DANVILLE · ILLINOIS

I-1

AFTER-ACTION — HAZARDOUS SUBSTANCE REPORT AND RETRIEVAL FORM

9/5/83

FOR RETRIEVAL USE SEE END OF FORM: FILE NUMBER (for data bank use) [ ]

FOR REPORTING USE: In the case of "none" or "unknown" leave box blank. The entry class keywords are purposely broad and are for search and retrieval use only. Please pick the most applicable ones. Where there are two boxes you are allowed two choices. PLEASE! THE NARRATIVE SECTIONS ARE THE MOST IMPORTANT PARTS OF THE INPUT! Here is your opportunity to pass along the skill and knowledge you have applied to this action. If the space seems limited, use the comments section or another sheet for expansion.

DATE OF INCIDENT (043), e.g. [15] [7] [80] [29] [11] [82]

DATE OF REPORT [9] [05] [83] EPA REGION (71) [5] STATE (82) [IL]

NEAREST POSTMASTER ZIP CODE [61832] can use 9 digits

LATITUDE (deg, min, sec) [87] [35] [32] LONGITUDE [5m] [08] [30]

MAJOR HAZARDOUS SUBSTANCE DOT # (103) [ ] CAS # (136) [ ].

QUANTITY RELEASED (191) [1] specify quantity unit
1=0-1 2=1-10 3=10-100 4=100-1k 5=1k-10k 6=10k-100k 7=100k-1m 8=over 1m

QUANTITY UNIT [2]
1=liter 2=kilogram 3=cubic meter 4=gallon 5=pound 6=cubic foot

OTHER SPILLED OR INTERACTING SUBSTANCES CAS #

#2 (206)		#5		#8	
#3 (266)		#6		#9	
#4		#7		#10	

NARRATIVE. CHEMICAL NAMES, FORMS, INTERACTION HAZARDS. ANYTHING THAT WAS UNUSUAL ABOUT THE MATERIALS OR THEIR INTERACTIONS.

1. Cyanide Mixtures in Caustic Solution
2. Acids

US EPA RECORDS CENTER REGION 5
450291

Mixture of materials would cause release of Hydrogen Cyanide Cloud

ORIGIN OF INCIDENT (322) [9] [1]
1=plant 2=vehicle 3=vessel 4=railway 5=airway 6=pipeline 7=tank 8=pond 9=dump
10=sewer 11=landfill 12=storage 13=containers

PLEASE EXPAND IN DETAIL ON THE ORIGIN OF THE INCIDENT. GIVE ANY INFORMATION THAT AFFECTED YOUR RESPONSE. REMEMBER THAT THIS IS THE MEAT OF THE DATA BASE! Site a former Plating facility containing Metal cyanides used in plating in large vats and acids used for cleaning metal. ~~Bus~~ Went out of Business in July 1982. Building in deteriorated condition. Leaks in Roof causing overflow and mixing of vats. Causing HCN to be Released.

MAJOR EFFECT OF THE INCIDENT (342) [6] [1].
1=human health 2=water contam 3=illegal dumping 4=accident 5=odor 6=fumes
7=plantlife 8=animal life 9=fishkill 10=fire/explos 11=soil contam 12=security

WHAT WAS THE MAJOR EFFECT OF THE INCIDENT AND HOW DID YOU BECOME INVOLVED? REMEMBER THAT THE NARRATIVE IS VITAL! A Citizen complaint to The Vermillion County Illinois Emergency Services Disaster Agency Coordinator. He in turn called U.S. EPA and IEPA to due a joint Hazardous accessm The accessment found HCN being generated (20ppm) Twice the TLV. The HCN posed a direct threat to the neighbors and a High School across the street.

IMPORTANT WEATHER FACTORS (362) [2] 207
1=high wind 2=rain 3=snow 4=ice 5=fog 6=very hot 7=very cold 8=other

PLEASE ADD MORE DETAIL ABOUT THE EFFECT OF THE WEATHER UPON YOUR RESPONSE DECISIONS DURING THIS INCIDENT. Heavy Rains caused changes in works schedule, More indoor work was done due to the bogging down of Heavy equipment. Unseasonable cold helped in the operation tending to Retard the production of HCN. gases.

DAY=1; NIGHT=2 (381) [1]

AFFECTED AREA sq meters (391) [4]
1=0-1 2=1-10 3=10-100 4=100-1k 5=1k-10k 6=10k-100k 7=100k-1m 8=over 1m

AFFECTED POPULATION (401) [5]
Use same code as above

WHAT RESOURCES WERE AFFECTED (412) [0] [3]
1=groundwater 2=land 3=atmosphere 4=coastal 5=intercoastal 6=marine 7=stream 8=river 9=pond 10=lake 11=other

WHAT ECOSYSTEM HAZARDS WERE RECOGNIZED AND WHAT WAS DONE ABOUT THEM?
No threat to any ecosystems were found due to the being in a Residential area.

WHAT WAS THE PREDICTED LONG-TERM EFFECT ON THE ECOSYSTEM?
None

WHAT WERE THE SITE GEOGRAPHICAL INDICATORS? (432) [0] [2]
1=valley 2=hilly 3=open land 4=forest 5=river port 6=ocean port 7=beach 8=marine

PLEASE EXPAND ON THE GEOGRAPHICAL/TOPOGRAPHICAL FACTORS OF THE SITE. Hilly area in the River valley mainly high point in local topograph

WHAT WERE THE SITE GEO-HYDROLOGICAL INDICATORS? (452) [0] [9]
1=stream valley 2=watercourse 3=lake/pond 4=marsh 5=estuary 6=flood plain 7=flood channel 8=aquifer recharge zone 9=karst zone

HOW DID THE HYDROLOGY OF THE SITE AFFECT YOUR RESPONSE? Due to depth of Groundwater aquifer 100-150 ft and distance to Nearest wells 5 miles Hydrological factors were quickly excluded in intial site accessment in having very little effect on Response operation.

WHAT WERE THE GROUND MATERIALS OF THE SITE? (472) [1] [1] & 8
1=bedrock 2=sandstone 3=shale 4=rock 5=gravel 6=sand 7=silt 8=clay
9=fill 10=brush 11=concrete surfaced 12=asphalt surfaced

HOW DID THE GROUND MATERIAL AFFECT YOUR RESPONSE? Due to the concrete and ~~underlying~~ underlying layers of clay and low permeabilities (4.2×10^{-4} to 1.4×10^{-3} cm/sec) in upper 10 inches and generally less between 11 and 60 inches. Only the upper foot of soil was sampled and treated.

HOW WAS THE SITE LAND USED? (492) [0] [2]
1=residential 2=industrial 3=commercial 4=agricultural 5=transportation
6=recreation 7=national park 8=state park 9=historical site 10=reservation
11=critical habitat 12=range land 13=unused

WHAT EFFECT DID THE LAND USE HAVE UPON YOUR RESPONSE? It complicated the Response because of having an industrial facility in a urban Residential area. any Releases from site during cleanup could cause Public Health problems. Monitoring of Air and during cleanup continually and an evacuating during a critical phase of Removal were needed.

WHAT HAZARDS TO THE RESPONSE PERSONNEL WERE RECOGNIZED AND WHAT WAS DONE ABOUT THEM? LIKE PROTECTIVE CLOTHING, AIR PACKS, ETC. During clean up Level C was worn due to the HCN problem in air and corrosives effects of acids and bases, Level B was worn during a short phase of operation due to ~~the~~ a problem encountered in decontaminating vats.

WHAT HAZARDS TO THE PUBLIC WERE RECOGNIZED AND WHAT WAS DONE ABOUT THEM?
HCN Release made problems to public. OSC and local authorities visited neighbors and discussed possibly probl. No critical work was done while school occupied and Neighbors evacuated during Removal of caustics.

DESCRIBE ANY ACTIONS PRIOR TO YOUR ARRIVAL AND COMMENT ON THEIR EFFECTIVENESS.
Local efforts to have site cleaned up by former owner did not solve problem. Numerous citizen complaints went unanswered for many years. No ~~laws~~ local laws effective.

WHAT CONTAINMENT ACTIONS DID YOU USE? (512) [0] [4]
1=dike 2=trench 3=plug 4=cap 5=cover 6=divert 7=boom 8=liner 9=sump
10=containerize 11=leachate collection 12=gas collection 13=isolate 14=none

PLEASE EXPAND ON THE SELECTION AND EFFECTIVENESS OF THE CONTAINMENT ACTIONS USED OR CONSIDERED AND DISCARDED. WHY DID YOU CHOOSE THE ONES SELECTED? ANYTHING UNUSUAL?
Due to the vats being inside a building with a concrete floor the only way out was thru the drains to a city sewer. The sewer line was broken and a trough installed and a vaccum truck connected all discharge from work areas and decontamination areas went into the vaccum [illegible] contained.

WHAT REMOVAL-CLEANUP ACTIONS WERE USED? (532) [C] [J] 102
1=pump truck 2=haul away 3=burned 4=buried 5=containerized 6=flushed away
7=treated onsite 8=excavate

PLEASE EXPAND ON THE REMOVAL AND CLEANUP TECHNIQUES USED, CONSIDERED, TRIED, AND GIVE THE BASIS FOR YOUR CHOICE We tried to discharge to sewage treatment levels but cyanide levels to high. Solidification was used only to remove the immediate threat in the west Room due to high cost and time consuming process. Treatment off site in bulk was quickest and easiest method for Liquid Removal. All machinery and debris (wood, metal, etc) decontaminated on site. Solids Removed to landfill All decontaminated material to local landfill.

HOW DID YOU TREAT THE SITE? (552) [D] [5]
1=sorbents 2=activated carbon 3=thermal 4=physical 5=chemical 6=biological
7=act sludge 8=other 9=none

AGAIN, HERE IS THE CHANCE TO PASS ON THE KNOWLEDGE GAINED DURING YOUR RESPONSE TO THIS INCIDENT. WHY DID YOU SELECT YOUR COURSE OF ACTION? WERE THERE ANY UNUSUAL FACTORS? DID THE FIRST CHOICE WORK WELL? ETC., ETC. HELP THE NEXT OSC DO A BETTER JOB! Chemical treatment with bleach neutralized cyanides and acids in decontamination also soil was treated with bleach. Problems bleach wouldn't neutralize complex cyanide but they will bio-degrade.

WHAT WAS THE ULTIMATE DISPOSITION OF THE MATERIAL? (572) [O] [K] 101
1=landfill 2=incineration 3=injection well 4=evaporation 5=storage 6=recycle
7=land farming 8=treatment 9=encapsulation 10=marine dump 11=orbited
12=solar injection

PLEASE EXPAND ON YOUR SELECTION OF THE FINAL DISPOSITION METHOD.
Bulk liquids to treatment facility, Solids to landfill. Due to low cost, easy handling and quick Removal from site Bulking the liquids was most acceptable method and disposal. Landfilling solids only available method available.

PLEASE STOP NOW AND CONSIDER YOUR NARRATIVE ANSWERS TO THE LAST FIVE SECTIONS. AS YOU HAVE BEEN REMINDED SEVERAL TIMES, THESE ARE THE SECTIONS THAT ALLOW YOU TO HELP THE OSC WHO IS USING THE DATA BASE. HE IS MOST INTERESTED IN YOUR THOUGHT PATTERNS AS YOU RAN THIS OPERATION AND, MOST IMPORTANT, WHAT YOU MIGHT HAVE DONE THE SECOND TIME. REMEMBER, THERE IS NO LIMIT TO THE SPACE TO BE USED FOR THE NARRATIVE SECTIONS. (Use Comments section)

Due to the time considerations I feel I would have no choice but to do it again the same way

ARE ANY OTHER REPORTS PREPARED OR FORMS FILLED OUT FOR THIS INCIDENT? IF SO, GIVE THEIR TITLES AND INCIDENT REFERENCE NUMBERS. On Scene Coordinators Report Weston TAT Report TDD No. 5-8212-2 W.O. No. 23430105.012

LIST THE NUMBERS OF ANY FEDERAL, STATE, OR LOCAL PERMITS.
General Number 0316000991G
EPA No. ILE 200000047

DID YOU COMMUNICATE WITH THE PUBLIC? WHY? HOW? WITH WHOM? ANY PROBLEMS?

Yes, as part of Community Action Plan thru County Public Affairs office and by talking to local citizens and using U.S.EPA Public Affairs. Everyday during project Media updates given out. Public contacted during critical phases.

DID YOUR COMMUNICATION HELP? WOULD YOU DO IT AGAIN? DIFFERENTLY?

Yes, No the community Responded very well to the problems

WHAT EFFECT DID PUBLIC PRESSURE AND AWARENESS HAVE ON THE ACTION?

It made the project easier due to the cooperation of local authorities.

WHAT PERCENT OF THE SPILL AREA WAS CLEANED UP TO YOUR SATISFACTION? 99%

WHAT WERE YOUR CRITERIA FOR TERMINATING THE ACTION?

Removal of all liquids and solids from site and decontamination of building and equipment to levels Recommended by the state

WHAT PROBLEMS WERE ENCOUNTERED DURING THE RESPONSE? WHAT WERE YOUR SOLUTIONS AND THEIR EFFECTIVENESS? ADMINISTRATIVE? Site Security was biggest problem due to location of site in urban area. Hired Auxiliary Police Had to wait for analysis from labs.

TECHNICAL PROBLEMS: No Very little information about biodegrada in soils contaminated by CN.

WHAT CHANGES WOULD YOU MAKE TO IMPROVE THE OVERALL RESPONSE? None

PLEASE GIVE YOUR COST AND TIME ESTIMATES AS REQUESTED BELOW

Govt Labor Cost $ 4000.00 Manhours 220 State/local Labor Cost $ None Manhours

Contractor Cost $ 81,842.02 Manhours Unk Equipment Rental Cost $ Unk

Days from Incident to Termination of Response 15 days

HOW WAS THE BURDEN OF PAYMENT DIVIDED? Superfund

PLEASE GIVE YOUR NAME, ADDRESS, AND TELEPHONE NUMBER AND NAMES, TITLES, AND TELEPHONE NUMBERS OF OTHER KEY RESPONSE PERSONNEL SUCH AS STATE AND LOCAL GOVERNMENT PEOPLE AND CONTRACTORS. THIS WILL ENABLE A FUTURE OSC TO OBTAIN MORE INFORMATION.

William Simes OSC 312 886-3337 Geoff Longley IEPA 217 782 6762

TAT Doug Ballotti 312 498-9090

TAT Jeff Stoffenahn 312 498-9090

Petrochem Marion Cash 312 257-5875

COMMENTS. ANYTHING THAT MAY BE OF USE TO ANOTHER OSC WITH A SIMILAR PROBLEM. SUCH THINGS AS SECOND THOUGHTS, ACTIONS, CAUTIONS, UNWORKABLE TECHNIQUES AND WHY, RESULTS OF SAMPLING, TESTING, AND ANALYSIS, MORE SITE-SPECIFIC INFORMATION, LONG-RANGE PLANS, ETC. PLEASE USE ANY REASONABLE DETAIL.

THIS IS THE MOST VITAL PART OF THIS REPORT!

Do not under estimate costs and expect long analysis time frame when going to treatment facilities.

FOR USE IN THE RETRIEVAL MODE:

Each entry class, e.g., ORIGIN OF INCIDENT (742), contains its class number in parenthesis, e.g. (742). This is followed by a series of numbered key words, e.g., 1=plant, 2-vehicle, 3=vessel, etc. Below this section are four pairs of boxes to receive your retrieval request information. Please select up to four entry classes and one key word for each class. Any class may be specified any number of times so you may search for several key words within a class. The search is priority-based so place the most important class in box pair #1, the next most important in box pair #2, etc. The example shows that the OSC has selected for his second most important search code, Entry Class #832, WHAT MEDIA WERE AFFECTED and the INTERCOASTAL key word. This would be a typical entry for an intercoastal canal spill following the MAJOR HAZARDOUS SUBSTANCE in box pair #1.

EXAMPLE: #2 [832] [5]

The search of the index requires about 1 minute and returns to your terminal the numbers of the reports related to your search input. It reports in four groups: those that had coincidence with search pair #1 only, those that coincided with pairs #1 and #2, those that coincided with 1, 2 and 3, and those that coincided with all 4.

After this report is delivered, the OSC may elect to see either abstracts of the reports or the complete reports. He also has the option of selecting all the reports listed, those in any group, e.g., those that coincided with #1 and #2, or any file or files selected by number. The computer prompts the operator to make his decisions.

PLEASE READ THIS WITH CARE!

Each abstract requires about 25 seconds to print out on your terminal!
Each complete report requires about 5 minutes to print out on your terminal!

Only you, the user, can make the selection from the available options to gather the desired data from the bank without expending more time than you want to.

IMPORTANCE	ENTRY CLASS	KEY WORD
#1		
#2		
#3		
#4		

IT SEEMS A SHAME TO WASTE THE REST OF THIS PAGE! PLEASE ADD ANYTHING THAT YOU HAVE FORGOTTEN IN THE WAY OF COMMENTS AND HELPFUL INFORMATION REGARDING THIS INCIDENT!