### **Question 1a**



## What is the total oil capacity of above ground storage tanks (including partially buried tanks) at your facility?

	Number of	Percent of	Percent of
Range	Facilities	Applicable Observations	Total Observations
Non Response	0	-	0.00
Not Applicable	81	-	0.03
Nothing Stored	62	0.02	0.02
1 - 5,000	1,142	0.45	0.44
5,001 - 20,000	587	0.23	0.23
20,001 - 100,000	508	0.20	0.19
100,001 - 1,000,000	158	0.06	0.06
1,000,000+	69	0.03	0.03

### **Descriptive Statistics**

Total Number of Responses	2,607
Number of Applicable Responses	2,526
Mean	2,073,349
Mode	2,000
Median	6,765
Standard Deviation	46,800,775
Minimum Value	0
Maximum Value	1,800,000,000

NOTE - THIS DOCUMENT SUMMARIZES INFORMATION OBTAINED FROM A SAMPLE OF FACILITIES AND SHOULD NOT BE USED TO MAKE GENERAL STATEMENTS ABOUT ALL FACILITIES IN THE UNITED STATES WITHOUT PROPER STATISTICAL EXTRAPOLATION

### Question 1b

### Has your facility stored oil or petroleum products in underground (i.e. completely buried) tanks within the past two years?



### Question 1c

### What is the current oil storage capacity (i.e., filled or not) of underground (i.e., completely buried) tanks at your facility?



Of the 476 facilities which indicated they stored petroleum products in underground tanks, 470 gave valid responses. The frequency distribution is given on this page.

	Number of Facilities	Percent of Applicable Responses	Percent of Total Responses
Non Response	7		0.00
Not Applicable	2,130	-	0.82
Nothing Stored	31	-	0.01
1 - 5,000	110	0.23	0.04
5,001 - 20,000	111	0.24	0.04
20,001 - 100,000	179	0.38	0.07
100,001 - 1,000,000	36	0.08	0.01
1,000,001 +	3	0.01	0.00
Descriptive Statistics			
Total Number of Responses		2.607	
Number of Applicable Responses		470	
Mean		59,488	
Mode		0	
Median		20,000	
Standard Deviation		283,388	
Minimum Value		0	
Maximum Value		4,981,000	

### Question 2a

How many of your facility's underground storage tanks (i.e., completely buried) have been replaced in the past two years?



	Number of	Percent of	Percent of
	Facilities	Applicable Observations	Total Observations
Non Response	2		0.00
Not Applicable	2,131	-	0.82
None	385	0.81	0.15
One	29	0.06	0.01
More Than One	60	0.13	0.13

### Question 2a (continued)

### Frequency distribution for number of underground tanks replaced (greater than one)



Of the 60 facilities that indicated they have replaced **more** than one underground tank in the past two years, 5 gave invalid responses. The frequency distribution of the remaining 55 facilities is provided on this page.

Range	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	5	-	0.00
Not Applicable	2,547	-	0.98
2 - 5 Tanks Replaced	44	0.80	0.02
6 - 10 Tanks Replaced	4	0.07	0.00
11 - 15 Tanks Replaced	2	0.04	0.00
16 - 20 Tanks Replaced	2	0.04	0.00
21 + Replaced	3	0.05	0.00
Descriptive Statistics			
Total Number of Responses		2.607	
Number of Applicable Responses		55	
Mean		5.31	
Mode		2	
Median		3	
Standard Deviation		6.63	
Minimum Value		2	
Maximum Value		37	

### Question 2b

### How many of these (underground storage tanks) were replaced with aboveground storage tanks?



	Number of	Percent of	Percent of
	Facilities	Applicable Observations	Total Observations
Non Response	4	-	0.00
Not Applicable	2,516	-	0.97
None	38	0.44	0.01
One	21	0.24	0.01
More Than One	28	0.32	0.01

### Question 2b (continued)

### Frequency distribution for number of underground tanks replaced with aboveground tanks.



Of the 28 facilities that have replaced **more** than one underground tank with aboveground tanks in the past two years, one gave an Non Response. The frequency distribution of the remaining 27 facilities is provided.

Range	Number of Facilities	Percent of Applicable Observations	Percent o
Non Response	1	-	0.00
Not Applicable	2 579		0.00
2 - 5 Tanks Replaced	2,010	0.93	0.00
6 - 10 Tanks Replaced	20	0.07	0.01
11 - 15 Tanks Replaced	0	0.00	0.00
16 - 20 Tanks Replaced	0	0.00	0.00
21 + Replaced	0	0.00	0.00
Descriptive Statistics			
Total Number of Responses		2,607	
Number of Applicable Responses		2,579	
Mean		3.037	
Mode		2	
Median		2	
Standard Deviation		2.192	
Minimum Value		2	
Maximum Value		10	

### Question 2c

### How many of these tanks were replaced with other underground storage tanks?



	Number of	Percent of	Percent of
	Facilities	Applicable Observations	Total Observations
Non Response	4	-	0.00
Not Applicable	2,516	-	0.97
None	49	0.56	0.02
One	15	0.17	0.01
More Than One	23	0.26	0.01

### Question 2c (continued)



Of the 23 facilities that have replaced **more** than one underground tank with underground tanks in the past two years, one gave an Non Response. The frequency distribution of the remaining 22 facilities is provided.

Range	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	1		0.00
Not Applicable	2,584	-	0.99
2 - 5 Tanks Replaced	18	0.82	0.01
6 - 10 Tanks Replaced	3	0.14	0.00
11 - 15 Tanks Replaced	0	0.00	0.00
16 - 20 Tanks Replaced	0	0.00	0.00
21 + Replaced	1	0.05	0.00
Descriptive Statistics			
Total Number of Responses		2.607	
Number of Applicable Responses	6	22	
Mean		4.864	
Mode		2	
Median		3	
Standard Deviation		7.363	
Minimum Value		2	
Maximum Value		37	

### Question 3

What is the approximate percentage of oil stored in storage tanks versus other types of containers (e.g., drums, cans, etc.)?



Range	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	-	-	0.00
Not Applicable	97	-	0.04
0 - 20 Percent	31	0.01	0.01
21 - 40 Percent	9	0.00	0.00
41 - 60 Percent	19	0.01	0.01
61 - 80 Percent	74	0.03	0.03
81 - 100 Percent	2,377	0.95	0.91

Descriptive Statistics		
Total Number of Responses	2,607	
Number of Applicable Responses	2,510	
Mean	95.64	
Mode	100	
Median	100	
Standard Deviation	12.73	
Minimum Value	0	
Maximum Value	100	

### Question 4a

### Is your company/organization in the electrical utility industry (i.e. , SIC code 491)?



### Question 4b

### How many substations does your organization own or operate in your county with more than 660 gallons in a single piece of equipment or 1,320 gallons total?



	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	2	•	0.00
Not Applicable	2,566	-	0.98
None	8	0.21	0.00
One or More	31	0.79	0.01

### Question 4b (continued)

### Frequency distribution of substations.



Of the 31 facilities that indicated they owned or operated a transformer in their county with a capacity of 660 gallons in a single piece of equipment or 1,320 gallons in total, all gave valid responses. The frequency distribution is provided on this page.

Range	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	0	-	0.00
Not Applicable	2,576	-	0.99
1 - 5 Substations	14	0.45	0.01
6 - 10 Substations	4	0.13	0.00
11 - 15 Substations	3	0.10	0.00
16 - 20 Substations	0	0.00	0.00
21 - 25 Substations	1	0.03	0.00
26 + Substations	9	0.29	0.00
Descriptive Statistics			
Total Number of Responses		2.607	
Number of Applicable Responses		31	
Mean		51.548	
Mode		1	
Median		8	
Standard Deviation		94.897	
Minimum Value		1	
Maximum Value		348	

### Question 4b (continued)

How many transformer installations does your organization operate with more than 660 gallons in a single piece of equipment or 1,320 gallons in total?



	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	3	-	0.00
Not Applicable	2,566	-	0.98
None	19	0.50	0.01
One or More	19	0.50	0.01

### Question 4b (continued)

### Frequency distribution of transformer installations.



Of the 19 facilities that indicated they owned or operated a transformer in their county with a capacity of 660 gallons in a single piece of equipment or 1,320 gallons in total, 18 gave valid exponses. The frequency distribution is given on this page.

Range	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	1		0.00
Not Applicable	2,588	-	0.99
1 - 5 Transformers	9	0.50	0.00
6 - 10 Transformers	1	0.06	0.00
11 - 15 Transformers	2	0.11	0.00
16 - 20 Transformers	0	0.00	0.00
20 - 100 Transformers	2	0.11	0.00
100 + Transformers	4	0.22	0.00
Descriptive Statistics			
Total Number of Responses		2,607	
Number of Applicable Responses		18	
Mean		24,322	
Mode		1	
Median		10.50	
Standard Deviation		70,094	
Minimum Value		2	
Maximum Value		216,980	

### Question 4c

### How many substations, operated in the county by your organization, have a total oil stroage capacity of greater than 42,000 gallons?



Number of	I GICGIIL OI	i ercent or
Facilities	Applicable Observations	Total Observations
2	-	0.00
2,566	-	0.98
28	0.72	0.01
11	0.28	0.00
	Facilities 2 2,566 28 11	Facilities Applicable Observations   2 -   2,566 -   28 0.72   11 0.28

### Question 4c (continued)



Of the 11 facilities that indicated they owned or operated a substation in their county with a total oil capacity of greater than 42,000 gallons, all gave valid responses. The frequency distribution is provided on this page.

Range	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	0	-	0.00
Not Applicable	2,596	-	0.89
1 - 5 Substations	9	0.82	0.00
6 - 10 Substations	0	0.00	0.00
11 - 15 Substations	1	0.09	0.00
16 - 20 Substations	1	0.09	0.00

#### **Descriptive Statistics**

Total Number of Responses	2,607
Number of Applicable Responses	11
Mean	4.091
Mode	1
Median	1.00
Standard Deviation	6.20
Minimum Value	1
Maximum Value	18

### Question 4c (continued)

### How many transformer installations, operated in the county by your organization, have a total oil storage capacity of greater than 42,000 gallons?



	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	4		0.00
Not Applicable	2,566	-	0.98
None	34	0.92	0.01
One or More	3	0.08	0.00

Only 3 facilities indicated their organization operated a transformer installation with a total oil storage capacity of greater than 42,000 gallons. Because so few facilities were included in this group, a frequency distribution is not provided. Of the 3 facilities that indicated they operated transformer installations with greater than 42,000 gallons oil storage capacity, 2 operated only a single facility each, and 1 operated 6 such facilities.

Question 5a

### Is oil delivered to, shipped to, or produced at your facility?



### Question 5b

### On average, how much oil is delivered to, shipped to, or produced at your facility in a year?



Range	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	68		0.02
Not Applicable	136		0.05
Nothing Delivered	17	0.01	0.01
1 - 5,000	551	0.23	0.19
5,001 - 20,000	610	0.25	0.21
20,001 - 100,000	423	0.18	0.15
100,001 - 1,000,000	509	0.21	0.18
1,000,000+	293	0.12	0.10

#### **Descriptive Statistics**

Total Number of Responses	2,607
Number of Applicable Responses	136
Mean	11,939,861
Mode	4,000
Median	22,680
Standard Deviation	231,412,416
Minimum Value	0
Maximum Value	8,498,200,000

Question 5c



### Question 5c (continued)

### Frequency distribution for percentage of oil consumed at facilities.



Of the 1323 facilities which indicated that oil is burned, used, recycled, or otherwise consumed at their facilities, 1247 gave valid responses. The frequency distribution is given on this page.

	Number of	Percent of	Percent of
Range	Facilities	Applicable Observations	Total Observations
Non Response	76	-	0.03
Not Applicable	1,284	-	0.47
0 - 20 Percent	187	0.15	0.07
21 - 40 Percent	14	0.01	0.01
41 - 60 Percent	15	0.01	0.01
61 - 80 Percent	16	0.01	0.01
81 - 100 Percent	1,015	0.81	0.38
Descriptive Statistics			
Total Number of Responses		2,607	
Number of Applicable Responses		1,247	
Mean		83.420	
Mode		100	
Median		100	
Standard Deviation		35.086	
Minimum Value		0	
Maximum Value		100	

### Question 5d

### Does any portion of the quantity reported in question 5b leave your facility as product?



	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	32		0.01
Not Applicable	173	-	0.07
No	1,592	0.66	0.61
Yes	810	0.34	0.31

### Question 5d (continued)

### Frequency distribution for percentage of oil leaving facility as product.



Of the 810 facilities that indicated that oil leaves their facility as product, 762 gave valid responses. The frequency distribution is provided on this page.

	Number of	Percent of	Percent of
Range	Facilities	Applicable Observations	Total Observations
Non Response	48	-	0.02
Not Applicable	1,797	-	0.69
0 - 20 Percent	39	0.05	0.01
21 - 40 Percent	11	0.01	0.00
41 - 60 Percent	9	0.01	0.00
61 - 80 Percent	13	0.02	0.00
81 - 100 Percent	690	0.91	0.26
Descriptive Statistics			
Total Number of Responses		2,607	
Number of Applicable Respon	nses	762	
Mean		92.585	
Mode		100	
Median		100	
Standard Deviation		23.023	
Minimum Value		0.1	
Maximum Value		100	

Question 6



	Number of	Percent of	Percent of
	Facilities	Applicable Responses	Total Responses
Non Response	0	· · ·	0.00
Not Applicable	14,604	-	0.80
Tank truck	2,287	0.63	0.13
Tanker Ship	14	0.00	0.00
Tanker Barge	20	0.01	0.00
Rail Car	54	0.01	0.00
Pipeline	238	0.07	0.01
Other Truck	783	0.21	0.04
Other	249	0.07	0.01

Question 7a



### Number of Facilities Using Transport Method

	Tank Trucks	Tanker Ships	Tanker Barges	Rail Cars	Other Trucks	Other
Non Response	329	2	2	9	79	193
Not Applicable	319	2,593	2,587	2,553	1,823	2,358
0 - 5	670	2	3	12	389	32
6 - 10	346	0	1	2	90	9
11 - 100	652	7	8	18	202	13
101 - 1,000	255	3	6	12	23	1
1,000 +	36	0	0	1	1	1
	Percent of Applica	able Observations	(by category)			
	Tank Trucks	Tanker Ships	Tanker Barges	Rail Cars	Other Trucks	Other
0 - 5	0.34	0.17	0.17	0.27	0.55	0.57
6 - 10	0.18	0.00	0.06	0.04	0.13	0.16
11 - 100	0.33	0.58	0.44	0.40	0.29	0.23
100 - 1,000	0.13	0.25	0.33	0.27	0.03	0.02
1,000 +	0.02	0.00	0.00	0.02	0.00	0.02
	Percent of Total O	bservations (by ca	tegory)			
	Tank Trucks	Tanker Ships	Tanker Barges	Rail Cars	Other Trucks	Other
Non Response	0.13	0.00	0.00	0.00	0.03	0.07
Not Applicable	0.12	0.99	0.99	0.98	0.70	0.90
0 - 5	0.26	0.00	0.00	0.00	0.15	0.01
6 - 10	0.13	0.00	0.00	0.00	0.03	0.00
11 - 100	0.25	0.00	0.00	0.01	0.08	0.00
100 - 1,000	0.10	0.00	0.00	0.00	0.01	0.00
1,000 +	0.01	0.00	0.00	0.00	0.00	0.00
	Descriptive Statis	tics				
	Tank Trucks	Tanker Ships	Tanker Barges	Rail Cars	Other Trucks	Other
Total Number of Responses	2.607	2.607	2.607	2.607	2.607	2.607
Number of Applicable Responses	1,959	12	18	45	705	56
Mean	131 115	76 583	119 444	124 800	21 006	4 769 446
Mode	0	20	4	0	21.000	.,. 23.110
Median	10	28.5	43	40	4	5
Standard Deviation	1.142.814	109,782	188.377	248.305	94,793	35.611.136
Minimum Value	0	1	2	0	0	0
Maximum Value	44,011	375	710	1,500	2,000	266,500

Question 7b



Number of Facilities Using Transport Method

	Tank Trucks	Tanker Ships	Tanker Barges	Rail Cars	Other Trucks	Other
Non Response	822	5	6	24	368	51
Not Applicable	320	2,593	2,587	2,553	1,823	2,358
0-5	713	3	4	8	242	23
6 - 10	125	1	0	2	20	6
11 - 100	305	4	5	8	78	49
101 - 1,000	246	1	4	8	66	77
1,000 +	89	0	1	4	10	43
	Percent of Applicable	Observations (b	y category)			
	Tank Trucks	Tanker Ships	Tanker Barges	Rail Cars	Other Trucks	Other
0 - 5	0.48	0.33	0.29	0.27	0.58	0.12
6 - 10	0.08	0.11	0.00	0.07	0.05	0.03
11 - 100	0.21	0.44	0.36	0.27	0.19	0.25
100 - 1,000	0.17	0.11	0.29	0.27	0.16	0.39
1,000 +	0.06	0.00	0.07	0.13	0.02	0.22
	Percent of Total Obse	ervations (by cate	gory)			
	Tank Trucks	Tanker Ships	Tanker Barges	Rail Cars	Other Trucks	Other
Non Response	0.32	0.00	0.00	0.01	0.14	0.02
Not Applicable	0.12	0.99	0.99	0.98	0.70	0.90
0-5	0.27	0.00	0.00	0.00	0.09	0.01
6 - 10	0.05	0.00	0.00	0.00	0.01	0.00
11 - 100	0.12	0.00	0.00	0.00	0.03	0.02
100 - 1,000	0.09	0.00	0.00	0.00	0.03	0.03
1,000 +	0.03	0.00	0.00	0.00	0.00	0.02
	Descriptive Statistics					
	Tank Trucko	Tankar Shine	Tankar Bargas	Bail Care	Other Trucks	Other
Total Number of Responses	2 607	2 607	2 607	2 607	2 607	2,607
Number of Applicable Responses	2,007	2,007	2,007	2,007	2,007	2,007
Moon	460.650	42 000	251 796	572 000	2 040 204	12 292 400
Mode	400.000	43.009	351.700	013.900	2,049.204	12,302.409
Median	0	20	20	50	2	200
Standard Deviation	2 7/1 033	82 632	686 610	1 429 046	38 832 073	55 526 969
Minimum Value	2,741.933	02.032	000.019	1,423.040	00,032.073	00,020.909
Maximum Value	48,000	260	2 530	7 400	792 000	480.000
Waximum value	48,000	200	2,000	7,400	132,000	400,000

### Question 8a

### At your facility, is there an oil transfer point or oil storage tank or oil storage container within 1/2 mile of navigable water?



	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	0		0
Not Applicable	54		0.02
No	2,009	0.79	0.77
Yes	463	0.18	0.18
Dont' Know	81	0.03	0.03

Question 8b



N	umber of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	4		0.00
Not Applicable	2,144		0.82
Lake	59	0.13	0.02
River/Stream	271	0.59	0.10
Coastal Waters	23	0.05	0.01
Other Tidally-Influenced Wate	rs 15	0.03	0.01
Other	91	0.20	0.03

### Question 8c

At your facility, is there an oil transfer point or oil stroage tank or oil storage container within 1/2 mile of a storm drain?



Non Response Not Applicable Yes No Don't Know

### Question 9a

Is there a navigable water or storm drain downhill (down gradient) from your facility?



	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	0		0.00
Not Applicable	40	-	0.02
Yes	869	0.34	0.33
No	1,497	0.58	0.57
Don't Know	201	0.08	0.08

### Question 9b

### Is there a natural, physical impediment that would prevent a release from reaching the navigable water or storm drain?



	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	0	-	0.00
Not Applicable	1,750	-	0.67
Yes	124	0.14	0.05
No	573	0.67	0.22
Don't Know	160	0.19	0.06

### Question 9c



## Is there a man-made, physical impediment that would prevent a release from reaching the navigable water or storm drain?

	Number of	Percent of	Percent of
	Facilities	Applicable Observations	Total Observations
Non Response	0	-	0.00
Not Applicable	1,742	-	0.67
Yes	643	0.74	0.25
No	189	0.22	0.07
Don't Know	33	0.04	0.01

### Question 10

What is the shortest distance from an oil transfer point or oil storage tank or oil storage container to a sensitive environment?



	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	0		0.00
Not Applicable	43		0.02
Less than 1/2 mile	209	0.08	0.08
1/2 to 1 mile	174	0.07	0.07
Greater than 1 mile	1,616	0.63	0.62
Don't know	565	0.22	0.22

### Question 11a

# Are subsurface monitoring techniques currently being used at your facility to detect contamination in soil or groundwater from hydrocarbons or related petroleum products?



	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	0		0.00
Not Applicable	38		0.01
Yes	261	0.10	0.10
No	2,308	0.90	0.89
# Question 11b



Range	Facilities	Applicable Observations	Total Observations
Non Response	47	-	0.02
Not Applicable	2,346	-	0.90
0 - 5	125	0.58	0.05
6 - 10	38	0.18	0.01
11 - 50	34	0.16	0.01
51 - 100	8	0.04	0.00
100 +	9	0.04	0.00
Descriptive Statistics Total Number of Responses Number of Applicable Responses Mean Mode		2.607 214 24 1	
Median		5	
Standard Deviation		90	
Minimum Value		0	
Maximum Value		850	



Range	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	119	-	0.05
Not Applicable	2,346	-	0.90
0-5	122	0.86	0.05
6 - 10	11	0.08	0.00
11 - 50	8	0.06	0.00
51 - 100	1	0.01	0.00
100 +	0	0.00	0.00

### **Descriptive Statistics**

Total Number of Responses	2,607
Number of Applicable Responses	142
Mean	3
Mode	0
Median	0
Standard Deviation	8
Minimum Value	0
Maximum Value	80

Question 12a.







Range Facilities Applicable Observations Total Observat	ions
Non Response 149 - 00	0.06
Not Applicable 1462 - 00	0.56
1944-1970 8 0.01 0	0.00
1971-1975 67 0.07 0	0.03
1976-1980 88 0.09 0	0.03
1981-1985 74 0.07 0	0.03
1986-1990 193 0.19 C	0.07
1991-1995 566 0.57 C	).22



# Question 12d.



# Question 13a

# Are you aware of the Federal government's Oil Spill Prevention, Control and Countermeasures, or SPCC, Regulation?



Question 13b





	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Not Applicable	1,285	•	0.49
Don't Know	220	0.17	0.08
No	260	0.20	0.10
Yes	842	0.64	0.32

# Question 14



Non Response	0	· · ·	0.00
Not Applicable	14,620	-	0.80
Facility Equipment and Personnel	1,284	0.35	0.07
Response Contractor (on retainer)	148	0.04	0.01
Response Contractor (per incident)	874	0.24	0.05
Oil Spill Cooperative	58	0.02	0.00
Mutual Assistance Agreement	111	0.03	0.01
Other	227	0.06	0.01
None	927	0.26	0.05

# Question 15a



#### Acquisition Cost of Response Mechanisms

Non Response Not Applicable \$0 - \$1,000 \$1,001 - \$5,000 \$10,000 - \$20,000 \$20,001 +	Facility Equipment/ Personnel 405 1,322 330 278 73 49 150	Response Contractor(s) 497 1,652 407 27 10 5 9	Oil Spill Cooperative 24 2,549 25 4 2 2 2 1	Mutual Assistance Agreement 58 2,495 49 4 0 0 1	<b>Other</b> 116 2,380 71 17 4 3 16
	Percent of App	Dicable Observatio	ons (by category)		
50 54 000	Facility Equipment/ Personnel	Response Contractor(s)	Oil Spill Cooperative	Mutual Assistance Agreement	Other
\$1,001 - \$5,000 \$5,001 - \$10,000 \$10,001 - \$20,000 \$20,001 +	0.38 0.32 0.08 0.06 0.17	0.06 0.02 0.01 0.02	0.14 0.12 0.06 0.06 0.03	0.91 0.07 0.00 0.00 0.02	0.04 0.15 0.04 0.03 0.14
	Percent of Tot	al Observations (b	v category)		
			,9,,		
	Facility Equipment/	Pasnonsa	Oil Spill	Mutual	
	Personnel	Contractor(s)	Cooperative	Agreement	Other
Non Response	0.16	0.19	0.01	0.02	0.04
Not Applicable	0.51	0.63	0.98	0.96	0.91
\$0 - \$1,000	0.13	0.16	0.01	0.02	0.03
\$1,001 - \$5,000	0.11	0.01	0.00	0.00	0.01
\$5,001 - \$10,000	0.03	0.00	0.00	0.00	0.00
\$20,001 +	0.02	0.00	0.00	0.00	0.00
	Descriptive St	atistics			
	Facility			Mutual	
	Equipment/	Response	Oil Spill	Assistance	
	Personnel	Contractor(s)	Cooperative	Agreement	Other
Total Number of Responses	2,607	2,607	2,607	2,607	2,607
Number of Applicable Responses	880	458	34	54	111
Mean	34,140.21	2,261.54	854,975.00	684.17	11,546.38
Mode	0	0	0	0	0
Median	2,000	0	75	0	200
Standard Deviation	262,211.52	23,861.13	4,9/3,101.21	2,906.49	31,998.54
Maximum Value	0 5,000,000	500,000	0 29,000,000	20,700	250,000

Question 15b



#### Maintenance Cost of Response Mechanisms

Non Response Not Applicable \$0 - \$1,000 \$5,001 - \$10,000 \$5,001 - \$10,000	Facility Equipment/ Personnel 429 1,322 542 184 59 22	Response Contractor(s) 544 1,652 378 19 6 3	Oil Spill Cooperative 26 2,549 18 7 1 2	Mutual Assistance Agreement 62 2,495 45 3 1 0	Other 134 2,380 70 16 3 0
\$20,001 +	49	5	4	1	4
	Percent of App	licable Observati	ons (by categor	y)	
	Facility			Mutual	
	Equipment/	Response	Oil Spill	Assistance	
	Personnel	Contractor(s)	Cooperative	Agreement	Other
\$0 - \$1,000	0.63	0.92	0.56	0.90	0.75
\$1,001 - \$5,000	0.21	0.05	0.22	0.06	0.17
\$5,001 - \$10,000	0.07	0.01	0.03	0.02	0.03
\$20,001 +	0.06	0.01	0.00	0.00	0.00
	Percent of Tota	al Observations (t	oy category)		
	Facility			Mutual	
	Equipment/	Response	Oil Spill	Assistance	
	Personnel	Contractor(s)	Cooperative	Agreement	Other
Non Response	0.16	0.21	0.01	0.02	0.05
Not Applicable	0.51	0.63	0.98	0.96	0.91
\$0 - \$1,000	0.21	0.14	0.01	0.02	0.03
\$1,001 - \$5,000	0.07	0.01	0.00	0.00	0.01
\$5,001 - \$10,000	0.02	0.00	0.00	0.00	0.00
\$10,001 - \$20,000	0.01	0.00	0.00	0.00	0.00
\$20,001 +	0.02	0.00	0.00	0.00	0.00
	Descriptive Sta	atistics			
	Facility			Mutual	
	Equipment/	Response	Oil Spill	Assistance	
	Personnel	Contractor(s)	Cooperative	Agreement	Other
Total Number of Responses	2,607	2,607	2,607	2,607	2,607
Number of Applicable Responses	856	411	32	50	93
Mean	11,422.94	2,571.67	91,300.06	801.10	646,725.92
Mode	500	0	0	0	0
Median Standard Deviation	500	0	625	0	100
Standard Deviation	102,914.03	20,047.00	3/1,/1/.62	3,217.51	0,221,548.17
Maximum Value	2,500,000	500,000	2,060,000	20,700	60,000,000

# Question 16a

# Do you have a written plan for preventing oil discharges (leaks, spills, etc.) at your facility?



	Number of	Percent of	Percent of
	Facilities	Applicable Observations	Total Observations
Non Response	0	-	-
Not Applicable	1241	-	0.48
No	896	0.66	0.34
Yes	470	0.34	0.18





Range	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	69		0.03
Not Applicable	2138		0.82
1944-1970	5	0.01	0.00
1971-1975	42	0.11	0.02
1976-1980	44	0.11	0.02
1981-1985	28	0.07	0.01
1986-1990	101	0.25	0.04
1991-1995	179	0.45	0.07

**Descriptive Statistics** 

Total Number of Responses Number of Applicable Responses 2606 399







	Number of Facilities	Percent of Applicable Observations	Percent of Total Observations
Non Response	17		0.01
Not Applicable	2137		0.83
No	154	0.34	0.06
Yes	299	0.66	0.12

Question 16d.



	Number of	Percent of	Percent of
Range	Facilities	Applicable Observations	Total Observations
Non Response	0	-	-
Not Applicable	1640	-	0.63
Nothing Stored	679	-	0.26
Prior to 1991	8	0.03	0.00
1991	5	0.02	0.00
1992	32	0.11	0.01
1993	36	0.13	0.01
1994	106	0.37	0.04
1995	101	0.35	0.04



Question 17b.



	Number of	Percent of	Percent of
Range	Facilities	Applicable Observations	Total Observations
Non Response	0	-	-
Not Applicable	1936	-	0.59
Visual	645	0.47	0.20
Internal Tank	112	0.08	0.03
Inventory Monitoring	408	0.30	0.12
Integrity Testing	157	0.12	0.05
Other	41	0.03	0.01
	Number of	Percent of	Percent of
Range	Facilities	Applicable Observations	Total Observations
One Method	238	0.35	0.09
Two Methods	245	0.37	0.09
Three Methods	125	0.19	0.05
Four Methods	55	0.08	0.02
Five Methods	8	0.01	0.00
Invalid Responses	1936	-	0.74



	Number of	Percent of	Percent of
Range	Facilities	Applicable Observations	Total Observations
Non Response	0		-
Not Applicable	2014		0.50
Spill Prevention (SPCC plan) training	365	0.18	0.09
Spill Response Training	405	0.20	0.10
Oil-related safety and health	404	0.20	0.10
Other Training	165	0.08	0.04
No Training Provided	688	0.34	0.17
	Number of	Percent of	Percent of
Range	Facilities	Applicable Observations	Total Observations
One Type of Training	195	0.33	0.07
Two Types of Training	127	0.21	0.05
Three Type s of Training	194	0.33	0.07
Four Type s of Training	77	0.13	0.03
Not Applicable	2014	3.40	0.77
Invalid Responses	0	-	-

Question 18b.



	Frequency				Percent of App	plicable		
Number of	Spill Prevention	Spill Response	Safety & Health	Other	Spill Prevention	Spill Response	Safety & Health	Other
Employees	Training	Training	Training	Training	Training	Training	Training	Training
1	24	25	27	7	0.08	0.08	0.09	0.09
2	29	26	26	5	0.10	0.08	0.08	0.06
3	31	28	28	12	0.11	0.09	0.09	0.15
4	20	22	16	4	0.07	0.07	0.05	0.05
5	11	14	20	2	0.04	0.05	0.06	0.03
6	24	26	12	6	0.08	0.08	0.04	0.08
7	4	5	6	1	0.01	0.02	0.02	0.01
8	7	11	11	3	0.02	0.04	0.04	0.04
9	2	0	3	0	0.01	0.00	0.01	0.00
10	7	15	8	5	0.02	0.05	0.03	0.06
>10	126	138	151	34	0.44	0.45	0.49	0.43
	2607	2607	2607	2607				

	Spill Prevention Training	Spill Response Training	Safety & Health Training	Other Training
Not Applicable	2282	2252	2257	2504
Invalid	40	45	42	24
Number of Applicable	Responses285	310	308	79
Mean	55.11	39.80	73.62	71.03
Mode	3	3	3	99
Median	7	8	10	8
Standard Deviation	164.77	107.37	310.76	233.95
Minimum Value	1	1	1	1
Maximum Value	1500	1200	4000	2000



	Number of	Percent of	Percent of
Range	Tanks	Applicable Responses	Total Responses
0 - 25 Years	8,685	0.75	0.59
26 - 50 Years	2,074	0.18	0.14
51 - 75 Years	774	0.07	0.05
76 + Years	12	0.001	0.001

#### **Descriptive Statistics**

Number of Applicable Responses	11.545
Mean	19.4
Median	15
Standard Deviation	16.7
Minimum Value	0
Maximum Value	83

Table 1 Year of Last Repair or Alteration



Range	Number of Tanks	Percent of Applicable Responses	Percent of Total Responses
1920 - 1960	113	0.02	0.01
1961 - 1970	207	0.04	0.01
1971 - 1980	590	0.13	0.04
1981 - 1990	1,449	0.31	0.10
1990 - present	2,254	0.49	0.15



Range	Number of Tanks	Percent of Applicable Responses	Percent of Total Responses
Invalid Response	66		0.00
0 - 5,000 Gallons	6,891	0.47	0.47
5,001 - 20,000 Gallons	4,992	0.34	0.34
20,001 - 100,000 Gallons	1,207	0.08	0.08
100,001 - 1,000,000 Gallons	810	0.06	0.06
1,000,000 + Gallons	761	0.05	0.05
Descriptive Statistics			
Total Number of Responses		14.661	
Mean		240,471	
Median		6,000	
Standard Deviation		1,216,989	
Minimum Value		0	
Maximum Value		27,399,000	



Number of Tanks Percent of Applicable Responses Percent of Total Responses Tank Type Prefabricated Aboveground, on Ground/Pad 4,502 0.31 0.31 Prefabricated Aboveground, on Saddles, Legs, Stilts, Rack, or Cradle 0.27 0.27 3.962 Field-Erected Aboveground, Welded 0.18 2,689 0.18 Field-Erected Aboveground, Riveted 502 0.03 0.03 Aboveground Vaulted 252 0.02 0.02 Portable Tank 528 0.04 0.04 Underground (completely buried) 2,012 0.14 0.14 Underground, Vaulted, with Access 93 0.01 0.01



Product Stored	Number of Tanks	Percent of Applicable Responses	Percent of Total Responses
Empty	585	0.04	0.04
Gasoline	2,362	0.16	0.16
Nos. 1, 2, or 4 Fuel Oil	1,799	0.12	0.12
Nos. 5 or 6 Fuel Oil	182	0.01	0.01
Kerosene	445	0.03	0.03
Diesel	2,718	0.19	0.18
Lubricating Oil	1,441	0.10	0.10
Crude Oil	1,910	0.13	0.13
Asphalt	181	0.01	0.01
Non-Petroleum Oils	413	0.03	0.03
Waste Oils	643	0.04	0.04
Other	1,916	0.13	0.13



Product Stored	Number of Tanks	Percent of Applicable Responses	Percent of Total Responses
Steel/Carbon Steel	13,096	0.90	0.89
Stainless Steel Alloy	615	0.04	0.04
Concrete Fiberglass Coated Steel Fiberglass Reinforced Plastic (FRP)	37 167 574	0.00 0.01 0.04	0.00 0.01 0.04
Other	97	0.01	0.01



	Number of	Percent of	Percent of
Transfer Mechanism	Tanks	Applicable Observations	Total Observations
Loading Pump	8,509	0.56	0.10
Gravity	3,372	0.22	0.04
Loading Arm	413	0.03	0.00
Submersible Pump	648	0.04	0.01
Flexible Hose Line	1,267	0.08	0.01
Other	1,063	0.07	0.01

Table 1 Tank Internal Protection



	Number of	Percent of	Percent of
Internal Protection	Tanks	Applicable Observations	Total Observations
Yes	1,134	0.08	0.08
No	9,423	0.65	0.64
Unknown	3,938	0.27	0.27



External Protection	Number of Tanks	Percent of Applicable Observations	Percent of Total Observations
None	2,745	0.18	0.18
Painted/Asphalt Coating	9,878	0.65	0.65
Cathodic Protection	1,570	0.10	0.10
Other	917	0.06	0.06



Detection Device	Number of Tanks	Percent of Applicable Observations	Percent of Total Observations
None	9,633	0.65	0.11
Ground-Water Monitoring	531	0.04	0.01
Vapor Monitoring	300	0.02	0.00
In-Tank System	672	0.05	0.01
Interstitial Monitoring	502	0.03	0.01
Other	3,143	0.21	0.04



	Number of	Percent of	Percent of
Type of Liner	Tanks	Applicable Observations	Total Observations
None	11,756	0.82	0.11
Double-Bottom	247	0.02	0.00
Concrete Liner	746	0.05	0.01
Polymeric Sheets	90	0.01	0.00
Bentonite Mat Liner	42	0.00	0.00
Impervious Soil Liner	852	0.06	0.01
Other	649	0.05	0.01



Piping Location	Number of Tanks	Percent of Applicable Observations	Percent of Total Observations
None	2,386	0.16	0.16
Aboveground/Underground	4,178	0.29	0.28
Aboveground	6,301	0.43	0.43
Underground	1,693	0.12	0.11



<b>Piping Type</b> None Steel/Iron Galvanized Steel	Number of Tanks 2,414 8,602 1,604	Percent of Applicable Observations 0.16 0.59 0.11	Percent of Total Observations 0.02 0.06 0.01
Fiberglass (FRP)	647	0.04	0.005
Lead	4	0.0003	0.0003
Aluminum	26	0.002	0.0002
Plastic	298	0.02	0.002
Other	415	0.03	0.003



	Number of	Percent of	Percent of
	Tanks	Applicable Observations	Total Observations
Yes	439	0.03	0.03
No	10,511	0.77	0.71
Unknown	2,775	0.20	0.19



	Number of	Percent of	Percent of
Type of External Protection	Tanks	Applicable Observations	Total Observations
None	6,348	0.42	0.09
Painted/Asphalt Coating	5,284	0.35	0.07
Cathodic Protection	1,352	0.09	0.02
Jacketed or Wrapped	1,750	0.12	0.02
Other	455	0.03	0.01



Monitoring Devices	Number of Tanks	Percent of Applicable Observations	Percent of Total Observations
Ground-Water Monitoring	381	0.72	0.02
Interstitial Monitoring	1,002	0.07	0.01
Line Leak Monitoring	275	0.02	0.003
Vapor Monitoring	206	0.01	0.002
Other	2,117	0.15	0.02



Spill/Overflow Prevention	Number of Tanks	Percent of Applicable Observations	Percent of Total Observations
None	5,053	0.27	0.04
Float Vent Valve	540	0.03	0.005
High Level Alarm	2,457	0.13	0.02
Automatic Shut-Off	1,283	0.07	0.01
Product Level Gauge	4,311	0.23	0.04
Catch Basin	3,100	0.17	0.03
Vent Whistle	372	0.02	0.003
Other	1,424	0.08	0.01
Table 1 Secondary Containment



<b>A</b>	Number of	Percent of	Percent of
Secondary Containment	Tanks	Applicable Observations	Total Observations
None	6,143	0.42	0.05
Double-Walled Tank	573	0.04	0.005
Concrete Dike	3,174	0.22	0.03
Earthen Dike	3,272	0.23	0.03
Prefabricated Steel Dike	203	0.01	0.002
Cut-Off Walls	59	0.004	0.001
Drainage Ditch	133	0.01	0.001
Other	949	0.07	0.01



	Number of	Percent of	Percent of
Range	Tanks	Applicable Responses	Total Responses
0 - 5,000 Gallons	1,775	0.26	0.12
5,001 - 20,000 Gallons	1,775	0.26	0.12
20,001 - 100,000 Gallons	1,514	0.22	0.10
100,001 - 1,000,000 Gallons	1,075	0.16	0.07
1,000,000 + Gallons	630	0.09	0.04
Descriptive Statistics			
Total Number of Responses		6,769	
Mean		519,301	
Median		20,000	
Standard Deviation		1,975,878	
Minimum Value		0	
Maximum Value		54,956,000	



	Number of	Percent of	Percent of
Discharge Source	Discharges	Applicable Observations	Total Observations
Tank Wall	10	0.01	0.01
Tank Bottom	12	0.02	0.02
Tank Roof	43	0.06	0.06
Tank Piping	51	0.07	0.07
Piping Vallve	22	0.03	0.03
Loading Arm to Vessel/Barge	5	0.01	0.01
Loading Arm to Tank Truck	19	0.03	0.03
Tank Truck Loading Rack	23	0.03	0.03
Rail Car Loading Rack	2	0.00	0.00
Other Transfer Point	32	0.05	0.05
Valve	39	0.06	0.06
Pump	32	0.05	0.05
Other Equipment	200	0.28	0.28
Other	212	0.30	0.30



	Number of	Percent of	Percent of
Discharge Source	Discharges	Applicable Observations	Total Observations
General Structural Failure	20	0.03	0.03
Bottom Failure	5	0.01	0.01
Cold Weather Brittle Fracture	2	0.003	0.003
Weld/Joint Failure	17	0.02	0.02
Valve Failure	40	0.06	0.06
Corrosion	32	0.05	0.05
Tank Overfill/Overflow	95	0.14	0.13
Operator Error	164	0.24	0.23
Collision With Mobile Equipment	8	0.01	0.01
Electrical Malfunction	5	0.01	0.01
Other Mechanical Failure	173	0.25	0.24
Alarm Failure	4	0.01	0.01
Fire/Explosion	2	0.003	0.003
Vandalism	3	0.004	0.004
Natural Phenomena	15	0.02	0.02
Other	106	0.15	0.15



	Number of	Percent of	Percent of
Method of Discovery	Discharges	Applicable Observations	Total Observations
Visual	671	0.95	0.95
High Level Alarm	6	0.01	0.01
Pressure Gauge Warning	2	0.003	0.003
Acoustical/Magnetic Testing	0	0.00	0.00
Hydrostatic Testing	1	0.001	0.001
Monitoring Well	0	0.00	0.00
Inventory Control Methods	3	0.004	0.004
General Vapor Monitoring	0	0.00	0.00
Outside Party Notification	19	0.03	0.03
Other	6	0.01	0.01



	Number of	Percent of	Percent of
Material Discharged	Discharges	Applicable Observations	Total Observations
Gasoline	68	0.10	0.10
Nos. 1, 2, or 4 Fuel Oil	62	0.09	0.09
Nos. 5 or 6 Fuel Oil	19	0.03	0.03
Kerosene	14	0.02	0.02
Diesel	122	0.18	0.17
Lubricating Oil	82	0.12	0.12
Crude Oil	109	0.16	0.15
Asphalt	6	0.01	0.01
Non-Petroleum Oils	24	0.03	0.03
Waste Oils	15	0.02	0.02
Other	175	0.25	0.25



Quantity Discharged (gallons)	Number of Spills	Percent of Applicable Responses	Percent of Total Responses
0 - 2,000	630	0.92	0.89
2,001 - 4,000	16	0.02	0.02
4,001 - 6,000	9	0.01	0.01
6,001 - 8,000	10	0.01	0.01
8,001 +	21	0.03	0.03
Descriptive Statistics			
Total Number of Responses		686	

	00
Mean	1,816.58
Median	20
Node	1
Standard Deviation	19,987.30
Vinimum Value	(
Maximum Value	504,000



	Number of	Percent of	Percent of
Quantity Discharged (gallons)	Spills	Applicable Responses	Total Responses
0 - 2,000	623	0.97	0.88
2,001 - 4,000	10	0.02	0.01
4,001 - 6,000	3	0.005	0.004
6,001 - 8,000	2	0.003	0.003
8,001 +	6	0.01	0.01

## **Descriptive Statistics**

Total Number of Responses	708
Number of Applicable Responses	644
Mean	408.57
Mode	0
Median	1
Standard Deviation	2,922.93
Minimum Value	0
Maximum Value	39,900



	Number of	Percent of	Percent of
Media Affected	Discharges	Applicable Observations	Total Observations
Land/Soil	344	0.41	0.06
Surface Water-Inland Waters	35	0.04	0.01
Surface Water-Coastal Waters	28	0.03	0.005
Surface Water via Storm Drain	21	0.03	0.004
Ground Water	5	0.01	0.001
Contained on Site	384	0.46	0.07
Wetland	0	0.00	0.00
Other	13	0.02	0.002



Quantity Recovered (gallons)	Number of Spills	Percent of Applicable Responses	Percent of Total Responses
0 - 2,000	623	0.94	0.88
2,001 - 4,000	13	0.02	0.02
4,001 - 6,000	4	0.01	0.01
6,001 - 8,000	9	0.01	0.01
8,001 +	17	0.03	0.02

## **Descriptive Statistics**

Total Number of Responses	708
Number of Applicable Responses	666
Mean	1,585.29
Mode	0
Median	8.50
Standard Deviation	19,888.49
Minimum Value	0
Maximum Value	504,000



Method of Cleanup	Number of Discharges	Percent of Applicable Observations	Percent of Total Observations
None	55	0.05	0.01
Excavation & Off-Site Disposal	222	0.20	0.03
Skimmers	29	0.03	0.004
Vacuum Trucks	174	0.16	0.02
Sorbent Pads	366	0.33	0.05
De-emulsifiers	5	0.005	0.001
Dispersants	8	0.007	0.001
Gelling Agents	1	0.001	0.0001
Herding Agents	3	0.003	0.0004
Other	234	0.21	0.03



	Number of	Percent of	Percent of
Method of Cleanup	Discharges	Applicable Observations	Total Observations
None	578	0.82	0.14
In-Situ Vacuum Extraction	6	0.01	0.001
In-Situ Burning	8	0.01	0.002
Pump & Treat	4	0.01	0.001
Bioremediation	48	0.07	0.01
Other	58	0.08	0.01



Responder	Discharges	Applicable Observations	Total Observations	
None	- 44	0.05	0.01	
Facility Personnel	602	0.63	0.14	
Contractor	241	0.25	0.06	
Spill Cooperative	7	0.01	0.002	
Federal, State, or Local Gov't	46	0.05	0.01	
Other	10	0.01	0.002	





	Number of	Percent of	Percent of
Cleanup Cost	Discharges	Applicable Observations	Total Observations
\$1 - \$1,000	41	0.58	0.06
\$1,000 - \$10,000	12	0.17	0.02
\$10,001 - \$100,000	12	0.17	0.02
\$100,001 - \$500,000	3	0.04	0.004
\$500,000 - \$1 Million	1	0.01	0.001
\$1 Million - \$2 Million	0	0.00	0.00
\$2 Million - \$5 Million	0	0.00	0.00
\$5 Million +	2	0.03	0.003