesel fuel in six steel tanks. Initial attempts to refloat her were unsuccessful. By the evening of November 29, the vessel began taking on water in the engine room where a small breech in the hull had developed.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 2045 on November 29, 1984 by the U.S. Coast Guard Marine Safety Office, Hampton Roads, and requested to provide trajectory information, an evaluation of resources at risk, and shoreline protection strategies. Because of failed refloating attempts and the breeched hull, the U.S. Coast Guard was concerned that a release of fuel would occur.

NOAA/OAD's trajectory information varied considerably with the predicted time of release, as on-scene winds and tides would influence the movement of spilled oil. NOAA/OAD initially predicted that a large proportion of spilled oil would exit the inlet, and that net alongshore movement would be southerly. Some oil would impact the coastal shoreline and re-enter the inlet on the following tidal cycle, and approximately 50% of spilled diesel would evaporate within the first 24 hours.

The principal resources at risk would be shorebirds residing and feeding on the tidal delta inside the inlet and offshore water birds. Some oyster and clam beds lay in the vicinity of the mouth of the inlet but they were far enough away from the vessel and at a water depth where they were not at serious risk. Both the U.S. Fish and Wildlife Service and North Carolina State officials were consulted in this resource evaluation.

FINAL DISPOSITION OF THE INCIDENT

As the incident progressed it was discovered that 2,400 gallons of diesel remained onboard. The fish cargo was removed and the fuel lightered with no spillage. The vessel was determined to be unsalvagable. Because it was a navigation hazard, the Theodora Maria was scheduled to be destroyed by demolition shortly after December 4.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

3. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

4. Virginia Institute of Marine Science, 1983. Environmental Sensitivity Atlas - North Carolina. Gloucester Point, Virginia.

NOAA Response Report

Gilbert Enterprises
Havre De Grace, Maryland
December 6, 1984

Ann Hayward Rooney, Scientific Support Coordinator

INCIDENT SUMMARY

On December 3, 1984, a storage tank was overfilled at the Gilbert Enterprises facility in Havre de Grace, Maryland, spilling approximately 1,500 gallons of kerosene spilled into a diked area surrounding the tank. Because the dike was constructed of sand, some of the kerosene leaked through the dike and into the adjacent Susquehanna River less than 100 feet away.

NOAA RESPONSE

NOAA/OAD was notified of the incident at approximately 1200 on December 6, 1984 by the U.S. Coast Guard Marine Safety Office, Baltimore, and requested to advise on the potential of groundwater contamination from the spill. The U.S. Coast Guard was specifically concerned about the possibility of the kerosene entering the drinking water supplies, and also wished to be apprised of any other related environmental problems.

Discussions between NOAA/OAD and the Maryland State Geological Survey revealed that Havre de Grace obtains its drinking water supply from the Susquehanna River, not groundwater aquifers. The intake for the city water was upstream of the facility and 18 feet below the water surface. Consequently, the possibility of contamination of the drinking water supply was remote. Aside from the drinking water issue, there was little possibility of groundwater contamination because there was little groundwater in the area; Havre de Grace is situated at the fall line where bedrock formations lay close to the surface, thus preventing the formation of groundwater aquifers.

NOAA/OAD determined that the release of the kerosene into the Susquehanna River presented no significant aquatic problems because of the relative insolubility of the product. The Maryland State Endangered Species Program reported, however, that bald eagles were feeding in the area and that conceivably they could be contaminated while diving for dead fish. NOAA/OAD advised that this would be unlikely as the kerosene was contained at the facility.

FINAL DISPOSITION OF THE INCIDENT

Gilbert Enterprises reported that they recovered a total of 1,500 gallons of kerosene. The case was closed by the U.S. Coast Guard on December 18, 1984.

REFERENCES

1. Virginia Institute of Marine Science, 1983. Environmental Sensitivity Atlas - Maryland. Gloucester Point, Virginia.

2. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

NOAA Response Report

Locke Industry
Baltimore, Maryland
December 11, 1984

Ann Hayward Rooney and William Ernst, Scientific Support Coordinators

INCIDENT SUMMARY

On December 11, 1984, the U.S. Coast Guard received a telephone call from a concerned citizen reporting the dumping of a gray sludge into a marina near the Locke Industry facility in Baltimore. Interviews conducted by the U.S. Coast Guard revealed that the sludge was a compound called Betz 1110.

NOAA RESPONSE

NOAA/OAD was notified of the incident on December 11, 1984 by the U.S. Coast Guard Marine Safety Office, Baltimore, and requested to provide assistance in identifying the components of Betz 1110. NOAA/OAD reported that the compound was a non-toxic floculating agent commonly used in sewage treatment plants. Betz 1110 is combined with an ordinary clay resulting in a cloudy gray suspension. Followup communications with the U.S. Coast Guard revealed that the release of this suspension into the marina was a routine occurrence frequently reported to the U.S. Coast Guard.

FINAL DISPOSITION OF THE INCIDENT

The case was closed by the U.S. Coast Guard on December 11, 1984.

REFERENCES

1. Chemical Manufacturers Association, 1983. Chemical Transporation Emergency Center (CHEMTREC). Washington, D.C.

2. Davis, Dwight, 1984. Personal Communication. Betz Laboratories, Trebose, Pennsylvania.

NOAA Response Report

Barge 1102
Watts Island, Chesapeake Bay, Virginia
December 12, 1984

Ann Hayward Rooney and William Ernst, Scientific Support Coordinator

INCIDENT SUMMARY

During the early morning of December 12, 1984, the barge 1102 ran aground in approximately nine feet of water on the western shore of Watts Island. The double-hulled barge carried 301,932 gallons of 30% solution of URAN 32 (urea) in water contained in three tanks. The initial report noted that a slight starboard list was evident but that the barge appeared stable. Later information reported that the vessel had a crack in the external skin near the starboard wing tank. As a result, water flooded the space between the hulls.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1300 on December 12, 1984 by the U.S. Coast Guard Marine Safety Office, Hampton Roads, and requested to provide a cargo hazard assessment and an evaluation of resources at risk in the event of spillage.

NOAA/OAD advised that the potential environmental consequences of spilling urea, which is utilized as fertilizer, would vary depending upon the magnitude and duration of the spill. Small spills would react and dilute to less than harmful concentration. A large, instantaneous release, however, could pose a major environmental problem by releasing high concentrations of ammonia and reducing oxygen in the water which would result in fish kills. The resources of potential concern were shellfish and blue crabs which could withstand short-term oxygen depletion. Because a urea release would result in a water column problem, sensitive shorelines and waterfowl would probably suffer no adverse effects.

FINAL DISPOSITION OF THE INCIDENT

The barge was lightered by December 16 and began a transit to Norfolk for repairs. No pollution of the marine environment occurred.

REFERENCES

1. Meister, Richard T., ed., 1984. Farm Chemicals Handbook. Meister Publishing Company, Willoughby, Ohio.

NOAA Response Report

F/V Patty B
Atlantic Ocean, Maryland
December 12, 1984

Ann Hayward Rooney and William Ernst, Scientific Support Coordinators

INCIDENT SUMMARY

At approximately midnight on December 11, 1984, the fishing vessel Patty B, carrying between 7,000 and 10,000 gallons of diesel fuel, sank 35 miles off Ocean City, Maryland. An oil sheen was sighted following the sinking.

NOAA RESPONSE

NOAA/OAD was notified of the incident at approximately 0600 on December 12, 1984, by the U.S. Coast Guard Marine Safety Office, Hampton Roads, and requested to provide trajectory information on a potential release of 12,000 gallons of diesel fuel.

NOAA/OAD advised that, with the prevailing weather and high seas, there would be no likelihood that the spill would reach land, and in any case, it would be likely to dissipate within 48 hours.

FINAL DISPOSITION OF THE INCIDENT

The case was closed on December 13, 1984 by the U.S. Coast Guard because it was determined that any further threat posed to the environment by the Patty B would be minimal.

REFERENCE

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

3. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Barge Elizabeth Turner
Potomac River, Maryland
December 17, 1984

Ann Hayward Rooney and William Ernst, Scientific Support Coordinators

INCIDENT SUMMARY

On December 17, 1984, the tug Mohawk and barge Elizabeth Turner ran aground in the Potomac River near an oyster ground on muddy bottom. The single skin barge contained 31,000 gallons of hot asphalt. No damage to the barge was reported.

NOAA RESPONSE

NOAA/OAD was notified of the incident at approximately 1000 on December 17, 1984 by the U.S. Coast Guard Marine Safety Office, Baltimore, and requested to provide a trajectory analysis for asphalt spilled from the barge, and a study of environmental resources at risk.

NOAA/OAD advised that winter temperatures and the viscous nature of the asphalt would cause any intermittent or slow release of product to form floating pancake-like formations. These pancakes would be easy to recover and would pose no threat to coastal resources in the vicinity of the barge.

FINAL DISPOSITION OF THE INCIDENT

A portion of the cargo was lightered and the barge was successfully refloated with no spillage of cargo. The case was closed by the U.S. Coast Guard on December 18, 1984.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

3. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Mystery Spill
Potomac River, Maryland
December 19, 1984

Ann Hayward Rooney, Scientific Support Coordinator

INCIDENT SUMMARY

On December 19, 1984, a 20 mile long by one foot wide strip of tar balls one-quarter of an inch thick extending from Calvert Beach south along the Potomac River was reported to the U.S. Coast Guard. No oil was reported in the water.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 2000 on December 19, 1984 by the U.S. Coast Guard Marine Safety Office, Baltimore, and requested to provide an identification of resources at risk in the area and cleanup recommendations.

NOAA/OAD determined that all of the affected shoreline was coarse or fine sand beach, with very small resident populations of waterfowl in the vicinity. Discussions with the U. S. Fish and Wildlife Service confirmed that scattered tar balls would not present a significant problem to shorebirds. Manual beach cleanup was recommended.

FINAL DISPOSITION OF THE INCIDENT

The State of Maryland recovered approximately 80 gallons of tar ball material. No source was ever discovered. The case was closed on December 20, 1984 by the U.S. Coast Guard.

REFERENCES

1. Virginia Institute of Maine Science, 1983. Environmental Sensitivity Atlas - Maryland. Gloucester Point, Virginia.

NOAA Response Report

Chesapeake Paper Corporation
West Point, Virginia
January 21, 1985

Ann Hayward Rooney, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 1800 on January 21, 1985, a pipeline froze and ruptured at the Chesapeake Paper Corporation, releasing a portion of 50,000 gallons of a sodium hydroxide solution and dissolved wood products into the Pamunkey River.

NOAA RESPONSE

NOAA/OAD was notified of the incident at approximately 2000 on January 21, 1985, by the U.S. Coast Guard Marine Safety Office, Hampton Roads, and requested to provide information regarding the potential environmental effects of the spilled material.

NOAA/OAD made assumptions concerning the concentration of the solution because it was unknown at the time. The principal effect of the release was that the sodium hydroxide could increase the pH in an area extending 500 yards upstream to 1,500 yards downstream. The material would have a tendency to sink in the river so that a fish kill would be possible but unlikely. No other marine resources or waterfowl would be at risk. NOAA/OAD further advised that there would be no need to take action on the released material as it would naturally dilute.

FINAL DISPOSITION OF THE INCIDENT

Subsequent testing by the Chesapeake Corporation indicated that approximately 12,000 gallons containing 600 pounds of sodium hydroxide were released into the Pamunkey River. This was less than the reported quantity. Consequently, the case was closed on January 22, 1985 by the U.S. Coast Guard.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

2. Virginia Institute of Marine Science, 1983. Environmental Sensitivity Atlas - Virginia. Gloucester Point, Virginia.

NOAA Response Report

Stone Container Corporation
James River, Hopewell, Virginia
January 21, 1985

Will Ernst, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 0500 on January 21, 1985, an effluent discharge pipe at a wood pulp processing plantruptured, releasing roughly 2,000 gallons per minute of a sodium sulfate-pulp residue solution directly into the James River. The release was halted at 1144 on the same day. An estimated 600,000 gallons were released into the headwaters of the James River.

NOAA RESPONSE

NOAA/OAD was notified of the incident at approximately 1700 on January 21, 1985 by the U.S. Coast Guard Marine Safety Office, Baltimore,
and requested to provide a hazard characterization of the released solution, information on the risks posed by the release to the environment, and actions necessary to reduce possible further damage to the environment.

After establishing a more detailed description of the released solution, NOAA/OAD determined that the material posed two distinct types of hazard in this particular situation. First, the sodium sulfate byproduct itself, when disassociated into solution, would result in a neutral to slightly acidic solution which could affect aquatic life in the immediate area of the release. Second, the organic wood pulp residue which comprised a portion of the released liquid posed a biological oxygen demand (BOD) risk in the immediate area of the release.

FINAL DISPOSITION OF THE INCIDENT

However, several factors contributed to a reduced hazard in this situation. The release occurred in an area of the James River that was roughly one mile wide, had little tidal influence, and was experiencing a substantial freshwater flow rate due to winter storms. As a result, the rate of dilution was determined to be large, resulting in a very limited area of the river actually being significantly threatened by changes in either pH or BOD.

In addition, an evaluation of the major environmental resources present and susceptible in the area at that time of the year indicated that species of concern, primarily the striped bass, could readily avoid the affected area if exposed to the irritating presence of the solution. Secondarily, the relatively high flow rates would limit the amount of organic material settling to the bottom of the river, thus precluding

FINAL DISPOSITION OF THE INCIDENT, cont.

the problem of residual sources of BOD materials usually following this type of release.

BIBLIOGRAPHY

Virginia Institute of Marine Science, 1983. Environmental Sensitivity Atlas - Virginia. College of William And Mary, Gloucester Point, Virginia.

NOAA Response Report

F/V Atlantic Mist
Atlantic Ocean, Chincoteague, Virginia
February 1, 1985

Ann Hayward Rooney, Scientific Support Coordinator

INCIDENT SUMMARY

During the night of January 31, 1985, the clam boat Atlantic Mist, carrying an estimated 6,000 to 9,000 gallons of diesel fuel, sank 16 miles off Chincoteague, Virginia in 69 feet of water. Two of the five men in the crew were lost.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1115 on February 1, 1985 by the U.S. Coast Guard Marine Safety Office, Hampton Roads, and requested to provide trajectory information in the event of a release of the diesel fuel.

NOAA/OAD determined that the offshore location of the potential release and prevailing weather would prevent a coastal impact. The diesel spill would remain a consistent slick for no more than five miles because high winds and seas would cause the oil to disperse naturally. Consequently, a release of fuel from the sunken vessel presented no threat to the coast, nor would it be feasible for offshore recovery.

FINAL DISPOSITION OF THE INCIDENT

Overflights reported negative sightings of an oil slick in the vicinity of the Atlantic Mist sinking. The case was closed on February 4, 1985 by the U.S. Coast Guard.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

F/V Miss Radford
Pamlico Sound, North Carolina
February 8, 1985

Ann Hayward Rooney, Scientific Support Coordinator

INCIDENT SUMMARY

On January 20, 1985, the fishing vessel Miss Radford sank in 20 feet of water north of Cedar Island in Pamlico Sound, about three miles off the North Carolina coast. The 70-foot vessel contained a reported 2,000 gallons of diesel fuel; its fuel vents were plugged at the time of the sinking.

A very light oil sheen was reported around the vessel on February 1, 1985. Evidently, rough seas had caused the vessel to rock and fuel to flow sporadically out of the vents. There was some concern to affect salvage efforts, including offloading the remaining fuel from the wooden-hulled vessel as soon as possible.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1330 on February 8, 1985 by the U.S. Coast Guard Marine Safety Office, Wilmington, North Carolina, and requested to provide information in support of upcoming salvage efforts, specifically, on-scene weather forecasts for the period from February 9-11, and a definition of surface currents in which salvage vessels would operate.

The NOAA National Weather Service in Raleigh provided an extended marine forecast for the Pamlico Sound area during the specified period. They were also prepared to provide a special update to NOAA/OAD in the event of a change in predicted conditions. Discussions between NOAA/OAD and the Department of Marine, Earth and Atmospheric Sciences at North Carolina State University in Raleigh, predicted that on-scene surface currents would be primarily wind-driven and not expected to exceed one-quarter knot during the period of salvage operations.

FINAL DISPOSITION OF THE INCIDENT

Salvage operations recovered 1,400 gallons of fuel from the Miss Radford. The U.S. Coast Guard closed their pollution case on February 11, 1985.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

REFERENCES, cont.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

3. Pietrafesa, Dr. Leonard, 1985. Personal Communication. Department of Marine, Earth and Atmospheric Sciences, North Carolina State University, Raleigh, North Carolina.

4. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Barge Jeanne Marie
Wicomico River, Maryland
February 21, 1985

Ann Hayward Rooney, Scientific Support Coordinator

INCIDENT SUMMARY

During the early morning of January 24, 1985, the barge Jeanne Marie was pushed aground by its tug near the Great Shoal area of the Wicomico River on Maryland's Eastern Shore. The single skin barge contained a total of approximately 18,000 gallons of various types of fuel in eight tanks.

The barge was reported to be resting on top of an oyster ground. Because of this situation and the Jeanne Marie's single skin construction, both the State of Maryland and the U.S. Coast Guard were concerned about possible adverse effects of a release during attempts to refloat the barge.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1100 on January 24, 1985 by the U.S. Coast Guard Marine Safety Office (MSO), Baltimore, and requested to provide an evaluation of resources at risk and trajectory information for release of various quantities of cargo at the next high tide when refloating efforts would be attempted.

NOAA/OAD advised that, if a release occurred at the time of the next high tide, the gasoline would move out away from the shoreline and would not be expected to reach land for six hours. NOAA/OAD also advised the U.S. Coast Guard MSO that marsh areas in the vicinity could also be affected and discussed strategies for their protection.

NOAA/OAD determined that the principal resources at risk would be waterfowl which overwinter in two refuge areas lying within the threatened area. The U.S. Fish and Wildlife Service was alerted to further evaluate the risk to waterfowl and consider protection strategies in the event of a release.

NOAA/OAD also advised that, depending upon the quantity of gasoline released and the actual location of oyster beds in relation to the vessel, submerged shellfish beds could be at risk. Because oysters are relatively inactive during the winter months the potential for lethal effects would be reduced, although some tainting would probably occur. Overall, the waterfowl and marsh areas would be the resources at most serious risk by a release of gasoline.

FINAL DISPOSITION OF THE INCIDENT

The Jeanne Marie was refloated at 1355 with no release of cargo.

REFERENCES

1. Virginia Institute of Marine Science, 1983. Environmental Sensitivity Atlas - Maryland. Gloucester Point, Virginia.

2. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

3. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

4. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Portsmouth Marine Terminal
Portsmouth, Virginia
February 24, 1985

Ann Hayward Rooney and Robert Pavia, Scientific Support Coordinators

INCIDENT SUMMARY

On February 24, 1985, a malfunction in its heater caused the contents of a railcar containing 5,600 pounds of acrylamide to overheat, polymerize, and overflow the tank at Portsmouth Marine Terminal. At the time the U.S. Coast Guard was notified, a portion of the chemical had overflowed and solidified on the ground, appearing to have a consistency similar to styrofoam. The heater, which was outside the tank, had been shut down which caused the acrylamide to cool.

Allied Colloid, the product manufacturer, reported that the chemical was produced locally and used as a base material for water treatment.

NOAA RESPONSE

NOAA/OAD was notified of the incident at approximately 1700 on February 24, 1985 by the U.S. Coast Guard Marine Safety Office, Hampton Roads, and requested to provide a hazard assessment of acrylamide and an evaluation of the situation regarding the stability and potential for recovery of the spilled material.

NOAA/OAD determined that the principal hazard associated with acrylamide is that it is highly toxic through skin contact; some sources claim that it is a potential carcinogen, and that some vapor hazard could exist from the heated product. These hazards are associated with acrylamide in its non-polymerized state. The by-products of polymerization are non-toxic.

Following discussions with the Allied Colloid chemist who visited the scene, NOAA/OAD concluded that, with the heater shut down, the situation was stable and that restricted access to the area would protect public health and safety until further evaluation and cleanup could occur the following day. Allied Colloid examined the solidified material and found it to be polymerized.

FINAL DISPOSITION OF THE INCIDENT

The area around the car was secured by Virginia Port Authority Police on February 24 and the situation appeared to have stabilized. Allied Colloid cleaned up the spilled acrylamide with no further incident. The case was closed by the U.S. Coast Guard on February 25.

REFERENCES

1. Dutch Association of Safety Experts, 1980. Handling Chemicals Safely. The Netherlands.

2. U.S. Coast Guard, 1978. Chemical Hazards Response Information System (CHRIS). GPO No. 050-012-00147-2. U.S. Government Printing Office, Washington, D.C.

3. U.S. Environmental Protection Agency, 1983. Hazardline. NIH/EPA Chemical Information System, Falls Church, Virginia.

4. U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

NOAA Response Report

Pesticide Spill
Chatham Hall Pond, Virginia Beach, Virginia
March 2, 1985

John Robinson, Scientific Support Coordinator

INCIDENT SUMMARY

On March 2, 1985, vandalism resulted in contamination of a two-acre residential pond in Virginia Beach, Virginia with a small amount of Cygon 2E, a systemic insecticide. Local residents diked the contaminated area and requested assistance from the U.S. Coast Guard, Hampton Roads, in dealing with the incident.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1245 on March 2, 1985 by the U.S. Coast Guard Captain of the Port, Hampton Roads, and requested to provide technical information on Cygon 2E, together with recommendations to mitigate the effects of the contamination.

NOAA/OAD determined that Cygon 2E is a moderately toxic, biodegradable pesticide manufactured by American Cyanamid. Technical data on the material was provided to the U.S. Coast Guard. Since Chatham Hall Pond is not used for fishing, no adverse effects on human health were anticipated. Measures were suggested for rapid neutralization of the toxic effects of the pesticide should the U.S. Coast Guard determine this course of action to be necessary.

FINAL DISPOSITION OF THE INCIDENT

Since environmental degradation of the pond was slight and the pesticide was contained and biodegradable, no action was taken by the U.S. Coast Guard. Residents in the area were informed of the nature of the hazard.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

NOAA Response Report

Matlack Trucking Company
Baltimore, Maryland
March 22, 1985

Ann Hayward Rooney, Scientific Support Coordinator

INCIDENT SUMMARY

On March 21, 1985, malfunctioning valves on two tank cars resulted in spillage of approximately 50 gallons of methyl acrylate at the Matlack Trucking Company in Baltimore. The spilled liquid was contained in a sump area near the trucks. Because of the presence of a strong irritating odor, the Anne Arundel County Fire Department evacuated approximately 1,000 residents from the surrounding area. No serious injuries were reported but about two dozen people, including firefighters, police officers, and company employees, were treated for eye irritation.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1000 on March 22, 1985 by the U.S. Coast Guard Marine Safety Office, Baltimore, and requested to provide information regarding any possible adverse effects from mixing of the spilled chemical with Triple F suppressant foam which the fire department intended to use to clean up the spill.

An evaluation of the chemical indicated that no adverse reaction would occur. NOAA/OAD also informed the U.S. Coast Guard that the spilled material could be recovered using vermiculite or dry sand. In addition, NOAA/OAD cautioned the U.S. Coast Guard concerning the potential fire hazard associated with methyl acrylate. NOAA/OAD made personnel protection suggestions for cleanup personnel working with the material, including the use of Level B with protective clothing preferably made of butyl rubber or neoprene.

FINAL DISPOSITION OF THE INCIDENT

The Anne Arundel County Health Department arranged for the sump contents to be pumped into a vacuum truck. The U.S. Coast Guard case was closed March 22, 1985. No pollution of the marine environment occurred.

REFERENCES

1. American Conference of Governmental Industrial Hygienists, 1983. Guidelines for the Selection of Chemical Protective Clothing. Volume I: Field Guide. Cincinnati, Ohio.

2. U.S. Environmental Protection Agency, 1983. Hazardline. NIH/EPA Chemical Information System, Falls Church, Virginia.

REFERENCES, cont.

3. U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials-Technical Assistance Data System. NIH/EPA Chemical Information System, Falls Church, Virginia.

4. Virginia Institute of Marine Science, 1983. Environmental Sensitivity Atlas - Maryland. Gloucester Point, Virginia.

NOAA Response Report

Hercules, Inc.
Hopewell, Virginia
April 3, 1985

Ann Hayward Rooney, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 0730 on April 3, 1985, a reactor vessel at the Hercules, Inc. plant in Hopewell, Virginia, overpressurized, releasing 2,585 pounds of ethyl chloride, 660 pounds of ethyl ether, and 1,920 pounds of ethyl alcohol through a venting system one-quarter to one-half mile from populated areas. No injuries were reported.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1240 on April 3, 1985, by the U.S. Coast Guard Marine Safety Office, Norfolk, and requested to provide assistance in evaluating the threat to potentially exposed individuals in the area that the release might have affected.

NOAA/OAD determined that the chemicals were volatile, had fairly low boiling points, and were not highly toxic. Upon contacting the Centers for Disease Control in Atlanta, NOAA/OAD was advised that none of the three chemicals presented a delayed effects problem. NOAA/OAD further determined that the plume caused by the release would not have presented a toxic threat in any case to individuals who were one-quarter mile away from the vent. In addition, the mixture of the three chemicals would not have caused reactions which increased their toxicity or created new compounds that would be more harmful than the original products.

FINAL DISPOSITION OF THE INCIDENT

State and local authorities were notified of the release, and the case was closed.

REFERENCES

Dutch Association of Safety Experts, 1980. Handling Chemicals Safely. The Netherlands.

Turner, D. Bruce, 1974. Workbook of Atmospheric Dispersion Estimates. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina.

NOAA Response Report

United Technologies Tank Truck
Stevensville, Maryland
April 3, 1985

Ann Hayward Rooney and D. L. Payton, Scientific Support Coordinators

INCIDENT SUMMARY

On April 3, 1985, a tank truck containing 4,500 gallons of printers ink in several tanks overturned on a bridge on Kent Island in Stevensville, Maryland, spilling an estimated 300 gallons of ink onto the bridge roadway. Because the bridge spans the marshy headwaters of Thompson Creek on Maryland's Eastern Shore, the U.S. Coast Guard was concerned about the possibility of a water pollution problem.

NOAA RESPONSE

NOAA/OAD was notified of the incident on April 3, 1985, by the U.S. Coast Guard Marine Safety Office, Baltimore, and requested to provide advice regarding resources at risk and any toxicity associated with the ink. NOAA/OAD determined that the only resources at risk from the spill were tidal marshes approximately one-quarter mile downstream from the bridge. Discussion with the manufacturer indicated that toxicity problems would be insignificant should a release occur.

FINAL DISPOSITION OF THE INCIDENT

A contractor used sand to absorb the spilled ink. No pollution to the marine environment occured, and the case was closed the same day.

REFERENCES

Virginia Institute of Marine Science, 1983. Environmental Sensitivity Atlas - Maryland. Gloucester Point, Virginia.

NOAA Response Report

T/V Fuji
Atlantic Ocean off the Coast of Virginia
April 15, 1985

Ann Hayward Rooney, Scientific Support Coordinator

INCIDENT SUMMARY

On April 8, 1985, the U.S. Coast Guard Station at Hatteras, North Carolina was notified that the 590-foot tanker Fuji had experienced a fire and explosion. Extensive damage, consisting of a 200-foot long gash on the port side, was reported and the crew evacuated. The tanker was an oil and bulk ore carier but was not carrying cargo at the time of the incident. On April 13, 1985, the vessel split in half and the bow sank. The stern, which contained 79,000 gallons of intermediate fuel oil and 24,000 gallons of diesel, was towed to the port of Hampton Roads.

NOAA RESPONSE

NOAA/OAD was notified of the incident on April 15, 1985 by the U.S. Coast Guard Marine Safety Office (MSO), Hampton Roads, Virginia, and requested to provide a trajectory for three-hour intervals over a two-day period along the tow path in the event the stern sank while en route to Hamptn Roads.

Given predicted winds and current conditions, NOAA/OAD informed the MSO that any oil lost would trend in a south-southwesterly direction with no landfall expected.

FINAL DISPOSITION OF THE INCIDENT

The Fuji's stern was towed without incident to Newport News Shipyard and later to Jacksonville, Florida for scrap. The case was closed on April 24, 1986.

REFERENCES

Blanton, Dr. Jack, Skidaway Institute of Oceanography, Savannah, Georgia, personal communication, 1985.

Boicourt, Dr. Bill, Chesapeake Bay Institute, Horn Point, Cambridge, Maryland, personal communication, 1985.

Brubaker, Dr. John, Division of Physical Oceanography, Virginia Institute of Marine Science, College of William and Mary, Gloucester Point, Virginia, personal communication, 1985.

Ruzecki, Dr. John, Division of Physical Oceanography, Virginia Institute of Marine Science, College of William and Mary, Gloucester Point, Virginia, personal communication, 1985.

NOAA Response Report

Chemical Disposal Problem
Baltimore, Maryland
May 13, 1985

Will Ernst, Scientific Support Coordinator

INCIDENT SUMMARY

On May 13, 1985, the U.S. Coast Guard Marine Safety Office, Baltimore, found dioxane phenyl magnesium chloride, 2-4 dinitrophenol, and potassium fluoride unsecured in their area. At the time, the U.S. Coast Guard was unable to provide any details about the incident or the circumstances surrounding the discovery of these chemicals.

NOAA RESPONSE

NOAA/OAD was notified of the incident on May 13, 1985, by the Coast Guard Marine Safety Office, Baltimore, and requested to advise on the explosivity of the products and to suggest neutralization methods. NOAA/OAD reviewed the characteristics of the four chemical products, first emphasizing the explosivity and reactivity of each chemical by itself and if allowed to mix with the other chemicals. Dioxane was identified as potentially the most explosive product on the list due to a high volatility and a fairly low flash point. Instability in the presence of heat or high pressures could readily cause violent explosions. 2-4 dinitrophenol was also a very dangerous product due to possible explosivity from inertial or pressure shocks. Normal conditions presented minimal risk, however. The other two chemical products were considered inherently stable but still hazardous due to various toxic properties.

It was noted that the question about "neutralization" was inappropriate for all four chemical products since none of the products was an acid or a base. Furthermore, deactivation of the products was not a requirement for proper disposal of the materials. Accordingly, NOAA/OAD recommended that the four substances be physically separated during handling, and that a certified hazardous waste disposal contractor be tasked with the job of properly packaging and disposing of the products.

FINAL DISPOSITION OF THE INCIDENT

On May 14, the Coast Guard was still not able to provide additional information about the situation. NOAA/OAD concluded its participation in the response when no additional assistance was requested.

REFERENCES

Dutch Association of Safety Experts, 1980. Handling Chemicals Safely. The Netherlands.

REFERENCES, cont.

Meyer, Rudolf, 1981. Explosives. Second, revised and extended edition. VCH Publications, Deerfield Beach, Florida.

Sax, N. Irving, 1984. Dangerous Properties of Industrial Materials. Sixth Edition. Van Nostrand Reinhold Company, New York.

U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

NOAA Response Report

Tug Ajax
Smith Point, Virginia
Chesapeake Bay
May 21 - June 4, 1985

Ann Hayward Rooney, Scientific Support Coordiantor

INCIDENT SUMMARY

During the evening of May 20, 1985, the tug Ajax, carrying approximately 3,500 gallons of diesel fuel, took on water through an open deck hatch and sank approximately two miles southwest of Smith Point in Virginia waters of the Chesapeake Bay. The vessel being towed by the tug was tied off and unaffected by the sinking. The vents were not plugged prior to the sinking; consequently, some release of fuel occurred.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0115 on May 21, 1985 by the U.S. Coast Guard Marine Safety Office, Hampton Roads, and requested to provide a spill trajectory and an evaluation of resources at risk.

NOAA/OAD predicted that, given tidal information and on-scene weather conditions, a slick could extend for several miles east and away from shore if a significant portion of the fuel were released. The most likely event would be a slow leak which would create a slick several hundred yards long. Due to the 15-25 knot winds and elevated summer temperatures, weathering would be enhanced and the slick could be expected to begin feathering within a few hours of the release. No resources would be significantly threatened by the predicted movement of oil. A change in weather conditions, however, would change the trajectory and require a re-evaluation of resources at risk.

An overflight by NOAA/OAD on the morning of May 21 confirmed the accuracy of the trajectory estimate. U.S. Coast Guard Atlantic Strike Team divers successfully plugged the vents on the afternoon of May 21, halting the release of diesel. Salvage operations were scheduled to occur over the ensuing two weeks.

On May 27 salvage of the vessel had not begun and another diesel slick was observed in the vicinity of the vessel. The Coast Guard asked NOAA/OAD to re-evaluate the potential threat to marine resources. Again, NOAA/OAD determined that prevailing weather conditions would prevent landward movement of the oil.

FINAL DISPOSITION OF THE INCIDENT

The Ajax was refloated on June 4, 1985 with no additional pollution.

REFERENCES

Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

Virginia Institute of Marine Science, 1983. Environmental Sensitivity Atlas - Virginia. Gloucester Point, Virginia.

NOAA Response Report

M/V American Rigel
Baltimore Harbor, Maryland
June 4, 1985

Ann Hayward Rooney and Gary Ott, Scientific Support Coordinators

INCIDENT SUMMARY

While en route from Europe to Brazil, a fire developed in the hold of the 560-foot container ship American Rigel. The crew extinguished the fire and blanketed the hold with carbon dioxide until the ship arrived in Brazil. Four damaged containers of white phosphorus were disposed of at sea. The American Bureau of Shipping in Brazil inspected and approved the remaining 66 drums for reloading. The vessel then departed for Baltimore, where it arrived on June 4. The agent for the ship requested permission from the Maryland Port Authority (MPA) to unload the drums. Initial reports to the U.S. Coast Guard Marine Safety Office (MSO) from the MPA indicated that the drums were fuming.

NOAA RESPONSE

NOAA/OAD was notified of the incident at approximately 1440 on June 4, 1985, by the U.S. Coast Guard MSO, Baltimore, and requested to provide a hazard assessment of the situation. NOAA/OAD reported that white (or yellow) phosphorous is spontaneously reactive with the oxygen in air and suggested that the atmosphere around the drums be blanketed with nitrogen, another inert gas, or a water mist to prevent contact with air. Because the substance can produce highly toxic vapors in the case of air contact or fire, personnel protection recommendtions and suggestions for instrument monitoring were also indicated.

Upon arrival in Baltimore the ship's agent had requested permission to unload the cargo, which was a designated Cargo of Particular Hazard by U.S. law, and destined for New York. A misunderstanding by the MPA of the situation resulted in a call to the Coast Guard and subsequently, NOAA/OAD. The incident was concluded when Coast Guard investigators determined that the situation had actually been resolved prior to the vessel's arrival in Baltimore.

When the American Rigel arrived at Howland Hook, Staten Island, NOAA/OAD was requested by the Coast Guard Captain of the Port, New York, to provide information on cleanup and neutralization techniques for the vessel's yellow phosphorous cargo. NOAA/OAD recommended that cleanup and neutralization be accomplished by washing all surfaces with large quantities of water. When the washed surfaces began to dry during the removal of the damaged 20-foot containers, the contaminated surfaces were observed to smoke and flash frequently. It was also discovered that both the solid and liquid contamination residue on the containers and the vessel had a pH of less than one. Over 200 gallons of contaminated liquid was observed in the bottom of the hatch.

NOAA RESPONSE, cont.

The hazardous materials contractor was reported to have neutralized the liquid in the cargo hatch using copper sulfate. This technique was not recommended by NOAA/OAD as an appropriate neutralization procedure.

FINAL DISPOSITION OF THE INCIDENT

The decontamination of the vessel and the repackaging of the damaged drums of yellow phosphorus proceeded without further incident on June 6. Cleanup of the cargo hatch on the American Rigel was reported completed by the Coast Guard Marine Inspection Office on June 7. The repacking of the 30-gallon drums of yellow phosphorus was accomplished by June 8, and the cargo was segregated on the Howland Hook, Staten Island facility to await surface shipment to final destination.

REFERENCES

Dreisbach, Robert H., 1983. Handbook of Poisoning. Eleventh Edition. Lange Medical Publications, Los Altos, California.

Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Materials Spill Conference, pp. 135-140.

Hawley, Gessner G., 1981. The Condensed Chemical Dictionary. Tenth Edition. Van Nostrand Reinhold Company, New York.

Occupational Health Services, Inc., 1985. Hazardline. Secaucus, New Jersey.

Stutz, Douglas R., Robert C. Ricks, and Michael F. Olsen, 1982. Hazardous Materials Injuries. Bradford Communications Corporation, Greenbelt, Maryland.

U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

NOAA Response Report

Mystery Oil Spill
Cape Hatteras, North Carolina
June 22, 1985

Ann Hayward Rooney, Scientific Support Coordinator

INCIDENT SUMMARY

On June 22, 1985, a fishing vessel reported an oil slick of over two miles in length six miles southeast of Cape Hatteras. The slick was described as consisting of sheen with heavier patches of oil.

NOAA RESPONSE

NOAA/OAD was notified of the incident on the evening of June 22, 1985 by the U.S. Coast Guard Marine Safety Office, Hampton Roads, Virginia, and requested to providea trajectory of the slick. NOAA/OAD advised that no landfall of the oil would be expected.

FINAL DISPOSITION OF THE INCIDENT

The case was closed on June 23, 1985 when an overflight failed to locate the slick.

REFERENCES

Torgrimson, Gary M., 1984, The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Owens Corning
Morehead City, North Carolina
June 25, 1985

Ann Hayward Rooney, Scientific Support Coordinator

INCIDENT SUMMARY

On June 22, 1985, approximately 25,000 gallons of asphalt was accidentally released by Owens Corning into the Newport River. The spill was caused by a failure of a three-by-four-foot access hole, which had been welded shut, at the bottom of the 800,000 gallon capacity tank #2.

The asphalt was not completely contained in the facility and a significant amount entered the Newport River via the storm drain system, oiling marshes in a nearby state park. Owens Corning assumed responsibility for the cleanup and the State of North Carolina Division of Environmental Management (DEM) was the primary monitors of the cleanup operations. The U.S. Coast Guard Marine Safety Office (MSO) in Wilmington also monitored the incident.

NOAA RESPONSE

NOAA/OAD was notified of the incident on June 25, 1985 by the NOAA National Marine Fisheries Service (NMFS) in Beaufort, North Carolina (who had been contacted by the North Carolina DEM representative and asked to participate in a meeting with the owner, cleanup contractor, Coast Guard and North Carolina DEM on June 26, 1985). NMFS requested information on the behavior and toxicity of asphalt and recommended cleanup measures. NOAA/OAD advised that the asphalt was much less toxic than most oils, especially lighter grades, and that it would tend to readily harden, facilitating manual cleanup, except when heated by summer temperatures. Manual cleanup of the marshes was therefore recommended. NOAA/OAD's advice was conveyed by NMFS to the owners at the June 26 meeting.

FINAL DISPOSITION OF THE INCIDENT

A total of approximately 48,000 gallons of asphalt and debris was collected during the cleanup. On July 5, 1985, the Coast Guard MSO in Wilmington determined that an environmentally proper cleanup had been completed. No visible evidence of the spill was observed in a subsequent site survey by NMFS.

REFERENCES

Cross, Dr. Fort, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Beaufort, North Carolina, personal communication, 1985.

NOAA Response Report

M/V Constellation Faros
Cape Fear River, North Carolina
July 11, 1985

Ann Hayward Rooney, Scientific Support Coordinator

INCIDENT SUMMARY

The Greek break-cargo ship Constellation Faros was en route to Wilmington, North Carolina from Charleston, South Carolina, with a cargo of flour and corn, when the U.S. Coast Guard Captain of the Port (COTP), Wilmington, received a request from the ship's master to enter port to search for a bomb. The device reportedly had been planted aboard the vessel while it was docked in Charleston.

The 442-foot vessel, which contained approximately 372,000 gallons of bunker C fuel, anchored four miles off the mouth of the Cape Fear River in the Atlantic Ocean while awaiting response from the Coast Guard COTP.

NOAA RESPONSE

NOAA/OAD was notified of the incident on July 11, 1985, by the Coast Guard Marine Safety Office, Wilmington, and requested to evaluate the potential adverse environmental effects resulting from an explosion and subsequent release of fuel. The Coast Guard also requested suggestions regarding an alternate anchorage for the vessel where environmental damage would be minimized if a release occurred.

NOAA/OAD trajectory predictions indicated that oil released from the present anchorage would move into the Cape Fear River within a few hours, given prevailing weather and tide conditions. Resources at risk in the threatened area would be significant, including extensive marsh areas, several species of endangered marine birds, alligators, and nesting marine turtles. Consequently, NOAA/OAD recommended moving the ship.

A proposed alternate anchorage lay to the southwest, off the beach approximately three miles, but NOAA/OAD, in discussions with local oceanographers, predicted that oil released from the proposed new anchorage would move alongshore back toward the beach and the Cape Fear River. This projected movement, combined with a high level of shrimping in that area and nesting marine turtles along the adjacent beach, served to discourage the proposal.

NOAA/OAD recommended an anchorage to the southwest where current patterns would tend to move spilled oil away from the Cape Fear River.

FINAL DISPOSITION OF THE INCIDENT

Inspection by an Explosive Ordnance Detail failed to locate a bomb aboard the vessel. After an appropriate waiting period the vessel proceeded to Wilmington. No explosion or marine pollution occurred.

REFERENCES

Pietrafesa, Dr. Leonard, 1985. Personal Communication. North Carolina State University, Raleigh, North Carolina.

Singer, J.J., L. P. Atkinson, and L. J. Pietrafesa, 1980. Summertime advection of low salinity surface waters into Onslow Bay. In Estuarine and Coastal Marine Science, 11, 73-82.

Virginia Institute of Marine Science, 1983. Environmental Sensitivity Atlas - North Carolina. Gloucester Point, Virginia.

NOAA Response Report

Warehouse Fire
Norfolk, Virginia
August 7, 1985

Ann Hayward Rooney, Scientific Support Coordinator

INCIDENT SUMMARY

A fire due to unknown causes began in an abandoned military surplus warehouse in Norfolk, Virginia during the afternoon of August 7, 1985. The Norfolk Fire Department responded and eventually brought the fire under control, although the warehouse was declared a total loss. The U.S. Coast Guard Marine Safety Office, Hampton Roads, was notified of the incident when on-scene observers noticed that a bright, apple green-colored liquid was running out of the burning warehouse into a nearby creek.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1930 on August 7, 1985, by the Coast Guard Marine Safety Office, and requested to identify a local laboratory and to recommend appropriate analytical techniques for analysis of samples of the liquid.

NOAA/OAD recommended that personnel on-scene avoid direct contact with the substance until a positive identification could be made. On-scene observers reported that the substance diluted rapidly in the water, left no sheen, had no noticeable odor, and that it was a fluorescent green color. The observers suggested that the liquid might be shark repellent, antifreeze, or dye marker because of the military nature of the warehouse contents.

NOAA/OAD identified several laboratories and recommended using infrared analysis to identify the substance. NOAA/OAD also contacted several local U.S. Navy groups, including an explosive ordnance demolition team, an aviation squadron, and public works office, to obtain any available information which could identify the substance. In this way, the likelihood of the substance being shark repellent was ruled out based on the material's color.

FINAL DISPOSITION OF THE INCIDENT

The Virginia Institute of Marine Sciences Laboratory, which utilizes dye markers in its oceanographic studies, confirmed that the substance was dye. The laboratory also ran U.S. Environmental Protection Agency-required toxicity tests to insure that the dye posed no risks to the marine environment.

The dye in the creek dissipated quickly, and the case was closed on August 9, 1985.

NOAA Response Report

T/B Exxon Barge 32
James River, Virginia
August 19, 1985

Ann Hayward Rooney, Scientific Support Coordinator

INCIDENT SUMMARY

The tank barge Exxon Barge 32 ran aground at Rock Landing Shoal Channel when its tug operator lost visibility during a rain squall. The barge was carrying 22,500 barrels of gasoline and 7,500 barrels of diesel fuel. Although the barge was double-skinned and had been recently inspected, the U.S. Coast Guard was concerned about the possibility of a major oil spill from the hard-aground vessel.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 2155 on August 19, 1985 by the U. S. Coast Guard, Hampton Roads, and requested to provide oil trajectory and environmental resources at risk information.

NOAA/OAD advised the Coast Guard that, if the oil were released, it would move north and threaten extensive marsh areas along the James River. The light petroleum products would tend to mix in the water column and pose a potentially significant risk to oyster and crab fisheries in the lower James River and Hampton Roads areas.

FINAL DISPOSITION OF THE INCIDENT

The barge was refloated with no release of product at about midnight on August 20 on the next high tide.

REFERENCES

Virginia Institute of Marine Sciences, 1983. Environmental Sensitivity Atlas - Virginia. Gloucester Point, Virginia.

NOAA Response Report

Tire Fire
Norfolk, Virginia
September 6, 1985

Ann Hayward Rooney, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 2130 on August 31, 1985, a fire encompassing a four acre area began burning in a Norfolk, Virginia landfill containing 400,000 tires. Because storm sewers drain to the Elizabeth River 500 yards to the northeast of the site, officials were concerned about the possibility of an oil spill resulting from melting tires. There was additional concern about the human health effects of the smoke plume because of experience with the Winchester tire fire which occurred in late 1983.

NOAA RESPONSE

NOAA/OAD was notified of the incident on September 6, 1985, by the U.S. Coast Guard Marine Safety Office, Hampton Roads, and requested to provide advice on methods to extinguish the fire, assess the oil spill problem, and assist in monitoring for health effects.

NOAA/OAD worked with the Centers for Disease Control, the Coast Guard, and Norfolk health officials to monitor the situation. A monitoring plan using portable instrumentation was developed and implemented by State of Virginia health officials. NOAA/OAD discussed the situation with the U.S. Environmental Protection Agency Emergency Response Team, which had experience in handling tire fires around the U.S.

NOAA/OAD prepared a memorandum of advice to the Coast Guard Captain of the Port which outlined characteristics of tire fires and noted parallel conditions between this and other fires. NOAA/OAD also evaluated various means for dealing with the fires from the perspective of human health effects, and discussed the probability of being able to extinguish the fire. NOAA/OAD recommended letting the fire burn because various extinguishing methods could cause a significant air pollution threat to nearby residential areas.

FINAL DISPOSITION OF THE INCIDENT

The Norfolk Fire Department used a period of heavy rains on September 19 to gradually backfill and cover the mound of burning tires. The fire was extinguished by the end of September. Because extinguishing efforts occurred during the rain, minimal air pollution resulted. Approximately 100 gallons of oil were collected in a storm drain from the melted tires. No pollution of navigable waters occurred.

NOAA Response Report

M/V Louisiane
October 2, 1984
Port Everglades, Florida

David Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

On October 2, 1984, the U.S. Coast Guard Captain of the Port (COTP), Miami, was notified that the M/V Louisiane, a 548-foot containerized cargo vessel, was carrying a leaking, 20-foot container loaded with 75 drums of phenol. The ship's master stated that the leak was discovered when a strong odor was noted and a puddle was discovered under the container.

The U.S. Coast Guard COTP denied entry to the Port of Miami to the Louisiane until the leaking container could be surveyed and an acceptable plan of action developed. When the ship anchored outside of Port Everglades on the evening of October 2, a marine surveyor inspected the container and reported that the container of phenol was leaking and that there was product between the floor boards and in the trough under the rear doors. He also noted that the top of the container directly below the leaking container was also contaminated. A meeting was held with the Port Authority, the Louisiane's agent, U.S. Coast Guard COTP, and the cleanup contractor to establish the method of cleanup and decontamination.

NOAA RESPONSE

NOAA/OAD was notified of the incident on October 4, 1984 by the U.S. Coast Guard COTP, Miami, and requested to provide technical data on phenol, including safety and health and environmental considerations.

Following consultation with the Centers for Disease Control, NOAA/OAD advised that entry personnel should wear a fullface mask with forced air supply and full protective clothing, gloves and boots. Emphasis was placed on watching for possible degradation and breakdown of suit material if it came directly into contact with the phenol.

NOAA/OAD also assisted the U.S. Coast Guard in monitoring the actions of the cleanup contractor to insure that a proper and safe cleanup of the spill area was performed.

FINAL DISPOSITION OF THE INCIDENT

The container of phenol and the contaminated container below it were offloaded and transported to an isolated area of the port, and decontaminated along with the deck area of the Louisiane. When the leaking container was examined by contractor personnel in Level B protection, three drums of phenol were found to be leaking. Marks on the sides of the drum indicated that the small punctures in the drums may have resulted from improper use of a forklift during loading. The

FINAL DISPOSITION OF THE INCIDENT, cont.

leaking drums were offloaded and placed into overpack drums and transported to a waste material storage facility in Pompano, Florida. Non-leaking drums of phenol were placed into a clean container and returned to the Louisiane. The vessel left Port Everglades on October 4.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Materials Spill Conference, pp. 135-140.

2. Sittig, Marshall, 1984. Handbook of Toxic and Hazardous Chemicals. Noyes Publications, Park Ridge, New Jersey.

3. U.S. Environmental Protection Agency, 1984. Oil and Hazardous Materials-Technical Assistance Data System. NIH/EPA Chemical Information System, Falls Church, Virginia.

NOAA Response Report

M/V Nememcha
Off Key West, Florida
January 18, 1985

David Kruth and John Robinson, Scientific Support Coordinators

INCIDENT SUMMARY

On January 18, 1985, the U.S. Coast Guard Marine Safety Office (MSO), Miami, was notified that the Egyptian-registered M/V Nememcha had spilled 30 tons, or about 7,500 gallons, of heavy fuel oil approximately eighteen miles south-south west of Key West, Florida. The spill was reported to have resulted during an internal transfer of oil between ship fuel tanks. A U.S. Coast Guard overflight of the area reported a slick 17 miles long with a maximum width of 200 yards, consisting of six heavy, brown patches of oil. U.S. Coast Guard Gulf Strike Team personnel were dispatched to the scene.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0748 on January 18, 1985, by the U.S. Coast Guard MSO, Miami, and requested to provide a surface oil spill trajectory forecast and shoreline protection strategies, identify resources at risk, and advise on the effectiveness of dispersant use on the oil.

The oil slick was determined to be in the Florida Loop Current and trajectory forecasts indicated that landfall of the oil would not occur within the first 24 hours after the spill. However, the oil was forecasted to move far enough northeast in two to three days to be in current eddies difficult to predict or model. Oil could move ashore as a result of these eddies or as a result of a strong onshore wind.

Data obtained from the vessel by the U.S. Coast Guard on the physical properties of the spilled oil indicated that the product should be dispersable. NOAA/OAD recommended that the oil be dispersed because 1) floating oil would cause a substantial risk to the seabirds, pelagic birds, and diving birds present in the area; 2) the oil was predicted to follow the current northward along the Florida coast, possibly impacting mangroves and other sensitive environments; 3) the use of dispersants in the deep water of the Florida Straits was acceptable under the current dispersant approval guidelines of the American Petroleum Institute, the American Society of Testing Materials, and the State of Florida; and 4) physical control and recovery of the oil was not feasible.

NOAA/OAD identified natural resources in open water areas and along the Florida shoreline that could be affected by floating or dispersed oil. A sampling plan for dispersant use documentation was prepared and ready to be implemented. NOAA/OAD recommended that booms be placed between Saddlehill Key and Boca Chica, and between Saddlehill Key and Pelican Key.

FINAL DISPOSITION OF THE INCIDENT

At first light on January 19, the U.S. Coast Guard made an overflight over the 40-mile area where the oil slick was forecasted to move, but sighted no traces of oil. NOAA/OAD attributed the disappearance of the slick to the natural mixing action which occurred throughout the night due to high winds and seas in the area. The U.S. Coast Guard ceased cleanup preparations and closed the case. No dispersant was used and no tarballs were reported coming ashore.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

3. Research Planning Institute, 1981. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: South Florida. An Atlas of Coastal Resources. Columbia, South Carolina.

4. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

M/V Isla Plaza
Miami, Florida
January 21, 1985

David Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

On January 15, 1985, the crew of the M/V Isla Plaza discovered a fire in the vessel's #2 hold on C deck while loading a cargo of bananas in Turbo, Colombia. The crew unsuccessfully fought the fire with water and then tried flooding the hold with carbon dioxide. The ship departed port en route to New York City with the status of the fire unknown.

On January 18, the U.S. Coast Guard Marine Safety Office (MSO), Miami, was notified that the vessel wished to enter the Port of Miami to fight the smoldering fire in the cargo hold and to refill spent carbon dioxide cylinders. The ship was allowed to enter port after being inspected by the U.S. Coast Guard and the City of Miami Fire Department.

The vessel cargo hold was found to be insulated with polyurethane foam which gives off numerous toxic gases and by-products when exposed to fire. It was believed that the insulation was most likely a source of the fire.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1200 on January 21, 1985, by the U.S. Coast Guard MSO, Miami, and requested to identify the possible gases and by-products which could be given off from burning polyurethane and to recommend appropriate protection levels to be worn by workers.

NOAA/OAD advised the U.S. Coast Guard that combustion by-products resulting from a fire involving polyurethane foam would be varied and numerous; toxic amounts of many compounds including acids, cyanides, vinyl chlorides, benzenes, urethanes, and acrylonitriles could be present.

NOAA/OAD, in consultation with the Centers for Disease Control, recommended that Level B personnel safety gear be worn for protection from the inhalation hazard and against skin contact with ash fallout until a safe breathing atmosphere could be insured. NOAA/OAD also worked with officials from the Dade County Health Department and the Miami Fire Department chemist on air monitoring of the fire.

The bananas in the Isla Plaza's cargo hold had to be unloaded to the pier in order to fight the fire; subsequently, many dock workers were observed loading these bananas into their cars with the presumable intention of taking them home. The U.S. Food and Drug Administration (FDA) was contacted by NOAA/OAD to address the possibility that the

NOAA RESPONSE, cont.

bananas were contaminated. A FDA representative inspected the bananas remaining at the scene and condemned the bananas in the #2 hold on all decks. Security around the bananas was increased to keep individuals from taking them. The bananas were eventually removed by truck and properly disposed.

The fire smoldered for several days. Dade County Health Department officials continued to provide air monitoring for toxic gases. The chemist for the Miami Fire Department at one point detected the presence of hydrogen cyanide at a level of 5 ppm. Fans and blowers were brought on-scene to circulate and ventilate the air in the cargo hold to insure a safe atmosphere.

Two bodies, both male, were found on the starboard side of cargo hold 2, C deck, by the marine chemist while conducting air sampling. Since all of the ship's crew had been accounted for, it was concluded that the victims must have been stowaways. The Miami City Police homicide unit was called in to investigate the incident.

FINAL DISPOSITION OF THE INCIDENT

On January 24, the fire aboard the Isla Plaza was completely extinguished. Miami fire investigators determined that the fire had started on the port side of the 2 C hold. They noted that the fire had been hot enough in this area to melt the aluminum which protected the polyurethane insulation, and concluded that the insulation had indeed been involved in the fire. The U.S. Coast Guard MSO, Miami, closed the case on January 24.

REFERENCES

1. Deadly smoke. The Register. Santa Ana, California. 1984

2. Turner, D. Bruce, 1974. Workbook of Atmospheric Dispersion Estimates. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina.

NOAA Response Report

Azinphos Methyl
Savannah, Georgia
February 14, 1985

Burl Wescott, Scientific Support Coordinator

INCIDENT SUMMARY

On February 14, 1985, the driver of a van containing leaking cardboard boxes of azinphos methyl was hospitalized after discovering the leak. The U.S. Coast Guard Marine Safety Office (MSO), Savannah, contacted the Centers for Disease Control (CDC) in Atlanta for assistance.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0850 on February 14, 1985 by CDC. Upon contacting the U.S. Coast Guard MSO, Savannah, NOAA/OAD was requested to provide information about a possible vapor problem, explosion hazard, and personnel protection measures for U.S. Coast Guard response personnel.

For additional advice, NOAA/OAD contacted Mobay Chemical Corporation, a U.S. manufacturer of azinphos methyl; Paramount Services, Inc., a pest control service; and the Chemical Transportation Emergency Center (CHEMTREC). It was determined that the product was manufactured by Makhteshim-Agan in Israel. Information obtained by NOAA/OAD indicated that there was no vapor or explosion hazard associated with the product. NOAA/OAD recommended that response personnel wear Level B protection to prevent exposure through skin, inhalation, or ingestion.

FINAL DISPOSITION OF THE INCIDENT

Wearing Level B protection, U.S. Coast Guard personnel overpacked the leaking boxes of azinphos methyl.

REFERENCES

1. American Conference of Governmental Industrial Hygienists, 1980. Documentation of the Threshold Limits Values. Fourth Edition. Supplemented through 1983. Cincinnati, Ohio.

2. Bush, John, 1985. Personal Communication. Mobay Chemical Corporation.

3. Chemical Manufacturers Association, 1983. Chemical Transportation Emergency Center (CHEMTREC). Washington, D.C.

4. Dreisbach, Robert H., 1983. Handbook of Poisoning. Eleventh Edition. Lange Medical Publications, Los Altos, California.

REFERENCES, cont.

5. Meister, Richard T., ed., 1984. Farm Chemicals Handbook. Meister Publishing Company, Willoughby, Ohio.

6. Sax, N. Irving, ed., 1983. Dangerous Properties of Industrial Materials. Sixth Edition. Van Nostrand Reinhold Company, New York.

7. Smuck, Joe, 1985. Personal Communication. Paramount Services, Inc.

8. U.S. Environmental Protection Agency, 1983. Hazardline. NIH/EPA Chemical Information System, Falls Church, Virginia.

9. U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials-Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

10. Verschueren, Karel, 1983. Handbook of Environmental Data on Organic Chemicals. Second Edition. Van Nostrand Reinhold Company, New York.

NOAA Response Report

M/V A. Regina
Mona Island, Puerto Rico
February 15, 1985

David Kruth and Ted Kaiser, Scientific Support Coordinators

INCIDENT SUMMARY

At approximately 0020 on February 15, 1985, the 350-foot passenger ferry A. Regina, carrying 210 tons of IFO 40 fuel (a mixture of #2 and #6 fuel oils), ran aground on a coral reef off Mona Island, 50 miles west of Puerto Rico. The bottom of the vessel suffered extensive damage and posed a major oil threat to environmentally sensitive Mona Island; about 3,000 gallons of oil leaked from the ship before a water cushion formed over the damaged tanks and prevented further leakage of the oil. As a result, oil impact to the shoreline was limited to about 2,000 linear feet.

The A. Regina had recently begun passenger service between Puerto Rico and the Dominican Republic and was operated by the Dominican Ferries line. Two hundred and ten passengers and crew were evacuated off the ship via lifeboats to Mona Island, an unihabited, rugged island with virtually no support or communication facilities. The Puerto Rico Department of Natural Resources (DNR) maintains a small camp and a dirt landing strip on the southwest side of the island, about five miles away from the impacted shoreline.

NOAA RESPONSE

NOAA/OAD was notified of the incident at approximately 1030 on February 15, 1985, by the U.S. Coast Guard, and requested to report on-scene and provide oil spill trajectories, identify environmental resources at risk, provide shoreline protection strategies, recommendations on dispersant use, and shoreline cleanup options.

NOAA/OAD's trajectory model predicted that both the southeast and southern coasts of Mona Island would be impacted, with smaller impacts occurring along the western side of the island north of the airport. Oil that reached the western end of the island would move out to sea and continue to the west. Travel time of this oil to the vicinity of the Dominican Republic would be two to three days. This oil would either pass just south of the Dominican Republic or possibly impact the southeast corner of the island. Due to the weathering action on the lighter fractions of oil, the oil that reached the Dominican Republic would be in the form of scattered patches, pancakes, and tar balls, rather than a coherent well-organized slick.

Prime nesting areas for the endangered hawksbill, green, and loggerhead turtles were threatened by oil impact. Research indicates that the deposition of oil on eggs or on top of a nest already constructed is likely to increase mortality and affect hatchling

NOAA RESPONSE, cont.

morphology. Protection of the turtles was of great concern to the responding agencies because nesting by these turtles was expected to begin shortly. Birds which nest and fish around Mona Island were also significantly at risk from spill impact.

Due to the rapid absorption of oil by sand and lack of adequate cleanup capability on Mona Island, NOAA/OAD recommended the use of dispersants in the event the A. Regina broke up and released large amounts of oil. Dispersants appeared to be the only means to protect the prime turtle nesting beaches along the southern coast from a rapidly moving oil spill.

Because of the potential of a large oil spill in a major breeding ground for several endangered or threatened species of sea turtles, the U.S Coast Guard was given approval by the U.S. Environmental Protection Agency (EPA) and the Puerto Rico Department of Environmental Quality Board (EQB) to use dispersants. Dispersants and a DC-4 aircraft equipped to apply dispersants were brought to Puerto Rico through arrangements made with Clean Caribbean Cooperative. The aircraft remained on a standby status at the U.S. Coast Guard air station in Borinquin, Puerto Rico. The U.S. Coast Guard Atlantic Strike Team, requested by the U.S. Coast Guard On-Scene Coordinator (OSC), arrived on-scene on February 16.

NOAA/OAD worked with several Puerto Rico and Federal agencies, including Puerto Rico DNR, Puerto Rico EQB, U.S. Fish and Wildlife Service (USFWS), and EPA, to present consolidated recommendations on dispersant usage and shoreline cleanup to the U.S. Coast Guard OSC.

Conditional use of Corexit 9527 dispersant as authorized by Puerto Rico EQB and Puerto DNR was recommended with the following limitations:

a. Dispersant use will be considered in case of a massive fuel oil release (the use of dispersant will be geographically limited to seaward of the reef crest as defined by, first, the breaker line or where the reef line is not defined by breakers; then no shallower than 30 feet. Dispersant use will not be allowed within the shallow lagoon area landward from the reef crest);

b. If turtle nesting beaches on the southern and western coasts between Punta Los Ingleses to Cabo Barrio Nuevo become threatened, then dispersant use may be considered on the leading edge of the slick to prevent stranding of the animals. Such application may be made even if the slick has crossed the breaker line into the lagoonal areas; and

c. Under no circumstances will dispersant be applied directly to the beaches.

NOAA/OAD emphasized that these guidelines were preliminary, tentative, and subject to amendment by consultation among Puerto DNR, Puerto Rico EQB, and other concerned agencies. Puerto Rico EQB was to

be notified immediately if the decision to use dispersants was made. It was further stressed that these guidelines are applicable only in the specific case of the A. Regina.

NOAA/OAD emphasized that there would be environmental trade-offs if dispersants were used in the shallow water area inside the reef. These trade-offs included some possible effects on reef organisms. Puerto Rico DNR, EPA, USFWS, and Puerto Rico EQB all felt that, since turtles were in the area, benefits gained by the use of dispersants to protect the turtles far outweighed the possible negative effects dispersants might have on the reef.

NOAA/OAD recommended the following cleanup efforts for the affected shoreline of Mona Island:

1. Remove all oil from the vessel as soon as sea state allows and provide daily reports on status of offloading to Puerto Rico EQB.
2. Remove all floating oil and oiled debris to prevent oil from spreading to uncontaminated areas.

    a. Remove oiled vegetation, being careful to remove as little sand as possible.

    b. Soak up and remove all pooled oil, pancakes, and oil accumulated on rocks, ledges, and beaches.

3. The oiled sand layer trapped in beach sand will be monitored by Puerto Rico DNR and EQB personnel until the extent to which the beach will naturally cleanse itself can be determined. Further action may be required regarding the beach sands if the natural cleansing action is not sufficient.

4. Remove from the area lifeboats, life rafts, booms, and other debris from the vessel.

5. There will be no disposal of oil or oiled debris on Mona Island.

6. Temporary storage and ultimate disposal of all oiled and non-oiled debris shall conform to Puerto Rico EQB regulations.

NOAA/OAD worked with other Federal response agencies in inspecting and monitoring the impact of the oil on the shoreline. A spokesperson from Puerto Rico EQB was selected to represent all government agencies in working with the shoreline cleanup contractor.

NOAA/OAD arranged for a special area forecast for Mona Island with the NOAA National Weather Service (NWS) in San Juan. The NWS provided forecast information on sea state, winds, and general meteorological information, which aided in the planning of daily oil removal operations. Hydrographic survey and tidal data for Mona Island was obtained through the National Ocean Survey. Historical weather patterns for the months of February and March were provided by the NOAA National

NOAA RESPONSE, cont.

Oceanographic Data Center. Some limited experimentation of Corexit 9527 on an actual sample of IFO 40 oil by NOAA/OAD verified that that particular dispersant would disperse the oil spilled by the A. Regina. After determining that the larger dispersant aircraft was no longer needed, NOAA/OAD located a smaller, agricultural aircraft that could be used to spray dispersants if required.

FINAL DISPOSITION OF THE INCIDENT

Both the U.S. Coast Guard and the Smit Salvage Company worked on removing the remaining oil off the A. Regina to prevent any further releases. The U.S. Coast Guard positioned a barge on the deep water side of the vessel using the tug Rosario and the U.S. Coast Guard cutter Sagebrush. Oil was then pumped from the A. Regina's tanks directly into the barge. Meanwhile, the salvage company pumped oil into large, two-ton capacity plastic containers. A helicopter then removed these containers one at a time from the uppermost deck of the ship, ferried them to the leeside of Mona Island, and lowered them to the deck of the salvage vessel. Here the oil was pumped from the containers into the salvage vessel's holding tanks. Once the bulk of the oil was removed from the A. Regina, the U.S. Coast Guard discontinued its oil removal efforts. Smit Salvage finished removing the remaining oil on March 10, 1985.

During the time oil was being offloaded from the A. Regina, Crowley Environmental cleaned up the Mona Island shoreline by removing oily debris and seaweed. Sorbents were used to soak up any pools of oil on the rocks. Puerto Rico EQB, Puerto Rico DNR, and NOAA/OAD continued monitoring the natural cleansing action of the seas on the oil in the sand on the island.

Schmidt Salvage was eventually awarded a contract to remove the vessel from the reef, but walked off the uncompleted job on April 11. The U.S. Coast Guard is considering potential disposal sites for the vessel as of this writing.

REFERENCES

1. Fritts, T.H. and M.A. McGehee, 1982. Effects of Petroleum on the Development and Survival of Marine Turtle Embryos. U.S. Fish and Wildlife Service Report No. FWS/OBS-82/37.

2. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

3. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

REFERENCES, cont.

4. Getter, Charles D., Gilbert Centron, et al., 1984. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Puerto Rico. A Coastal Atlas. Puerto Rico Department of Natural Resources.

5. Torgrimson, Gary M., 1984. The On-Scene-Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

M/V Morant Bay
Port of Miami, Florida
April 1, 1985

David Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

On April 1, 1985, a tank truck trailer filled with 5,500 gallons of Tia Maria liqueur, fell from a fork lift and ruptured during a transfer operation aboard the M/V Morant Bay.

NOAA RESPONSE

NOAA/OAD was notified of the incident on April 1, 1985, by the U.S. Coast Guard Marine Safety Office (MSO), Miami, and requested to provide information concerning the flammability of the spilled material.

NOAA/OAD informed the U.S. Coast Guard MSO of the high flammability of the liquid. Since the liquid contained about 55% ethanol, it was calculated that an explosive atmosphere could develop in a closed space at temperatures below 140°F. NOAA/OAD stressed the need to secure all possible ignition sources, and further emphasized the point that ethanol burns with a colorless flame which cannot be seen as it burns. NOAA/OAD advised that dilution and evaporation of the liquid would be the best method to lower the explosion and fire potential.

FINAL DISPOSITION OF THE INCIDENT

The Miami Fire Department diluted the spilled liquor with large amounts of water to prevent fire or explosion, mopping up some of the residue with large sponges. None of the spilled product reached the waters of Biscayne Bay. The case was closed by the U.S. Coast Guard on April 1.

REFERENCES

Overton, Dr. Edward, 1985. Personal Communication. Institute for Environmental Studies, Louisiana State University, Baton Rouge, Louisiana.

NOAA Response Report

U.S.S. Coral Sea-T/V Napo
Caribbean Sea South of Cuba
April 18, 1985

Glen Watabayashi, Scientific Support Coordinator

INCIDENT SUMMARY

At 1900 on April 11, 1985, the U.S. Navy aircraft carrier Coral Sea collided with the tanker Napo south of Cuba, spilling an estimated 7,600 barrels of No. 6 oil. The tanker proceeded into Guantanamo Bay, but the final destination of the Coral Sea was unknown. On April 17-18, the U.S. Coast Guard observed floating oil in three patches, one slick five miles long.

NOAA RESPONSE

NOAA/OAD was notified of the incident on April 18, 1985 by Coast Guard Headquarters in Washington, D.C., and requested to provide a trajectory and an analysis of the physical and chemical fate of the oil.

Based on the initial large quantity spilled, NOAA/OAD advised that the slicks would generally trend westward for about 100 miles, breaking up into numerous weathered, isolated patches within a week.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard continued overflights for the next few days until the oil had dissipated too much to track. No beach impacts were reported.

REFERENCES

Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

M/V Honduras and Tug Andrew McAllister
San Juan, Puerto Rico
April 24, 1985

David Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

On April 24, 1985, the 470-foot container ship Honduras was inbound to San Juan, Puerto Rico when a steering problem caused it to swing left and collide with the tug Andrew McAllister, moored at Pier 8 with no personnel aboard. The tug, carrying a reported 45,000 gallons of fuel and approximately 1,000 gallons of lube oil on board, caught fire and was impaled on the bow of the Honduras. Burning diesel fuel on the water surface engulfed the tug, which was then dragged by the Honduras to the head of San Antonio Channel where it subsequently sank. The fire burned for about 45 minutes before being put out.

The Honduras was scorched from the bow to about 40 feet aft of the bow, which contained several hazardous chemicals, including methyl methacrylate, cyclohexylamine, ethylene glycol, monobutyl ether, ethanolamine, aluminum paste, paraformaldehyde, and tetramethylethylene-diamine.

NOAA RESPONSE

NOAA/OAD was notified fo the incident at 0710 on April 24, 1985, by the U.S. Coast Guard Marine Safety Office, San Juan, and requested to identify the physical and chemical properties of the materials listed on the Honduras' hazardous cargo manifest. The Coast Guard also requested that NOAA/OAD provide safety and health recommendations for personnel working in the area near these chemicals. Finally, the Coast Guard requested that resources at risk from the spill in the vicinity be identified.

NOAA/OAD reviewed the list of chemicals on board and determined that the chemicals posed both a fire/explosion hazard and a human exposure hazard. NOAA/OAD provided the Coast Guard with detailed analyses of the chemical and physical properties of each substance. Level B protective gear was recommended for personnel inspecting the cargo until it could be ascertained that none of the products was leaking. NOAA/OAD also identified the natural resources at risk from the oil in the surrounding area.

FINAL DISPOSITION OF THE INCIDENT

The Honduras freed herself from the tug and moored at Pier 11. All personnel aboard the vessel were accounted for and there were no reports of injuries. When the containers of hazardous chemicals on board the ship were found to be undamaged, the cargo was offloaded. Cleanup contractors used oil boom, absorbent pads, and vacuum trucks to remove

FINAL DISPOSITION OF THE INCIDENT, cont.

an estimated 10,000 gallons of oil as it floated up from the sunken tug. When divers conducted a survey of the tug and reported an irreparable crack in the fuel tank, a salvage firm was hired to raise the tug.

Preliminary investigations indicated that the Honduras developed a hydraulic control problem in the controllable pitch propeller system, resulting in the loss of steerage way and the collision between the vessels.

REFERENCES

Environment Canada, 1984. Manual of Spills of Hazardous Substances. Technical Services Branch, Ottawa, Ontario, Canada.

Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Materials Spill Conference, pp. 135-140.

Getter, Charles D., Gilbert Cintron, et al., 1984. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Puerto Rico. A Coastal Atlas. Puerto Rico Department of Natural Resources.

U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials-Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

NOAA Response Report

U.S. Army Reserve Training Center
Miami, Florida
May 24, 1985

Will Ernst, Scientific Support Coordinator

INCIDENT SUMMARY

At 0720 on May 24, 1985, the U.S. Coast Guard Marine Safety Office in Miami, Florida received a report that personnel at the U.S. Army Reserve Training Center in Miami were experiencing health problems due to an air contamination problem in one of the facility's buildings. The U.S. Army Reserve believed that the symptoms, primarily limited to blurred vision, nasal irritation, and severe lung irritation among several people, were associated with a spill of six pounds of calcium hypochlorite which, though it had occurred at the facility seven months earlier, had never been cleaned up.

The U.S. Coast Guard immediately alerted the local health authorities and went to the scene to conduct a site entry operation to investigate the nature of the contamination hazard.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0955 on May 24, 1985, by the U.S. Coast Guard Marine Safety Office, Miami, and was requested to provide a characterization of possible hazards associated with calcium hypochlorite and to recommend a course of action in this situation.

Following a review of chemical product references and data bases, NOAA/OAD advised that the dry calcium hypochlorite product posed a reactivity hazard when the powder was exposed to moisture. In particular, when combined with low levels of moisture such as the humidity in the air or the moisture in human skin tissue, calcium hypochlorite reacts and releases chlorine gas. The chlorine gas in turn instantly combines with the moisture to form hydrochloric acid, an extremely corrosive acid. The same reaction could occur if the calcium hypochlorite was inhaled as a dust; in this case, the hydrochloric acid would be generated on the surface of the exposed nasal or lung tissue. The symptoms as reported could readily be attributed to this type of reaction.

NOAA/OAD advised that the building be evacuated immediately to prevent additional exposure. NOAA/OAD further recommended that the victims be monitored by local medical resources for up to 48 hours to guard against delayed symptoms. In addition, the material should be cleaned up immediately by trained personnel protected by self-contained breathing apparatus and full skin protection. Colorimetric vapor detection tubes for chlorine could be used to detect the presence of harmful vapors in the atmosphere following the cleanup to confirm the safety of the building for normal use.

FINAL DISPOSITION OF THE INCIDENT

U.S. Army personnel completed the cleanup of the spilled material without incident on May 27, 1985, monitored by the U.S. Coast Guard.

BIBLIOGRAPHY

Dreisbach, Robert H. 1983. Handbood of Poisoning, Eleventh Edition. Lange Medical Publications, Los Altos, California.

Ernst, William D. 1984. NOAA's Chemical Advisory Report (CHEMREP) system for spill response. Proceedings of the 1984 Hazardous Materials Spills Conference, Nashville, Tennessee. pp132-136.

Olishifski, Julian B., ed. 1981. Fundamentals of Industrial Hygiene, Second Edition. National Safety Council, Chicago.

U.S. Coast Guard. 1985. Pollution Report (POLREP) for Calcium Hypochlorite Release, May 24, 1985.

NOAA Response Report

M/V Reefer Merchant
Miami, Florida
May 25, 1985

David Kruth and William Ernst, Scientific Support Coordinators

INCIDENT SUMMARY

On May 25, 1985, the empty 300-foot banana freighter Reefer Merchant, en route to Costa Rica from Jacksonville, Florida, ran aground in 13 feet of water on Ledbury Reef, approximately 15 miles south of Miami. The vessel carried 71,148 gallons of diesel and medium fuel oil on board, although no pollution or damage was evident at the time of the grounding.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1340 on May 25, 1985, by the U.S. Coast Guard Marine Safety Office, Miami, and requested to provide weather forecasts for the area, as well as tidal information, and to advise on the possibility of obtaining an automatic tide level gauge for use during refloating operations.

NOAA/OAD contacted the NOAA National Weather Service (NWS), Miami, and requested a special area weather forecast. The Coast Guard was contacted directly by the NWS with weather updates throughout the incident. NOAA/OAD also gathered information needed to prepare an oil spill trajectory. Efforts to locate a portable tide gauge over the holiday weekend were unproductive.

FINAL DISPOSITION OF THE INCIDENT

Byrd Salvage divers inspected the hull of the Reefer Merchant and found no damage. The ship tried to pull herself free at each high tide by shifting ballast and using her own power, but each attempt was unsuccessful.

During an environmental survey of the ocean bottom beneath the vessel, the chief ranger of Biscayne National Park discovered a possible archaeological site which appeared to be the remains of an old sunken vessel. Florida archaeologists believe that the remains may be from two sailing vessels which wrecked on the site in the 1700 and 1800's. It was reported that the site may have been further damaged during the Reefer Merchant's attempts to free herself.

At 1307 on May 27, the Reefer Merchant, with the assistance of the salvage vessel Helen B refloated by flooding her forward store room. The case was closed by the Coast Guard on May 27, 1985.

NOAA Response Report

Anheuser Busch
Jacksonville, Florida
May 29, 1985

David Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

On May 29, 1985, a storage tank at the Anheuser Busch factory in Jacksonville, Florida, leaked approximately 200 gallons of a chemical known commercially as "Betz 45" on the ground and into the Broward River.

NOAA RESPONSE

NOAA/OAD was notified of the incident on May 29, 1985, by the U.S. Coast Guard Marine Safety Office (MSO), Jacksonville, and requested to identify the chemical components of Betz 45, and to determine if the amount spilled was a reportable quantity, as required by the Federal Water Pollution Control Act (33 USC 1342).

NOAA/OAD contacted the Betz Laboratories, Inc. in Trevose, Pennsylvania, cocerning their product Betz 45. It was learned that Betz 45 is a water conditioner product added to plant cooling systems to prevent corrosion, algae growth, etc. The chemical compositon of Betz 45 was determined to be 25% sodium dichromate, 22% chromic acid, 8% zinc oxide, and 45% water. NOAA/OAD forwarded this information to the Coast Guard with data concerning the proper handling, storage, protective equipment, and first aid precautions to be taken when working with this product. Finally, it was ascertained that reportable spill quanitity for this product under the Clean Water Act would be 300 gallons for sodium dichromate and 340 gallons for chromic acid.

FINAL DISPOSITION OF THE INCIDENT

Since it was determined that the amount of product spilled was less the the reportable quantity, the Coast Guard closed the case on May 30. However, Florida Department of Environmental Regulation and the Department of Natural Resources both investigated the incident. Anheuser Busch cleaned up the spilled material remaining on the ground.

REFERENCES

Betz Laboratories, Inc. Betz 45 Materials Safety Data Sheet. Trevose, Pennsylvania.

Occupational Health Services Inc., 1985. Hazardline. Secaucus, New Jersey.

U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

NOAA Response Report

Truck Chemical Spill
Thonotosassa, Florida
June 26, 1985

David Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

On June 26, 1985, the U.S. Coast Guard Marine Safety Office, Tampa, was notified of a chemical release in northeastern Hillsborough County. Although approximately 1,400 pounds of chemicals fell from an unidentified truck onto Fort King Highway, about one-quarter of a mile away from Lake Thonotsassa, none of the chemicals entered any waterway. The chemicals involved in the incident were sodium sulfite, aluminum sulphate, sodium chromate, sodium fluosilicate, and sodium chromate dihydrate.

NOAA RESPONSE

NOAA/OAD was notified of the incident on June 26, 1985, by the Coast Guard, and requested to provide technical data on the chemicals involved. NOAA/OAD informed the MSO that little reaction between the chemicals was expected, but the chemicals should be covered with a tarp to keep them from spreading during afternoon thundershowers. Since sodium chromate dihydrate is a strong oxidizer, NOAA/OAD advised that precautions be taken to keep the chemical away from all organic materials.

FINAL DISPOSITION OF THE INCIDENT

Florida Department of Environmental Regulation (DER) arrived on-scene and assumed control. The Hillsborough County Hazardous Incident Team also arrived on-scene to assist. Florida DER hire O.H. Materials to conduct a cleanup. The Coast Guard closed the case on June 26.

REFERENCES

Ernst, William D., 1984, NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Materials Spills Conference, pp. 135-140.

U.S. Environmental Protection Agency, 1984. Oil and Hazardous Materials Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information Service, Falls Church, Virginia.

NOAA Response Report

Anhydrous Ammonia Cylinder
Hallandale, Florida
June 19, 1985

David Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

When a pressurized cylinder was found washed up on the beach in Hallandale, Florida on June 19, 1985, a security area around the cylinder was enforced by the Hallandale Fire Department. The cylinder was rusted, pitted, and had large dents, with an ammonia-like smell reported to be coming from the tank. The one-inch valve on the cylinder was found to be covered with epoxy. The following markings were found stamped on the tank: DOT-4AA48C, 820407, TARE 152.5, 10-76 HYDRO, GENERAL GASES AND SUPPLY. A Draeger detector tube test conducted for chlorine was negative.

NOAA RESPONSE

NOAA/OAD was notified of the incident on June 19, 1985 by the U.S. Coast Guard Marine Safety Office (MSO), Miami, and requested to provide assistance in identifying the contents of the cylinder, and determining proper transportation and final disposal methods.

NOAA/OAD contacted several gas supply companies in the Miami area to help identify the cylinder commodity; Broward Welding Company eventually went to the scene to assist. From the markings on the tank and tank description, it was believed that the tank most likely contained ammonia. NOAA/OAD provided a detailed chemical analysis of ammonia to the Coast Guard MSO.

All of the hazardous chemical disposal companies requested to dispose of the cylinder and its contents were reluctant to do so due to the unknown contents of the cylinder. The cylinder was capped by the Hollywood Fire Department Hazardous Materials Team, which conducted tests which were positive for anhydrous ammonia. NOAA/OAD warned the Coast Guard of the possibility of an explosive by-product being formed between chlorine and ammonia during one of the tests.

FINAL DISPOSITION OF THE INCIDENT

The cylinder was transported to the Hallandale Water Department storage yard for temporary storage prior to being shipped to Allied Universal Corporation, where the cylinder was drained and purged.

The Coast Guard closed the case on June 20, 1985.

REFERENCES

Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Materials Spill Conference, pp. 135-140.

Leichnitz, Kurt, ed., 1983. Detector Tube Handbook. Fifth Edition. Dragerwerk AG Lubeck, Federal Republic of Germany.

Meyer, Eugene., 1977. Chemistry of Hazardous Materials.

U.S. Environmental Protection Agency, 1984. Oil and Hazardous Materials Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

NOAA Response Report

Unknown Drum
St. John, U.S. Virgin Islands
July 1, 1985

David Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

On about June 1, 1985, a plastic drum of unknown material washed ashore on the island of St. John in the U.S. Virgin Islands. The drum was removed from the beach by National Park Service (NPS) personnel and placed in a NPS storage area. A sample of the drum's contents was sent to the Puerto Rico Department of Enviromental Quality Board (PREQB) for chemical analysis. PREQB chemists identified the material with a 90% probability as ethane sulfonyl fluoride.

NOAA RESPONSE

NOAA/OAD was notified of the incident on July 1, 1985, by the U.S. Coast Guard Marine Safety Office (MSO), San Juan, Puerto Rico, and requested to provide safety precautions and technical information for ethane sulfonyl fluoride.

NOAA/OAD learned through conversations with chemists at 3M and Louisiana State University that ethane sulfonyl fluoride is highly toxic to humans by inhalation and contact, and that the chemical is rarely used by industry. Because of this, NOAA/OAD suggested that another chemical analysis be performed to verify the PREQB conclusion.

A sample of the material was sent to the U.S. Coast Guard Research and Development Center in Groton, Connecticut, with instructions for shipping the material safely.

FINAL DISPOSITION OF THE INCIDENT

The drum was overpacked by U.S. Coast Guard personnel on July 19 and stored at the NPS storage area. In December, the Coast Guard Research and Development Center concluded that the drum contained a mixture of carbonyl sulfide, carbon disulfide, diethyl carbonate, diethyl thiocarbonate, diethyl xanthate, diethoxycarbonyl sulfide, diethylxanthogen formate, and diethylxanthic anhydride. No ethane sulfonyl fluoride was found in the mixture.

The Coast Guard Research and Development Center recommended that the material be considered as a flammable based on the presence of diethyl carbonate and carbon disulfide; not be diluted or mixed with water, alcohol or any polar solvent, due to the liberation of carbon disulfide; and should be handled using level B protection. NOAA/OAD agreed with these findings and recommendations. The material will be disposed of by a hazardous waste disposal contractor, with the drum most likely shipped to the U.S. for disposal in an approved hazardous waste landfill.

REFERENCES

Daly, Dr. Bill, 1985. Personal communication. Lousiana State University, Baton Rouge, Louisiana.

Moore, Dr. George, 1985. Personal communication. 3M Company.

Perkins, Dr. Roger, 1985. Personal communication. 3M Company.

Report on analysis of unknown substance, 1985. Commanding Officer, Coast Guard Research and Development Center, Groton, Connecticut. Report Number 764154.1/16465 Ser:2043B(JRJ)

Templet, Dr. Paul, 1985. Personal communication. Louisiana State University, Baton Rouge, Louisiana.

NOAA Response Report

Guardian Pool Company
Hollywood, Florida
July 24, 1985

David Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

On July 24, 1985, the U.S. Coast Guard Marine Safety Office, Miami, was notified of a chlorine gas release at the Guardian Pool Company in Hollywood, Florida. The Hollywood Fire Department reported that the incident had been caused by an unidentified person mixing five gallons of sodium hypochlorite with 400 gallons of muriatic acid in an 800-gallon tank. The chemical reaction caused a toxic chlorine cloud which destroyed vegetation in a small localized area around the tank. The fire department evacuated all persons in the surrounding one-block area.

NOAA RESPONSE

NOAA/OAD was notified of the incident on July 24, 1985, by the U.S. Coast Guard, and requested to advise on the effects of a reaction between sodium hypochlorite and muriatic acid. NOAA/OAD confirmed that chlorine gas would be generated from such a mixture, and that this reaction would occur quickly and completely. The Coast Guard was further advised that chlorine gas will accumulate in low-lying calm areas, such as ditches and tanks, due to the density of the gas. Finally, NOAA/OAD recommended that all personnel be kept away from these areas until the gas dissipated.

FINAL DISPOSITION OF THE INCIDENT

Weather conditions dissipated the chlorine gas cloud, and the acid was neutralized with soda ash and water. The Coast Guard closed the case on July 24, 1985.

REFERENCES

U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information Service, Falls Church, Virginia.

Occupational Health Services, Inc., 1985. Hazardline. Secaucus, New Jersey.

NOAA Response Report

M/V Fotini D.E.
Bajo Nuevo, Colombia
August 7, 1985

David Kruth, Scientific Support Coordinator

INCIDENT SUMMARY

On July 22, 1985, the bulk carrier vessel Fotini D.E., en route to New Orleans from Venezuela, ran aground on the eastern edge of Bajo Nuevo, a small Caribbean island under Colombia's dominion. The 505-foot vessel was hard aground in 12 feet of water, and was reported to have 40 tons of diesel fuel and 160 tons of No. 4 fuel oil onboard. Tug assistance arrived on July 26, but, because of the weather and shallow water in the vicinity of the Fotini D.E., the 21 people aboard the vessel were not evacuated.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 7, 1985 by the U.S. Coast Guard Seventh District, Miami, and requested to prepare an oil spill trajectory in the event that the vessel broke up. NOAA/OAD was further requested to calculate the distance the oil might be expected to travel before naturally dispersing.

NOAA/OAD advised that an oil slick would travel up to a maximum of 50 miles before breaking up into an unrecognizable slick and tarballs, with Bajo Nuevo the only land point impacted (the nearest land other than Bajo Nuevo is Jamaica, 120 miles away from the site). NOAA/OAD further advised that the island was believed to provide habitat to nesting turtles.

FINAL DISPOSITION OF THE INCIDENT

The crew of the Fotini D.E. was eventually removed by Coast Guard helicopter due to weather conditions which prevented removal by boat. The Fotini D.E. was abandoned by the owners and remains aground, with the oil still aboard, as of this writing.

REFERENCES

Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Padre Island Drum Removal
Corpus Christi, Texas
November 1, 1984

Todd Baxter, Scientific Support Coordinator

INCIDENT SUMMARY

The exposed sand beaches of Mustang and Padre Islands collect drifting debris from the Gulf of Mexico due to the convergence of several major currents. Drums and other containers have been a part of this refuse in the past, and have been removed by State of Texas and local agencies under the assumption that they contained no harmful materials. The discovery of three drums of trichloroethane on South Padre Island alerted local and Federal officials to the potential for public health risks due to accidental exposure from these types of drums.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 1, 1984, by the U.S. Department of the Interior, and requested to provide assistance in assessing the potential environmental impact on the Padre Island National Seashore. Tours of the beaches were conducted by the U.S. Coast Guard Marine Safety Office (MSO), Corpus Christi; the U.S. Coast Guard Gulf Strike Team; U.S. Park Service; U.S. Fish and Wildlife Service; and NOAA/OAD. A large number of drums and other containers were observed, many of which gave indications of containing oil or other hazardous materials, or showed evidence of being tampered with by the general public.

This information led to a Federalized Removal Action on Padre and Mustang Islands, under the supervision of the U.S. Coast Guard MSO, Corpus Christi. From December 10 through December 21, 1984, the U.S. Coast Guard Gulf Strike Team and Peterson Maritime removed 149 drums from 150 miles of beach using four-wheel drive and special amphibious vehicles. These drums were staged at a lined site with paved road access on Padre Island. Sampling and field characterization of the drum contents were conducted between January 7 and January 19, 1985.

CURRENT DISPOSITION OF THE INCIDENT

Individual and composite samples have been analyzed by MBA Laboratories in Houston, Texas. Preliminary results indicate that most of the drums contain heavy petroleum-based oils, but 18 of the 149 drums do contain more hazardous types of materials, which remain to be defined. Once this information is available, the drums may be disposed of in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), and other applicable regulations. These statistics will also be used in establishing a management plan for what is believed to be a continuous problem.

REFERENCES

1. Baca, B. J. and Getter, C. D., 1983. Oil Spill Response Overview. Marine Industries Research Group, Research Planning Institute, Columbia, South Carolina.

2. Overcash, M. R. and Davidson, J. M., Nonpoint Source Pollution.

3. Sax, N. Irving, 1984. Dangerous Properties of Industrial Materials. Sixth Edition. Van Nostrand Reinhold Company, New York.

4. Comprehensive Environmental Response, Compensation, and Liability Act, 1980. U.S. Government Printing Office, Washington, D.C. 46 USC 4605.

NOAA Response Report

Horn Island Oil Spill
Horn Island, Mississippi
December 7, 1984

Todd Baxter, Scientific Support Coordinator

INCIDENT SUMMARY

On December 5, 1984, the U.S. Fish and Wildlife Service notified the U.S. Coast Guard Marine Safety Office (MSO), Mobile, of thick oil on the beach of the Horn Island National Seashore. Initial reports indicated that the material beached was tarballs, but a preliminary inspection showed it to be a slightly weathered heavy fuel oil. The initial volume of oil spilled was estimated at 10,000 to 20,000 gallons. No responsible party could be found.

NOAA RESPONSE

NOAA/OAD was notified of the incident on December 7, 1984 by the U.S. Coast Guard MSO, Mobile, and requested to provide assistance in determining the best course of action in responding to the Horn Island spill. A beach survey was conducted on December 8 with representatives of the U.S. Coast Guard Gulf Strike Team (GST); U.S. Coast Guard MSO, Mobile; the U.S. Park Service; and NOAA/OAD. The oil was found to be in a well-defined swath above the normal high tide line, having been deposited during a period of considerable storm activity with winds from the north. Impacts to birds, mammals, and the sensitive lagoon environment on the island appeared to be very light. Estimates of the quantity of oil spilled were reduced to approximately 3,000 to 4,000 gallons.

NOAA/OAD provided the U.S. Coast Guard On-Scene Coordinator (OSC) with detailed environmental sensitivity information, along with the recommendation that cleanup proceed rapidly in order to avoid complications from further winter storms. A detailed removal scheme was provided the OSC by the U.S. Coast Guard GST and NOAA/OAD to ensure adequate removal, while protecting sensitive entrances to the lagoons and the upper beach area.

FINAL DISPOSITION OF THE INCIDENT

Cleanup commenced on December 10, 1984 under the supervision of MSO Mobile and the U.S. Park Service. Brief attempts to use a front-end loader to scoop oiled sand from the beach were abandoned when it was decided that too much sand was removed with this equipment and local citizens protested the presence of such equipment on a designated Wilderness Area beach. The bulk of the removal was performed with a 20 to 30 person crew using scoop shovels and garbage cans to remove the oiled sand. Transport to and from the island was accomplished using a LCVM landing craft, which proved ideal for this purpose.

FINAL DISPOSITION OF THE INCIDENT, cont.

Final removal was completed on December 14, 1984. A total of 3,370 gallons of oil and another 7,490 gallons of oiled sand were removed from the beach. Approximate cost for the cleanup is estimated at $35,000 to $40,000. A vessel suspected of spilling the oil has been located; samples taken from the vessels bunkers match the oil recoverd from the Horn Island beach, and from a smaller spill in Pascagoula, Mississippi. The identity of the vessel has not been released pending an offical Coast Guard hearing on the matter.

REFERENCES

1. Baca, B. J. and C. D. Getter, 1983. Oil Spill Response Overview. Marine Industries Research Group, Research Planning Institute, Columbia, South Carolina.

2. Foget, C.R. et. al., Manual for the Protection and Cleanup of Shorelines. Industrial Environmental Research Laboratory, U.S. Environmental Protection Agency, Cincinnati, Ohio.

3. Hayes, Miles O. and Erich R. Gundlach, 1978. Coastal Processes Field Manual for Oil Spill Assessment. Research Planning Institute, Columbia, South Carolina.

4. Michel, Dr. Jacqueline, 1984. Personal Communication. Research Planning Institute, Columbia, South Carolina.

NOAA Responce Report

Pleasure Island Seep
Port Arthur, Texas
December 17, 1984

Todd Baxter, Scientific Support Coordinator

INCIDENT SUMMARY

On December 17, 1984 an oil seep thought to be in conjunction with a dredging and ditching project being conducted on Pleasure Island in the Sabine River was reported to the U.S. Coast Guard Marine Safety Office (MSO), Port Arthur. Pleasure Island is manmade, contains dredge spoils from the Sabine River, and is crossed by several oil pipelines. The ditching operation was cutting an average of five feet into the surface of the island when an orange-colored water with a rainbow-hued surface sheen began seeping from the ditch banks and into the flow leading to the Sabine River.

NOAA RESPONSE

NOAA/OAD was notified of the incident on December 17, 1984 by the U.S. Coast Guard MSO, Port Arthur, and requested to provide assistance in locating the source of the oil seep. During conservations with Texas Department of Water Resources (TDWR) and the U.S. Environmental Protection Agency Technical Assistance Team (EPA-TAT), the exact nature of the oil-like sheen became suspect. Specifically, it was determined that the sheen was observed to break up if disturbed and to float in plate-like flakes like thin ice, which is atypical of an oil slick sheen. EPA-TAT suggested that this may be a bacteriological phenomenon.

FINAL DISPOSITION OF THE INCIDENT

All responding agency concluded that the observed discharge best fit the description of a release of anaerobic iron-reducing bacteria rather than an oil seep. The geology in the area of the seep is appropriate for the colonization of these bacteria; both the rust-colored water and the rainbow-hued plaque observed are typical of these organisms. Water samples were taken by TDWR, but were not analyzed. The release was short-lived and has not re-occurred at the site.

REFERENCES

1. Michel, Dr. Jacqueline, 1984. Personal Communication. Research Planning Institute, Columbia, South Carolina.

2. Warren, Charles. E., 1971. Biology and Water Pollution Control. W. B. Saunders Co., Philadelphia.

NOAA Response Report

Koch Refinery
Corpus Christi, Texas
December 19, 1984

Todd Baxter, Scientific Support Coordinator

INCIDENT SUMMARY

On December 2, 1984 a bulk-barge was offloading its cargo of pseudocumene-ortho-xylene at the Koch Refinery pier in Corpus Christi, Texas, when the transfer line developed a leak, spilling 40 to 50 gallons of the product. A strong solvent odor was present, and paint was removed from the barge hull where contact with the product occurred. The material evaporated before collection equipment could be used to attempt removal of the spill.

NOAA Response

NOAA/OAD was notified of the incident on December 19, 1984 by the U.S. Coast Guard Marine Safety Office, and requested to assist in determining the nature of the product. The U.S. Coast Guard could find no information on the product, and there was concern for the U.S. Coast Guard personnel who had been exposed to the vapors of the product.

An extensive literature and computer data base search was conducted by NOAA/OAD, who also consulted a chemist at Koch. As a result, the U.S. Coast Guard was informed that the product, which is used for cleaning pipe work and tanks in the refinery, was about the same toxicity and fire hazard as gasoline. Thus, the danger of explosion and fire far outweighed the danger of exposure to the fumes. As was observed, the xylene is a powerful solvent and paint remover.

FINAL DISPOSITION OF THE INCIDENT

This information has been included in the local U.S. Coast Guard oil and hazardous material spills contingency plan for future reference.

REFERENCES

1. Campfingle, Dr. John, 1984. Personal Communication. Koch Refinery, Corpus Christi, Texas.

2. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

3. U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials-Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

NOAA Response Report

T/B 2001
Port Arthur, Texas
January 2, 1985

Todd Baxter, Scientific Support Coordinator

INCIDENT SUMMARY

At 1945 on January 2, 1985 the T/B 2001 hit a bridge abutment with a barge in tow at the Orange Cut on the Sabine River, releasing approximately 1,000 gallons of a product reported as "Pyro-Naptha".

NOAA RESPONSE

NOAA/OAD was notified of the incident on January 2, 1985, by the U.S. Coast Guard Gulf Strike Team (GST), and requested to provide information on the chemical properties of the "Pyro-Naptha", determine the environmental sensitivity of areas likely to be impacted by the product, and provide cleanup recommendations. The product was researched by contacting the manufacturer, and found to be pyrolisis-gasoline, a mixture of 36% benzene, 7.5% toluene, and the balance of petroleum gasoline.

Environmental sensitivity was discussed with a representative of the Texas Department of Water Resources (TDWR), using the TDWR Spill Response Map Series for the Coastal Region. The Map Series shows this area to be a heavily used industrial waterway with a tidal-influenced marsh shoreline. The primary concern of TDWR was the potential toxicity of the lighter fractions of the product to the benthic marine community. A TDWR observer was dispatched to the spill site.

FINAL DISPOSITION OF THE INCIDENT

No active recovery was attempted on advice of the U.S. Coast Guard GST due to the strong current in the Sabine River and the very rapid evaporation rate of the product. Air samples for benzene were taken at the spill scene by Draeger tube to monitor for personnel exposure safety levels. Maximum levels in the air were reported to be less than the detectable limits of the equipment. No adverse environmental effects were observed, and the spill dissipated by evaporation and dilution.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

2. Hawley, Gessner G., 1981. The Condensed Chemical Dictionary. Tenth Edition. Van Nostrand Reinhold Company, New York.

REFERENCES, cont.

3. Sax, N. Irving, ed., 1983. Dangerous Properties of Industrial Materials. Sixth Edition. Van Nostrand Reinhold Company, New York.

4. Spill Response Map Series, Coastal Region. Texas Department of Water Resources, Austin, Texas.

5. U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials-Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

NOAA Response Report

Shell Oil Pipeline, Main Pass
Mississippi Sound, Louisiana
February 21, 1985

Todd Baxter, Scientific Support Coordinator

INCIDENT SUMMARY

On Feburary 16, 1985 a crude oil pipeline owned by Shell Oil ruptured and lost 350 barrels of oil into the Mississippi Sound. Winds and currents carried this oil north where it impacted the beaches of Brenton, Curlew, and Grand Gossier Islands. Shell Oil proposed the use of a "pig" to locate the exact leakage point, with the projected loss of an additional ten to 100 barrels of oil.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1239 on February 21, 1985 by the U.S. Coast Guard Captain of the Port, New Orleans, and requested to assist in completing a Dispersant Use Application to the U.S. Environmental Protection Agency (EPA). NOAA/OAD provided the U.S. Coast Guard with EPA- and NOAA-originated Dispersant Use Checklists, and a list of factors pertaining to dispersant usage. NOAA/OAD also provided an oil spill trajectory forecast and environmental resources at risk information. An initial review of the request was scheduled for February 22, 1985.

FINAL DISPOSITION OF THE INCIDENT

Early on the morning of February 22, 1985, divers found the leak without the use of the pig. The beached oil in the Mississippi Sound Islands was removed mechanically. Final cleanup was completed on March 1, 1985 with no further loss of oil.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

3. Pavia, Robert and Randall W. Smith, 1982. Development and Implementation of Guidelines for Dispersant Use: Regional Response Teams. In Oil Spill Dispersants: Five Years of Research, American Society of Testing and Materials Symposium.

REFERENCES, cont.

4. Research Planning Institute, 1983. Marine Industries Group (MIRG) Volume II. Oil Spill Response Maps. Report No. 82-12/15-34.

5. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. National Oceanic and Atmospheric Administration, Seattle, Washington. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Mystery Oil/Acrylonitrile Spill
Houston Ship Channel, Houston, Texas
March 6, 1985

Todd Baxter, Scientific Support Coordinator

INCIDENT SUMMARY

Oil slicks were sighted in the Houston Ship Channel on March 4 and March 5, 1985 in the vicinity of the ITCC facility piers. Booms were deployed by the U.S. Coast Guard Captain of the Port (COTP), Houston, in preparation for oil removal. On March 5, 1985 the ITCC facility spilled seven or eight barrels of acrylonitrile onto the oil in the boomed area.

NOAA RESPONSE

NOAA/OAD was notified of the incident on March 6, 1985 by the U.S. Coast Guard COTP, Houston, and requested to advise on the potential health risks to cleanup workers from the acrylonitrile/oil mixture.

NOAA/OAD provided a detailed chemical analysis of acrylonitrile and recommendations were made for the collection of oil and water samples at the spill site and analysis of the acrylonitrile.

FINAL DISPOSITION OF THE INCIDENT

ITCC contracted for the sample collection and analysis, the results of which were reviewed by NOAA/OAD to confirm that no risk was present prior to final cleanup efforts.

The cleanup was completed with incident on March 9, 1985.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

NOAA Response Report

Seaboard Systems Train Derailment
Evergreen, Alabama
March 13, 1985

Todd Baxter, Scientific Support Coordinator

INCIDENT SUMMARY

On March 8, 1985 six cars of the Seaboard Systems Railroad line derailed in Evergreen, Alabama, spilling xylene, although two adjacent derailed cars contained ethyl acrylate and methyl meth-acrylate. All six cars were washed with water by the local fire departments to prevent possible ignition of the xylene. Cleanup and repairs progressed without incident under the supervision of the Alabama State Police Emergency Response Unit until noon on March 13, 1985.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1324 on March 13, 1985 by the U.S. Coast Guard Gulf Strike Team (GST), and requested to provide assistance in obtaining chemical information on ethyl acrylate and methyl meth-acrylate. At this time, the ethyl acrylate car was believed to be in the process of reacting based on the observation that water in puddles under the car was beginning to boil from heat given off by the tank car. The Alabama State Police wanted to used explosives to open the cars, fearing that the vents were plugged by the reacting ethyl acrylate and that an explosion or Boiling Liquid Expansion Vapor Explosion (BLEVE) was possible without such action.

NOAA/OAD supplied the U.S. Coast Guard GST with detailed chemical analyses of ethyl acrylate and methyl meth-acrylate in the event that the U.S. Coast Guard GST was asked to respond on-scene. NOAA/OAD consulted with a polymer chemist who warned that, based on the information given, the ethyl acrylate was polymerizing, resulting in the generation of considerable heat. Because such an uncontrolled reaction could result in rupture of the car and a BLEVE, NOAA/OAD urgently recommended that all personnel be pulled back from the scene at least one-quarter of a mile until the car either exploded or the reaction was completed. It was determined that to attempt cooling or other mitigation once the reaction was well underway would be too dangerous and had little chance for success.

FINAL DISPOSITION OF THE INCIDENT

The response units pulled back three miles to the limit of the area previously evacuated. The U.S. Environmental Protection Agency Technical Assistance Team arrived early in the morning of March 14, and determined that demolition of the two acrylate cars was the necessary and safest course of action. The cars were blown open at 0400 on March 14, 1985. No BLEVE occured due to the almost total polymerization of the cars' contents, though a small fire-ball was produced by unpolymerized residuals. The cleanup and track repairs were completed March 19, 1985.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

2. Overton, Dr. Edward, 1985. Personal Communication. Louisiana State University, Baton Rouge, Louisiana.

3. U.S. Environmental Protection Agency, 1983. Hazardline. NIH/EPA Chemical Information System, Falls Church, Virginia.

4. U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials-Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

NOAA Response Report

Shell Oil Pipeline
Bay Vacherie, Louisiana
April 24 - May 10, 1985

Todd Baxter, Scientific Support Coordinator

INCIDENT SUMMARY

On April 23, 1985, a Shell Oil pipeline leak of approximately 300 barrels of South Louisiana Sweet Crude oil covered about 40 acres of salt marsh near Bay Vacherie. Booms and Marco skimmers were deployed to contain the oil and prevent migration of the slicks into Bayou Vacherie and Adams Bay.

NOAA RESPONSE

NOAA/OAD was notified of the incident on April 24, 1985 by the U.S. Coast Guard, and requested to advise on the viability of Shell Oil's request to use a surface collection agent, Shell Oil Herder, in Bay Vacherie. NOAA/OAD prepared a resource assessment for Bay Vacherie and Adams Bay for the U.S. Coast Guard On-Scene Coordinator (OSC), along with a recommendation that any chemical application in such a marsh environment could be counterproductive by causing more damage than would occur if the environment was allowed to clean itself naturally.

The newly formulated Region VI Dispersant Checklist was completed and distributed to a limited Regional Response Team (RRT) membership. RRT members involved could find no clearcut advantage in the use of the chemical product in this case. The request to use the product was therefore not approved, and Shell Oil continued the cleanup using conventional mechanical methods.

The pipeline was repaired by April 26, with an additional loss of about 100 barrels of oil remaining in the line. On May 2 the cleanup was inspected by the OSC, NOAA/OAD, Louisiana State Department of Environmental Quality, and Shell Oil. It was concluded that the threat to Adams Bay had been eliminated, and that, even though oil still remained in the salt marsh, more damage would have been done in attempting further removal.

FINAL DISPOSITION OF THE INCIDENT

All cleanup operations were completed on May 10, 1985. A total of 950 barrels of oil were removed during the operation. The dramatic increase in oil volume (from an initial estimate of 300 barrels spilled) was due to additional spillage during repair of the pipeline. The habitat in the vicinity of the pipeline break is being restored by removal of the road and fill material introduced during the repair operation.

FINAL DISPOSITION OF THE INCIDENT, cont.

Residual oil left in the marsh was observed to be deteriorating very rapidly. Samples of the oil were collected during the removal, and have been obtained by NOAA/OAD for analysis in an attempt to document the physical processes responsible for the rapid deterioration of the oil.

NOAA Response Report

T/V Zenit Aurora
Neches River, Nederland, Texas
August 6, 1985

Todd Baxter, Scientific Support Coordinator

INCIDENT SUMMARY

In the early morning hours of August 6, 1985, approximately 10,000 gallons of Ninian, a light North Sea crude oil, spilled from the Liberian tanker Zenit Aurora during transfer operations at the Union Oil dock in Nederland, Texas. Containment was rapid, with booms limiting oil movement to less than one mile downriver.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 6, 1985, by the U.S. Coast Guard Marine Safety Office, Port Arthur, and requested to analyze resources at risk in the area of the spill. This information was subsequently used by the Coast Guard in the selection of boom positions and in a press release on the incident.

FINAL DISPOSITION OF THE INCIDENT

Although cleanup of the spill proceeded without incident, NOAA/OAD was contacted on August 17, 1985, to help resolve the question of the total amount of oil actually lost. This question arose when two separate soundings of the Zenit Aurora's tanks gave widely different volumes of the potential loss. A mass balance of the oil recovered was calculated based on the volume of oil recovered, the chemical and physical properties of the Ninian stock, and experience gained in similar spill responses. This process confirmed the lower of the two soundings, which was 1,500 barrels, as opposed to the higher sounding value of 11,000 barrels.

Cleanup was completed by August 15, 1985, with no significant environmental damage occurring as a result of the spill.

NOAA Response Report

Tank Barge RF-1001
Mississippi River, Chalmette, Louisiana
August 21, 1985

Todd Baxter, Scientific Support Coordinator

INCIDENT SUMMARY

On August 17, 1985, tank barge RF-1001, loaded with 9,300 barrels of No. 6 oil slurry, sank in the Mississippi River near Chalmette, Louisiana. The barge came to rest upside-down on the river bottom in about 80 feet of water, losing part or all of its cargo.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 21, 1985 by the U.S. Coast Guard Captain of the Port, New Orleans, and requested to provide information on the density of No. 6 oil slurry.

With plans underway to raise the barge, the Coast Guard's major concern was the density of No. 6 oil slurry, since this feature would determine whether the oil would float or sink in the river. NOAA/OAD assisted the Coast Guard in the formulation of a contingency plan should any part of the cargo still contained on the barge be spilled.

NOAA/OAD advised that the oil, with a density only slightly greater than that of the river water, could either float or sink depending on current patterns in the river. A plan to deal with either eventuality was formulated by the Coast Guard Captain of the Port.

FINAL DISPOSITION OF THE INCIDENT

The barge was raised on September 16, 1985 with no observed loss of oil. It is assumed, however, that the entire 9,300 barrels on board were lost during the initial sinking, and have since been washed from the Mississippi River into the Gulf of Mexico. The barge was empty when inspected after salvage.

REFERENCES

Curl, Herbert Jr., and Kevin O'Donnell, 1977. Chemical and Physical Properties of Refined Petroleum Products. NOAA Technical Memorandum ERL MESA-17.

Research Planning Institute, 1985. API Gravity: Definition and Examples. Technical Brief No. 1. Columbia, South Carolina.

NOAA Response Report

T/V Dixie Challenger - T/V Señor Picou
Port O'Connor, Texas
September 19, 1985

Todd Baxter, Scientific Support Coordinator

INCIDENT SUMMARY

Early on September 19, 1985, the tankers Dixie Challenger and Señor Picou collided in the Intracoastal Waterway near Port O'Connor, Texas. The Dixie Challenger had in tow four barges loaded with 25,000,000 pounds of cumene, while the Señor Picou had in tow three barges, one with 10,000 barrels of methyltertbutylether (MTBE), and two with 19,000 barrels each of dripolene, a gasoline-like product. The cumene barge was holed and listing slightly, but apparently not losing product. The MTBE barge showed minor exterior damage, but the crew reported a strong ether-like aroma around the barge.

NOAA RESPONSE

NOAA/OAD was notified of the incident on September 19, 1985 by the U.S. Coast Guard Marine Safety Office, Corpus Christi, and requested to provide chemical hazard assessment of the products involved in the incident. NOAA/OAD provided appropriate precautionary information on the fire and explosion potential, human health threat, and environmental damage potential of the incident. NOAA/OAD further recommended that all personnel exposed to the liquid or vapor products be medically evaluated.

FINAL DISPOSITION OF THE INCIDENT

By dawn on September 19, 1985, it was determined that all tanks were intact on all barges, although small amounts of MTBE had been forced out of vents onto the barge decks during the collision. Five Coast Guard personnel exposed to sea spray mixed with MTBE were hospitalized for overnight observation and blood tests. The damaged barges were taken to local yard facilities for cargo removal and repairs.

REFERENCES

Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

Hawley, Gessner G., 1981. The Condensed Chemical Dictionary. Tenth Edition. Van Nostrand Reinhold Company, New York.

Michel, Dr. Jacqueline, 1985. Personal Communication. Research Planning Institute, Columbia, South Carolina.

Overton, Dr. Edward, 1985. Personal Communication. Louisiana State University Institute for Environmental Studies, Baton Rouge, Louisiana.

NOAA Response Report

M/V Lake Shadaka
Lake Erie, Michigan
November 16, 1984

Ted Kaiser, Scientific Support Coordinator

INCIDENT SUMMARY

On November 16, 1984, while underway on Lake Erie, the 178.22 meter, Panamanian-registered M/V Lake Shadaka carrying a cargo of approximately 15,000 metric tons of steel, suffered a broken turbocharger impeller which severely reduced her speed and maneuverability. Due to her deep draft, the shallow waters of Lake Erie, the engine casualty, and the current gale conditions, the U.S. Coast Guard considered the situation a hazardous condition and at 1100, a U.S. Coast Guard vessel was put on alert. A check on tugs in the area indicated that the only available tugs were in Buffalo and Cleveland.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1145 on November 16, 1984, by the U.S. Coast Guard Marine Safety Office (MSO), Buffalo, and requested to provide a weather report, a preliminary spill trajectory, and information regarding the environmental resources at risk in the area.

Weather forecasts and information on the previous day's weather were received from the NOAA National Weather Service Office in Cleveland, Ohio. This information, together with the last position given for the vessel, 42°20.0'N., 80°05'W, was entered into the NOAA Great Lakes Environmental Research Laboratory (GLERL)'s "Pathfinder" trajectory model to ascertain the direction of the movement and probable shore impact if oil were released from the Lake Shadaka. NOAA/OAD also provided the U.S. Coast Guard with resources at risk information for the Lake Erie shoreline between the towns of Erie, Pennsylvania and Dunkirk, New York.

FINAL DISPOSITION OF THE INCIDENT

As weather conditions abated in Lake Erie, the M/V Lake Shadaka proceeded under her own limited power to Cleveland, Ohio, arriving there on November 17 without incident.

REFERENCES

1. Research Planning Institute, in press. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Lake Erie. An Atlas of Coastal Resources. Prepared for National Oceanic and Atmospheric Administration, Seattle, Washington.

2. Schwab, David J., John R. Bennet, and Edward W. Lynn, 1984. "Pathfinder"--A Trajectory Predicton System For The Great Lakes. NOAA Technical Memorandum ERL GLERL-53.

NOAA Response Report

Paint Remover Advice
Milwaukee, Wisconsin
December 4, 1984

Ted Kaiser, Scientific Support Coordinator

INCIDENT SUMMARY

U.S. Coast Guard maintenance staff were planning to use Epoxy System Paint Remover to remove the paint from a U.S. Coast Guard vessel in a confined space. No information on this product was available.

NOAA RESPONSE

NOAA/OAD was notified of the plan on December 4, 1984, by the U.S. Coast Guard Marine Safety Office (MSO), Milwaukee, and requested to provide safety and health and personnel protection guidelines for the use of the product in question.

NOAA/OAD contacted the manufacturer, PAR-CHEM Products Inc., who reported that the major hazardous constituents of this product, more commonly known as Stripper #7, consisted of methylene chloride and phenolic material. The PAR-CHEM representative also made recommendations regarding its normal and proper uses, and suggested proper safety precautions.

Based on information provided by PAR-CHEM, NOAA/OAD prepared detailed chemical analyses of methylene chloride and phenol, as well as a report to the U.S. Coast Guard detailing the contents of Stripper #7, safety precautions to be taken when using the product, symptoms that could result from improper exposure, and general information concerning the product and its use.

The customary and recommended use of Stripper #7 in confined spaces called for high levels of personnel protection and/or special air flow and venting requirements. The U.S. Coast Guard MSO, Milwaukee, was advised that use of this product indoors was not recommended, and that the safety precautions outlined should be applied to using the product in a safe, open air environment.

FINAL DISPOSITION OF THE INCIDENT

The U.S. Coast Guard MSO, Milwaukee, advised its maintenance staff not to use Stripper #7 indoors, but to use it outdoors with appropriate safety precautions. The project to remove the paint from the vessel was put off until another, less toxic product could be found, or until the weather became warm enough to perform the work outdoors.

REFERENCES

1. Dennis, Al, 1984. Personal Communication. PAR-CHEM Products Inc., Houston, Texas.

2. Dreisbach, Robert H., 1983. Handbook of Poisoning. Eleventh Edition, Lange Medical Publications.

3. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

4. Hawley, Gessner G., 1981. The Condensed Chemical Dictionary. Tenth Edition, Van Nostrand Reinhold Company, New York.

5. Manual of Spills of Hazardous Substances, 1984. Environment Canada, Ottawa, Ontario, Canada.

6. Sax, N. Irving, ed., 1983. Dangerous Properties of Industrial Materials. Sixth Edition, Van Nostrand Reinhold Company, New York.

7. U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials-Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

NOAA Response Report

M/V Akranes
St. Lawrence Seaway, New York
December 13, 1984

Ted Kaiser, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 2115 on December 12, 1984, the 404-foot Icelandic freighter Akranes, carrying a load of steel wire coal, struck a ledge near Granite Shoal on the St. Lawrence Seaway, holing and flooding her number 2 cargo hold. The vessel proceeded to Bartlett Point, Clayton, New York, and anchored in the vicinity of a soft shoal to facilitate intentional grounding and prevent sinking of the vessel. The Akranes was examined by a diver shortly thereafter, and was found to have a 30-foot gash ranging in width from two to six inches along her starboard side just above the double bottom. The gash only affected the number 2 hold. The Akranes was down by the bow with the main deck awash forward, had full engine capability, and was otherwise undamaged.

At 2203 on December 12, the U.S. Coast Guard Captain of the Port (COTP), Buffalo alerted the U.S. Coast Guard Atlantic Strike Team and requested them to be ready to provide documentation assistance and the following equipment capabilities: dewatering-ADAPTS, diving team, and fast water abatement.

At 0800 on December 13, the U.S. Coast Guard COTP reported on-scene. Although the vessel was stable at anchor, with no pollution apparent at the time, the situation was being treated as if imminent pollution might occur.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0815 on December 13, 1984, by the U.S. Coast Guard Marine Safety Office (MSO), Buffalo, and requested to provide advice on the top five priorities for environmental sensitivity and a three-day weather forecast. NOAA/OAD was also requested to report on-scene in Clayton, New York.

NOAA/OAD forwarded the three-day forecast for the Clayton, New York area to the U.S. Coast Guard MSO, Buffalo, and the U.S. Coast Guard Atlantic Strike Team. NOAA/OAD determined that the most important resource area near Clayton is the 630-acre French Creek Marsh in the French Creek River area, and recommended that this area be protected by booms at the entrance to French Creek. The major game fish in the French Creek Marsh and Clayton area include northern pike, yellow perch, and black crappie, with the wetlands being important northern pike spawning areas. The environment along the shore of the St. Lawrence River and its islands from Clayton to Oak Point is a frequently used avian habitat, which provides nesting and feeding areas for several species of birds and mammals, including the endangered bald eagle and osprey.

NOAA RESPONSE, cont.

NOAA/OAD also provided descriptions of specific shoreline areas where oil residence times would be very high and cleanup difficult.

NOAA/OAD arrived on-scene at 1700 on December 13, and met with the U.S. Coast Guard MSO, Alexandria Bay, New York. It was decided that a second meeting would be held on the morning of December 14 with the vessel captain and owners, marine surveyor, U.S. Coast Guard, Seaway Operations Manager, Seaway Safety manager, and NOAA/OAD attending.

Several meetings were held during the following two days to determine the most suitable course of action for the vessel to follow to satisfy the economic and safety interests of all the parties involved. During this period, some background information was offered to the U.S. Coast Guard regarding cofferdamming and the Norske Veritas classification society.

The general tone of the meetings was that the U.S. Government, St. Lawrence Seaway, and Canadian officials were reluctant to allow the ship to proceed without permanent repairs any further through the system than was necessay to discharge her cargo and immediately leave the system. The owner maintained that they should be allowed to make adequate temporary repairs, discharge their cargo at their planned destination, and proceed as necessary through the Great Lakes system to pick up a cargo for the return voyage.

A final decision was reached by the vessel owner on December 15. It appeared that the cargo insurer had arrived and insisted that the cargo be offloaded as soon as possible. The owner's plan was to temporarily patch the Akranes and offload the cargo at Ogdensburg, New York 40 miles downriver, where better facilities were available to allow a more permanent patch to be fabricated. After completing repairs, the vessel would exit the Seaway system, thereby avoiding the possibility of becoming trapped in the system due to weather and the forthcoming winter closing period. Leaving the system would also put the vessel under the jurisdiction of the Norske Veritas classification society, rather than the U.S. Coast Guard, Canadian Coast Guard, and St. Lawrence Seaway officials.

FINAL DISPOSITION OF THE INCIDENT

The Akranes proceeded to Ogdensburg, offloaded, and made repairs. She continued on to Montreal where Norske Veritas inspected and approved the repairs.

REFERENCES

1. Research Planning Institute, in press. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: St. Lawrence River. An Atlas of Coastal Resources. Prepared for National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

Allis Chalmers
Oak Creek, Wisconsin
January 22, 1985

Ted Kaiser, Scientific Support Coordinator

INCIDENT SUMMARY

The U.S. Coast Guard Marine Safety Office (MSO), Milwaukee, received a report on January 4, 1985 that a bright pink material was leaching in a small frozen trickle from a bluff in Oak Creek, Wisconsin, onto the shore of Lake Michigan. Some rocks at the base of the bluff were stained, but only a minimal amount of the substance was readily observable.

The site of the leaching is presently owned by Allis Chalmers, but had been owned prior to World War II by DuPont, who had manufactured dyes and conducted acid cracking on the site. Between 1944 and 1946, the entire site was bulldozed into the ground.

The Wisconsin Department of Natural Resources (DNR) sampled the material on January 4, using a gas chromatograph/mass spectrometer analysis for forty prominent organic chemicals. Results, which were not immediately available, all registered below instrument sensitivity. Two peaks did result however at locations correlating with 1-napthylamine and 2-napthylamine.

NOAA RESPONSE

NOAA/OAD was notified of the incident on January 22, 1985 by the U.S. Coast Guard MSO, Milwaukee, and requested to provide additional information on the two chemicals involved, assistance in obtaining a standard for the DNR laboratory, and advice on suitable personnel protection measures. The U.S. Coast Guard was particularly concerned about the incident because of the previous history of the site, the normal presence of beachcombers along the shore, the high toxicity of the chemicals involved, and the relatively slow action by the Wisconsin DNR laboratory (as more samples would be required).

NOAA/OAD provided the U.S. Coast Guard with a detailed analysis of the properties of napthylamine, additional information regarding the carcinogenicity of the materials involved, the toxic hazards involved (1), and a local Milwaukee source for laboratory standards. In addition, Synalloy Chemical Corporation of Spartanburg, South Carolina, was contacted for background information on these chemicals. Additional recommendations and helpful information were received from the Centers for Disease Control (CDC).

Protection requirements were compiled and provided to the U.S. Coast Guard MSO, Milwaukee. CDC considered the incident a potential threat to human health in the area and expressed interest in following up on the situation.

FINAL DISPOSITION OF THE INCIDENT

The U.S. Coast Guard MSO, Milwaukee, contacted DuPont Company in Wilmington, Delaware, and informed them of the situation. DuPont responded with advice and an offer to conduct further analysis if needed. The incident was officially turned over to the U.S. Environmental Protection Agency (EPA) and the Wisconsin Department of Natural Resources Waste Management Section on January 23 for further action and follow up. DuPont and EPA plan further sampling after results from the DNR lab are complete.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

2. Fabinski, Louise, 1985. Personal Communication. Centers for Disease Control, Chicago, Illinois.

3. Gray, Frank, 1985. Personal Communication. Centers for Disease Control, Atlanta, Georgia.

4. Kehren, Linda, 1985. Personal Communication. Ardrich Chemical Company, Milwaukee, Wisconsin.

5. Threlkeld, Peter, 1985. Personal Communication. Synalloy Corporation, Spartanburg, South Carolina.

1-naphthylamine and 2-naphthylamine are chemicals that in the past were commonly used in the dye industry but are presently used to a much lesser degree. OSHA considers 1-naph. a human carcinogen, and both OSHA and ACGIH consider 2-naph. a carcinogen, both resulting in bladder cancer. Commercial grades of 1-naph. are usually contaminated with up to .5% 2-naph., which may account for the carcinogenicity of the 1-naph. Both chemicals are toxic and/or carcinogenic by all routes (inhalation, ingestion, contact) and proper protection must be worn when dealing with these chemicals. These chemicals are obviously a severe toxicity hazard to humans when present in the open environment or water column.

We will check on what protection would be called for when handling this substance and get back to you this afternoon. Listed below is some information concerning a possible local source for chemical standards:

Aldrich Chemical Company
P.O. Box 355
Milwaukee, Wisconsin
Phone 414-273-3850
This company is a local source for chemical standards. Ask for chemists in the technical services department. Chemist Linda Kehren was contacted on first call. She gave the following identification numbers to be used for future communications.

1-naphthylamine	id number-A6639-1
2-naphthylamine	id number-A6640-5

OK,SL PROT.RESP.
Recommended personnel protection for Naphthylamine, (alpa, beta). Compiled by Dave Kummerlowe, Safety and Health Coordinator for NOAA, HMRB, Kent Gray, CDC Atlanta, and Ted Kaiser, SSC.

Beta-naphthylamine is a recognized human carcinogen, and has been regulated as one by OSHA. It has been found in the waste streams of plants that produce it and also in cigarette smoke.
Response personnel should avoid contact through any route of exposure.

SITUATION

A small trickle or puddle of beta-naphthylamine has been found near the shore of Lake Michigan. The material appears to be in a solidified liquid form. No sources of ignition are present and the temperature is cold.

RECOMENDATIONS

Protect against human exposure through the use of disposable garments as follows:

Avoid contact, double layer of gloves mandatory, manufacturers recommendations for material compatibility do not cover beta-naphthylamine, watch for any signs of degradation or breakthrough.

Disposable garments are recommended in order to make it easier to decontaminate. Decontamination with wash water/soap etc.. will create a disposal problem for the wash water. Such wash water should be treated as contaminated material and disposed of along with any contaminated or even potentially contaminated materials Dispose of protective clothing along with recovered beta-naphthylamine material in plastic bags. These plastic bags then should be placed in lined drums or other suitable containers. Care should be taken at all times to avoid any exposure.

Respiratory protection is recommended at all times to prohibit inhalation of any volatile, or mechanically generated (dust) materials that may have particles of beta-naphthylamine attached. Self Contained Breathing Apparatus are recommended rather than air-purifying respirators.

NOAA Response Report

C & O Railway
St. Clair River, Sarnia, Ontario, Canada
February 11, 1985

Ted Kaiser, Scientific Support Coordinator

INCIDENT SUMMARY

At 2119 on February 11, 1985, a railroad tank car containing 170,000 pounds of propylene oxide rolled off the Port Huron/Sarnia ferry into the Detroit River immediately adjacent to the C & O Railway, Sarnia ferry dock. The rail car landed in the river upright with the manhole and manifolds above the water surface. No spillage of propylene oxide occurred.

Canadian Ship Safety personnel responded to the incident along with C & O Railway representatives and the Dow Chemical Response Team. The initial plan was to hoist the tank car, complete with cargo, onto the ferry pier. This plan was changed, and the tank car was eventually refloated with air bags and positioned to facilitate offloading of the tank car to an empty one ashore.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0830 on February 12, 1985 by the U.S. Coast Guard Marine Safety Office (MSO), Detroit, and requested to monitor the spill situation and provide information as needed. NOAA/OAD and the U.S. Coast Guard MSO, Detroit, were kept apprised of the situation by the Canadian Coast Guard.

The situation as presented appeared stable, was under Canadian jurisdiction, and was being handled adequately by the appropriate authorities. NOAA/OAD prepared a detailed chemical analysis of propylene oxide for the U.S. Coast Guard MSO, Detroit. The NOAA National Weather Service in Ann Arbor provided on-scene weather data, as did the Port Huron Coast Guard Station. NOAA/OAD advised the Canadian Coast Guard on a suitable evacuation distance in the event that propylene oxide was spilled during the recovery operation. In addition, the Illinois State Environmental Protection Agency air plume model was run in Ann Arbor, which agreed closely with NOAA/OAD's model results.

NOAA/OAD determined that the shoreline from downstream of the C & O Railroad ferry dock to Stag Island is comprised predominantly of rip-rap and harbor structures, and would be essentially unaffected by a spill of propylene oxide, although small shoreline bluff areas north of Marysville and downtown South Park would be more sensitive. NOAA/OAD further advised that the only fish concentrations of any note are yellow perch and walleye immediately adjacent to the power plant north of Marysville. Since propylene oxide is not very toxic to fish, no large fish kills would be expected from a release of the product.

FINAL DISPOSITION OF THE INCIDENT

A Joint Canada-United States Pollution Contingency Plan-Great Lakes (CANUSLAK) alert was issued on February 12, 1985, notifying concerned agencies of a possible implementation of the Joint National Oil and Hazardous Materials Contingency Plan. Due to the successful removal of the propylene oxide and later recovery of the tank car, the plan was not implemented. By the afternoon of February 15, all recovery operations had been completed satisfactorily without spillage.

REFERENCES

1. Baca, Bart, 1985. Personal Communication. Research Planning Institute, Columbia, South Carolina.

2. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

3. Fay, Laura, 1985. Environmental Sensitivity Index of the Detroit/ St. Clair River System. Unpublished.

4. Kelty, James, 1984. Hazardous Materials Response Guide. Emergency Response Unit, Illinois State Environmental Protection Agency.

5. Turner, D. Bruce, 1974. Workbook of Atmospheric Dispersion Estimates. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina.

NOAA Response Report

Niagara Mohawk Power Plant
Buffalo, New York
March 19, 1985

Ted Kaiser, Scientific Support Coordinator

INCIDENT SUMMARY

Between March 14 and March 17, 1985, a pipe broke on a sulfuric acid storage tank at the Niagara Mohawk Huntly steam station, releasing 2,000 gallons of 93.2% sulfuric acid into a containment dike. The eleven-inch high cement dike, which surrounded the acid and caustic tanks at the plant, was too low to contain the spill so the excess acid ran into the sewage waste drainage system and into a sump, where it was automatically pumped into one of a series of collection ponds on the site.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0800 on March 19, 1985, by the U.S. Coast Guard Marine Safety Office, Buffalo, and requested to provide information on sulfuric acid and to determine which wildlife resources could be impacted if the acid reached the Niagara River.

NOAA/OAD advised the U.S. Coast Guard on the properties of sulfuric acid, and reported that there was very little wildlife in the area of possible spill impact, and that most of this wildlife was upstream of the probable spill site.

FINAL DISPOSITION OF THE INCIDENT

Eight hundred and eighty gallons of sulfuric acid were recovered from the area inside the containment dike by a contractor, the remaining 1,120 gallons having been pumped into a holding pond. The pH of the holding pond was monitored by the Niagara Mohawk Power Plant until its pH was within the limits allowed by the company's discharge permit, at which time the contents of the holding pond were discharged into the Niagara River. The U.S. Coast Guard determined that no law had been violated and closed the case.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

2. Manual for Spills of Hazardous Materials, 1984. Environment Canada, Ottawa, Ontario, Canada.

3. Michel, Dr. Jacqueline, 1985. Personal Communication. Research Planning Institute, Columbia, South Carolina.

REFERENCES, cont.

4. Research Planning Institute, in press. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Lake Erie. An Atlas of Coastal Resources. Prepared for National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

Chrysler Parts Depot
Marysville, Michigan
April 15, 1985

Ted Kaiser, Scientific Support Coordinator

INCIDENT SUMMARY

At 1600 on April 15, 1985, U.S. Coast Guard Marine Safety Office, Detroit, was notified that approximately 200 gallons of the paint stripper Detrex 537 K had been discharged into the Chrysler Parts Depot's storm sewer with an unknown amount flowing into the St. Clair River. The spiller retained a cleanup contractor to remove the material from the sewer.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 2000 on April 15, 1985, by the U.S. Coast Guard, Detroit, and requested to provide information on the composition of Detrex 537 K, comment on the advisability of flushing the material into the river, and to assist in determining if a reportable quantity of the chemical had been spilled, as required by the Federal Water Pollution Control Act (33 USC 1342).

NOAA/OAD determined that the chemical was primarily composed of potassium hydroxide, and informed the Coast Guard of the limited environmental resources in the area. NOAA/OAD further advised that there was relatively little environmental problem in flushing the potassium hydroxide into the river, provided that the water intake located nearby was upstream of the sewer and there were no sensitive areas immediately downstream of the sewer. It seemed, however, that there was a considerable amount of what appeared to be primer coating dissolved in the paint stripper; a problem could be posed by this material due to its unknown composition.

NOAA/OAD further determined that the reportable quantity of 1,000 pounds of potassium hydroxide was not exceeded.

FINAL DISPOSITION OF THE INCIDENT

The sewer was dammed and flushed with water which was then removed by vacuum truck; a total of 4,900 gallons of Detrex 537 K in water was removed from the sewer system. Since the reportable quantity was not exceeded and the company paid for and conducted an adequate cleanup, there was no violation and no further action was taken.

REFERENCES

Environment Canada, 1984. Manual for Spills of Hazardous Materials. Technical Services Branch, Environmental Protection Service, Ottawa.

REFERENCES, cont.

Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

Michel, Dr. Jacqueline, 1985. Personal Communication. Research Planning Institute, Columbia, South Carolina.

Research Planning Institute, 1985. Sensitivity of Coastal Environments to Spilled Oil: Lake Erie System. An Atlas of Coastal Resources. Prepared for the National Oceanic and Atmospheric Administration.

Sokolski, Dr. Stanley, 1985. Personal Communication. Detrex Chemical Industries, Inc., Southfield, Michigan.

NOAA Response Report

M/V Zenovia
Superior Harbor Basin, Superior, Wisconsin
June 10, 1985

Ted Kaiser, Scientific Support Coordinator

INCIDENT SUMMARY

On June 4, 1985, the Greek bulk cargo carrier Zenovia spilled approximately 100 gallons of No. 6 fuel and lube oil into the Superior Harbor Basin during routine fuel transfer operations. The spill affected a small portion of shoreline consisting primarily of weeds, debris, soil, and bricks. By June 9, the spill had been partially cleaned up by a contractor and the Coast Guard, at which time the contractor requested permission to use "Gold Crew" dispersant on the oil which remained on the debris and soil.

NOAA RESPONSE

NOAA/OAD was notified of the incident on June 10, 1985, by the U.S. Coast Guard Marine Safety Office, Duluth, and requested to advise on the viability of using "Gold Crew" dispersant to dissipate the oil, provide general cleanup advice, and to determine the feasibility of tilling the soil and placing sand over the oiled areas.

NOAA/OAD advised against the use of any dispersant in this particular situation, and suggested a good mechanical cleanup with removal and disposal of oiled debris in conjunction with water flushing, if necessary. NOAA/OAD also recommended against digging up the soil and/or burying with sand, advising that this action would spread the oil further into the soil and slow down natural degradation. If a thorough mechanical cleaning and natural cleansing of the area were not deemed sufficient after a given period of time, further measures might be considered.

FINAL DISPOSITION OF THE INCIDENT

The spill was successfully cleaned up by June 20, 1985. A civil penalty action has been initiated against the M/V Zenovia.

REFERENCES

Michel, Dr. Jacqueline and Tom Ballou, 1985. Personal Communication. Research Planning Institute, Columbia, South Carolina.

Ballou, Tom, 1985. Personal Communication. Research Planning Institute, Columbia, South Carolina.

NOAA Response Report

Mystery Oil Spill
Wiley Dondero Channel, St. Lawrence Seaway
Massena, New York
July 19, 1985

Ted Kaiser, Scientific Support Coordinator

INCIDENT SUMMARY

On July 18, 1985, an unknown quantity of bilge oil in the St. Lawrence River was reported to the U.S. Coast Guard Marine Safety Detachment, Alexandria Bay, New York. The oil was collected in two small bays adjacent to an area under the jurisdiction of the St. Lawrence Seaway Development Corporation, between the Snell and Eisenhower Locks. The Coast Guard declared the spill a Federal response under the Federal Water Pollution Control Act (33 USC 1342), and deployed absorbent booms to trap as much oil as possible. Oil samples were collected and attempts begun to investigate and locate the source of the spill.

NOAA RESPONSE

NOAA/OAD was notified of the incident on July 19, 1985, by the U.S. Coast Guard Captain of the Port, Buffalo, and requested to determine the adequacy of the cleanup effort to date, whether additional cleanup efforts should be undertaken, and proper methods to be used.

NOAA/OAD went on-scene to examine the spill site on July 20, and advised the Coast Guard that no further cleanup was necessary other than removing oily sorbent materials by boat to avoid trampling the wetlands, and removing any oily debris found behind the sorbent materials at the westernmost bay.

FINAL DISPOSITION OF THE INCIDENT

The absorbent materials were removed by Seaway Operations personnel following NOAA/OAD's recommendations. The spill was later estimated to have consisted of 100 gallons of light bilge oil, possibly No. 2 fuel oil. The Coast Guard Marine Safety Office, Buffalo, continued the investigation by obtaining oil samples from suspect vessels and comparing them to samples of the spilled oil in an effort to identify the spiller.

REFERENCES

Research Planning Institute, 1985. St. Lawrence River Supplement to the Joint Canadian-United States Marine Pollution Contingency Plans for Spills of Oil and Other Noxious Substances. Prepared for National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

Mystery Oil Spill
Harbor Beach, Michigan
October 22, 1984

Ted Kaiser, Scientific Support Coordinator

INCIDENT SUMMARY

An approximately 100 foot-square oil slick in Lake Huron was reported to the U.S. Coast Guard Marine Safety Office (MSO), Detroit, on October 22, 1984.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1120 on October 22, 1984, by the U.S. Coast Guard MSO, and requested to provide a trajectory forecast and hindcast analysis of the spill and another, nearby slick. The NOAA Great Lakes Environmental Research Laboratory spill model was run using weather information received from the NOAA National Weather Service and from a NOAA data buoy located very close to the spill sites.

FINAL DISPOSITION OF THE INCIDENT

Based on the location and orientation of the slicks, it appeared that the slick resulted from a vessel steaming in the traffic lane.

REFERENCES

1. Schwab, David J., John R. Bennet, and Edward W. Lynn, 1984. Pathfinder: A Trajectory Prediction System for the Great Lakes. NOAA Technical Memorandum ERL GLERL-53.

NOAA Response Report

Aluminum Chloride Disposal
Buffalo, New York
November 5, 1984

Ted Kaiser, Scientific Support Coordinator

INCIDENT SUMMARY

On November 1, 1984, a private citizen requested information from the U.S. Coast Guard Marine Safety Office (MSO), Buffalo, on the proper disposal of three plastic drums of aluminum chloride that had been covered with a waterproof tarp and buried under four feet of earth.

NOAA RESPONSE

NOAA/OAD was notified of the request on November 5, 1984 by the U.S. Coast Guard MSO, Buffalo, and asked to advise on the properties of aluminum chloride. NOAA/OAD advised that aluminum chloride was not a hazardous substance under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), but that the material did have hazardous properties. NOAA/OAD further advised that proper disposal was not the province of either the U.S.Coast Guard or NOAA but should be carried out under the jurisdiction of the U.S. Environmental Protection Agency (EPA) and local response authorities. NOAA/OAD suggested that the U.S. Coast Guard MSO contact a local contractor who was familiar with local rules and regulations. The local EPA representative and the Region IX Headquarters of the New York State Department of Environmental Conservation in Buffalo were suggested as contacts for information regarding qualified local hazardous material disposal contractors.

FINAL DISPOSITION OF THE INCIDENT

The U.S. Coast Guard passed on NOAA/OAD's recommendations to the private citizen who had requested the advice. The drums are still buried as of this writing.

REFERENCES

1. U.S. Environmental Protection Agency, 1983. Hazardline. NIH/EPA Chemical Information System, Falls Church, Virginia.

2. Manual of Spills of Hazardous Materials, 1984. Environment Canada, Ottawa, Ontario, Canada.

3. Toxic and Hazardous Industrial Chemical Safety Manual for Handling and Disposal with Toxicity and Hazard Data, 1984. The International Technical Information Institute, Tokyo, Japan.

NOAA Response Report

Tar Balls on Beach
Whitefish Bay
Lake Superior, Michigan
August 6, 1985

Ted Kaiser, Scientific Support Coordinator

INCIDENT SUMMARY

On July 31, 1985, a small amount of bunker fuel was found on the shoreline between Whitefish and Iroquois Points on Whitefish Bay, Lake Superior. The U.S. Coast Guard Captain of the Port (COTP), Sault Ste. Marie, sent an investigator to the spill site. Oil and tar balls were found in a 1-3 foot wide area along approximately 60 miles of shoreline, with many portions of the shoreline consisting of large cobbles on a bed of sand. The oil was found to be soft during the day but would solidify at night.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 6, 1985 by the Coast Guard COTP, Sault Ste. Marie, and requested to advise on appropriate cleanup techniques. The Coast Guard was particularly interested in the possibility of steam-cleaning the cobbled areas of the shoreline, not an area of high or even moderate environmental sensitivity, and not regularly used for recreational purposes.

NOAA/OAD advised that steam cleaning would drive the oil down into the sandy beach layer and was therefore not the preferred method. It was suggested that the area be left alone to allow the natural wave action to remove the oil from the cobbles.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard pursued an active cleanup of the widely scattered oiled areas. The oil along the sections of cobbled beach was left to degrade and be removed by natural wave action and the coming autumn storms. The cleanup, performed by Ken Norris Contracting, was supervised and monitored by the Coast Guard until it was completed on August 12. No enforcement action was taken because the oil "fingerprinting" results indicated that the spilled oil samples were too highly weathered to be matched with a specific vessel with any degree of certainty.

REFERENCES

Getter, Dr. Charles, Research Planning Institute, Columbia, South Carolina, personal communication, 1985.

Research Planning Institute. In press. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: St. Marys River. An Atlas of Coastal Resources. Prepared for the National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

Algae Bloom
Port Huron, Michigan
August 23, 1985

Ted Kaiser, Scientific Support Coordinator

INCIDENT SUMMARY

On August 23, 1985, the U.S. Coast Guard Marine Safety Office, Detroit, was notified of a large, reddish-orange colored oil slick in Lake Huron, close to buoys #11 and 12, which form the shipping channel into the St. Clair River system. The Coast Guard station at Port Huron sampled the slick.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 23, 1985, by the Coast Guard Marine Safety Office, Detroit, and requested to provide a trajectory analysis of the spill. NOAA/OAD advised that the spill would slowly move in a southeasterly direction with a subsequent reversal and movement in a northwesterly direction. No contact with land was expected during the next 24 hours.

By August 24, the slick had dissipated and was no longer visible. The Coast Guard suspected that the slick had actually consisted of an algal bloom. Accordingly, NOAA/OAD requested that a sample be provided for examination and possible identification. Poorly preserved samples were received several days later and forwarded to the NOAA Great Lakes Environmental Research Laboratory in Ann Arbor, and to Ohio State University for analysis.

FINAL DISPOSITION OF THE INCIDENT

Sample analysis indicated that the slick was most likely the result of a bloom of botryococcus, a form of green algae. NOAA/OAD forwarded this information to the Coast Guard Marine Safety Office, with biological sample kits containing formalin and preservation instructions for Coast Guard boat crews in an effort to improve the quality of future samples.

REFERENCES

Fahnenstiel, Gary, 1985. Personal Communication. National Oceanic and Atmospheric Administration, Ann Arbor, Michigan.

Schwab, David J., John R. Bennet, and Edward W. Lynn, 1984. Pathfinder: A Trajectory Prediction System for the Great Lakes. NOAA Technical Memorandum ERL GLERL-53.

NOAA Response Report

Dow Chemical of Canada, Ltd.
Sarnia, Ontario, Canada
August 30, 1985

Ted Kaiser, Scientific Support Coordinator

INCIDENT SUMMARY

In mid-August 1985, Dow Chemical of Canada, Ltd. spilled between 2,000 and 6,000 gallons of tetrachloroethylene into the St. Clair River, south of Sarnia, Ontario, Canada. Dow assumed responsibility for the cleanup, which consisted of vacuum pumping of the chemical from the bottom of the river near the spill site. Notification of the spill did not extend beyond the immediate local authorities, who, upon determining that the cleanup was inadequate, directed Dow to continue with additional cleanup efforts.

During the week of August 26, Environment Canada discovered the existence of the spill. Samples taken at specific points along the Canadian side of the St. Clair River indicated that significant levels of tetrachloroethylene, on the order of 0-7 parts per billion (ppb), existed in the river water. Water samples containing tetrachloroethylene were recovered as far south as Amherstburg. The sample results also indicated that the water treatment plants were not capable of reducing the levels found in the untreated river water.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 30, 1985 by Environment Canada. It was unclear from the first samples taken whether the positive samples for tetrachloroethylene were from a slug of material that had passed by, or from a steady source of tetrachloroethylene. At one particular site at Walpole Island, authorities elected to arrange for a standby water supply and began sampling at two-hour intervals. The second set of samples indicated that the tetrachloroethylene was still present and was not being removed by the water treatment plant.

NOAA/OAD notified the U.S. Coast Guard Marine Safety Office, Detroit, of the incident on August 30 following the discussion with Environment Canada. After consideration of the properties of tetrachloroethylene in drinking water, NOAA/OAD advised the Coast Guard to notify water intake plants along the U.S. side of the St. Clair River. Additional test results received on August 31 from Environment Canada were made known to authorities at the appropriate treatment plants, and additional discussions were held with State of Michigan health authorities.

NOAA/OAD forwarded information to the Coast Guard and Environment Canada regarding permissible tetrachloroethylene levels in drinking water, as well as the chemical's solubility, environmental fate, background levels, and detection levels.

FINAL DISPOSITION OF THE INCIDENT

The notification process in Canada and Michigan did not operate properly, with the result that responsible authorities were not able to take precautions immediate after the spill. The levels of tetrachloroethylene in the St. Clair River system during the two weeks following the spill are not known, although it is doubtful (due to the low solubility of the chemical) that recommended short-term exposure levels were exceeded. The exact amount of the chemical spilled and subsequently recovered is also unknown. Both Canada and the State of Michigan are revising their notification procedures and have reviewed their contingency plan responsibilities.

REFERENCES

Goden, Wilma, 1985. Personal Communication. Environment Canada.

McKinney, Tom, 1985. Personal Communication. Louisiana State University Institute for Environmental Studies, Baton Rouge, Louisiana.

Michel, Dr. Jacqueline, 1985. Personal Communication. Research Planning Institute, Columbia, South Carolina.

U.S. Environmental Protection Agency, 1984. Oil and Hazardous Materials Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

U.S. Environmental Protection Agency, 1979. Water-Related Fate of 129 Priority Pollutants. EPA Repport No. EPA-440/4-79-029b, Washington, D.C.

Verschueren, Karel, 1983. Handbook of Environmental Data on Organic Chemicals. Second Edition. Van Nostrand Reinhold Company, New York.

NOAA Response Report

Barge Phoenix 120
Santa Barbara Channel, California
December 13, 1984

Robert Pavia, Scientific Support Coordinator

INCIDENT SUMMARY

On the morning of December 13, 1984, the U.S. Coast Guard, Long Beach, was notified that an oil barge, the Phoenix 120, was adrift five miles northwest of Richardson Rock in the vicinity of San Miguel Island. The Phoenix 120, under contract to Phillips Petroleum, contained 200,000 gallons of an oil-water mixture which was mostly water. The tug S. P. Condon, which originally had the barge under tow, was unable to secure a line on it. Initial movement of the barge indicated that it would drift past Richardson Rock and San Miguel Island.

NOAA RESPONSE

NOAA/OAD was notified of the incident on December 13, 1984, by the U.S. Coast Guard, Long Beach, and requested to provide a trajectory for the movement of oil in the biologically sensitive Channel Islands area in which the spill occurred. Currents in the vicinity of the Channel Islands are complex and dominated by small scale eddies and filaments that are difficult to predict. However, NOAA/OAD advised the U.S. Coast Guard that strong winds predicted in the vicinity of the barge would dominate oil movement during the first day. Initial impacts on San Miguel Island could occur within ten hours of a release. If the winds weakened, Santa Rosa Island would also be threatened.

FINAL DISPOSITION OF THE INCIDENT

The Phoenix 120 drifted past San Miguel Island without incident. The S. P. Condon, with assistance from the U.S. Coast Guard cutter Laurel, was able to re-establish a tow line on the barge and return to port.

REFERENCES

1. Pavia, Robert, William D. Ernst, Erich R. Gundlach, Larry C. Thebeau, and James L. Sadd, 1982. Sensitivity of Coastal Environments to Spilled Oil: Southern California. An Atlas of. Coastal Resources. National Oceanic and Atmospheric Administration, Boulder, Colorado.

2. Hendricks, Tareah J., 1977. Satellite Imagery Studies. Southern California Coastal Water Research Project.

3. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

REFERENCES, cont.

4. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

5. Torgrimson, Gary M., 1984. The On-Scene-Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Port Hueneme Spill
Santa Barbara Channel, California
August 16, 1985

David Kennedy, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 1415 on August 16, 1985, the U.S. Coast Guard Marine Safety Detachment, Santa Barbara, received a report of a 4,000-gallon, mile-long oil slick approximately two and one-half miles offshore.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1630 on August 16, 1985 by the Coast Guard Marine Safety Office, Long Beach, and requested to predict the trajectory of the slick.

NOAA/OAD provided a summary of the currents, bathymetry, and weather patterns for the Santa Barbara Channel, and predicted that the slick would drift northward towards the coastline through early evening before paralleling the coast throughout the rest of the evening. In addition, NOAA/OAD discussed the location, timing, and success potential of dispatching Mr. Clean, a cleanup cooperative oil-skimming vessel, to the scene.

FINAL DISPOSITION OF THE INCIDENT

The slick continued to move up the coast, and approximately 500 gallons of diesel fuel was recovered by Mr. Clean, with the rest of the product unrecoverable and expected to dissipate naturally.

REFERENCES

Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Southern Pacific Railroad
Oakland, California
October 21, 1984

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 1733 on October 21, 1984, the Southern Pacific Railroad facility in Oakland notified the U.S. Coast Guard Captain of the Port (COTP), Alameda, that a 55-gallon drum of Dursban, a liquid insecticide, had tipped over and partially ruptured. No one was reported injured or exposed to the chemical.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1815 on October 21, 1984 by the U.S. Coast Guard COTP, Alameda, and requested to provide information on the potential chemical hazards associated with the spillage of Dursban. NOAA/OAD recommended that Level B personnel protection be used because Dursban is a poisonous and flammable liquid which poses an extreme health hazard through exposure to the vapors or through skin absorption. NOAA/OAD further recommended that the spill area be isolated and cordoned off.

FINAL DISPOSITION OF THE INCIDENT

The Dursban was totally contained on the Southern Pacific yard and was cleaned up by the Dow Chemical Company Hazardous Materials Cleanup Division using a dike to contain any flow from the area. Dow Chemical neutralized the Dursban with water, shoveled up the absorbed material, and placed it in overpack drums.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

2. Olishifski, Julian B., ed., 1979. Fundamentals of Industrial Hygiene. National Safety Council, Chicago, Illinois.

3. U.S. Environmental Protection Agency, 1983. Hazardline. NIH/EPA Chemical Information System, Falls Church, Virginia.

4. U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials-Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

NOAA Response Report

T/V Puerto Rican
Off Farallon Islands, California
October 31, 1984

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 0335 on October 31, 1984, the 700-foot general tanker vessel Puerto Rican, carrying 101,790 barrels of lubricating oil plus additives and 8,500 barrels of Bunker C fuel oil, exploded two miles outside the pilot station, approximately 8.7 miles from the Golden Gate Bridge. An estimated 27,000 to 35,000 barrels of various products were spilled. The vessel, en route from the Chevron fuel pier in Richmond, California to New Orleans, Louisiana, became engulfed in flames as a result of the explosion. Thirty crewmembers were evacuated either from the vessel or from the sea by the U.S. Coast Guard Captain of the Port, San Francisco, and various rescue boats and helicopters. All of the personnel aboard sustained some injury, with one fatality.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0430 on October 31, 1984, by the U.S. Coast Guard Captain of the Port, San Francisco, and requested to provide trajectories for the lubricating oil and additives, to evaluate the natural resources at risk, to examine the vessel's manifests, provide information on the chemical nature of the cargo, and suggest possible causes for the series of explosions that had taken place. NOAA/OAD began coordination and notification of local scientists, and on November 1, a team from the Seattle office arrived on-scene.

The vessel continued to burn for 36 hours, fueled to some degree by the considerable quantities of lubricating oil and additives in the cargo tanks. Fire suppression measures were taken by the U.S. Navy, and the San Francisco and Oakland fire departments. A continuous stream of water was used initially, followed by 200,000 gallons of foam before the fire was finally extinguished.

At 0115 on November 3, while being towed out to sea, the stern section of the Puerto Rican parted from the bow section and sank 30 minutes later in approximately 2,400 feet of water. The NOAA National Weather Service, Redwood City, provided special marine forecasts for the area south of the Farallon Islands, the general area which the vessel was crossing while under tow. These weather forecasts were provided to NOAA/OAD and U.S. Coast Guard several times daily, depending on conditions.

Trajectory forecasts initially showed the lubricating oil moving in a southerly direction with no landfall anticipated for the initial forecast period. These forecasts were confirmed by regular U.S.

NOAA RESPONSE, cont.

Coast Guard overflights of the area. Overflights further indicated that a sheen extended as far as 30 to 40 miles south of the major portions of the spill.

NOAA/OAD was requested to provide additional trajectory and chemical analyses when the use of dispersants was being considered to ameliorate the spill. Eventually, 2,000 gallons of Corexit 9527 was sprayed at a rate of five gallons an acre to mitigate the impact from the spill.

NOAA/OAD further examined the possibility of toxic combustion products resulting from the fire.

Current contingency plans, references, and input from local, national, and international members of the scientific community were sought, and their advice noted. It was determined that environmental damage could range from potentially catastrophic to minor, depending on the residence time of the oil in the impacted area, and its relative toxicity to that particular environmental community.

Major considerations with regard to protection strategies were the presence of the endangered brown pelican, migratory waterfowl, anadromous fish, and the possible early migration of gray whales in the area of the spill. The impending herring season was also a source of concern.

Once the oil reversed direction with the onset of the Davidson Current, cleanup strategies and recommendations focused on protection of the Farallon Islands, Pt. Reyes National Seashore, Bodega and Tomales Bays, the Esteros, and northward along the Sonoma coast. These recommendations emphasized booming, skimming, collection, deflection, containment, entrainment, and absorption strategies in an effort to minimize the impact of shoreline contamination. Extensive booming and skimming operations took place during the response to the spill.

NOAA/OAD continued to provide trajectory analyses of the expected oil movement throughout the duration of the incident. On November 14, after the bow section was brought into the Bay, these trajectory forecasts provided the U.S. Coast Guard with continued confirmation of where the oil would trend based on continued releases of small amounts of oil which caused surface sheens of various sizes.

FINAL DISPOSITION OF THE INCIDENT

The vessel's owners, the Keystone Shipping Company of Philadelphia, assumed financial responsibility for the incident. The U.S. Coast Guard Pacific Strike Team, assisted by other Federal, State of California agencies, and environmental groups, provided some supervision and technical advice to the owners and the various contractors.

FINAL DISPOSITION OF THE INCIDENT, cont.

The sinking of the stern portion on November 3 resulted in a slight to moderate oil sheen which has in all cases tended not to move more than a few kilometers from the vessel's resting place. On November 14, 1984, the forward section of the Puerto Rican was towed into San Francisco Bay, placed in dry dock, and over 60,000 barrels of oil offloaded.

The sunken stern section of the Puerto Rican continues to release various amounts of bunker as evidenced by a seemingly continuous sheen that is observed and recorded by the U.S. Coast Guard in overflights occurring every three days. The oil is considered to present a minimal threat to offshore environmental communities.

The stern section was located on April 3, 1985 by the U.S. Coast Guard using side scan sonar detection instrumentation, and determined to be resting on its keel with an approximately 30° list in 1,846 feet of water at 37°30.6'2 N, 123°01.03' W. The NOAA National Marine Sanctuary Program is preparing a damage assessment plan to determine the optimum course of action in ameliorating the effects of the spill.

REFERENCES

1. Galt, J. A., 1984. Trajectory Analysis and Modeling Support for the Puerto Rican Oil Spill. National Oceanic and Atmospheric Administration, Seattle, Washington. Unpublished.

2. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

3. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of A Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

4. Torgrimson, Gary M., 1984. The On-Scene-Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

5. McGee, Stewart and Lori Harris, in press. Oil and Hazardous Substances Pollution Incidents--Planning and Response Considerations for the San Francisco Bay Region. National Oceanic and Atmospheric Administration, Seattle, Washington.

6. Pavia, Robert, 1982. M/V Al-Ind-Esk-A-Sea. NOAA Response Report. National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

T/V Ratna Kirti
Two Hundred Miles off Humboldt Bay, California
November 26, 1984

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On November 26, 1984, a fire was detected in one of the forward holds of the tanker Ratna Kirti, carrying 100,000 tons of potassium carbonate (potash) and 150,000 gallons of Bunker C fuel, while the vessel was en route to California. The Ratna Kirti's crew were flooding the compartment in an effort to smother the fire.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 27, 1984, by the U.S. Coast Guard Captain of the Port, Alameda, and requested to provide information regarding the environmental resources at risk and the hazards associated with the possible spillage of the Ratna Kirti's cargo and fuel.

NOAA/OAD determined that potash would form a caustic solution if released in seawater or fresh water, altering its pH to make it acutely toxic to most marine organisms. NOAA/OAD also advised that Humboldt Bay, the area most likely to be impacted by a spill from the Ratna Kirti, is a national wildlife refuge which is highly environmentally sensitive to spill impact. The species most susceptible to a potash spill would be shellfish, scallops, and razor clams, with anadromous fish suffering a significant fish kill. An oil spill from the Ratna Kirti could have a significant shoreline impact; there are large concentrations of ducks, shorebirds, and waterfowl in the area. Bunker C fuel does not evaporate or dissolve to any great degree, but readily sticks to marsh grasses and eelgrass beds. Finally, the endangered Aleutian Canada goose, American peregrine falcin, and brown pelican were also in the area threatened by a spill from the Ratna Kirti.

FINAL DISPOSITION OF THE INCIDENT

The Ratna Kirti was directed to re-route to Oregon, where it arrived on November 28. The ship's company put out the smoldering fire and repairmen fixed other related problems. The U.S. Coast Guard Marine Safety Office, Alameda, was notified that the incident had stabilized and that assistance was no longer required.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

2. Pacific Coast Ecological Inventory, 1981. Humboldt Bay, California. U.S. Fish and Wildlife Service.

NOAA Response Report

PCB Spill
Rowdy Creek, Humboldt, California
November 27, 1984

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On November 27, 1984 at 1800, the U.S. Coast Guard cutter Cape Cross was notified via an anonymous telephone call that 15-20 gallons of polychlorinated biphenyls (PCBs) had leaked from electrical transformers into Rowdy Creek. The U.S. Coast Guard immediately notified California State Department of Fish and Game, the Regional Water Quality Control Board, and NOAA.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 27, 1984, by the U.S. Coast Guard Marine Safety Office, Alameda, and requested to provide protection recommendations for personnel entering the area, other possible safety and health issues, and evaluate resources at risk. NOAA/OAD recommended that entry teams wear Level A protection initially until the PCB concentration level present could be evaluated, with Level B used to clean up the spilled material after the extent of the spill was determined.

NOAA/OAD advised that Rowdy Creek feeds into the Smith River, which contains anadromous fish, steelhead trout, smelts, lingcod, and rockfish. There is also evidence that the major bird populations in the area are yellowlegs and turnstones.

FINAL DISPOSITION OF THE INCIDENT

On November 28, the U.S. Coast Guard notified NOAA/OAD that all data on the spill were being turned over to the U.S. Environmental Protection Agency (EPA), as the spill location fell within EPA's jurisdiction. A California State Department of Fish and Game warden observed the scene of the spill and reported no sign of the suspected transformer leakage. The EPA and U.S. Coast Guard were advised of these finds, and considered the case closed based on lack of evidence.

REFERENCES

1. Kummerlowe, David L., 1983. Safety and Health Manual. Second Edition. National Oceanic and Atmospheric Administration, Seattle, Washington.

2. Pacific Coast Ecological Inventory, 1981. Humboldt Bay, California. U.S. Fish and Wildlife Service.

NOAA Response Report

Toluene 2,4-Diisocyanate
Oakland, California
December 13, 1984

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 1600 on December 13, 1984, a 55-gallon drum of toluene 2,4-diisocyanate (TDI) fell out of a container door at Berth H, Public Container Terminal in Oakland, spilling approximately 15 gallons of the product into storm drains that lead to San Francisco Bay.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1750 on December 13, 1984, by the U.S. Coast Guard Captain of the Port, Alameda, and requested to provide health and safety protection recommendations, a trajectory of the spilled material, and evaluate the resources at risk from the spill in San Francisco Bay.

NOAA/OAD advised that TDI is considered poisonous and combustible with severely irritating vapors; the liquid is extremely harmful by skin absorption. NOAA/OAD recommended that Level B protection be worn by site entry personnel, and that the area be cordoned off and any area be evacuated where the scent of TDI was present.

NOAA/OAD further advised that TDI reacts non-violently with water to form carbon dioxide and solid urea, which would sink and most likely not be transported out on the ebb tide. Because the TDI would sink and be diluted in the Bay, little to no environmental threat was expected.

The spiller contracted with OH Materials, a cleanup contractor, who entered the spill area in Level B protection. OH Materials entry personnel spread vermiculite and sawdust on the TDI, as recommended by NOAA/OAD and the U.S. Coast Guard Pacific Strike Team. After the vermiculite had absorbed the material, OH Materials personnel following NOAA/OAD's recommendations shoveled and swept the material, and packed it in overpacked drums. The area was then washed down with a solution of isopropyl alcohol, ammonia, and water.

FINAL DISPOSITION OF THE INCIDENT

No detectable levels of TDI were recorded following monitoring of the area by electronic sampling instruments. Longshoremen returned to work at Berth H on December 14.

REFERENCES

1. Kummerlowe, David L., 1983. Health and Safety Manual. Second Edition. National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

F/V Cinco de Mayo
Morro Bay, California
December 18, 1984

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On December 18, 1984, the 65-foot fishing vessel Cinco de Mayo sank in approximately 300 fathoms of water 7.5 miles west of Pt. Buchon, Morro Bay, with 4,000 gallons of No. 2 diesel fuel and 40 gallons of lube oil onboard. A slight sheen was seen coming from the vessel as she went down. A nearby fishing vessel rescued the three crewmembers before the Cinco de Mayo sank.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1530 on December 18, 1984, by the U.S. Coast Guard Captain of the Port, Alameda, and requested to provide a trajectory for an oil spill resulting from the sinking of the Cinco de Mayo, and to evaluate resources at risk from such a spill.

NOAA/OAD advised that the area off the Morro Bay coast is under the influence of the Davison Current, a well-established northerly flow of currents during the winter season. NOAA/OAD predicted that a release of oil from the Cinco de Mayo would result in a light sheen moving in a northwesterly direction which would evaporate within 48 hours. NOAA/OAD advised that sea otters are extremely sensitive to the effects of spilled diesel fuel and lube oil, as are California sea lions and harbor seals. NOAA/OAD determined that steelhead trout and seabirds, including common murres, western gulls, pelagic cormorants, pigeon guillemots, and Brants cormorants, would also be threatened by a spill from the Cinco de Mayo.

FINAL DISPOSITION OF THE INCIDENT

Heavy fog prevented U.S. Coast Guard helicopter overflights from observing the scene of the sinking for several days. However, the U.S. Coast Guard performed an overflight of the area on December 21 but observed no signs of a sheen. Subsequent overflights showed no traces of sheen where the Cinco de Mayo sank.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait Environment Protection Council, Kuwait.

REFERENCES, cont.

3. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

4. Pacific Coast Ecological Inventory, 1981. Morro Bay, California. U.S. Fish and Wildlife Service.

NOAA Response Report

Shippers Imperial Terminal
Oakland, California
January 3, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On January 3, 1985, cardboard boxes of precious metal filters from Southeast Asia leaked an unknown white crystalline powder at the Shippers Imperial terminal in Oakland. Two longshoremen who were exposed to this material required medical attention.

NOAA RESPONSE

NOAA/OAD was notified of the incident at approximately 1930 on January 3, 1985, by the U.S. Coast Guard Marine Safety Office, Alameda, and requested to provide chemical information on the unknown substance and to recommend the level of protective clothing to be worn by site entry personnel.

IT Corporation, a cleanup contractor, performed a field test which indicated that the material was a flammable solid and oxidizer. NOAA/OAD determined that a cyanide solution is a standard method of stripping precious metals such as gold and silver from these cartridge filters. This information was passed to the U.S. Coast Guard, who in turn passed it on to the local hospital emergency room for treatment of the two victims. The emergency room physician confirmed NOAA/OAD's analysis when he reported that the symptoms exhibited by the victims corresponded to a classic case of low-level cyanide poisoning.

The Centers for Disease Control, notified of the incident by NOAA/OAD, monitored the victims' medical progress and recovery.

NOAA/OAD recommended that Level B protection be worn to properly handle the boxes containing the cartridges and to clean the white crystalline powder around the cardboard containers.

FINAL DISPOSITION OF THE INCIDENT

The U.S. Coast Guard and NOAA/OAD monitored the cleanup of the site by IT Corporation. The container was quarantined for several days until adequate tests could be taken to determine if the ara was safe to resume operations. Subsequent wipedown tests by EAL Corporation indicated that the levels of cyanide remaining were insufficient to cause harm.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

NOAA Response Report

Mystery Oil Spill
Pt. Piedras Blancas, Morro Bay, California
January 17, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On Janury 17, 1985, the U.S. Coast Guard Air Station reported an oil sighting of heavy, dime-size tar ball concentrations approximately ten miles offshore of Pt. Piedras Blancas, near Morro Bay, California. Based on a lack of available information, the U.S. Coast Guard was unable to determine the source of the spill.

NOAA RESPONSE

NOAA/OAD was notified of the incident on January 17, 1985, by the U.S. Coast Guard, Alameda, and requested to provide a trajectory for the course of the oil and to assess resources at risk in the area of the spill. NOAA/OAD indicated that, based on the prevailing winds, sea state, and current conditions, the oil would move in a northerly direction and slightly inshore for three to four miles over the next 24 hours, with no shoreline impact expected.

NOAA/OAD continued to update California State Department of Fish and Game and Friends of the Sea Otter, a privately funded marine local mammal cooperative, on the condition of the spill.

NOAA/OAD reported that pinniped and sea otters in the Morro Bay area were likely to be impacted by the spill, and pointed out that, although pinniped in the area were not particularly vulnerable to oil, sea otters are sensitive to oil impact.

FINAL DISPOSITION OF THE INCIDENT

On January 18, the U.S. Coast Guard arranged for overflights and beach patrols to look for any signs of possible shoreline impact, but poor weather caused the overflights to be cancelled. The beach survey failed to show any signs of shore contact. By January 21, an overflight determined that the oil had dissipated to the extent that it was barely visible.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

REFERENCES, cont.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

3. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

4. Pacific Coast Ecological Inventory, 1981. Santa Maria, California. U.S. Fish and Wildlife Service.

NOAA Response Report

Yellow Freight Company
South San Francisco, California
January 18, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 1420 on January 18, 1985, the U.S. Coast Guard Marine Safety Office, Alameda, received a report that a 55-gallon drum containing 2,4,5 trichlorophenoxy acetic acid (2,4,5 T) was leaking inside a truck trailer at the Yellow Freight Company in South San Francisco.

NOAA RESPONSE

NOAA/OAD was notified of the incident at approximately 1505 on January 18, 1985, by the U.S. Coast Guard, and requested to provide chemical information on the spilled material and recommendations on the appropriate level of protective clothing to be worn by site entry personnel.

NOAA/OAD verified that the material was 2,4,5 T, and compiled information on the product and protective clothing criteria. NOAA/OAD also requested the Centers for Disease Control to assist in determining the possibility of health impairment from exposure to this chemical by dock workers. When the driver of the truck containing the 2,4,5 T complained of upper respiratory difficulty, NOAA/OAD advised via the U.S. Coast Guard that he should consult a physician.

NOAA/OAD recommended that Level B protection be used to properly handle the container drums of leaking 2,4,5 T and boxes that had been soaked by the material.

NOAA/OAD, the U.S. Coast Guard, contractor representatives, and public health officials monitored the cleanup effort. NOAA/OAD recommended to the U.S. Coast Guard that the U.S. Environmental Protection Agency be consulted to assist in providing an appropriate disposal method for the 2,4,5 T.

FINAL DISPOSITION OF THE INCIDENT

EPA accepted responsibility for enforcement of the proper disposal regulations as NOAA/OAD recommended. The entire cargo of 2,4,5 T was placed in overpacked drums and shipped to a disposal site in Texas. The area affected by the spill was steam-cleaned with a strong detergent and the water vacuumed and put into a tank truck for disposal. Activities at the Yellow Freight Transportation Company have resumed and no further adverse health effects have been noted as a result of the incident. The truck driver who had suffered respiratory distress as a result of exposure to the 2,4,5 T has returned to normal employment.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

2. Kummerlowe, David L., 1983. Safety and Health Manual. Appendix A: Level of Protection. Second Edition. National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

Mystery Spill
Pt. Reyes National Seashore, California
February 28, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 1100 on February 28, 1985, the U.S. Coast Guard Marine Safety Office, Alameda, was notified that an oil sighting had occurred at a position four miles south of Duxbury Point and five miles south of Chimney Rock in the vicinity of Pt. Reyes National Seashore. The U.S. Coast Guard dispatched a helicopter and confirmed the presence of what appeared to be two heavy oil patches approximately 300 meters by 300 meters extending two to three miles in length.

NOAA RESPONSE

NOAA/OAD was notified of the incident on February 28, 1985 by the U.S. Coast Guard Captain of the Port, Alameda, and requested to provide a spill trajectory, an evaluation of the natural resources at risk, and to determine whether the oil came from the sunken stern section of the T/V Puerto Rican.

NOAA/OAD advised the U.S. Coast Guard that, while it was unlikely the oil originated from the Puerto Rican, it was more probable that the oil was spilled one to one-and-one-half days earlier at the San Francisco Bay Bar. NOAA/OAD predicted that the Pt. Reyes Beach area could experience oil impact from the northern of the two slicks throughout the day. By 0900 March 1, the slick would be expected to be eight miles north of Pt. Reyes Light, with no beach impacts expected unless winds remained from the west. NOAA/OAD further advised that, although unlikely, the southern of the two slicks could be drawn into Drakes Bay, southeast of Pt. Reyes.

NOAA/OAD determined that the area of potential impact was part of the National Marine Sanctuary and, as such, Federal, state, and local agencies would be concerned with protection strategies and possible cleanup operations. It was predicted that public interest and concern would run quite high, based partially on the proximity in time to the T/V Puerto Rican incident the previous October 31.

FINAL DISPOSITION OF THE INCIDENT

A vessel dispatched by the U.S. Coast Guard to sample the slick determined that the slick actually consisted of algae, rather than oil, although all overflight photographs and observations tended to indicate oil. All appropriate Federal, state, and local agencies were notified, and all oil staging equipment and overflights were immediately cancelled.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

3. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

4. Woodward-Clyde Consultants, 1982. Central and Northern California Coastal Marine Habitats: Oil Residence and Biological Sensitivity Indices. MMS Contract No. AA851-CTO-73. Los Angeles, California.

NOAA Response Report

Barge Apex Houston
Pt. Piedras Blancas, California
March 2, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 1800 on March 2, 1985, the tug Inca separated from the 405-foot barge Apex Houston, carrying 30,000 barrels of #2 light fuel oil, 19 miles due west of Pt. Piedras Blancas off Morro Bay, California. The U.S. Coast Guard dispatched the cutter Resolute to the scene.

NOAA RESPONSE

NOAA/OAD was notified of the incident at approximately 1840 on March 2, 1985 by the U.S. Coast Guard, and requested to provide trajectories for the course of the drifting Apex Houston and environmental resources at risk information should the barge break up in the current 15-foot seas.

NOAA/OAD advised that the Apex Houston would travel in a southerly direction at a speed of approximately two knots as long as the wind remained from the northwest. NOAA/OAD further advised that the southern sea otters, elephant seals, California sea lions, stellar sea lions, and Northern fur seals which frequent the area would be at risk from a spill. NOAA/OAD also noted that coastal birds including the western grebe, blue heron, pied-billed grebe, black-crowned night heron, and American coots, also can be found in the Pt. Piedras Blancas area.

FINAL DISPOSITION OF THE INCIDENT

Due to the cutter Resolute's limited towing capability, the U.S. Coast Guard requested the Apex Houston's owner to hire a larger tug. The owner was unwilling to provide a tug, and the Apex Houston drifted approximately 20 miles to the south during the 18 hours before a tug hired by the U.S. Coast Guard arrived. At 1100 on March 4, 1985, the new tug began to tow the Apex Houston back to its port at Los Angeles, where it arrived on March 5.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

REFERENCES, cont.

3. Pacific Coast Ecological Inventory, 1981. Santa Maria, California. U.S. Fish and Wildlife Service.

4. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Barge Pennwalt Totem
Humboldt Bay, California
March 18, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On March 18, 1985, the 272-foot barge Pennwalt Totem, carrying 1,200 tons of chlorine, 573,252 gallons of 50% solution caustic soda, and 247,766 gallons of sodium chlorate, was being towed to Humboldt Bay Pier when a towing winch failure caused its tug to lose control. The Pennwalt Totem hit the south jetty at the entrance to Humboldt Bay and punctured its two forward starboard voids, flooding the number 1 starboard wing tank with sea water.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0750 on March 18, 1985, by the U.S. Coast Guard Captain of the Port, Alameda, and requested to provide a trajectory, assess the compatibility of the Pennwalt Totem's chemical cargo, to provide protective clothing recommendations for entry personnel, and to advise on the environmental resources at risk in the area.

NOAA/OAD recommended that Level A personnel protection be used to determine if there was any leakage from ruptures in the product tanks onboard the barge, particularly because of concern about a possible chlorine plume. NOAA/OAD advised that the prevailing strong west wind would cause a chlorine vapor plume to migrate towards a heavily populated, industrial section of the city of Humboldt.

NOAA/OAD advised that caustic soda and sodium chlorate were compatible and should not cause a severe health problem. NOAA/OAD further advised that, if a chlorine plume or spill was not detected, than splash gear would be sufficient to handle a spill of caustic soda and sodium chlorate.

NOAA/OAD further noted that significant anadromous fish and marine mammal populations were present in the area of the incident.

FINAL DISPOSITION OF THE INCIDENT

No product was spilled, but the U.S. Coast Guard has initiated a full investigation into the incident. The Pennwalt Totem was brought safely to the Humboldt Bay Pier where it offloaded its cargo without further incident.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

REFERENCES, cont.

2. Kummerlowe, David L., 1983. Safety and Health Manual. Appendix A: Level of Protection. Second Edition. National Oceanic and Atmospheric Administration, Seattle, Washington.

2. Pacific Coast Ecological Inventory, 1981. Humboldt Bay, California. U.S. Fish and Wildlife Service.

3. Turner, D. Bruce, 1974. Workbook of Atmospheric Dispersion Estimates. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina.

NOAA Response Report

F/V Allen E
Salmon Creek, California
March 27, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On March 27, 1985, the fishing vessel Allen E, carrying approximately 300-400 gallons of no. 2 diesel fuel and an unknown small quantity of lube oil, grounded on the rocks at Salmon Creek, about ten miles north of Pt. Piedras Blancas, California. A light oil sheen measuring 30 feet by one-half mile in length was spotted one-quarter mile from the wreckage in the surf zone, approximately one-quarter mile north of Salmon Creek. The crew of the Allen E was picked up by the California Highway Patrol.

NOAA RESPONSE

NOAA/OAD was notified of the incident on March 27, 1985, by the U.S. Coast Guard Captain of the Port, Alameda, and requested to provide trajectory information for the spilled diesel fuel, to evaluate the natural resources at risk in the area, and to determine the effect of oil impact. Based on the heavy sea and strong wind conditions present at the time, NOAA/OAD's trajectory analysis indicated that the net movement of the diesel and lube oil would be in a generally northerly direction with some slight surf zone and minimal shoreline impact.

NOAA/OAD reported that the most commercially important resources in the area were the anadromous fish in and near Salmon Creek. NOAA/OAD also advised that sea otters, California sea lions, and harbor seals are also sensitive to oil impact.

NOAA/OAD advised that, although no cleanup was necessary due to the passage of the storm front and dissipation of the spilled oil by the wind and surf, the area north of the incident and in the immediate vicinity should be monitored for the presence of marine mammals and sea birds.

FINAL DISPOSITION OF THE INCIDENT

The U.S. Coast Guard, U.S. Fish and Wildlife Service, and Friends of the Sea Otter monitored the spill site for about 36 hours, and observed that none of the ten or 12 sea otters in the vicinity of the spill site appeared to come into contact with the oil. All of the diesel fuel and lube oil had dissipated by March 29. Salmon Creek suffered no permanent oil impact from the spill.

REFERENCES

1. Anglers Guide to the United States Pacific Coast, 1978. National Marine Fisheries Service.

REFERENCES, cont.

2. Pacific Coast Ecological Inventory, 1981. Monterey, California. U.S. Fish and Wildlife Service.

3. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Ole Nordhaven Electroplating
Hayward, California
April 3, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 0600 on April 3, 1985, a fire occurred at the Ole Nordhaven Electroplating facility in Hayward, California. The chemicals believed to be involved in the fire included sodium metabisulfite, ferric chloride, calcium chloride, Carafloc 91A (a non-toxic wastewater floculant), sodium hypochlorite, ammonium bifluoride, barium carbonate, soda ash, sodium nitrite, calcium hypochlorite, acetone, ferrous sulfide, ammonium hydroxide, potassium hydroxide, and hydrogen peroxide.

The Hayward Fire Department responded to the fire and cordoned off surrounding areas. Twenty gallons of firefighting water entered storm drains before the area was diked and the storm drains covered. The fire department requested assistance from the U.S. Coast Guard, NOAA/OAD, California State Occupational Safety and Health Administration, California State Office of Emergency Services, and local emergency response agencies.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0840 on April 3, 1985 by the U.S. Coast Guard Marine Safety Office, Alameda, and requested to provide both safety and health recommendations for entry personnel and cleanup procedures to be followed once the fire was extinguished.

NOAA/OAD recommended that all response personnel wear Level B protection. NOAA/OAD advised that water remaining at the scene could be acidic or caustic and recommended that a sampling plan be developed as soon as possible to ascertain the extent of contamination of the facility and firefighting waters. Health and safety recommendations were coordinated with the Centers for Disease Control.

The local county health department and Ole Nordhaven's cleanup contractor took, and analyzed, samples from the scene of the fire. zThe cleanup contractor vacuumed contaminated water for proper disposal. California State Department of Fish and Game was on scene prepared to monitor any impacts to marine resources.

FINAL DISPOSITION OF THE INCIDENT

The fire destroyed the internal structure of the building, which was subsequently steam-cleaned to further decontaminate the facility. Contractors completed cleanup and disposal of all hazardous materials from the site by April 9. Due to the deterioration caused by the fire, the building remains secured.

REFERENCES

Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Materials Spill Conference, pp. 135-140.

Kummerlowe, David L., 1983. Safety and Health Manual. Appendix A: Level of Protection. Second Edition. National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

Lignosulfonic Acid (Black Liquor)
Humboldt Bay, California
April 12, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 0930 on April 3, 1985, 70,000 gallons of lignosulfonic acid, also known as "Black Liquor", a byproduct of the pulp wood paper producing process, was discharged by a paper mill just outside Humboldt Bay Harbor. The discharge was confirmed by a U.S. Coast Guard response team dispatched to the site following notification of the spill on April 11.

NOAA RESPONSE

NOAA/OAD was notified of the incident on April 12, 1985, by the U.S. Coast Guard Marine Safety Office, Alameda, and requested to determine if a spill of this size could produce pH measurements harmful to NOAA-managed resources in the area.

Based on the probable interface and flushing provided by the ocean and the natural organic processes of Black Liquor, NOAA/OAD concluded that no harm would result from this single discharge. NOAA/OAD provided the Coast Guard with a sampling strategy and recommendations to aerially survey the area to locate any impacted marine mammals.

As NOAA/OAD predicted, measurements taken in the vicinity of the discharge indicated an elevated pH outside the normal range for the area. It was further determined that there would be little biological impact to the anadromous fish and marine mammals in the area. Subsequent spill site inspections failed to uncover any impacts, and, although the Coast Guard was notified that several birds in the area were ill, this could not be successfully tied to the Black Liquor discharge.

FINAL DISPOSITION OF THE INCIDENT

The spiller reported to the U.S. Coast Guard that the Black Liquor was being discharged under a permit issued by the U.S. Environmental Protection Agency (EPA). However, EPA advised the U.S. Coast Guard that the permit was for a small discharge rather than a release of 70,000 gallons. Accordingly, EPA took responsibility for the potential violation of its permit, and the U.S. Coast Guard turned over the case.

REFERENCES

Pacific Coast Ecological Inventory: Humboldt Bay, California, 1981. U.S. Fish and Wildlife Service.

REFERENCES, cont.

Tidal Current Tables 1983: Pacific Coast of North America, 1983. National Oceanic and Atmospheric Administration, Rockville, Maryland.

Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Dinitrotoluene Spill
Southern Pacific Railroad
Oakland, California
April 16, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On April 16, 1985, Southern Pacific Railroad reported to the U.S. Coast Guard Marine Safety Office, Alameda, that approximately 15 gallons of dinitrotoluene had spilled from a punctured 55-gallon drum at the marine section of the Southern Pacific terminal in Oakland. Upon arriving at the site, Coast Guard response personnel observed stains on the container and other drums.

NOAA RESPONSE

NOAA/OAD was notified of the incident on April 16, 1985, by the U.S. Coast Guard Captain of the Port, Alameda, and requested to provide safety and health protection recommendations for cleanup personnel.

The leaking drum's manifest confirmed the presence of dinitrotoluene. NOAA/OAD recommended Level B protection be worn by all personnel involved in the cleanup, and also recommended that the area be cordoned off, with all non-essential personnel restricted from the area until the hazard was removed.

FINAL DISPOSITION OF THE INCIDENT

The U.S. Coast Guard and NOAA/OAD monitored the cleanup by the Southern Pacific Railroad hazardous materials response team and contractors Crosby and Overton. The dinitrotoluene was placed in overpacked drums and the container steam-cleaned. Protective clothing worn during the cleanup was also disposed of in overpacked drums.

Normal railroad terminal operations resumed after completion of cleanup operations. Since no one was injured and the source of the spill was identified and removed, the case was closed by the U.S. Coast Guard.

REFERENCES

Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

Kummerlowe, David L., 1983. Safety and Health Manual. Appendix A: Level of Protection. Second Edition. National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

Shippers Imperial Terminal
Oakland, California
April 20, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On April 20, 1985, approximately 75 gallons of maleic anhydride was spilled when one-way, thin-skinned drums of the material rubbed together inside a loaded cargo container, causing ruptures in the metal fabric of some of the drums. Sixty-eight drums were inside a cargo container in a semi truck that had been brought to Shippers Imperial Terminal for transfer to a cargo vessel en route to Jakarta, Indonesia.

Shippers Imperial Terminal reported the spill to the U.S. Coast Guard Marine Safety Office, Alameda; upon arriving at the scene, the Coast Guard observed darkened stains and liquid dripping from the rear hatch door of the container and the wooden flooring beneath the container. The manifest in the container confirmed the presence of maleic anhydride.

NOAA RESPONSE

NOAA/OAD was notified of the incident on April 20, 1985 by the Coast Guard Captain of the Port, Alameda, and requested to advise on the chemical composition of maleic anhydride, assess the situation at Shippers Imperial Terminal, provide level of protection advice for the cleanup operation, and oversee the removal of the spilled material and remaining cleanup procedures.

NOAA/OAD recommended Level B protection for all personnel involved in the cleanup and suggested that the drums be removed, placed in overpacked containers, with visqueen placed under the container. In addition, the compartment should be steamed, along with the underside and the total residue treated as a hazardous waste.

FINAL DISPOSITION OF THE INCIDENT

NOAA, the Coast Guard, and local health officials monitored the cleanup contractor's efforts. Normal railroad marine terminal operations resumed after the material was placed in overpacked drums and disposed of.

REFERENCES

Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Materials Spill Conference, Nashville, Tennessee, April 9-12, 1984.

Kummerlowe, David L., 1983. Hazardous Materials Response Branch Safety and Health Manual. Appendix A: Level of Protection. Second Edition. National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

Clipper Yacht Harbor
Richardson Bay, Sausalito, California
April 23, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On April 23, 1985, approximately 1,900 gallons of No. 6 diesel fuel was spilled from a ruptured line during fuel transfer operations to a barge at the Chevron Fueling Lock in Clipper Yacht Harbor. Chevron took full responsibility for the spill and its cleanup; contractors deployed a boom and used sorbent pads to soak up the oil on the water surface. Detergent was also put into the barge and vacuumed off.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1330 on April 23, 1985, by the U.S. Coast Guard Marine Safety Office, Alameda, and requested to provide an assessment of the resources at risk from the spill. NOAA/OAD advised that, with flood tide conditions, the marine life in Richardson Bay and the shoreline would be impacted. NOAA/OAD further advised that 1,900 gallons of diesel fuel created a local toxic threat to marine biota through ingestion by surface marine life, though toxicity levels would decrease drastically over time due to dissipation and evaporation.

FINAL DISPOSITION OF THE INCIDENT

U.S. Coast Guard and California State Department of Fish and Game representatives conducted an overflight of the spill site on April 24, observing only the slightest evidence of oil sheen. It appeared that the rest of the oil had been dissipated by weather, seas, and tidal action. Although the cleanup contractor completed operations to the satisfaction of the Coast Guard and California Department of Fish and Game, these agencies monitored the site for the next several weeks.

REFERENCES

Lindstedt-Siva, J., 1981. Oil Spill Response Planning for the Greater San Francisco Bay Area. Atlantic Richfield Company, Los Angeles, California.

Pacific Coast Ecological Inventory: San Francisco, California, 1981. U.S. Fish and Wildlife Service.

Woodward-Clyde Consultants, 1982. Central and Northern California Coastal Marine Habitats: Oil Residence and Biological Sensitivity Indices. Prepared for the Minerals Management Service, Pacific Outer Continental Shelf Office.

NOAA Response Report

American President Lines
Oakland, California
May 14, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 1315 on May 14, 1985, American President Lines notified the U.S. Coast Guard, Alameda, that a badly damaged container of tetramethylthiuram monosulfide was on the pier at the facility. American President Lines contacted the local county health services unit to alert them to the potential risks should the material be spilled.

NOAA RESPONSE

NOAA/OAD was notified of the incident on May 14, 1985, by the U.S. Coast Guard, Alameda, and requested to provide safety and health protection recommendations, and to develop cleanup procedures.

NOAA/OAD recommended that Level B protection be worn while opening and attempting to aerate the container, which American President Lines had moved to an isolated portion of the yard. Although the container was badly damaged, no drums had ruptured after the container had been allowed to aerate for a few days.

FINAL DISPOSITION OF THE INCIDENT

The damaged drums were overpacked in another container, and the shipment allowed to continue on to its original destination.

REFERENCES

Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Materials Conference, pp. 135-140.

Kummerlowe, David L., 1983. Hazardous Materials Response Branch Safety and Health Manual. Appendix A: Level of Protection. Second Edition. National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

Hydrogen Peroxide Tank Truck
San Rafael, California
June 2, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 1300 on June 2, 1985, the U.S. Coast Guard Marine Safety Office (MSO) was notified by the California Highway Patrol of an overturned 5000-gallon tank truck carrying 50% strength hydrogen peroxide on Highway 101, 15 miles north of San Francisco. An estimated 300 gallons had already spilled from a ruptured transfer line on the truck. The immediate threat was to the driver of the truck and to the automobile drivers who had stopped to render assistance and observe the accident.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1320 on June 2, 1985 by the Coast Guard MSO, Alameda, and requested to provide safety and health recommendations for the personnel responding to the spill, as well as determine the natural resources at risk from the spill.

NOAA/OAD recommended that all personnel stay upwind of the vapor plume which was immediately over the tank truck, and estimated that the plume would travel about 50 meters to the southwest before dissipating. NOAA/OAD further recommended flushing the storm drains and the area immediately around the spill site to lower the concentration level of the hydrogen peroxide and thereby reduce the health and safety risk. Level B personnel protection was recommended to the Coast Guard as more than adequate to protect responders.

Because of the vapor cloud and a five-knot wind, the exact location of the rupture was not readily discernible, but the Coast Guard estimated that approximately 2,000 gallons of hydrogen peroxide had spilled into the storm drain and the drainage ditch when the tank truck overturned. The fire department and the Coast Guard bermed the storm drains to prevent possible contamination to San Francisco Bay. All personnel located within 100 feet downwind of the spill were evacuated.

The environmental risk aspect was minimized because the fire department flushed the entire spill area, including storm drains. NOAA/OAD advised that this procedure was adequate to protect marine life which would otherwise have been affected had the chemical entered San Francisco Bay. NOAA/OAD was concerned, however, that the leak would increase significantly and a larger vapor cloud form.

FINAL DISPOSITION OF THE INCIDENT

Eight hours after the incident occurred, a cleanup contract and salvage company in Level B protection had righted the tank truck and

FINAL DISPOSITION OF THE INCIDENT, cont.

proceeded to pump the remaining hydrogen peroxide into a stainless steel truck, to the satisfaction of the Coast Guard.

REFERENCES

Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Materials Spill Conference, pp. 135-140.

Kummerlowe, David L., 1983. Hazardous Materials Response Branch Safety and Health Manual. Appendix A: Level of Protection. Second Edition. National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

Alameda Gateway, Ltd.
Alameda, California
June 12, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On June 12, 1985, the U.S. Coast Guard Marine Safety Office (MSO) Inspection Division was on a routine mission at Alameda Gateway, Ltd. when they noticed a group of workers in tyvek coveralls, hard hats, and respirators. The Coast Guard contacted the U.S. Environmental Protection Agency (EPA) when it was discovered that the workers were from American Environmental Management, Inc., private contractors hired by Alameda Gateway, Ltd. to remove approximately 18 tons of soil and asphalt contaminated with polychlorinated biphenyls in the 60 ppm range. The workers were using a front-end loader to scoop up the contaminated soil and were dumping it into plastic-lined trucks with trailers for disposal as a hazardous waste at the Chem Waste Management, Inc. facility in Kettleman City.

NOAA RESPONSE

NOAA/OAD was notified of the incident on June 12, 1985 by the Coast Guard MSO, Alameda, and requested to provide safety and health recommendations for the handling of PCBs. NOAA/OAD was also asked to review the cleanup and disposal procedures being carried out by American Environmental Management.

NOAA/OAD determined that tyvek coveralls with openings taped closed, gloves, and boots, in addition to a high efficiency particulate filter respirator, were necessary in dealing with PCBs with an average of 60 ppm toxic concentration level. NOAA/OAD further stated that proper disposal of the protective clothing was essential to assist in the protecting against potential harmful impacts from the PCB-contaminated soil.

FINAL DISPOSITION OF THE INCIDENT

When the waste was hauled to the designated facility, EPA relieved the Coast Guard of any further responsibility for the cleanup.

REFERENCES

Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Materials Conference, pp. 135-140.

Kummerlowe, David L., 1983. Hazardous Materials Response Branch Safety and Health Manual. Appendix A: Level of Protection. Second Edition. National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

Alameda Bait Shop Fish Kill
Alameda, California
June 24, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 1500 on June 24, 1985, the Alameda Bait Shop notified the U.S. Coast Guard, Alameda, of a fish kill of 6,000 anchovies, mudsuckers, and shrimp as a result of a 15-gallon spill of Bunker C in the estuary near the shop.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1530 on June 24, 1985 by the U.S. Coast Guard, Alameda, and requested to determine if 15 gallons of diesel could impact the intake system, located three feet below the surface at mean low water, of the bait shop owner's holding ponds.

NOAA/OAD recommended that tissue samples be taken from one of the species killed and that the tissue be analyzed for light aromatic hydrocarbons. NOAA/OAD also recommended that a sample of the spilled oil be analyzed to establish a "fingerprint" between the spilled Bunker C and the oil alleged to have killed the bait.

FINAL DISPOSITION OF THE INCIDENT

Sample analysis determined that the spilled Bunker C was responsible for the fish kill in the bait holding ponds.

NOAA Response Report

U.S. Navy Flight Deck Cleaning Fluid
Monterey Bay, California
June 29, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On June 29, 1985, a 55-gallon drum labeled "hazardous waste" was observed floating about one-quarter of the way out of the water in Monterey Bay, California. Due to the several connecting hoses and a set of casters attached to the drum, the U.S. Coast Guard suspected that the drum had either been set adrift or was a drum not adequately disposed of as waste product. No leak was apparent, but from the drum's position in the water, it was suspected to be less than full.

NOAA RESPONSE

NOAA/OAD was notified of the incident on June 29, 1985 by the U.S. Coast Guard Marine Safety Office (MSO), Alameda, and requested to provide strategies for recovering the drum from the Bay.

Based on the little information provided, NOAA/OAD advised the Coast Guard to approach the drum from an upwind direction, wearing self-contained breathing apparatus, splash gear, with exposed skin areas taped. Once the drum was retrieved, NOAA/OAD recommended that it be removed to the nearest loading dock and a sample taken and analyzed of the material inside. This action was considered preferable to letting the drum drift into the surf zone where it could break up on the rocks and impact marine habitats.

FINAL DISPOSITION OF THE INCIDENT

Coast Guard personnel retrieved the drum and transported it to the nearest dock, where it was discovered to be the property of the U.S. Navy. The Navy determined that the drum contained flight deck cleaning fluid, and placed it in an overpacked container and hauled it off for proper disposal. No impacts were observed in the area.

REFERENCES

Kummerlowe, David L., 1983. Hazardous Materials Response Branch Safety and Health Manual. Appendix A: Level of Protection. Second Edition. National Oceanic and Atmospheric Administration, Seattle, Washington.

Pacific Coast Ecological Inventory: Monterey, California. U.S. Fish and Wildlife Service.

NOAA Response Report

Wards Island Pollution Control Plant
New York, New York
December 20, 1984

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

During a routine facility inspection on December 20, 1984 of the New York City Department of Environmental Protection (DEP) pollution control plant at Wards Island, the U.S. Coast Guard observed a rainbow sheen and pockets of oil flowing from a facility storm drain outfall into the East River. During the resulting investigation, over 1,200 drums of oily waste and unknown materials were observed to be at the Wards Island facility on or near the piers and the East River.

NOAA RESPONSE

NOAA/OAD was notified of the incident on December 20, 1984 by the U.S. Coast Guard Captain of the Port, New York, and requested to assess the situation and prepare recommendations. NOAA/OAD observed the drums and was informed by the New York City DEP staff that the drums contained oily bilge waste from vessels owned and operated by the City of New York.

NOAA/OAD participated in the development of plans to remove the drums from the immediate edge of the pier line and near storm drains to other, more secure areas of the facility for temporary storage. NOAA/OAD also coordinated City of New York plans for removal of the oily wastes.

CURRENT DISPOSITION OF THE INCIDENT

The City of New York initiated a contract with a waste oil vendor to pump out all the oily materials from the drums. The scheduled completion of this task is prior to April 1985.

NOAA Response Report

Chemical Cloud from Garbage Barge
Fresh Kills Landfill, Staten Island, New York
January 4, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On January 2, 1985, New York City Sanitation Department workers at a Manhattan transfer station reported that they had been affected by a tear gas-like odor when a garbage truck dumped its load into a garbage barge. All members of the sanitation crew complaining of headaches, dizziness, and nausea were taken to a nearby hospital where they were treated and released.

The garbage truck's load was initially identified as coming from the U.S. Coast Guard base at Governors Island, but subsequent investigation disclosed that the garbage load came from a nearby housing area. No evidence of a chemical release could be detected by response personnel when they arrived at the scene. Further barge loading, however, was terminated and the barge was shifted away from ongoing work at the transfer station.

NOAA RESPONSE

NOAA/OAD was notified of the incident on January 4, 1985 by the U.S. Coast Guard Captain of the Port, New York, and requested to participate in the Coast Guard investigation. On January 4, NOAA/OAD and the U.S. Coast Guard On Scene Coordinator met to discuss preplanning options for unloading the barge on January 7. The preparation for the barge unloading included coordination of government agencies so that the operation could take place safely. Additional personnel protective equipment was brought to the scene and instruction in its use was provided by NOAA/OAD and the U.S. Coast Guard to other Federal responders.

FINAL DISPOSITION OF THE INCIDENT

The barge was unloaded without incident. Air testing for acid vapors was negative at those locations in the garbage pile where the initial chemical release was said to have taken place. No hazardous materials, chemical drums, bottles, or containers were observed.

REFERENCES

1. Kummerlowe, David L., 1983. Safety and Health Training Manual. Second Edition. National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

T/V Delaware Trader
Delaware Bay, Pennsylvania
January 24, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On January 24, 1985, the U.S. Coast Guard Captain of the Port (COTP), Philadelphia, was notified by the tanker Delaware Trader, en route to the Port of Philadelphia with over 400,000 barrels of crude oil on board, that she was aground in the approaches to Delaware Bay.

Initial attempts on January 24 to pull off the grounded vessel on the rising tide failed, and lightering of her product was commenced.

NOAA RESPONSE

NOAA/OAD was notified of the incident on January 24, 1985 by the U.S. Coast Guard COTP, Philadelphia, and requested to be prepared to provide an oil spill trajectory should the Delaware Trader lose oil during refloating attempts. NOAA/OAD accomplished all preplanning actions as requested.

FINAL DISPOSITION OF THE INCIDENT

On January 25 the Delaware Trader was refloated following lightering of her cargo. There was no apparent damage or pollution.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

3. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

#2 Fuel Oil Spill
Fishers Island, New York
January 25, 1985

Gary Ott, Scientific Supprt Coordinator

INCIDENT SUMMARY

On January 20, 1985, the owner of Island Mobil and Marine reported to the U.S. Coast Guard that there had been a #2 fuel oil spill into West Harbor of Fishers Island, New York. Up to 2,000 gallons of #2 fuel oil had been released from a tank during a transfer operation spilling oil onto the grounds under the tank. Some of this oil had entered West Harbor.

The U.S. Coast Guard viewed the potential long-term leaching of oil from the soils in the bank and under the tanks into West harbor as the more difficult issue to resolve prior to the start of the spring spawning and nesting season. Concern was especially noted regarding the cultivated clam beds across West Harbor an estimated distance of two-thirds of one mile. A light oil sheen was observed over the clam beds at the time of the spill.

NOAA RESPONSE

NOAA/OAD was notified of the incident on January 25, 1985 by the U.S. Coast Guard Captain of the Port, New London, and requested to participate in discussions with the owner of Island Mobil and Marine and government agencies in an attempt to address the long-range implications of the spill.

On January 26, 1985, NOAA/OAD proceeded to Fishers Island with the U.S. Coast Guard On Scene Coordinator and met with the owner of the vessel and the owner of the clam beds. All agencies involved in the discussions agreed that a barrier to prevent the migration of the oil from the oil-saturated soils under the tanks could be constructed. The recommended method was to install either a large hole that would collect the oil or the use of a trench between the oil tanks and and the water line. It was further suggested that a plastic barrier on the waterline side of the trench would improve the impermeability of the barrior.

CURRENT DISPOSITION OF THE INCIDENT

The digging of large holes to the groundwater line on both sides of the facility resulted in a significant recovery of oil product from the holes. Long-term monitoring of the seepage has been scheduled in cooperation with the New York State Department of Transportation Oil Spill Engineers. Oil seepage from the bank was still in evidence in February 1985.

NOAA Response Report

C/V American Pioneer
Howland Hook, Staten Island, New York
February 1, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On February 1, 1985, the container vessel American Pioneer arrived at Howland Hook Terminal with an unknown number of leaking drums of N,N-Dimethylaniline. The drums were contained in a 40-foot container located in number 4 hold on the starboad side of the vessel. Also in the hold were 21 other containers containing beer and one container of gelatin.

NOAA RESPONSE

NOAA/OAD was notified of the incident on February 1, 1985 by the U.S. Coast Guard Captain of the Port (COTP), New York, and requested to provide information on N,N-Dimethylaniline. Other information provided by NOAA/OAD included the identification and the location of appropriate colorometric sampling tubes that could be used to measure levels of N,N-Dimethylaniline in the air.

NOAA/OAD participated in site entry safety briefings and determined with the U.S. Coast Guard On-Scene Coordinator (OSC) response options based on results of the colorometric tube readings taken by the contractor. NOAA/OAD also discussed with the U.S. Food and Drug Administration (FDA) and the U.S. Environmental Protection Agency Emergency Response Team (EPA ERT) the details of the response operations and information regarding other cargo containers observed to be contaminated.

The decontamination of the vessel and the later investigation of the damaged and leaking drums were conducted without further incident.

FINAL DISPOSITION OF THE INCIDENT

Decontamination of the American Pioneer was completed by midnight on February 1, 1985. The removal of three damaged drums was accomplished by February 4, 1985 with a total release of 65 gallons of N,N-Dimethylamine. The seven other affected containers were stripped, their cargos released by the FDA, and the containers decontaminated by February 5, 1985. Finally, the floor of the container that had held the damaged drums was removed and disposed of as hazardous waste by February 11, 1985.

REFERENCES

1. U.S. Environmental Protection Agency, 1983. Hazardline. NIH/EPA Chemical Information System, Falls Church, Virginia.

REFERENCES, cont.

2. U.S. Environmental Protection Agency, 1983. Oil and Hazardous Materials-Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

NOAA Response Report

T/V Mobil Aladdin
Delaware Bay, Delaware
February 1, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On February 1, 1985, the U.S. Coast Guard Captain of the Port (COTP), Philadelphia, was notified that the tanker Mobil Aladdin, en route to a Mobil facility in Paulsboro, New Jersey with 568,000 barrels of Arabian crude oil onboard, was aground in lower Delaware Bay. When initial attempts by the tugs Clipper and Explorer to pull off the grounded vessel on the rising tide failed, lightering of a portion of the product commenced at 1900 and was completed by midnight of the same day.

NOAA RESPONSE

NOAA/OAD was notified of the incident on February 1, 1985, by the U.S. Coast Guard COTP, Philadelphia, and requested to be prepared to provide a trajectory of spilled oil from the Mobil Aladdin.

FINAL DISPOSITION OF THE INCIDENT

The T/V Mobil Aladdin was refloated on February 2, 1985 following lightering of approximately 108,000 barrels of cargo. No apparent damage or pollution occurred.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait Environment Protection Council, Kuwait.

3. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Long Island Lighting Company (LILCO)
Island Park, New York
February 10, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

At 2030 on February 10, 1985, the Long Island Lighting Company (LILCO) reported to the U.S. Coast Guard National Response Center (NRC) a release of up to 400,000 gallons of #2 oil from a storage tank at their E.F. Barret Gas Turbine facility in Island Park, New York. The initial report was that the tank was near capacity at 450,000 gallons of #2 fuel oil. The leak was from a flange near the bottom of the tank. Oil was to be contained within a 10 to 12-foot diked containment area but leaked through the seals on the bottom of the dike into Simpsons Creek and Barnums Channel, approximately 50 feet away.

Because the spill occurred on an incoming tide and booms were deployed promptly, much of the spilled oil was contained within Simpsons Creek and Barnums Channel.

NOAA RESPONSE

NOAA/OAD was notified of the incident on February 10, 1985 by the U.S. Coast Guard Captain of the Port (COTP), New York, and requested to assist in the spill response effort. NOAA/OAD estimated that the bird populations to the west of the LILCO facility in the North Meadow and East Meadow areas consisted of 5,000 scaup and 3,000 black ducks. NOAA/OAD coordinated the cleanup of oiled birds by the U.S. Fish and Wildlife Service, Coast Watch volunteers, and the LILCO representatives who made their facilities available. Status reports on total bird injuries and losses were also consolidated by NOAA/OAD.

Coordination of a long-range damage assessment study was also initiated by NOAA/OAD. The analysis began with sampling the water column for total hydrocarbons on February 12. Sampling stations were selected to correspond with stations established by past studies by the Town of Hempstead and the Nassau County Health Department. Biological studies of greater depth were discussed with the intention of sharing responsibility among the Town of Hempstead, Nassau County, and LILCO consultants. Ultimately, the sampling and analysis plan included a survey of damage to plankton and marsh in the area of the spill, and sampling of the water column and bottom for total hydrocarbon and benzene, xylene and toluene (BXT) content.

On February 12, winds from the east began to increase, with gale warnings forecasted of winds 35 to 45 knots with higher gusts sweeping down Barnums Channel. Eight booms were deployed in the section from the railroad bridge to Hog Island Channel but could not totally contain all floating oil.

NOAA RESPONSE, cont.

On February 14, U.S. Fish and Wildlife representatives observed little effects on the overall bird population and suggested that there was little probability of severe effects occurring after this date.

FINAL DISPOSITION OF THE INCIDENT

By February 18, 1985, much of the #2 oil on the water surface had been removed. Continued maintenance of booms and sorbents on Simpsons Creek is anticipated as heavy oiling had impacted and soaked into the mud flats and grasses in the immediate area. Initial laboratory results suggest that the spill had little effect on the marsh areas other than those areas immediately impacted by the large amounts of oil in Barnums Channel and Simpsons Creek.

REFERENCES

1. Gundlach, Erich R. and Bart J. Baca, 1985. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Long Island. An Atlas of Coastal Resources. National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

Tug John A. Downs
Bartlett Reef, Long Island Sound
New London, Conneticut
March 4, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On the night of March 4, 1985, the 113-foot tug John A. Downs, carrying 46,620 gallons of #2 fuel oil and 1,100 gallons of lube oil, struck one of her three barges in tow and began to take on water at Bartlett Reef near the entrance to Long Island Sound. The empty barges were cut loose, but the tug continued to take on water. The crew of 13 abandoned ship and were rescued by the U.S. Coast Guard. All three barges were taken in tow by other vessels. On the morning of March 5, an oil slick reported to extend to the southwest for one-half mile was sighted in low visibility conditions near Buoy 2a.

At noon on March 6, a U.S. Coast Guard helicopter overflight of the area was conducted by members of the U.S. Coast Guard Atlantic Strike Team. They reported an emulsified slick with sharp edges that was approximately one-third of a mile in length and 40 feet wide in weather conditions consisting of three-foot seas, whitecaps, and 30 knot winds.

NOAA RESPONSE

NOAA/OAD was notified of the incident on March 5, 1985 by the U. S. Coast Guard Captain of the Port (COTP), New London, and requested to provide trajectory information, a resources at risk analysis, and booming strategy assistance.

Locations in the immediate Long Island Sound area that were of environmental concern included Great Gull Island, an estimated four miles to the south of the spill site; Niantic Bay to the north; Fishers Island to the east; and Plum Island to the southwest. NOAA/OAD provided resources at risk and booming recommendations to the U.S. Coast Guard COTP, New London, and identified marine birds that breed in the area, including herring gulls, great black backed gulls, common terns, roseate terns, osprey, herons, and egrets. Wetland areas were located in Hay Harbor and West Harbor on Fishers Island, Pequonok River and Mumford Cove north of Fishers Island.

NOAA/OAD ran several alternative computer trajectory scenarios considering various wind options. In virtually all cases, the currents in the Long Island Sound area dominated the trajectory for the spilled oil. Two trajectory maps were sent to the Coast Guard showing the expected maximum extent of the pollutant after flood and ebb cycles. For the spill rates observed, no landfall was expected.

From the descriptons of the oil slick, NOAA/OAD deduced that a significant amount of the #2 fuel oil was being released. Projections

NOAA RESPONSE, cont.

by NOAA/OAD of the duration of this release from the tug John A. Downs were given at several days to a week. This time projection for spilling oil was significant for planning purposes in that in one month a large increase in the numbers of wildlife in the area could be expected during the spring nesting and spawning periods.

In addition, NOAA/OAD participated in the review of the drawings of the tug and coordinated with the U.S. Navy Superintendent of Salvage (SUPSAL). SUPSAL indicated they they did not feel that the tug would move along on the bottom and that it was probably not upside down. SUPSAL also predicted that the oil would continue to leak gradually as opposed to a catastrophic discharge. NOAA/OAD also coordinated advice from the NOAA National Marine Fisheries Services Habitat Protection Branch, the University of Connecticut's Marine Advisor, the U.S. Fish and Wildlife Service, and the NOAA Coastal and Estuarine Assessment Branch Atlantic Office.

FINAL DISPOSITION OF THE INCIDENT

On March 7, 1985, no slick was observed during a boat survey of the area. The owner's plans for salvage of the John A. Downs have not been released as of this writing.

REFERENCES

1. Gundlach, Erich R. and Bart J. Baca, 1985. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Long Island. An Atlas of Coastal Resources. National Oceanic and Atmopsheric Administration, Seattle, Washington.

2. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

3. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

4. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

DuPont Chemical Corporation
Gibbstown, New Jersey
April 6, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

At 0800 on April 5, 1985, an open drain valve released an estimated 25,000 pounds of sodium hydroxide onto the grounds of the E.I. DuPont de Nemours Chemical Corporation facility in Gibbstown, New Jersey. Eight thousand pounds of the chemical entered the Delaware River.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1600 on April 6, 1985 by the U.S. Coast Guard Captain of the Port, Philadelphia, and requested to provide technical information on sodium hydroxide. Cleanup was determined not to be feasible as the sodium hydroxide immediately went into solution as it entered the Delaware River. A consensus was reached that the extremely large dilution factors noted during this incident, and the almost 24-hour delay in notification, would make both the chemical and its immediate effects difficult to detect.

FINAL DISPOSITION OF THE INCIDENT

The case was closed by the Coast Guard on April 6, 1985.

REFERENCES

Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

NOAA Response Report

DuPont Chemical Corporation
Edgemoor, Delaware
April 8, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

At 1638 on April 8, 1985, an estimated 1,200 gallons of methylene chloride was released into the cooling system at the E.I. DuPont de Nemours plant in Edgemoor, Delaware, eventually discharging into the Delaware River.

NOAA RESPONSE

NOAA/OAD was notified of the incident on April 8, 1985 by the U.S. Coast Guard Captain of the Port, Philadelphia, and requested to provide technical information on methylene chloride.

A consensus was reached that the extremely large dilution factors noted during the incident would make both the chemical and its immediate effects difficult to detect.

FINAL DISPOSITION OF THE INCIDENT

The case was closed and a violation report was filed by the Coast Guard.

REFERENCES

Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

NOAA Response Report

M/V Allstar
Approaches Delaware Bay
April 23, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On April 23, 1985, the motor vessel Allstar was reported aground in Delaware Bay, approximately 14 miles off Cape May, New Jersey. Initial attempts to refloat the vessel, said to be carrying Nigerian Crude oil, failed.

NOAA RESPONSE

NOAA/OAD was notified of the incident on April 23, 1985, by the U.S. Coast Guard Captain of the Port, Philadelphia, and requested to provide a trajectory analysis should damage occur during attempts to free the vessel. The Coast Guard also requested information on resources at risk, the nature of the oil carried on board the Allstar, and weather forecasts for the area.

Based on data provided by NOAA/OAD, the Coast Guard Captain of the Port developed contingency plans for oil recovery prior to the first attempt to refloat the vessel. These data indicated that, during this period of the year, few natural resources would be at risk in the event of an oil discharge.

FINAL DISPOSITION OF THE INCIDENT

The Allstar was refloated without incident on April 23, 1985.

REFERENCES

Research Planning Institute, Inc., 1983. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Pennsylvania. An Atlas of Coastal Resources. Prepared for the National Oceanic and Atmospheric Administration, Seattle, Washington.

Torgrimson, Gary, M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

New Haven Terminal
New Haven, Connecticut
April 29, 1985

Gary Ott, Scientific Support Coordinator

INCIDENT SUMMARY

On December 27, 1983, an estimated 20,000 gallons of styrene overflowed a tank at the New Haven Harbor Terminal during a chemical transfer operation. The spill was believed to have been contained within the area around the New Haven Terminal's storage tanks. Cleanup operations were soon underway by the terminal operator, with East Coast Environmental Services as cleanup contractor.

On December 28, 1983, the terminal operator reported to the U.S. Coast Guard that styrene was entering New Haven Harbor at the New Haven Terminal from a ground seepage at the pier. The styrene had apparently percolated through the bottom of the containment area into the tidal water table. Upon discovery of the styrene seepage into the harbor, the contractor boomed the area between the New Haven Terminal piers and used sorbents to remove the styrene.

During all of 1984 and the early spring of 1985, the discharge of styrene into the New Haven Harbor continued at low levels.

NOAA RESPONSE

NOAA/OAD was notified of the incident on April 29, 1985 by the U.S. Coast Guard Captain of the Port (COTP), New Haven, and requested to assist in evaluating the volume and extent of the continued styrene discharge into New Haven Harbor.

NOAA/OAD and the Coast Guard COTP visited the site on April 29 to note the extent of the discharge, and discussed the incident with the Terminal Operator's staff. Samples of the discharge were taken to the Coast Guard Research and Development Center in Groton, Connecticut, where the incident and NOAA/OAD's observations were discussed in order to determine that the discharge was, in fact, still styrene.

FINAL DISPOSITION OF THE INCIDENT

The Coast Guard COTP, New Haven, directed that the New Haven Terminal Operator maintain boom and change sorbent materials that prevent obvious release of floating styrene into New Haven Harbor. NOAA/OAD advised that the level of discharge was less than 1,000 pounds, the reportable quantity for styrene.

NOAA Response Report

Methanol and Tetrahydrofuran Drums
Pomponic State Beach, San Mateo, California
August 12, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On August 11, 1985, the U.S. Coast Guard Marine Safety Office, Alameda, was notified by the harbor master in Half Moon Bay that material was spilling from eight drums which had washed up on the beach. Santa Clara County Health and Emergency Services chemists set up a portable laboratory and determined that the drums contained trace amounts in the 10-20 parts per million (ppm) range of methanol and tetrahydrofuran. Water samples were taken to determine the level of concentration and extent of contamination.

The U.S. Coast Guard recommended that the beach be secured in the vicinity of the drums until further notice because there had been a report of teenagers complaining of headaches for a short period of time after playing with the drums.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 12, 1985 by the U.S. Coast Guard Marine Safety Office, Alameda, and requested to research the effects of tetrahydrofuran and methanol in the 10-20 ppm range on human health and the environment.

NOAA/OAD advised that concentration levels in this range constituted a hazardous waste substance as defined by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980; the Code of Federal Regulations (49 CFR 172) further designated the substances as hazardous materials for the purpose of transportation. However, it was determined that the impact to human health and the environment would be minimal.

The beach was reopened on August 12 with no further reports of human health problems.

FINAL DISPOSITION OF THE INCIDENT

On August 14, NOAA/OAD monitored the Rydell Chemical Cleanup Company's removal of the drums from the beach to a holding area. Sample analysis of the water collected in the drums showed very low levels of contamination.

REFERENCES

Comprehensive Environmental Response, Compensation, and Liability Act of 1980. Section 101(14). U.S. Government Printing Office, Washington, D.C.

Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

Kummerlowe, David L., 1983. Hazardous Materials Response Branch Health and Safety Manual. Second Edition. National Oceanic and Atmospheric Administration, Seattle, Washington.

Pacific Coast Ecological Inventory: San Francisco, California, 1981. U.S. Fish and Wildlife Service.

Sax, N. Irving, 1984. Dangerous Properties of Industrial Materials. Sixth Edition. Van Nostrand Reinhold Company, New York.

NOAA Response Report

Methyl Ethyl Ketone and Asbestos Dumping
Berkeley, California
August 21, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 1300 on August 21, 1985, the U.S. Coast Guard Captain of the Port, Alameda, was notified by the Berkeley Police Department that there were 25 drums of unknown substances in a landfilled area approximately 500 meters from the Berkeley Marina. Approximately 100 plastic, 32-gallon bags of asbestos-laden insulation, some of which had broken open, were located on the edge of the lot near the water.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1330 on August 21, 1985 by the U.S. Coast Guard Captain of the Port, Alameda, and requested to evaluate the environmental effects of asbestos.

NOAA/OAD recommended that entry personnel wear full-face masks with forced air supply and full protective clothing, gloves, and boots. NOAA/OAD further emphasized the potential adverse risks to aquatic life of asbestos and methyl ethyl ketone.

NOAA/OAD assisted the Coast Guard in monitoring the actions of the cleanup contractor, IT Corporation, to insure that a proper and safe cleanup of the area was performed. The City of Berkeley took responsibility for the dumping of methyl ethyl ketone and asbestos-laden material. IT Corporation loaded the asbestos bags into a lined-truck for shipment to a pre-approved waste site for toxic materials. The methyl ethyl ketone containers were placed in overpacked drums and properly disposed.

FINAL DISPOSITION OF THE INCIDENT

Samples taken and analyzed by the Berkeley Office of Environmental Health indicated that methyl ethyl ketone (MEK) was contained in the drums. IT Corporation was contracted by the City of Berkeley to remove the drums and asbestos bags to an approved hazardous waste site.

REFERENCES

Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

REFERENCES, cont.

Kummerlowe, David L., 1983. Hazardous Materials Health and Safety Manual. Second Edition. National Oceanic and Atmospheric Administration, Seattle, Washington.

Pacific Coast Ecological Inventory: San Francisco, California, 1981. U.S. Fish and Wildlife Service.

NOAA Response Report

PCB Spill
Richmond Shipyard, Richmond, California
August 29, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

At 1525 on August 29, 1985, the U.S. Coast Guard Marine Safety Office (MSO), Alameda, was notified of a transformer leak at Richmond Shipyard. The Port of Richmond was informed of the leak, and a portable laboratory brought to the shipyard indicated polychlorinated biphenyls (PCBs) at 38-1,000 parts per million (ppm). In addition to the Coast Guard MSO, the Coast Guard Pacific Strike Team, the U.S. Environmental Protection Agency (EPA), and local health officials were on-scene.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 29, 1985 by the Coast Guard MSO, Alameda, and requested to provide technical data on PCBs, including safety and health considerations.

NOAA/OAD advised that two Coast Guard personnel exposed to the PCBs wash the area of exposure for 15 minutes before being taken to the U.S. Military Hospital for treatment; they were subsequently released. NOAA/OAD further advised that entry personnel wear protective clothing and try to avoid any direct contact of the PCBs with skin.

FINAL DISPOSITION OF THE INCIDENT

With NOAA/OAD, the Coast Guard, and EPA monitoring, a licensed contractor in Level B protection secured the leaking transformer and remove the contaminated soil.

EPA took responsibility for citing the spiller and the Coast Guard secured from monitoring following the transport of the leaking transformer, soil, and other contaminated material to a waste storage facility.

REFERENCES

Ernst, William, D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

Kummerlowe, David L., 1983. Hazardous Materials Response Branch Health and Safety Manual. Second Edition. National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

F/V Becky
Monterey Bay, California
September 14, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

During the early morning hours of September 14, 1985, the 41-foot fishing vessel Becky, carrying an estimated 3,000 gallons of No. 2 diesel fuel, sank in approximately 300 fathoms six miles off Monterey Bay near Pinos Point. The crew was rescued after being in the water for over an hour.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0900 on September 14, 1985, by the U.S. Coast Guard Captain of the Port, Alameda, and requested to provide trajectory information in the event that any of the Becky's fuel spilled. The Coast Guard was particularly concerned about the threat to a sea otter range north of the sinking site.

NOAA/OAD determined that the offshore location of the release and the prevailing weather, winds, and currents would prevent any impacts to either the coast or the sea otter range. NOAA/OAD further advised that, in the event of a total release, the diesel fuel would extend as a sheen for two to three miles in an east-southeast direction before heavy weather would cause the diesel to disperse naturally. Finally, NOAA/OAD advised that there would be no chance for offshore recovery of the fuel.

FINAL DISPOSITION OF THE INCIDENT

Observations by Coast Guard overflights and a Coast Guard vessel noted a slight sheen in the vicinity of the sinking. The case was closed on September 17 when subsequent overflights failed to note further sheen.

REFERENCES

Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

Pacific Coast Ecological Inventory: Monterey Bay, California, 1981. U.S. Fish and Wildlife Service.

Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Naval Communications Station Stockton
Stockton, California
September 24, 1985

Burl Wescott, Scientific Support Coordinator

INCIDENT SUMMARY

Eight 25-gallon cans of DuPont Econo Chrome stored in the warehousing facility at the Naval Station in Stockton, California, were scheduled to be moved. The cans had been stored for six years in close proximity to caustic soda containers, sulfuric acid, and a five-pound bottle of mercury. Upon examination of the cans, it was discovered that a white "hairy" substance was growing around the lid fitting of the cans.

NOAA RESPONSE

NOAA/OAD was notified of the incident at approximately 1600 on September 24, 1985 by the Naval Station in Stockton, and requested to advise on the safety of handling the pallet of cans, which appeared to be of questionable integrity. The Naval Station was further concerned about the stability of the product in the cans in view of their age and the apparent oxidation product forming on the lids.

NOAA/OAD was unable to obtain information on Econo Chrome from DuPont, the material's manufacturer until 0800 on September 25. NOAA/OAD learned from the Chemical Transportation Emergency Center (CHEMTREC) that Econo Chrome is a wide sprectrum chromic acid compound containing a special catalyst which is used as a decorative and hard chromium plating. NOAA/OAD also provided the Naval Station with detailed analyses of the chemicals stored in the vicinity of the Econo Chrome. NOAA/OAD further advised on appropriate safety procedures for handling the containers.

FINAL DISPOSITION OF THE INCIDENT

The Naval Station warehouse facility arranged for a contractor to overpack each of the containers and dispose of them as hazardous waste. The case was closed at 0900 on September 25, 1985.

REFERENCES

Chemical Transportation Emergency Center, 1985. Personal Communication. Washington, D.C.

Hamburger, Tom, 1985. Personal Communication. E.I. DuPont de Nemours Company Chemical Division, Deepwater, New Jersey.

REFERENCES, cont.

Stein, Al, 1985. Personal Communication. E.I. DuPont de Nemours Company Chemical Division, Deepwater, New Jersey.

U.S. Environmental Protection Agency, 1983. Oil and Hazardous Material Technical Assistance Data System (OHMTADS). NIH/EPA Chemical Information System, Falls Church, Virginia.

NOAA Response Report

Alameda Naval Air Station
Oakland, California
September 25, 1985

Stewart McGee, Jr., Scientific Support Coordinator

INCIDENT SUMMARY

On September 25, 1985, the U.S. Coast Guard Marine Safety Office, Alameda, was notified by the U.S. Naval Air Station, Alameda, that approximately 1,500 gallons of JP 5 fuel oil had been spilled. Initial reports indicated that some of the fuel may have entered storm drains, but upon further investigation, it was discovered that the storm drains had been bermed to contain the spill on the Naval Air facility.

NOAA RESPONSE

NOAA/OAD was notified of the incident on September 25, 1985 by the U.S. Coast Guard MSO, Alameda, and requested to recommend precautions to be taken in responding to spills of this nature.

NOAA/OAD provided the Navy with safety and health recommendations for handling petroleum spills, and added that there are no universal safety standards in effect for cleaning up JP 5 fuel spills on cement or asphalt. However, headaches, nausea, dizziness, and slight eye irritation are classic light hydrocarbon exposure symptoms. NOAA/OAD further recommended that all response personnel wear breathing apparatus when prolonged exposures are expected.

FINAL DISPOSITION OF THE INCIDENT

Cleanup commenced immediately on September 25 under the supervision of the U.S. Navy. The Navy indicated that it would investigate the issue of providing breathing apparatus for response personnel with prolonged exposures to light hydrocarbons.

REFERENCES

Kummerlowe, David L., 1983. Hazardous Materials Response Branch Safety and Health Manual. Appendix A: Level of Protection. Second Edition. National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

Leaking Container of Microcide L-36
Seattle, Washington
October 25, 1984

Burl Wescott, Scientific Support Coordinator

INCIDENT SUMMARY

On October 25, 1984, NOAA's Western Administrative Support Center (WASC) hazardous substances storage building received a five-gallon container leaking a material of unknown toxic properties.

NOAA RESPONSE

NOAA/OAD was notified of the incident by the WASC Facility Manager on October 25, 1984, and requested to provide recommendations for the handling and disposal of the container's contents. NOAA/OAD determined that the product was Microcide L-36, a bacterial slime control agent for heavy fuels. The container's label identified the manufacturer as Pacific Chemical, Kirkland, Washington.

NOAA/OAD contacted Pacific Chemical and learned that Microcide L-36 is an out-of-production commodity that is no longer commercially available. Cleanup procedures were discussed and Pacific Chemical agreed to accept all of the product and the contaminated sorbent material from the cleanup to prevent NOAA having to deal with a hazardous materials disposal problem.

NOAA/OAD contacted WASC and provided guidelines for cleaning, packaging, and shipping the Microcide L-36 container back to Pacific Chemical. NOAA/OAD further recommended that the wooden shelving on which the product had been stored also be taken out and returned with the cleaning sorbent material to the manufacturer so that no contamination would remain.

FINAL DISPOSITION OF THE INCIDENT

WASC accepted NOAA/OAD's recommendations and agreed to prepare the product for transportation, clean the spillage, and package the cleaning material and the shelf by warehouse personnel who would be appropriately dressed in protective splash clothing and face protection. The Microcide L-36 would then be taken to Pacific Chemical for disposal.

REFERENCES

1. Lewis, Richard J. Sr. and Rodger L. Tatken, 1982. Registry of Toxic Effects of Chemical Substances, 1980 Edition - Volume One. U.S. Department of Health and Human Services, National Institute for Occupational Safety and Health.

NOAA Response Report

F/V Banjo
Strawberry Rocks, Washington
November 6, 1984

Robert Pavia, Scientific Support Coordinator

INCIDENT SUMMARY

The U.S. Coast Guard station at Neah Bay was notified on the morning of November 6, 1984 that the fishing vessel Banjo was adrift eight miles west of Strawberry Rocks, the extreme northwestern tip of Washington. Some of the approximately 2,000 gallons of diesel fuel onboard was reported to be leaking from the vessel's fuel tank vents.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 6, 1984, by the U.S. Coast Guard Captain of the Port (COTP), Seattle, and requested to provide a trajectory of the abandoned vessel to evaluate the potential threat to Washington shorelines.

Trajectories indicated that the vessel could move into the Straits of Juan de Fuca on a flood tide, as far as Neah Bay. However, gale force winds, forecast by the NOAA National Weather Service, reduced the likelihood of the vessel surviving the night.

FINAL DISPOSITION OF THE INCIDENT

No vessel, debris, or oil could be located by aircraft the following day, November 7. It was presumed that the vessel sank during the night.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

3. Torgrimson, Gary M., 1984. The On-Scene-Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Tank Barge Foss 244
Apple Cove Point, Washington
November 11, 1984

Robert Pavia, Scientific Support Coordinator

INCIDENT SUMMARY

The tank barge Foss 244 was en route from a Georgia Pacific plant in northern Puget Sound to the Monsanto facility in Seattle when it sank about 1.5 miles east of Apple Cove Point on Bainbridge Island. The shipper, Foss Tug, reported the cargo as 17,000 barrels of calcium ligno sulfonate in a 3% water solution. There was also 1,100 gallons of diesel fuel in a tank on the barge.

It was not possible to fix the exact location where the barge sank, which complicated potential response operations. Water depths in the area varied from 140 to 400 feet.

NOAA RESPONSE

NOAA/OAD was notified of the incident on November 11, 1984, by the U.S. Coast Guard Captain of the Port, Seattle, and requested to investigate the toxicity of calcium ligno sulfonate, provide trajectories of spilled oil on the surface, and resources at risk in the area of the sunken barge.

NOAA/OAD determined that the Sulfonate is a pulp mill byproduct which has a high chemical oxygen demand, but will not precipitate out in salt water. The major biological consequence, assuming a slow release from the barge, would be a reduction of oxygen at the bottom.

Oil trajectories were calculated which determined threat times and locations for a variety of spill conditions. The most seriously threatened shorelines were on Bainbridge Island.

Geoduck populations were the major biological resource of concern near the barge. The animals in deep water are not directly harvested, but do serve as a breeding stock to replace animals harvested from shallower waters.

FINAL DISPOSITION OF THE INCIDENT

No oil releases were observed from the area where the barge sank. Following toxicity tests on samples of the cargo obtained from the shipper, the State of Washington determined that the material was not a dangerous good and could remain in the barge. In light of this information, the U.S. Coast Guard did not require Foss to salvage the barge.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

3. Gundlach, Erich R., Miles O. Hayes, Charles D. Getter, Stephen L. Carlson, and Robert Pavia, 1984. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Strait of Juan de Fuca and Northern Puget Sound. An Atlas of Coastal Resources. National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

Mystery Spill
Northern Puget Sound, Washington
December 21, 1984-January 8, 1985

John Robinson, Scientific Support Coordinator

INCIDENT SUMMARY

On December 21, 1984, an oil spill was reported to the U.S. Coast Guard by a vessel off the coast of Seattle. An initial investigation revealed that a narrow band of oil extended from Elliott Bay north to Possession Sound, a distance of approximately ten miles.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1320 on December 21, 1984, by the U.S. Coast Guard, Seattle, and requested to provide a trajectory forecast and statement of natural resources at risk. In view of the uncertainty regarding the exact location of the slick, an overflight was made by NOAA/OAD while initial data preparation was being undertaken for the trajectory analysis. By 1730, the extent of the spill had been fully delineated and forecasted impacts were presented to the U.S. Coast Guard together with a general statement of resources at risk and possible protective strategies.

Over the next several days, substantial damage was caused to migratory and overwintering bird populations in the region as the spill moved north and west into environmentally sensitive areas along the southern coast of Whidbey Island.

During this period surveys were undertaken by NOAA/OAD to determine the extent of damage and effectiveness of cleanup operations. A NOAA vessel was made available to assist in monitoring cleanup operations.

By December 23, it was evident that bird rescue operations would constitute a major aspect of the response and contacts were initiated by NOAA/OAD to obtain adequate facilities from Snohomish County to undertake the sizeable cleaning operation necessary. By December 29, 415 birds had been recovered and cleaned by several hundred volunteer workers.

An oil sample obtained by the U.S. Coast Guard was analyzed by the NOAA Northwest and Alaska Fisheries Center and determined to be Bunker C, free of hazardous contaminants within the limits of detection of the instruments used. Based on this analysis, the Washington State Department of Ecology cleared the material for incineration at a conventional disposal facility.

On December 29 and 31, overflights were undertaken by NOAA/OAD and other resource agencies to assess the status of cleanup activities.

FINAL DISPOSITION OF THE INCIDENT

Cleanup operations continued through January 8 as isolated impacts were observed on Whidbey Island, Marrowstone Island, Bainbridge Island, and the Kitsap Peninsula. No source has been identified at this writing, although an extensive investigation is being undertaken by the U.S. Coast Guard to match oil samples with the fuel aboard all vessels known to be in the area at the time of the spill.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

3. Gundlach, Erich R., Miles O. Hayes, Charles D. Getter, Stephen L. Carlson, and Robert Pavia, 1984. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Strait of Juan de Fuca and Northern Puget Sound. National Oceanic and Atmospheric Administration, Seattle, Washington.

4. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Rope End Burning
Seattle, Washington
January 15, 1985

David Kummerlowe, Safety and Health Coordinator

INCIDENT SUMMARY

NOAA National Marine Fisheries Service (NMFS) employees routinely burn rope ends made of polypropylene, polyethylene, and nylon during the process of manufacturing fishing nets and have in the past developed headaches and nausea during this operation. White smoke usually is emitted by the heated rope. One particular employee has smoked an average of one pack of cigarettes per day for the past 15 years, and has signs of decreased pulmonary function.

NOAA RESPONSE

NOAA/OAD was notified of this process on January 15, 1985, by NOAA NMFS employees, and requested to provide information concerning the possible health threat from the process of burning rope ends.

NOAA/OAD advised that toxic combustion byproducts of a significant nature are not expected from the burning of any of these three ropes. Both polyethylene and polypropylene are composed of polymerized simple chain carbon and hydrogen molecules. Typically, combustion of such compounds releases non-toxic byproducts such as carbon dioxide and water, along with some black soot. It is not expected that any polynuclear aromatic hydrocarbons would be produced.

Although several nitrous-fume byproducts may be generated by the combustion of nylon rope, it is not expected that the concentration of these fumes will reach levels which would be considered harmful. Amines may also be produced, but their irritating effect would tend to limit exposure. The white smoke which eminates from the burning process is most likely small droplets of polyethylene, polypropylene, and nylon.

NOAA/OAD conducted air monitoring on January 15 using all three types of rope under current normal working conditions. Air samples were taken about six inches above the hot wire in the white smoke plume eminating from the wire using colorimetric indicating tubes and a portable photoionization detector. The colorimetric tubes showed negative results; the photoionizer showed results less than 2 ppm above background.

FINAL DISPOSITION OF THE INCIDENT

NOAA/OAD recommended to NOAA NMFS that a local exhaust system be installed to vent the fumes outside the work area, and discussed a simple apparatus consisting of a four-inch dryer duct hose and blower. NOAA/OAD advised that exhausting the white smoke outside the area is

FINAL DISPOSITION OF THE INCIDENT, cont.

preferred to the use of a fan mounted on the hot wire machine because such a fan would not remove the unwanted fumes. NOAA/OAD reported that insufficient data had been collected to determine conclusively that the rope burning process was not responsible for the NOAA NMFS employee's decreased pulmonary function test results, and advised that his condition is more probably due to his cigarette smoking. Finally, NOAA/OAD recommended that if the use of a local exhaust system did not decrease the occurrence of headaches and nausea reported by employees, further steps should be taken to recognize, evaluate, and control the causative agents.

REFERENCES

1. Fundamentals of Industrial Hygiene, 1981. Second Edition. National Safety Council, Chicago, Illinois.

2. Hawley, Gessner G., 1981. The Condensed Chemical Dictionary. Tenth Edition. Van Nostrand Reinhold Company, New York.

3. Morgan, Dr. Michael, 1985. Personal Communication. Occupational Pulmonary Specialist, University of Washington, Seattle, Washington.

4. Overton, Dr. Edward, 1985. Personal Communication. Louisiana State University, Baton Rouge, Louisiana.

NOAA Response Report

Northwest Fur Breeders Co-operative
Edmonds, Washington
March 4, 1985

David Kummerlowe, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 1830 on March 3, 1985, a release of a white liquid substance was observed entering Puget Sound through a storm sewer adjacent to the Northwest Fur Breeders Co-operative in Edmonds, Washington. It was determined by authorities on scene that the product was orthodichlorobenzene, a fungicide, which was being used to disinfect a shipping container. The exact amount of the release was not known but was believed to be less than seventy-five gallons of the pure product.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 2315 on March 4, 1985 by the U.S. Coast Guard Marine Safety Office, Seattle, and requested to provide cleanup recommendations and information on human and environmental toxicity of the product.

NOAA/OAD determined that the spill created an acute, local toxic threat to marine life, and that the ingestion of that marine life might create health problems in exposed individuals. NOAA/OAD suggested that the nearby public fishing pier be closed until local health authorities could be contacted, and that local restaurants be notified that shellfish in liveboxes might be contaminated.

FINAL DISPOSITION OF THE INCIDENT

A Washington State Department of Ecology study of the incident indicated that less than three gallons of orthodichlorobenzene highly diluted with water was actually released into Puget Sound. No confirmed reports of environmental damage were made. The public fishing pier and nearby beaches were closed by local authorities for approximately one day. The U.S. Coast Guard notified the U.S. Environmental Protection Agency (EPA) of the spill, and EPA subsequently began an investigation of chemical disposal practices at the Northwest Fur Breeders Co-operative.

REFERENCES

1. Hawley, Gessner G., 1981. Condensed Chemical Dictionary. Tenth Edition. Van Nostrand Reinhold Company, New York.

2. Meister, Richard T., ed., 1984. Farm Chemicals Handbook. Meister Publishing Co., Willoughby, Ohio.

REFERENCES, cont.

3. Michel, Dr. Jacqueline, 1985. Personal Communication. Research Planning Institute, Columbia, South Carolina.

4. Overton, Dr. Edward, 1985. Personal Communication. Louisiana State University, Baton Rouge, Louisiana.

NOAA Response Report

Assault Ship U.S.S. Belleau Wood
Bremerton, Washington
March 17, 1985

Robert Pavia, Scientific Support Coordinator

INCIDENT SUMMARY

The helicopter assault ship U.S.S. Belleau Wood arrived at Bremerton Naval Ship Yard for a major overhaul in early March 1985. Oil-contaminated bilge water was pumped from the vessel during preparation for drydocking. At approximately 2300 on March 15, a slop tank vent began to overflow as the result of an improperly positioned valve. The valve redirected oil from piping leading from a tank barge to a slop tank on the vessel. Approximately 300-500 gallons of diesel oil flowed from the tank vent into the dry dock and out to Sinclair Inlet in Puget Sound.

The spill went unoticed for approximately one hour before control operations were implemented. The Navy reported the spill to the U.S. Coast Guard Captain of the Port, Seattle, by written message on March 16.

NOAA RESPONSE

NOAA/OAD was notified of the incident on March 17, 1985 by the U.S. Coast Guard Captain of the Port, Seattle, and requested to provide information on oil trajectories and resources at risk in the area. The U.S. Coast Guard overflew the area of the spill and found a relatively large area of contamination in Sinclair Inlet and the Port Orchard area near Rich Passage. Sinclair Inlet is partially isolated from Puget Sound by the Kitsap Peninsula and Bainbridge Island. Rich Passage is the main path of water exchange between the two water bodies.The oil was not adequately controlled by Navy efforts at the time.

It was difficult for NOAA/OAD to predict oil landfall in the area of the spill because of weak and variable winds at the time. In general, the threat area included Port Orchard to Waterman Point, the north side of Rich Passage, and the west side of Bainbridge Island. NOAA/OAD personnel participated in an overflight on March 18 to determine the exact extent of the oil.

NOAA/OAD determined that the sheltered areas of Sinclair Inlet are important for a number of sensitive resources. These include sheltered tidal flats and wetlands at the southwest end of the Inlet. NOAA/OAD strongly recommended that this area be boomed. There were a wide variety of shore, wading, and diving birds and waterfowl in the Inlet, Port Orchard, and especially Clam Bay at the east end of Rich Passage. River otter are found at the southwest end of Sinclair Inlet. Numerous streams in the area support salmon. Juvenile migration of coho and chum were taking place.In addition, two mariculture facilities, at Beans Point and at Clam Bay on Rich Passage, were notified of the spill.

FINAL DISPOSITION OF THE INCIDENT

U.S. Navy efforts to recover the oil, and evaporation of the light diesel oil reduced the extent of the contamination to the area of the shipyard by March 19. No sensitive environmental areas were impacted by the oil, and only a few oiled birds were reported. The Washington State Departments of Ecology and Game conducted surveys of the area. By March 20 the Navy had recovered more than 2,000 gallons of oil.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

3. Gundlach, Erich R., Jacqueline Michel, Stephen L. Carlson, William D. Ernst, and Robert Pavia, 1984. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Central and Southern Puget Sound. An Atlas of Coastal Resources. National Oceanic and Atmospheric Administration, Seattle, Washington.

4. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Mystery Spill
Neah Bay, Strait of Juan de Fuca, Washington
March 31, 1985

Robert Pavia, Scientific Support Coordinator

INCIDENT SUMMARY

At 0915 on March 31, 1985, the U.S. Coast Guard received a report from a fishing vessel of a one-mile long by one-quarter mile wide slick of heavy black oil in the area of Neah Bay. An overflight later that morning confirmed the slick location, but reported a slick of discontinuous sheen, not the previously reported heavy oil. A U.S. Coast Guard vessel was dispatched to sample the oil.

NOAA RESPONSE

NOAA/OAD was notified of the incident on March 31, 1985, by the U.S. Coast Guard Captain of the Port, Seattle, and requested to provide weather information and a trajectory forecast for the slick. The NOAA National Weather Service forecasted that winds would blow from the east-southeast at 15-25 knots for the next 24 hours. Strong ebb tidal currents and weak flood tidal currents were also predicted for the area. The combination of winds and tides would carry the oil out of the Strait of Juan de Fuca.

FINAL DISPOSITION OF THE INCIDENT

The case was closed by the U.S. Coast Guard when no further observations of the slick were made.

REFERENCES

1. National Ocean Service, 1984. Tidal Current Tables 1985: Pacific Coast of North America and Asia. National Oceanic and Atmospheric Administration, Rockville, MD.

NOAA Response Report

Mystery Spill
San Juan Islands, Washington
April 11, 1985

Robert Pavia, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 1700 on April 11, 1985, a private aircraft reported a one-half mile long slick of dark oil between Shaw and Orcas Islands in the Strait of Juan de Fuca. A small boat dispatched by the U.S. Coast Guard to confirm the sighting reported three slicks in the area of Wasp and Jones Islands.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1830 on April 11, 1985, by the U.S. Coast Guard Captain of the Port, Seattle, and requested to provide a trajectory for the slick, and information on resources at risk in the potential threat areas.

Since complex tidal currents in the San Juan Islands make trajectory forecasting difficult, NOAA/OAD provided the U.S. Coast Guard with search areas for a scheduled overflight. The search zone, which incorporated the weather forecast of dominant southerly winds through the morning of April 12, included the area from Jones Island to President's Channel between Waldron and Orcas Islands, and specific smaller islands in Wasp Passage.

NOAA/OAD determined that the majority of shorelines in the threat area are high energy and, as such, were at little risk from the oil. NOAA/OAD further advised that the islands in the area support large numbers of birds, including nesting bald eagles on Jones Island. Finally, it was noted that river otters are also found near the island.

FINAL DISPOSITION OF THE INCIDENT

NOAA/OAD and the Coast Guard conducted a helicopter overflight of the area on April 12. In spite of careful coverage of all areas highlighted in the trajectory, no oil was sighted.

REFERENCES

Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

Research Planning Institute, 1984. The Sensitivity of Coastal Environments and Wildife to Spilled Oil: Northern and Central Puget Sound. An Atlas of Coastal Resources. Prepared for National Oceanic and Atmospheric Administration, Seattle, Washington.

NOAA Response Report

Pier 46, Port of Seattle
Seattle, Washington
July 20, 1985

Will Ernst, Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 1020 on July 20, 1985, a 5,000-gallon tank failed, causing a release of a small amount of benzaldehyde onto a concrete dock in the port area of Seattle. At the request of Port officials, the Seattle Fire Department Hazardous Materials Unit responded to the scene immediately and began containment activities.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1050 on July 20, 1985 by the Port of Seattle Communications Center, and requested to advise on the hazards associated with this chemical release. The Communications Center indicated that the U.S. Coast Guard had been notified of the incident.

Questioning revealed that the tank leakage was reportedly limited to a steady drip from the valve, and that the full content of the tank was confined and stable. During this initial telephone call, references providing chemical product data were reviewed and summarized by NOAA/OAD and relayed to Port personnel. Reactivity, corrosivity, and human and environmental toxicity data were reviewed to confirm and supplement benzaldehyde reference data available to the Port. NOAA/OAD advised that benzaldehyde is very reactive and may form explosive vapors in air. In addition, even slight exposures pose a potentially serious hazard to human health.

At 1100, the U.S. Coast Guard Marine Safety Office, Seattle, contacted NOAA/OAD in response to this incident. The Coast Guard indicated that they had reports of a 5,000-gallon benzaldehyde release, contradicting release information provided by the Port of the Seattle. The Coast Guard decided to go to the scene of the incident to ensure that safe and proper methods were being employed. At the request of the Coast Guard, NOAA/OAD again reviewed the chemical hazards and discussed recommended response procedures for both possible release conditions.

NOAA/OAD was requested to discontinue an active response and await further information from the Coast Guard regarding actual conditions on-scene. Additional requests for assistance were not anticipated.

FINAL DISPOSITION OF THE INCIDENT

The release was limited to a steady drip from an otherwise stable tank. Only one gallon of product was actually released prior to discovery of the release and repair of the tank valve. Containment activities were conducted without incident. Damage was limited to a slight erosion of the concrete pad immediately beneath the drip.

BIBLIOGRAPHY

Handling Chemicals Safely. 1980. Dutch Firemen's Association. The Netherlands.

U.S. Coast Guard. 1978. CHRIS: Hazardous Chemical Data. Commandant Instruction M 16465.12. Washington, D.C.

NOAA Response Report

Aluminum Phosphide Fumigant
Cape Disappointment, Washington
August 19, 1985

David Kennedy, Scientific Support Coordinator

INCIDENT SUMMARY

On the afternoon of August 18, 1985, approximately 30 small paper bags marked "poisonous" were found along the eastern side of Jetty A at Cape Disappointment, Washington, by off-duty U.S. Coast Guard personnel.

The bags were collected and transported to the Coast Guard station at Cape Disappointment. When additional bags were found in the same area, the Coast Guard closed Jetty A.

NOAA RESPONSE

NOAA/OAD was notified of the incident on August 19, 1985 by the Coast Guard Marine Safety Office, Portland, Oregon, and requested to send a field party to the site, assist in identifying the material in the bags, determine possible human and environmental health hazards and the source of the bags, and recommend cleanup and disposal methods.

NOAA/OAD immediately recommended that the public be restricted from Jetty A, that personnel exposed to the bags be monitored closely for symptoms, and that the product already gathered be isolated and removed from personnel areas. It was also recommended that the product not be kept in confined spaces or piled up on the beach.

From information obtained from labels on the bags, NOAA/OAD was able to determine that the product was Detia Gas-Ex-B, an agricultural fumigant used by grain ships and silos to control rats and other vermin. The material is packaged as 2½-inch by 3-inch paper bags, permeable to water, with three grams of aluminum phosphide fumigant contained in each bag. The fumigant contains approximately 55% aluminum phosphide and 45% inert ingredients which act to control the reaction of aluminum phosphide with water. NOAA/OAD advised that, when aluminum phosphide is exposed to water, it liberates highly toxic and irritating phosphine gas. NOAA/OAD further determined that the bags are normally distributed throughout grain shipments and react with the moisture in the air to release phosphine gas which fumigates the immediate area. Detailed chemical analyses of the product were forwarded to the Coast Guard Marine Safety Office in Portland.

The NOAA/OAD field party determined that all of the Detia Gas-Ex-B product had completely reacted with water and so posed no further human or environmental health threat. NOAA/OAD's conclusions were reached by personnel who have conducted several laboratory and field experiments in the past with aluminum phosphide fumigant.

FINAL DISPOSITION OF THE INCIDENT

Assisted by Coast Guard personnel, NOAA/OAD recovered several more bags from Jetty A, where the other bags had originally been found. The Coast Guard followed NOAA/OAD's recommendation that the 35-40 recovered bags be burned in a remote location to destroy the labels. In addition, NOAA/OAD advised that base personnel should destroy by burning the labels of any other bags which appear to have been in the water as long as those already recovered, unless a garlic odor exists. In this case, the bags should be left outside in a remote location and personnel exposure avoided.

REFERENCES

Buchel, K. H., ed., 1983. Chemistry of Pesticides. John Wiley and Sons, Somerset, New Jersey.

The Chemistry of Phosphine, in Topics in Current Chemistry. Springer-Verlag, Berlin.

Hawley, Gessner G., 1981. The Condensed Chemical Dictionary. Tenth Edition. Van Nostrand Reinhold Company.

Kummerlowe, David, 1985. Personal Communication. National Oceanic and Atmospheric Administration.

Meister, Richard T., ed., 1984. Farm Chemicals Handbook '84. Meister Publishing Co., Willoughby, Ohio.

Morris, Byron, 1985. Personal Communication. Research Products Corporation, Salinas, Kansas.

Overton, Dr. Edward, 1985. Personal Communication. Louisiana State University Institute for Environmental Studies, Baton Rouge, Louisiana.

Smuck, Joseph, 1985. Personal Communication. Paramount Pest Control, Seattle, Washington.

NOAA Response Report

Kalama Chemical Company
Kalama, Washington
September 3, 1985

David Kennedy, Scientific Support Coordinator

INCIDENT SUMMARY

On September 3, 1985, Kalama Chemical Company discovered that approximately 12,000 gallons of toluene were missing from a diked storage tank at the company's facility in Kalama, Washington. Although a hole was discovered in the bottom of the tank, visual inspection of the area around the tank found no product or associated odor. Further surveys noted toluene leaking into the Columbia River, 150 feet away from the damaged tank.

NOAA RESPONSE

NOAA/OAD was notified of the incident on September 3, 1985, by the U.S. Coast Guard Marine Safety Office (MSO), Portland, and requested to assess the properties of toluene, determine possible underground migration routes, and suggest water and soil cleanup options. The Coast Guard MSO also asked NOAA/OAD to advise on the disposition of the toluene-contaminated soil.

NOAA/OAD provided a detailed chemical analysis of toluene, and advised on the probable ground transport routes of toluene, as well as the chemical's toxic effects on human health and the environment, and wate cleanup options. NOAA/OAD also contacted the U.S. Environmental Protection Agency and Washington State Department of Ecology for determination of the hazardous waste issue and provided advice for the disposition of the contaminated soil.

FINAL DISPOSITION OF THE INCIDENT

Kalama Chemical Company built a drain field and collection sump with stand pipe between the tank site and the river. The company is pumping product from the pipe, and has collected 2,500 gallons as of this writing. It is estimated that toluene may continue to be collected from this site for the next two years.

REFERENCES

Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Materials Spills Conference, pp. 135-140.

Hawley, Gessner G., 1981. The Condensed Chemical Dictionary. Tenth Edition. Van Nostrand Reinhold Company, New York.

NOAA Response Report

T/V Bun Sin
Oregon Coast
September 16,1985

David Kennedy,Scientific Support Coordinator

INCIDENT SUMMARY

At approximately 0600 on September 16,1985, a U.S. fishing vessel cut a refueling line from the Korean tanker Bun Sin to a Polish fishing trawler off the Oregon coast. One and a half tons of Bunker C fuel oil was spilled before pumping operations could be stopped.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 0830 on September 16 by the U.S. Coast Guard Marine Safety Office (MSO), Portland, and requested to provide a trajectory for the spilled Bunker C fuel. NOAA/OAD provided information on the characteristics of Bunker-C and advised that, at that location and time of year, the currents are in a transitional phase. The oil was predicted to travel north with some possibility of beach impact in the form of widely scattered tar balls occuring two to three days after the spill.

The Coast Guard was further advised that, historically during the transitional phase of the currents, there are many reports of tar balls on Washington/Oregon beaches. This pollution can generally be traced to concentrations that have collected offshore during the summer months and are then moved onshore during the winter months due to changes in wind and current patterns.

NOAA/OAD recommended that samples of the Bunker C be collected so that positive identification of reported tar balls could be made.

FINAL DISPOSITION OF THE INCIDENT

Poor weather restriced overflights of the area for the first two days of the spill. By the time aircraft were able to fly over the spill area the Bunker C had dissipated. No tar balls were reported.

REFERENCES

Galt, J. A. 1985. Personal communication. National Oceanic and Atmospheric Administration, Seattle, Washington.

Torgrimson, Gary M. 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

M/V Magnificent Venture
Honolulu, Hawaii
February 2, 1985

Robert Pavia, Scientific Support Coordinator

INCIDENT SUMMARY

The Liberian-registered bulk cargo vessel Magnificent Venture was en route from Chile to Japan when it took on approximately 1,000 tons (300,000 gallons) of seawater through the #1 cargo hold deck hatch. This hold contained approximately 3,500 tons of copper ore concentrate. The water which entered the #1 cargo hold mixed with the copper concentrate to form a slurry. The ship's stability was affected by both the additional weight of the water and shifting cargo. A "rotten egg" odor in the vicinity of the wet cargo reported by the crew indicated the possibility of a reaction with water. The vessel radioed the U.S. Coast Guard Captain of the Port (COTP), Honolulu, that it was diverting to Honolulu for inspection of the vessel and cargo.

NOAA RESPONSE

NOAA/OAD was notified of the incident on February 2, 1985 by the U.S. Coast Guard COTP, and requested to provide information on possible reactions between the ore and seawater. Although information on copper concentrate reactions with water under conditions present on the vessel is not readily available, even from manufacturers, NOAA/OAD determined that hydrogen sulfide gas might be generated by the wet cargo. Hydrogen sulfide can be an immediate health hazard to humans at 20 parts per million and an explosive hazard at a 4.3%-45% concentration.

NOAA/OAD estimated dispersion of hydrogen sulfide gas from the vessel to determine a recommended anchorage for the vessel in Hawaiian waters. The U.S. Coast Guard established a shipboard entry and air monitoring plan in consultation with NOAA and the U.S. Coast Guard Pacific Strike Team.

During the first U.S. Coast Guard inspection of the vessel it was reported that five crew members had experienced respiratory distress following work in the vicinity of the #1 cargo hold. The U.S. Coast Guard implemented medical monitoring procedures for the injured crew members, as recommended by the Centers for Disease Control.

Additional discussions with geochemists and representatives of copper mining companies in the U.S. and Canada revealed that copper concentrate can oxidize during the drying process to produce sulfur dioxide. Hydrogen sulfide is produced in the presence of acid. U.S. Coast Guard monitoring of the vessel for both gases and cargo pH continued. Careful sampling revealed neither sulfur dioxide nor hydrogen sulfide in the #1 hold. Based on this information, the vessel was allowed into Honolulu Harbor on February 9.

NOAA RESPONSE, cont.

Additional surveys of the cargo revealed that there were about six to eight inches of standing water on the top, four to five feet of slurry, and and seven feet of dry cargo. The Liberian government would not allow the vessel to continue its voyage with a cargo having more than 10% water so the owners proposed to offload the cargo to a landside containment area for air drying.

The owners' land drying proposal addressed problems of reaction temperature, gas generation, leachate treatment and disposal, and air monitoring identified by NOAA/OAD.

FINAL DISPOSITION OF THE INCIDENT

The water-contaminated cargo was offloaded from the vessel using a clamshell dredge on February 16. The slurry was placed directly into a lined containment area constructed at Pier 40. The cargo was dry enough by February 23 to begin reloading. The vessel was able to continue its voyage on February 24.

REFERENCES

1. Dreisbach, Robert H., 1983. Handbook of Poisoning, Eleventh Edition. Lange Medical Publications, Los Altos, California.

2. Olishifski, Julian B., ed., 1979. Fundamentals of Industrial Hygiene. National Safety Council, Chicago, Illinois.

NOAA Response Report

Ammonium Nitrate Spill
Whittier, Alaska
February 24, 1985

Robert Pavia, Scientific Support Coordinator

INCIDENT SUMMARY

On February 24, 1985, a railroad hopper car carrying 50,400 pounds of ammonium nitrate intended for use as fertilizer was being transferred from a rail barge onto the rail dock at Whittier, Alaska when the barge's unloading mechanism was accidently activated. The entire load of ammonium nitrate was dumped in the water adjacent to the rail dock.

NOAA RESPONSE

NOAA/OAD was notified of the incident on February 24, 1985 by the U.S. Coast Guard Captain of the Port, Anchorage, and requested to evaluate the threat to natural resources from the spill. NOAA/OAD determined that the material has a density greater than water and is highly soluble. It has a moderate aquatic toxicity, and can be an irritant to mucous membranes. A concentration plume for dissolved ammonium nitrate was estimated in order to determine the threat zone for natural resources.

Whittier is often used as a rail transhipment point because it is ice-free in winter. NOAA/OAD determined that Passage Canal, where Whittier is located, could be assumed to have the hydrodynamic characteristics of a classic fjord. The zone in which toxic concentrations could occur was restricted to a 1.5 kilometer area in the area of the pier. The majority of material would dilute to below toxic levels after 12 hours, with some patches of higher concentrations persisting for longer periods.

Harbor seals and the southern sea otter are the primary resources of concern at Whittier. Irritation of mucous membranes could occur if the animals encountered the spilled material, and its irritating nature would also cause them to leave the area, reducing potential impacts.

FINAL DISPOSITION OF THE INCIDENT

No physical alteration of the spill area was observed when the U.S. Coast Guard dispatched two inspectors to the scene on February 25. There were no visible signs or reports of fish kills in the area and no further action was taken.

This spill did alert the U.S. Coast Guard to potential problems related to chemical transhipment at this port. Additional contingency planning, in conjunction with NOAA, is planned.

REFERENCES

1. Ernst, William D., 1984. NOAA's Chemical Advisory Report (CHEMREP) System for Spill Response. Proceedings of the 1984 Hazardous Material Spills Conference, pp. 135-140.

2. Gundlach, E.R., et. al. 1983. Sensitivity of Coastal Environments and Wildlife to Spilled Oil: Prince William Sound, Alaska. An Atlas of Coastal Resources. National Oceanic and Atmospheric Administration, Seattle, Washington.

3. Turner, D. Bruce, 1974. Workbook of Atmospheric Dispersion Estimates. U.S. Environmental Protection Agency, Research Triangle Park, North Carolina.

NOAA Response Report

Waimea Dump Fire
Honolulu, Hawaii
September 4, 1985

David Kennedy, Scientific Support Coordinator

INCIDENT SUMMARY

On August 30, 1985, an uncontrolled landfill near Waimea Bay caught fire and burned intensely for two days, and then continued to smolder and smoke. Four families living in the vicinity who were exposed to the smoke reported symptoms including sore throats, eye and nose irritation, dizziness, fatigue, and stomach pains. The U.S. Coast Guard Marine Safety Office, Honolulu, and State of Hawaii Department of Health personnel were notified.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1945 on September 4, 1985, and requested to provide advise on procedures and equipment appropriate for sampling the smoke plume associated with the fire. NOAA/OAD was also asked to determine possible types of burn by-products and human health implications.

NOAA/OAD reviewed sampling equipment options and suggested the use of Drager tubes to sample for carbon monoxide, cyanide, nitrous oxides, and sulfur oxides. NOAA/OAD also recommended the establishment of an exclusion zone extending one-half kilometer around the site and evacuation of any residents in that area or directly in the path of the smoke plume. NOAA/OAD also volunteered to provide sampling equipment and recommended a local Hawaii company to perform the required sampling.

On September 5, NOAA/OAD met with the U.S. Environmental Protection Agency (EPA) and the Centers for Disease Control (CDC) to discuss the possible human health effects from the smoke plume. CDC recommended evacuation of families living in the area due to the the possible severe human health effects of the smoke. NOAA/OAD relayed this recommendation to the Coast Guard and requested CDC contact the State of Hawaii epidemiologist working on the case with the San Francisco EPA office.

FINAL DISPOSITION OF THE INCIDENT

The dump was still burning on September 9, 1985. No dangerous levels were detected when samples of the smoke were analyzed. Accordingly, no evacuation was undertaken.

REFERENCES

Detector Tube Handbook, 1983. Fifth Edition. Dragerwerk AG Lubeck, Federal Republic of Germany.

Mitchell, Dr. Frank, 1985. Personal communication. Centers for Disease Control, Atlanta, Georgia.

REFERENCES, cont.

Handling Chemicals Safety, 1980. Dutch Association of Safety Experts, The Netherlands.

Manual for Spills of Hazardous Materials, 1984. Technical Services Branch, Environmental Protection Service, Canada.

NOAA Response Report

Anchorage Port Spill
Anchorage, Alaska
December 20, 1984

David Kennedy, Scientific Support Coordinator

INCIDENT SUMMARY

At 1540 on December 18, 1984, the U.S. Coast Guard Marine Safety Office (MSO), Anchorage, was notified that oil of an unknown type was accumulating in a drainage ditch near the Chevron Oil terminal at the Anchorage Port.

Investigation by the U.S. Coast Guard, U.S. Army, and Chevron led to the discovery of a ruptured underground pipeline carrying Jet A-50 fuel. Cleanup contractors with vacuum trucks and sorbent pads removed 66,000 gallons of the estimated 106,000 gallon spill.

NOAA RESPOSNE

NOAA/OAD was notified of the incident at 1500 on December 20, 1984, by the U.S. Coast Guard MSO, Anchorage, and requested to calculate the potential evaporation rate of Jet A-50 fuel and to evaluate possible migration routes for any remaining fuel.

NOAA/OAD advised the U.S. Coast Guard MSO that, due to the low volatility of Jet A-50 fuel and the ambient temperature, it was highly unlikely that the remaining 40,000 gallons of Jet A-50 would evaporate. NOAA/OAD suggested that surveys should be done to investigate migration of the fuel along frost or frozen soil zones, seepage percolation into soil, or loss through drains or scuppers in the vicinity.

FINAL DISPOSITION OF THE INCIDENT

The cleanup contractor and the U.S. Coast Guard MSO discovered additional fuel in a large drain sump and in a trench dug below the spill. This fuel was cleaned up and the spill site will be monitored until spring thaw for additional fuel deposits.

REFERENCES

1. Galt, J. A. and D. L. Payton, 1981. Finite Element Routines for the Analysis and Simulation of Nearshore Circulation. Proceedings of the International Symposium on the Mechanics of Oil Slicks, pp. 121-132.

2. Galt, J. A., D. L. Payton, G. Watabayashi, and G. M. Torgrimson, 1983. The Use of a Tactical Oil Spill Trajectory Model for Kuwait. Environment Protection Council, Kuwait.

3. Torgrimson, Gary M., 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.

NOAA Response Report

Grayling Platform Blowout
Cook Inlet, Alaska
May 23, 1985

David Kennedy, Scientific Support Coordinator

INCIDENT SUMMARY

On the evening of May 22, 1985, a Union Oil Platform in Cook Inlet blew a combination of mud and natural gas 300 feet into the air while undergoing routine maintenance. The platform was evacuated without injuries or loss of life. There was no crude oil associated with the initial blowout but it was feared that the structural integrity of the platform was in jeopardy; if the platform collapsed, oil could escape from one of the other wells on the platform or from a pipeline connecting the platform to a land-based receiving facility.

NOAA RESPONSE

NOAA/OAD was notified of the incident at 1145 on May 23, 1985 by the U.S. Coast Guard Marine Safety Office (MSO), Anchorage, Alaska, and requested to provide information on resources at risk, oil dispersing recommendations, and spill trajectory. An inventory of resources at risk was provided to the Coast Guard with emphasis placed on the Trading Bay and Redoubt Bay areas which had very high concentrations of migratory waterfowl. Information was also passed on the effects of natural gas versus crude oil on affected resources. NOAA/OAD also prepared an assessment of dispersant use based on the draft dispersant use guidelines in preparation by the interagency Regional Response Team Dispersant Use Subcommittee. A trajectory model was initialized for Cook Inlet but was not run because crude oil was never spilled.

FINAL DISPOSITION OF THE INCIDENT

On May 28, 1985 the blowout "bridged" (caved in on itself), terminating the event. Structural repair of the rig has been completed and it is back in service.

REFERENCES

Bernard, B. B., T. C. Sauer, and H. Abdel-Reheim. 1978. Environmental aspects of a well blowout in the Gulf of Mexico. Environmental Science and Technology (12)6: 695-702.

Dispersant Use Guidelines for Alaska. In press. Alaska Regional Response Team Dispersant Use Subcommittee.

Research Planning Institute. 1985. The Sensitivity of Coastal Environments and Wildlife to Oil: Cook Inlet, Alaska. Prepared for the National Oceanic and Atmospheric Administration.

Torgrimson, Gary M. 1984. The On-Scene Spill Model: A User's Guide. NOAA Technical Memorandum NOS OMA-12.