

Alaska Department of Environmental Conservation

Quarterly Report of

Oil and Hazardous Substance Response

October 1 - December 31, 2000

Significant Responses This Quarter

Red Dog Mine Lead Concentrate

Spill Date: October 9, 2000

Product/Quantity: Lead Concentrate, 30 tons

Cause: Vehicle Accident

The rear trailer of a tandem lead ore concentrate truck left the road and overturned spilling lead concentrate over a 50-foot section of road embankment and 20 feet out onto the tundra. Tarps were placed over the spilled lead concentrate to prevent the powdery substance from blowing from the site. Spill crews had to wait several days for favorable wind conditions to begin removing the spilled lead concentrate. A loader scraped up the lead concentrate from the side of the road and also removed approximately 15' x 60' x 1' of tundra. The lead concentrate was to be recycled in the mill. Cleanup of the lead was complete by October 16. In the spring, the responsible party will seed the disturbed area and DEC will monitor the re-growth of vegetation.

Red Dog Mine Zinc Spill

Spill Date: December 28, 2000
Product/Quantity: Zinc Concentrate, 40 tons

Cause: Vehicle Accident

Poor visibility caused a truck pulling two trailers to leave the road and overturn, spilling zinc concentrate over a 100-foot section of road embankment and 50 feet out onto the tundra. The truck and trailers were up-righted and removed from the incident site on Friday, December 29, 2000. Weather conditions at the time of the spill prevented spill crews from immediately responding to the incident. Tarps were placed over the spilled zinc concentrate to prevent the powdery substance from blowing from the site. An estimate of 50% of the zinc concentrate remained in the uprighted trailers. Because of weather conditions, final cleanup of the spilled zinc concentrate was not completed until January 9, 2001. The spilled product and the contaminated snow and soils were brought back to the mine site and reintroduced into the milling process. Soil samples will be taken and analyzed to ensure the site is cleaned to the appropriate levels. In the spring, the disturbed soils should be seeded and fertilized to speed-up the revegetation process.

New Port Walter Bunker Oil

Spill Date: November 20, 2000

Product/Quantity: Bunker Oil. 500-1000 Gallons

Cause: Abandoned Tank

An abandoned 16' x 12' cylindrical riveted steel fuel tank was discovered to be the source of a bunker oil spill at a former salmon saltery used from the 1880's until the 1930's. Personnel from the US Coast Guard Marine Safety Detachment, Sitka and the US Forest Service Office, Sitka, made an initial inspection and assessment of the site and situation and found thick tar-like oil on the ground under the tank and in a stream, which averaged 18 inches wide and approximately 1/4 inch thick, leading down to the high water mark. The US Forest Service (USFS) has taken responsibility for the spill and cleanup actions associated with it.

The USFS hired TCI Environmental in Sitka to conduct a site assessment and to conduct source control, containment and cleanup actions. As of December 8, 2000, the USFS contractor, TCI Environmental, had drained residual product from the tank directly into drums and a crew of two continued to work on scraping out the remaining product from the inside of the tank.

Tuntutuliak-TCSA Bulk Tank Spill

Spill Date: November 28, 2000
Product/Quantity: Diesel, 600 Gallons
Cause: Cracked Equipment

At a tank farm in Tuntutuliak (40 miles southwest of Bethel), wind blew a ladder over, which apparently cracked the outlet pipe of a 4500-gallon bulk fuel tank resulting in the entire loss of product. The Tuntutuliak Community Service Association (TCSA) operator had recently gauged the tank and estimated it contained approximately 600 gallons. The diesel was discharged to the frozen tundra and a nearby pond where it flowed under the ice of the pond. U.S. Coast Guard personnel and the ADEC Bethel staff conducted a site visit on November 30, 2000. The oil concentrated near the pond shoreline in a 120ft by 175ft plume. High concentrations of oil were found in pockets between ice layers in the pond. Gray water discharge from the washeteria exits into the pond, which added in the migration of oil under the ice. Containment efforts focused on the construction of a semi-circlular barrier using a visqueen curtain, which was expanded towards the shoreline. Sorbent boom was placed inside the barrier to recover any product released during warm weather trends. Recovery of free product from the high concentration areas has been completed.

Sag River DOT Maintenance Camp Spill

Spill Date: December 16, 2000 Product/Quantity: Diesel, 7,600 Gallons

Cause: Tank Overfill

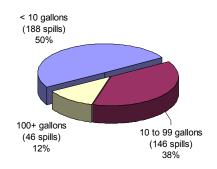
A tank overfilled at the Sag River Highway Maintenance Camp due to a frozen or stuck float on a day tank. A recovery trench was excavated to a depth of just below 15 feet into the permafrost located within the original ground and free product was recovered. As of December 21, 2000, approximately 850 gallons of free product had been recovered. Access doors into the crawlspace of the maintenance shop were removed and approximately 300 gallons of free product was discovered near a wall just adjacent to the day tank and was removed. Alyeska Pipeline Service Company (APSC) supplied an excavator to excavate an exploratory trench approximately 100 feet down gradient of the spill on the gravel pad to scope the migration of the product. APSC also supplied equipment to safely ventilate fumes from the crawl space where the free product was discovered. Seals on existing sumps surrounding the spill-contaminated area were removed and no free product or odor was observed. The sumps extend down ten feet below the surface through the gravel and into the original ground.

For more information, visit our website at http://www.state.ak.us/dec/dspar/perp

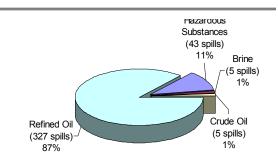
Data Summary

Oil and Hazardous Substance Spills October 1- December 31, 2000

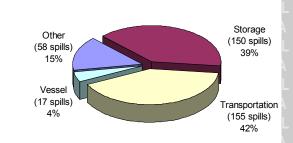
(releases reported in pounds were not included)



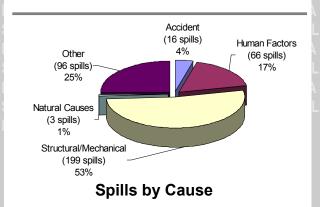
Spills by Size Class



Spills by Product



Spills by Source



Spill News

Williams Refinery Compliance Issues

During the September 27 Williams Refinery glycol spill, department staff identified several outstanding compliance issues. They included the need to make improvements to spill prevention efforts and increase subsurface petroleum free product recovery at the refinery. Consequently, department staff, as well as the Alaska Department of Natural Resources, were notified and informed of the situation. The plan is for all state entities to meet and devise a comprehensive plan to address the problems.

Meth Labs

Methamphetamine drug labs continue to be a potential contamination problem in Fairbanks. In recent months, two clandestine drug labs were dismantled in Fairbanks, and Alaska State Troopers requested the department to sample one of these sites. Samples were collected and will be analyzed for the associated chemicals. In December 1999, the Alaska State Troopers dismantled a suspected clandestine drug laboratory in North Pole, and department personnel sampled drinking water at four neighboring residences. The analytical results indicated that methylene chloride was detected at one residence and toluene at another. In the past six months, the levels of methylene chloride have increased in an order of magnitude; toluene is currently at a non-detectable level.

ARRC Gold Creek

The Department has received a copy of the University of Alaska's Gold Creek Spill Site Panel Review Report, prepared for the Alaska Rail Road Corporation (ARRC). The report identifies resources at risk, assesses the short-term stability of the free product plume, and identifies significant questions and issues raised by ARRC's field data. On November 15, department staff met with the ARRC and the University of Alaska Technical Advisory Team to discuss the draft report developed by the team, in addition to identifying short and long-term cleanup objectives. ARRC has submitted a final copy of the Gold Creek Technical Report, which is available on the department Website (http://www.state.ak.us/dec/dspar/perp/akrr4/rpt_uall.pdf). In addition, ARRC has provided a short-term cleanup plan for the site for the period of January 1-April 15, 2001. Data collected during the short-term cleanup period will be used to create a long-term cleanup plan.

Qualified Individual Training in Valdez

From December 12-15, three department staff attended Qualified Individual (QI) Training in Valdez, presented by the Prince William Sound Community College (PWSCC). The training included lecture classes and a tabletop drill on an oil spill in Prince William Sound using the College's spill simulator. PWSCC provided the training, with guest speakers from the department, the Ship Escort/Response Vessel System (SERVS) and the Coast Guard. The Department provided training on contingency plans, the State On-Scene Coordinator's perspective, and the chemistry of petroleum hydrocarbons. The simulated drill was the most effective part of the training and it allowed the attendees to use the knowledge gained during the lecture sessions to respond to the scenario. The training was beneficial for new department responders and department staff will provide comments back to the PWSCC to further improve the class.

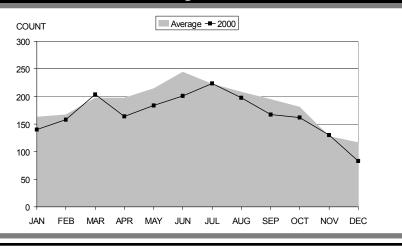
Shishmaref Tank Farm Threatened

The Assistant Superintendent for Bering Straits National Preserve called the department on November 2 to report that the Nayokpuk Trading Company's tank farm in Shishmaref was in danger from beach erosion. Only 37 feet of land separated the closest tank, containing 8,000 gallons of diesel, from the 1-2 foot high cut-bank at the edge of the beach. The coastline at Shishmaref has experienced tremendous beach erosion in

Annual Spill Trends -- July 1995 - December 2000 (excluding Brine)

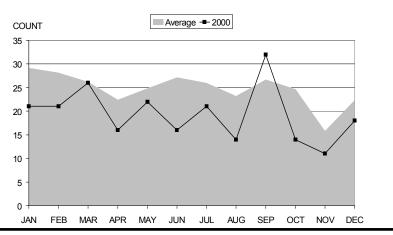
ALL SPILLS

Month	1995	1996	1997	1998	1999	2000	Average
JAN		179	160	176	162	140	163
FEB		156	161	165	195	158	167
MAR		162	189	220	213	204	198
APR		179	211	215	219	164	198
MAY		207	228	263	194	184	215
JUN		237	232	264	289	201	245
JUL	237	217	218	205	239	224	223
AUG	276	193	179	196	208	198	208
SEP	227	184	194	189	210	167	195
OCT	192	157	151	212	213	162	181
NOV	129	123	111	146	131	130	128
DEC	143	109	118	109	137	83	117
Total	1,204	2,103	2,152	2,360	2,410	2,015	



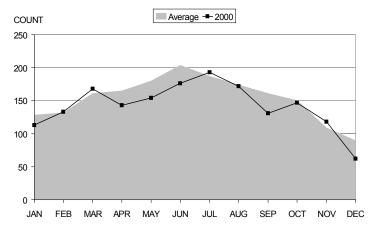
HAZARDOUS SUBSTANCES

Month	1995	1996	1997	1998	1999	2000	Average
JAN		33	35	32	25	21	29
FEB		30	23	36	31	21	28
MAR		23	26	29	27	26	26
APR		16	23	38	19	16	22
MAY		16	31	34	21	22	25
JUN		21	27	49	23	16	27
JUL	35	18	36	20	26	21	26
AUG	47	16	22	19	21	14	23
SEP	23	20	23	26	36	32	27
OCT	30	31	26	25	22	14	25
NOV	19	15	23	11	16	11	16
DEC	26	25	30	12	23	18	22
Total	180	264	325	331	290	232	



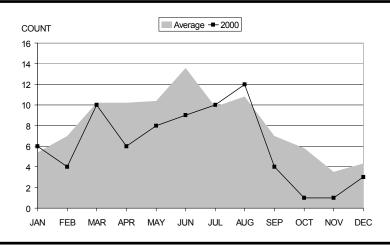
REFINED OIL PRODUCTS

Month	1995	1996	1997	1998	1999	2000	Average
JAN		143	120	135	133	113	129
FEB		116	133	120	157	133	132
MAR		134	152	177	175	168	161
APR		148	177	161	197	143	165
MAY		180	185	216	165	154	180
JUN		199	194	199	251	176	204
JUL	192	187	175	177	201	193	188
AUG	217	162	149	172	174	172	174
SEP	200	150	163	158	167	131	162
OCT	155	120	119	180	183	147	151
NOV	109	103	84	130	110	118	109
DEC	109	82	82	94	110	62	90
Total	982	1,724	1,733	1,919	2,023	1,710	



CRUDE OIL

Month	1995	1996	1997	1998	1999	2000	Average
JAN		3	5	9	4	6	5
FEB		10	5	9	7	4	7
MAR		5	11	14	11	10	10
APR		15	11	16	3	6	10
MAY		11	12	13	8	8	10
JUN		17	11	16	15	9	14
JUL	10	12	7	8	12	10	10
AUG	12	15	8	5	13	12	11
SEP	4	14	8	5	7	4	7
OCT	7	6	6	7	8	1	6
NOV	1	5	4	5	5	1	4
DEC	8	2	6	3	4	3	4
Total	42	115	94	110	97	74	

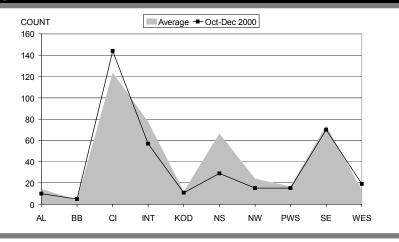


spills reported by SUBAREA (excluding Brine)

ALL SPILLS

Oct-Dec 2000 compared to same quarter in prior years

		October-December					
Subarea	1995	1996	1997	1998	1999	2000	Average
Aleutian (AL)	25	20	10	11	11	10	15
Bristol Bay (BB)	4	3	5	4	3	5	4
Cook Inlet (CI)	146	83	106	112	151	144	124
Interior (INT)	80	78	83	63	105	57	78
Kodiak (KOD)	11	13	12	14	11	11	12
North Slope (NS)	91	72	91	62	53	29	66
Northwest Arctic (NW)	22	25	29	34	18	15	24
Prince William Sound (PWS)	16	17	15	15	23	15	17
Southeast (SE)	63	61	13	140	97	70	74
Western Alaska (WES)	6	17	16	12	9	19	13
Total for Quarter	464	389	380	467	481	375	

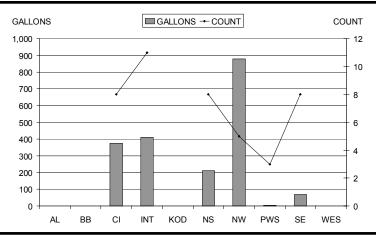


HAZARDOUS SUBSTANCES

October 1-December 31, 2000

Subarea	Count	Gallons
Aleutian (AL)		
Bristol Bay (BB)		
Cook Inlet (CI)	8	375
Interior (INT)	11	410
Kodiak (KOD)		
North Slope (NS)	8	211
Northwest Arctic (NW)	5	878
Prince William Sound (PWS)	3	5
Southeast (SE)	8	70
Western Alaska (WES)		
Total for Quarter	43	1,949

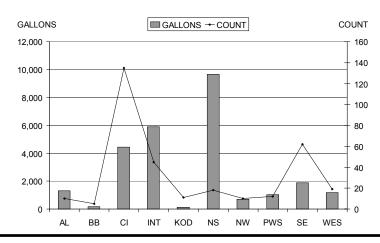
Excludes releases reported in pounds: Anhydrous Ammonia (2 releases; 225 lbs); Ethylene Glycol (14 releases; 7,234); Freon, All Types (1 release; 4,000 lbs); Other (22 releases; 120,000 lbs); Urea, Solid (1 release; 1,500 lbs)



REFINED OIL PRODUCTS

October 1-December 31, 2000

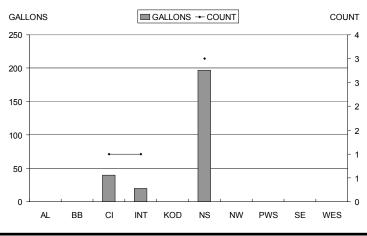
Subarea	Count	Gallons
Aleutian (AL)	10	1,300
Bristol Bay (BB)	5	185
Cook Inlet (CI)	135	4,451
Interior (INT)	45	5,895
Kodiak (KOD)	11	137
North Slope (NS)	18	9,671
Northwest Arctic (NW)	10	691
Prince William Sound (PWS)	12	1,039
Southeast (SE)	62	1880
Westem Alaska (WES)	19	1,183
Total for Quarter	327	26,432



CRUDE OIL

October 1-December 31, 2000

Subarea	Count	Gallons
Aleutian (AL)		
Bristol Bay (BB)		
Cook Inlet (CI)	1	40
Interior (INT)	1	20
Kodiak (KOD)		
North Slope (NS)	3	197
Northwest Arctic (NW)		
Prince William Sound (PWS)		
Southeast (SE)		
Western Alaska (WES)		
Total for Quarter	5	257

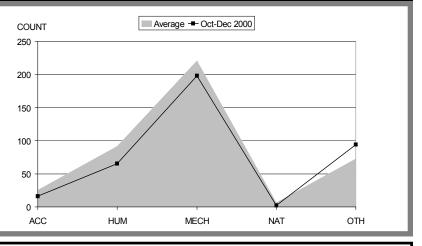


spills reported by CAUSE (excluding Brine)

ALL SPILLS

Oct-Dec 2000 compared to same quarter in prior years

		October-December					
Subarea	1995	1996	1997	1998	1999	2000	Average
Accident (ACC)	23	22	31	27	31	16	25
Human Factors (HUM)	130	100	100	104	90	65	98
Structural/Mechanical (MECH)	225	207	211	221	269	198	222
Natural Causes (NAT)	5	10	2	13	7	2	7
Other/Unknown (OTH)	81	50	36	102	84	94	75
Total for Quarter	464	389	380	467	481	375	

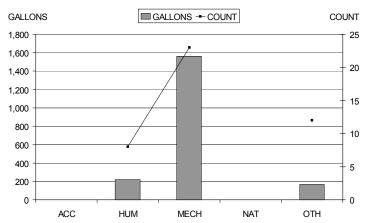


HAZARDOUS SUBSTANCES

October 1-December 31, 2000

Cause	Count	Gallons
Accident (ACC)		
Human Factors (HUM)	8	219
Structural/Mechanical (MECH)	23	1,561
Natural Causes (NAT)		
Other/Unknown (OTH)	12	169
Total for Quarter	43	1,949

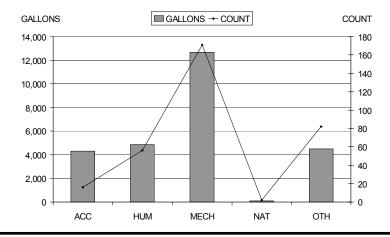
Excludes releases reported in pounds: Anhydrous Ammonia (2 releases; 225 lbs); Ethylene Glycol (14 releases; 7,234); Freon, All Types (1 release; 4,000 lbs); Other (22 releases; 120,000 lbs); Urea, Solid (1 release; 1,500 lbs)



REFINED OIL PRODUCTS

October 1-December 31, 2000

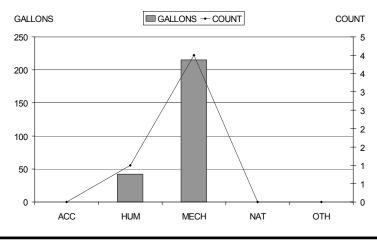
Cause	Count	Gallons
Accident (ACC)	16	4,309
Human Factors (HUM)	56	4,857
Structural/Mechanical (MECH)	171	12,672
Natural Causes (NAT)	2	100
Other/Unknown (OTH)	82	4,494
Total for Quarter	327	26,432



CRUDE OIL

October 1-December 31, 2000

Cause	Count	Gallons
Accident (ACC)		
Human Factors (HUM)	1	42
Structural/Mechanical (MECH)	4	215
Natural Causes (NAT)		
Other/Unknown (OTH)		
Total for Quarter	5	257

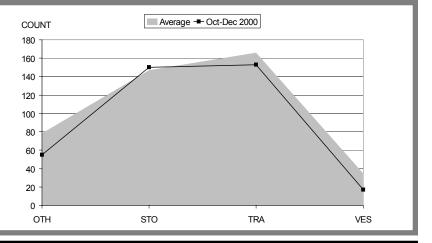


spills reported by SOURCE (excluding Brine)

ALL SPILLS

Oct-Dec 2000 compared to same quarter in prior years

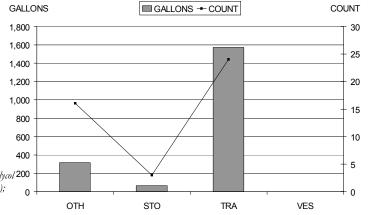
	October-December						
Source	1995	1996	1997	1998	1999	2000	Average
Other/Unknown (OTH)	94	82	51	97	92	55	79
Storage (STO)	156	154	136	154	131	150	147
Transportation (TRA)	175	129	166	153	221	153	166
Vessel (VES)	39	24	27	63	37	17	35
Total for Quarter	464	389	380	467	481	375	



HAZARDOUS SUBSTANCES

October 1-December 31, 2000

Source	Count	Gallons
Other/Unknown (OTH)	16	315
Storage (STO)	3	63
Transportation (TRA)	24	1,571
Vessel (VES)		
Total for Quarter	43	1,949

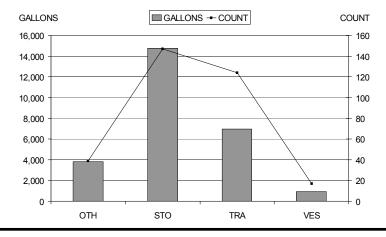


Excludes releases reported in pounds: Anhydrous Ammonia (2 releases; 225 lbs); Ethylene Glycol 200 (14 releases; 7,234); Freon, All Types (1 release; 4,000 lbs); Other (22 releases; 120,000 lbs); Urea, Solid (1 release; 1,500 lbs)

REFINED OIL PRODUCTS

October 1-December 31, 2000

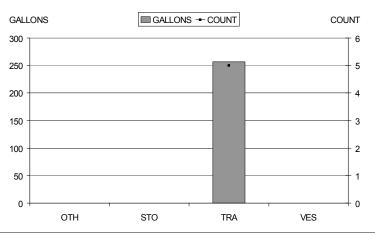
Source	Count	Gallons
Other/Unknown (OTH)	39	3,803
Storage (STO)	147	14,763
Transportation (TRA)	124	6,952
Vessel (VES)	17	914
Total for Quarter	327	26 432



CRUDE OIL

October 1-December 31, 2000

Source	Count	Gallons
Other/Unknown (OTH)		
Storage (STO)		
Transportation (TRA)	5	257
Vessel (VES)		
Total for Quarter	5	257



Spill News

recent years. A significant fall storm in 1997 eroded 50 to 150 feet of shore-line. A "silent" storm in July 2000 caused 35 feet of shore loss. Arrangements were made to transfer all 8,000 gallons of diesel from the tank closest to the beach edge. A second fuel transfer pump was sent by the department to Shishmaref to aid in moving the fuel to an empty 10,000-gallon tank owned by the city of Shishmaref. All of the fuel from the 8,000 gallon tank has now been transferred to tanks owned by the City of Shishmaref and the US Fish and Wildlife Service. However, 5 other tanks, containing 31,000 gallons of diesel, and 20,000 gallons of gasoline, remain at the Nayokpuk Trading Co. tank farm and are located 80-100 feet from the shoreline. A long-term solution for the Nayokpuk Trading Co. tank farm involves the construction of groins and placement of additional sand. The Army Corps of Engineers is planning such an erosion control program as early as this summer, but it is contingent on funding.

Court Plaza Incident

On December 17, department staff responded to a report of diesel oil leaking inside the Court Plaza office building in Juneau. A day tank serving the building's furnace had a faulty valve and missing fitting, which caused the loss of approximately 250 gallons of heating oil before being discovered and secured. The oil flowed from the day tank down 8 stories of the building interior. A small quantity of oil, estimated at less than 5 gallons, sheeted down the exterior west wall of the building. Department staff immediately initiated site assessment, gave technical assistance to building maintenance crews and laid sorbent materials to contain the small amount of oil that sheeted down the exterior of the building. A 10-person work crew from Ketchikan, all with 40-hour HAZWOPER certificates, performed the work of removing oil contaminated materials from the building, beginning with the grossly contaminated areas. The waste disposal plan for the incineration of the contaminated materials was approved by the department on Tuesday, December 19. The Department provided air monitoring each morning prior to entry by the cleanup workers. The Departments of Administration and Transportation and Public Facilities took the lead in the cleanup and utilized department staff for technical assistance.

All Significant Responses (October-December 2000)

OCTOBER 2000

10/2 Ouzinkie Shrimp Kill

10/10 Red Dog Mine Lead Concentrate

10/11 5175 Thane Road, Juneau

10/21 Polar Fuels Spill

10/23 T/V SeaRiver North Slope

NOVEMBER 2000

11/2 Air Land Transport Rollover

11/6 Alaska Pacific Seafood NH3 Release

11/20 New Port Walter Bunker Spill

11/28 Cross Timbers Onshore Facility

11/29 Tuntutuliak-TCSA Bulk Tank Spill

DECEMBER 2000

12/11 Whitestone Logging Inc., Hoonah

12/19 Sag River DOT Maintenance Camp Spill

12/20 North Pacific Fuel

12/21 Gagman Heating Oil Spill

12/26 HB&R Tank Overfill

12/28 Red Dog Mine Zinc Spill

More information is available on the web at

http://www.state.ak.us/dec/dspar/perp

Spill Digest

Oil and Hazardous Substance Spills reported to DEC October 1-December 31, 2000

HAZARDOUS SUBSTANCES

(does not include brine or releases reported in pounds)

Total Count: 43 Total Gallons: 1,949

Top 5 Substances

Product	Count	Gallons
Ethylene Glycol (Antifreeze)	13	533
Sodium Cyanide (Solution) *	1	175
Propylene Glycol	7	150
Methyl Alcohol (Methanol)	3	72
Biozan Gel	1	20

Top 5 Causes

•		
Cause	Count	Gallons
Line Ruptured	8	901
Corrosion	2	230
Connection Faulty	2	185
Leak, Other	4	175
Tank Overfill	2	83

Top 5 Sources

PILL DATA SPILL DATA SPILL DATA SPILL DATA

CRUDE AND REFINED OIL

Total Count: 332 Total Gallons: 26,689

Top 5 Substances

•		
Product	Count	Gallons
Diesel	137	23,556
Hydraulic Oil	55	1,302
Gasoline	88	439
Crude	5	257
Drilling Muds	7	223

Top 5 Causes

Cause	Count	Gallons
Valve Faulty	11	8,363
Overturn/Capsize	8	4,081
Tank Overfill	30	2,807
Leak, Other	26	1,668
Line Ruptured	45	912

Top 5 Sources

Source	Count	Gallons
Fuel Station	86	9,865
Industrial Vehicle	63	5,541
Home Heating Tank	28	2,185
Home/Office/Business	7	969
Tank Farm	8	772

2001 Drill Calendar

February 15 Cruise Ship Away Team Deployment

Exercise (USCG), Sitka

May 2-3 Bristol Bay Hazmat Project (ADEC), King

Salmon

June 1 Whittier Hazmat Exercise (USCG), Whittier

June 19 TAPS Drill (APSC), Valdez

TBD North Slope Mutual Aid Drill (Phillips), North

Slope

June PWS Tanker Drill (TBD), Chenega August 18 Joint Anchorage/Fairbanks Hazmat

Response Exercise (ADEC), Glennallen

Visit the PERP website for updated information on drills and training. http://www.state.ak.us/dec/dspar/perp/drill tr.htm

SEND COMMENTS AND SUBSCRIPTION REQUESTS TO:

Camille Stephens, 410 Willoughby Ave. Suite 303, Juneau, AK 99801

or

email: Camille_Stephens@envircon.state.ak.us

At a glance... October 1 - December 31, 2000

Spill Summary

Total Spills Reported* (includes 5 brine releases): 380
Oil -- Total Gallons Released 26,689
Hazardous substances* -- Total Gallons Released 1,949
Brine -- Total Gallons Released 10,294

Oil Releases

Total Spills Reported: 332

Largest Volume Released by Category

Substance (132 spills; 23,556 gal)

Cause (11 spills; 8,363 gal)

Source (85 spills; 9,865 gal)

Largest Single Release

Diesel; 7,600 gal

Hazardous Substance Releases * (excluding brine)

Total Spills Reported:

43

Largest Volume Released by Category

Substance (13 spills; 533 gal)

Cause (8 spills; 901 gal)

Source (6 spills; 795s gal)

Line Ruptured

Pipeline

Largest Single Release

Ethylene Glycol; 220 gal

*excludes 40 releases reported in pounds: Anhydrous Ammonia (2 releases; 225 lbs); Ethylene Glycol (14 releases; 7,234); Freon, All Types (1 release; 4,000 lbs); Other (22 releases; 120,000 lbs); Urea, Solid (1 release; 1,500 lbs)



Prevention and Emergency Response Program Division of Spill Prevention and Response Department of Environmental Conservation 410 Willoughby Avenue, Suite 303 Juneau, AK 99801-1795

http://www.state.ak.us/dec/dspar/perp/home.htm

Phone: 907-465-5220 FAX: 907-465-5244

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