EPA Region 5 Records Ctr.
355077

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: JAN 18 1991

SUBJECT: Spill Prevention Control and Countermeasure (SPCC) Plan Inspection, U.S. Navy, Great Lakes Naval Training Center, Great Lakes, Illinois (A51103:GF)

FROM: David Stoltenberg, Environmental Engineer
Central District Office (5SCDO)

TO: Robert J. Bowden Chief
Emergency Response Branch (5HR)

THRU: Willie H. Harris, Chief
Central District Office (5SCDO)

On December 18-19, 1990, I conducted a Spill Prevention, Control and Countermeasure (SPCC) Plan Inspection as part of a multi-media inspection at the above facility. The Illinois EPA (NPDES, SPCC), the Illinois Department of Agriculture (FIFRA), and the Illinois State Fire Marshal Office (UST/LUST) were notified, but did not participate. The facility was represented by Bob Ogrodowski, Environmental Coordinator; Mark Schultz, Public Works Environmental Supervisor, Maurice Durham, Pest Control Leader (FIFRA); and Bob Kane, Water & Sewer Utility Foreman (NPDES). Lt. Cdr. Michael Thornton, Staff Civil Engineer, participated in the exit interview.

The facility is a large U.S. Navy training center which covers 1200 acres adjacent to Lake Michigan, near North Chicago, Illinois. The facility performs a wide variety of naval training operations, serving a transient population of 20,000 trainees per year and a permanent population of 35,000.

The Base has an updated SPCC Plan, approved by U.S. Navy April 23, 1990. This plan was reviewed, and a copy is attached. The plan is completely implemented, certified by a professional engineer, and appeared to be in order. Representative petroleum storage tanks and secondary containment structures were inspected and photographed. Secondary containment volume calculations are attached; photos will be forwarded when developed.

A complete tank listing with supplementary spill control information is included as Section VI of the SPCC Plan, pp. 29-43. A separate tank list, "Storage Tank Inventory, FY'90" is also attached. An error noted in the previous CDO inspection (March 29, 1988) concerning the volume of tank #21-T-3, has been corrected in the updated plan and tank lists.

The most recent spill incident was a release of 50-60 gal. of #6 fuel oil into a non-pressurized steam system on December 11, 1990. A copy of the spill report is attached.

Attached to this report are Forms 7500-52, 7500-53, and 7500-54; "Spill Prevention Control and Countermeasure Plan" dated 1990; Storage Tank Inventory, FY'90; Fuel Oil Spill Report dated December 12, 1990; and State Notification Form. Questions may be directed to me at 312-353-2750.

Attachments

5SCDO:DSTOLTENBERG:gw:1-14-91:FINAL

DHS
1-14-91 WHH 1/17/91

A. SPCC INSPECTION FIELD SHEET

(To be completed if SPCC Regulation is applicable to Facility - see 40CFR Part 112.1.)

SEE INSTRUCTIONS ON REVERSE

1a. NAME OF FACILITY: Great Lakes Naval Training Center

1b. TYPE OF FACILITY: Federal - U.S. Navy

1c. FACILITY LOCATION: Great Lakes, IL 60088 (near North Chicago)

2a. NAME OF OWNER AND/OR OPERATOR RESPONSIBLE FOR FACILITY: U. S. Navy

2b. TELEPHONE NUMBER (Area Code): (708) 688 - 2795

2c. MAILING ADDRESS: Great Lakes, IL 60088

3. TYPES OF OIL STORED AND CAPACITY OF ABOVEGROUND AND BURIED STORAGE:
See Section VI of SPCC Plan, also "Storage Tank Inventory, FY90" (attached).

4. IS A CERTIFIED SPCC PLAN AVAILABLE FOR INSPECTION? ☑ YES ☐ NO

5. DATE OF INSPECTION: Dec. 18-19, 1990

6. NAME AND REGISTRATION NUMBER OF CERTIFYING ENGINEER ☐ NOT AVAILABLE
Cdr. Krochalis
P.E. # 14358, Louisiana

7. DATE SPCC PLAN WAS CERTIFIED ☐ NOT AVAILABLE
Mar. 29, 1990

8. IS SPCC PLAN FULLY IMPLEMENTED? (Are the items called for in the Plan in the interest of spill prevention actually installed - if observable?) ☐ NOT APPLICABLE
Yes

9. NAME OF WATER BODY THAT POTENTIAL SPILL COULD ENTER; OR IF UNNAMED TRIBUTARY, THEN FIRST NAMED WATERBODY DOWNSTREAM (if known)
Lake Michigan via Pettibone Ck. and Skokie Ck.

10. COMMENTS (Include comments by owner/operator - write on back or attach extra sheets if needed)
*Base has 3 NPDES permits: IL 0002712 (inactive), IL0027057, and IL 0027065

11a. SPCC NO.:

11b. CASE NO.:

11c. NPDES NO. ☐ NOT AVAILABLE: IL 0027057 *

12a. INSPECTOR (sign): David H Stoltenberg

12b. DATE: Dec. 19, 1990

12c. INSPECTOR (print): David H. Stoltenberg, USEPA - Reg. V - CDO

EPA Form 7500-53 (9-80)

B. SPCC INSPECTION SUMMARY SHEET

SPCC NO.	CASE NO.	DATE OF INSPECTION: Dec. 18-19, 1990
NAME OF INSPECTOR (Signature): David H Stoltenberg		DATE OF DOCUMENTATION REPORT: Dec. 19, 1990
NAME OF INSPECTOR (Print): David H. Stoltenberg		NPDES NO.: IL0027057 (See A10)

1. FACILITY

a. COMPANY: U.S. Navy

ADDRESS: Bldg. #1, Room 221		TELEPHONE: 708-688-2795
CITY: Great Lakes	STATE: IL	ZIP CODE: 60088

FACILITY NAME: Great Lakes Naval Training Center

b. FACILITY LOCATION: Great Lakes, IL (near North Chicago)

PARENT CORPORATION: N/A

ADDRESS:

CITY:	STATE:	ZIP CODE:

c. WATER BODY PROTECTED: Lake Michigan, Pettibone Ck., and Skokie Ck.

2. PURPOSE

INITIATION: ☐ Routine Surveillance ☐ Coast Guard Information ☐ Spill Report ☐ Citizen Information ☑ Other (specify): Multi-media inspection

TYPE: ☐ Plan Preparation ☐ Plan Implementation ☐ Follow-up ☐ Plan Amendment

3. INSPECTION

INDIVIDUAL CONTACTED: Bob Ogrodowski	TITLE: Environ. Coordinator
INDIVIDUAL CONTACTED: Mark Schultz	TITLE: Pub. Works Coord.

NOTIFICATION: State only - see attached form.

4. FINDINGS

SOURCE IN APPARENT COMPLIANCE WITH SPCC REQUIREMENTS:

☑ Yes
- ☑ Have adequate plan
- ☐ Not subject to regulations
  - ☐ Insufficient storage
  - ☐ No reasonable spill expectation
- ☑ Plan fully implemented
- ☐ New facility operational less than 6 months

☐ No
- ☐ No plan
- ☐ Plan not properly certified
- ☐ Plan does not have management approval
- ☐ Plan not maintained at facility manned 8 hrs/day
- ☐ Inadequate plan (detailed SPCC Plan review attached)
- ☐ Plan not fully implemented
- ☐ Plan not reviewed within 3 years

☐ Other

5. ATTACHMENTS (None required if facility in apparent compliance)

	NONE	ATTACHED	ALREADY ON FILE
*Detailed Observations	☐	☐	☐
*Photographs	☐	☐	☐
Slides	☐	☐	☐
Map	☐	☐	☐
*Field Drawing	☐	☐	☐
*Comments	☐	☑	☐
Telephone Conversations	☐	☐	☐
*SPCC Plan	☐	☑	☐

(ALL REQUIRED IF FACILITY IS NOT IN APPARENT COMPLIANCE. If photos not permitted, check "None" and explain. Add "SPCC Plan" to List of Attachments when appropriate.)

D. H. Stoltenberg
19 DEC 1990

CALCULATION OF VOLUME OF SECONDARY CONTAINMENT

Name of Facility: Great Lakes Naval Training Center
Great Lakes, IL

Area:	1	2	3	4
Volume of Largest Tank (gal):	400,000 (11 E)	211,507 (B326 TK)		

Dike Measurements:	Area	1	2	3	4
Height:	ft	6.33	5.5		
Length:	ft	140	79		
Width:	ft	75 (concrete)	74 (earth)		

V (gal) = H x L x W x 7.48 gal/1 ft^3

$V_1 = (6.33)(140)(75)(7.48) = 497,158$ gal.

(with 1.0 ft. freeboard) → $V_1 = (5.33)(140)(75)(7.48) = 418,618$ gal.

$418,618 > 400,000$

$V_1 \Rightarrow$ ∴ Sec. containment is sufficient with 1 ft freeboard.

$V_2 = (5.5)(79)(74)(7.48) = 240,500$ gal

(with 1.0 ft. freeboard) → $V_2 = (4.5)(79)(74)(7.48) = 196,800$ gal.

$196,800 < 211,507$

∴ Sec. containment not sufficient with 1 ft. freeboard.

$1.10(211,507) = 232,658$ gal.

$232,658 < 240,500$ gal.

$V_2 \Rightarrow$ ∴ Sec. containment will hold volume of tank plus 10 %.

C. DETAILED SPCC DOCUMENTATION

SEE INSTRUCTIONS ON PAGE 1

FACILITY: Great Lakes Naval Training Center, IL

DATE OF INSPECTION: Dec. 18-19, 1990

1. FACILITY DESCRIPTION

1a. TYPE OF BUSINESS/OPERATION

U.S. Navy training installation

1b. FACILITY OIL STORAGE

See Section VI of SPCC Plan, and "Storage Tank Inventory, FY 90" (attached).

1c. PREVENTION MEASURES PROVIDED

See SPCC Plan

1d. APPEARANCE OF FACILITY (housekeeping)

Neat and well-kept.

1e. PAST SPILL HISTORY

Most recent spill occurred Dec. 11, 1990, when 50-60 gal. of #6 fuel oil were released into a non-pressurized steam system, due to valve failure (see attached report).

2. RECEIVING WATER (should a spill occur)

2a. NAME AND/OR DESCRIPTION

Lake Michigan via Pettibone Ck. and Skokie Ck.

- [x] Perennial
- [ ] Intermittent
- [x] Water present at time of inspection
- [ ] Inspector traced discharge to receiving water
- [ ] Inspector traced apparent drainage path to receiving water
- [ ] Receiving water identified by company representative
- [ ] Receiving water identified from topo maps
- [ ] Receiving water identified by other means (specify):

2b. PROBABLE FLOW PATH TO RECEIVING WATER

Pettibone Ck. → Lake Michigan

Skokie Ck. → Lake Michigan

2c. CLIMATIC INFORMATION FROM OWNER/OPERATOR

Hours Facility Manned

24 hr/da.

1. COMMENTS

Secondary containment structure for tank #B326TK, a 211,507-gal diesel fuel tank near Bldg. 325, was not adequate to hold tank contents with 1.0 ft. freeboard. However, the structure (earth berms) was adequate to hold tank contents plus 10% (see calculation page).

4. SPCC PLAN REVIEW

See attached notes.

5. SPCC AMENDMENT RECOMMENDATIONS (Amendment inspections only)

N/A

6. FIELD DRAWINGS (Attach more sheets if needed, and show north arrow or other orientation)

N/A

FACILITY
Great Lakes Naval Training Center

INSPECTION DATE
Dec. 18-19, 1990

INSPECTOR
David H. Stoltenberg, USEPA - Reg. V - CDO

STORAGE TANK INVENTORY
FY90

BLDG	FLUID	GALLONS	TK.NO.	PERMIT	LOC	INSTALL
L	#2DF	500	21-T-1	NA	U	1946
L1	#6FO	1000000	11K	85010001	A	DU
L1	#6FO	1000000	11L	85010001	A	DU
L1	#6FO	400000	11E	78080064	A	DU
L1	#6FO	400000	11F	78080064	A	DU
11	NONE	20000	NA	NA	A	DU
11	#6FO	275	NA	NA	A	DU
11	#6FO	275	NA	NA	A	DU
11	#6FO	1000	11-T-9	NA	U	1980
11	#6FO	1500	11-T-12	NA	A	DU
11	#6FO	1500	11-T-13	NA	A	DU
11	GAS	200	11-T-11	NA	A	DU
11J	SA	5000	NA	NA	A	DU
11J	SH	5000	NA	NA	A	DU
13	GAS	500	21-T-2	89100070	U	1958
43H	#2DF	500	31-T-2	NA	U	1955
52	PRO	1000	NA	NA	A	DU
103	GAS	DU	10-T-2	NO	U	1960
103	GAS	DU	10-T-3	NO	U	1960
103	GAS	DU	10-T-4	NO	U	1960
103	KER	DU	10-T-6	NO	U	1960
104A	#2DF	DU	10-T-5	NO	U	1960
106	#2DF	1000	21-T-3	89100069	U	1958
130	#2DF	150	21-T-15	NA	A	DU
144	GAS	20000	21-T-4	89100074	U	1954
144	GAS	20000	21-T-5	89100074	U	1954
144	WO	600	21-T-6	NA	U	1951
200H	#2DF	100	NA	NA	A	DU
200H	#2DF	200	NA	NA	A	DU
200H	#2DF	200	NA	NA	A	DU
200H	#2DF	5000	31-T-1	89100079	U	1986
229	#5FO	12500	23-T-2	89100073	U	1963
229	#6FO	12500	23-T-3	89100073	U	1963
229	WO	1000	23-T-1	NA	U	1963
229	WO	700	23-T-13	NA	A	DU
229	WO	460	23-T-14	NA	A	DU
229	WO	1000	23-T-15	NA	A	DU
229	H20	4000	23-T-18	NA	A	DU
229	H20	4000	23-T-19	NA	A	DU
229	H20	35000	23-T-20	NA	A	DU
229	LO	500	23-T-16	NA	A	DU
229	ST	1400	23-T-17	NA	A	DU
236	LO	317	NA	NA	A	DU
236	LO	317	NA	NA	A	DU
236	LO	317	NA	NA	A	DU
236	LO	317	NA	NA	A	DU
236	LO	317	NA	NA	A	DU
236	LO	317	NA	NA	A	DU
238	#2DF	5000	23-T-11	89100077	U	1979
238	#2DF	318	NA	NA	A	DU
239	#2DF	18748	23-T-4	89100075	U	1973
239	#2DF	18748	23-T-5	89100075	U	1973
239	#2DF	12000	23-T-1A	89100075	U	DU
239	#2DF	12000	23-T-1B	89100075	U	DU

39	WO	1000	23-T-29	NA	U	DU
39	WO	517	23-T-6	NA	U	DU
24	#2DF	1200	23-T-7	NA	U	1947
324	#2DF	1200	23-T-8	NA	U	1947
324	#2DF	1200	23-T-10	NA	U	1947
324	#2DF	200	324A	NA	A	DU
324	WO	1200	23-T-9	NA	U	1947
325	#2DF	16890	5-204-1F	89100068	A	DU
325	#2DF	16890	5-204-2F	89100068	A	DU
325	#2DF	25629	5-260-1F	89100068	A	DU
325	#2DF	25629	5-260-2F	89100068	A	DU
325	LO	500	23-T-22	NA	A	DU
325	LO	500	23-T-23	NA	A	DU
325	WO	500	325A	NA	U	DU
325	O/W	500	23-T-25	NA	A	DU
325	O/W	500	23-T-26	NA	A	DU
325	O/W	300	325B	NA	A	DU
325	O/W	300	325C	NA	A	DU
325	O/W	6000	B325OWT	89100068	U	DU
325	SA	500	23-T-27	NA	A	DU
325	#2DF	211507	B326TK	89100071	A	DU
329	#2DF	1000	23-T-12	NA	U	1983
329	#2DF	1000	23-T-21	NA	U	1988
329	WO	500	23-T-24	NA	U	1980
329	WO	500	329A	NA	A	DU
329	WO	500	329B	NA	A	DU
329	WO	500	329C	NA	A	DU
329	WO	2100	329D	NA	U	DU
329	WO	2100	329E	NA	U	DU
329	WO	500	329F	NA	U	DU
521	WO	150	23-T-28	NA	U	1989
912	PER	3000	NA	NA	A	DU
914	#2DF	200	21-T-14	NA	A	DU
1212	#2DF	150	22-T-1	NA	A	DU
1212	GAS	300	22-T-2	NA	A	DU
1400	PRO	DU	NA	NA	A	DU
1517	#2DF	500	10-T-1	NA	A	DU
1600A	GAS	10000	12M-T-1	89100080	U	1974
1600A	GAS	10000	12M-T-2	89100080	U	1974
1600A	#2DF	6500	12M-T-3	89100080	U	1974
1900	H20	750000	1900	NA	A	DU
1912	GAS	150	11-T-2	NA	A	DU
2110	WO	1000	NA	NA	U	DU
2216A	#2DF	1000	11-T-6	NA	U	1977
2710	GAS	10000	21-T-7	89100067	U	1978
2710	GAS	20000	21-T-8	89100067	U	1970
2710	GAS	20000	21-T-9	89100067	U	1970
3114	H20	2000000	3114	NA	A	DU
3114A	GAS	1000	11-T-1	ABANDONED	U	1944
3216	#2DF	4000	3224	NA	U	1952
3216	GAS	12000	21-T-12	89100076	U	1973
3216	OIL	2000	3225	NA	U	1952
3217	#2DF	250	11-T-3	NA	A	DU
3217	#2DF	1000	11-T-4	NA	A	DU

3217	#2DF	1000	11-T-5	NA	A	DU
3223	DU	10000	12M-T-4	NO	A	1985
3304	#2DF	5000	3305A	27JAN89	U	1944
3304	#2DF	4000	3305C	NA	A	DU
3304	#2DF	4000	3305D	NA	A	DU
3304	GAS	2000	3305B	89100072	A	DU
3400	#6DF	10000	21-T-10	89100078	U	1964
3400	#6DF	10000	21-T-11	89100078	U	1964
3400	#2DF	1500	NA	NA	A	DU
3402	#2DF	2000	21-T-13	NA	A	DU
3511	#6DF	10000	11-T-7	85010001	U	1967
3511	#6DF	10000	11-T-8	85010001	U	1967

LEGEND

A = ABOVEGROUND
U = UNDERGROUND
NA = NOT APPLICABLE
Y = PERMIT APPLIED FOR
DF = DIESEL FUEL
FO = FUEL OIL
GAS = GASOLINE
SA = SULFURIC ACID
SH = SODIUM HYDROXIDE
PRO = PROPANE
KER = KEROSENE
WO = WASTE OIL
H20 = WATER
LO = LUBE OIL
ST = STORAGE
O/W = OIL/WATER MIXTURE (HOLDING TANK)
PER = PERCHLOROETHYLENE STORAGE
FE = STEEL TANK (NO CATHODIC PROTECTION)
FPG = FIBERGLASS
FPG/FE= FIBERGLASS LINED STEEL TANK
DU = DATA UNKNOWN
CP = CATHODIC PROTECTION ON PIPING
GAL/HR = TANK TESTED LEAKAGE RATE

TOTAL NUMBER OF ABOVEGROUND TANKS = 58
TOTAL NUMBER OF UNDERGROUND TANKS = 55
TOTAL NUMBER OF ALL TANKS = 113

12 December 1990

MEMORANDUM

From: Production Officer, Navy Public Works Center, Great Lakes
To: Commander, Naval Training Center, Great Lakes (N5)

Subj: FUEL OIL SPILL, BLDG 11

1. Approximately 1510 on 11 December, during routine maintenance operations, a maintenance worker failed to properly secure an equalizer valve allowing pressurized #6 fuel oil to flow into a non-pressurized steam system. As a result, oil was deposited in three down stream tanks. At approximately 1514 the improper valve was secured.

2. Oil release is estimated at 50-60 gallons. This is well below the EPA reportable limits. Special equipment is being contracted to remove oil from tanks. North Shore Sanitation had been notified due to possible infiltration into their system. Again, no formal actions are required other than follow-up notifications. These actions are underway.

Very respectfully,

Dan Henson

DAN HENSON
Acting 30

N53

U.S. ENVIRONMENTAL PROTECTION AGENCY

REGION V

CENTRAL DISTRICT OFFICE

STATE NOTIFICATION OF INSPECTION

Authority: ____ SECTION 114(d)(1)-CLEAN AIR ACT, AS AMENDED

✓ CWA, ____ TSCA, ____ RCRA, ____ SWDA

Source Name Great Lakes Naval Training Center

Address

City Great Lakes

State Illinois 60088

Person Notified Chris Kallis

~~Title~~ Phone 708 - 345 - 9780

Organization IEPA, Maywood

Date of Notification 11-26-90

Planned Date of Inspection 12 - 18/19 - 90

Purpose of Inspection (compliance monitoring, Enforcement Division request etc.)

SPCC.

Scope Multi-media inspection

Person Giving Notice David H. Stoltenberg

Title Environmental Engineer

Organization ESD/CDO

D. H. Stoltenberg
(signature)