ER ID 62843

FROM: CharlieN
SUBJECT: PCB SPILL ALONG EAST JEMEZ ROAD
PRIORITY: R
ATTACHMENTS:

(11)

While excavating a trench for a new sewer line along East Jemez Road, Pan Am workers smelled a solvent-like smell in the trench and complained of headaches and dizziness. Work was stopped and samples taken from the trench bottom in the vicinity of one of the concrete mixing operations located along the highway. The material is trichlorobenzene and polychlorinated biphenyls, the solvent being the cause of the worker's symptoms. Evidently, many years ago this area was a storage or staging area for contractors, and my guess is that a transformer leaked fluids that are now being picked up at 3 feet below the surface. It should be covered by ER, and I've already talked to Bob Vocke. Upshot: We surveyed the site this afternoon and developed a sampling plan. We will take 10 foot soil cores along the trench corridor starting tomorrow (thursday) at intervals of 6 feet from the location of the original contamination, covering 30 feet on each side of the center point. HSE-9 will run analyses over the weekend. Pan Am will not proceed with work until we give them the o.k.. I will provide further update tomorrow morning. Thanks.

30
305

14134

Received by ER-RPF
MAY 29 1992
UCG

TO: KenH
TomG

CC:

DATE: 09-08-89
TIME: 16:05

SUBJECT: UPDATE ON PCB CONTAMINATION
PRIORITY: R
ATTACHMENTS:

All soil sampling was completed this morning and the samples are being worked by HSE-9. Ten soil borings were completed to a depth of ten feet on six foot centers along the axis of the sewer trench. Yesterday, HSE-5 did not detect any gases or vapors in the auger holes which were located on the distal ends of the pothole that had evidenced solvent odors. However, today the two auger holes drilled six and twelve feet west of the original pothole contained detectable levels of vapors (the closest auger holes were drilled today). A total of 25 samples were collected Thursday, and 30 more samples were collected today. I believe that HSE-9 will not run todays samples until Monday and the results may not be available until Tuesday. However the results on the first 25 will be ready on Monday.

New Information @ 3:00 p.m. today- Workers alerted us that they smelled organic vapors in the trench that was being excavated about 75 feet west of the area of original contamination. A sample of that soil was taken to HSE-9 with results requested with the Monday output. All work was stopped and the spoil pile and trench were covered with plastic sheeting as a precautionary measure for the weekend. This new area was reported to me to appear as an isolated spill site, with no apparent connection to the other area that is contaminated since there were no smells or vapors sensed in an intervening area that was augered yesterday. That's all for now. Charlie

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Los Alamos
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

DATE September 19, 1989
IN REPLY REFER TO HSE8-89-565
MAIL STOP K490
TELEPHONE (505) 665-0453
(FTS) 855-0453

Mr. Robert E. Layton, Jr.
Regional Administrator
U.S. Environmental Protection Agency, Region VI
1445 Ross Avenue
Dallas, Texas 75270

POLYCHLORINATED BIPHENYL (PCB) CLEANUP CRITERIA

Dear Mr. Layton:

While excavating a trench for a new sewer line along East Jemez Road in Los Alamos County, New Mexico, workers detected an organic odor in the spoils being taken out of "pothole" that was excavated in search of buried utilities ahead of the trenching operation. Upon sampling and chemical analysis of the soil it was ascertained that the soil was contaminated with PCB and 1,2,4 Trichlorobenzene (a solvent associated with PCB transformer fluids). The maximum PCB level recorded was 4,300 parts per million (ppm).

This presently vacant utility corridor along East Jemez Road was at one time known as "contractors alley" during the 1950's and 60's, when various private contractors had storage yards along this portion of the road. It is assumed that this old PCB spill was caused by contractor activities some 20 to 30 years ago.

Soil east and west of the "pothole" was auger-sampled to a depth of 10 feet (20 feet in one location) along the route of the new sewer line to determine a profile of contamination along the path of the trench. Ten holes were augered at six foot intervals, and only the five holes on the west side of the "pothole" contained PCBs. A schematic of the profile follows, with PCBs in ppms given for specific auger holes at specific depths.

STATION	1	2	3	4	5	6	7	8	9	10
DEPTH										
0-2'	53	1.5	120	967	-	<1	<1	<1	<1	<1
2-4'	11	1.5	3.5	3800	32	"	"	"	"	"
4-6'	<1	<1	1.3	618	400	"	"	"	"	"
6-8'	<1	<1	1	289	77	"	"	"	"	"
8-10'	<1	<1	8.3	254	224	"	"	"	"	"
10-12'				261						
12-14'				59.3						
14-16'				70.6						
16-18'				30.1						

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After the trench was excavated at the location of auger hole #5 to a depth of 15 to 17 feet, the PCB concentration in the bottom of the trench was 13.6 ppm.

All of the contaminated soil excavated from the trench is being disposed of at the PCB-permitted chemical waste landfill located at Technical Area (TA) 54, Area G by hauling it in dump trucks lined with plastic sheeting, and dumping the soil in the landfill pits. As your files indicate, this chemical waste landfill is permitted by your agency as of June 5, 1980. The landfill site is located on top of Mesita del Buey, which is on Department of Energy (DOE) property, a few miles away from the subject contaminated site. The geology of the chemical waste landfill site is almost identical to the site of the contaminated trenching, i.e. both sites are located on nearly impermeable volcanic strata with a thickness of approximately 800-1000 feet between the land surface and the aquifer. The TA-54, Area G site is also used for low-level radioactive waste disposal. Because of the arid climate, depth to ground water, soil characteristics and conditions, the PCB permit for the landfill waived the ground water monitor wells and leachate collection system from the PCB permit.

Since the locations of the chemical waste landfill and the new sewer trench are both on DOE land, and the geology and hydrology is for all practical purposes identical, I would like to know if a major portion of the PCB contaminated soil in the vicinity of the new sewer line could be left in place. I would propose, via a request through DOE, to over-excavate the sewer trench to a depth of at least 10 feet in the area of contamination, removing any contaminated soil to TA-54, Area G, backfill the trench with clean fill, bed the sewer line, completing the backfilling with clean fill. According to the above soil profile, this would leave relatively low-level PCB concentrations below the sewer line. I would further propose to grid-sample the surface of the ground in proximity to the sewer line to gather a comprehensive picture of the boundaries of the PCB contamination, and remove the upper two feet of contaminated soil, replacing it with clean fill material. All of these actions would appear reasonable given the geology of the area and the land ownership.

If such a request appears reasonable, I would appreciate an expeditious telefax or telephone response, so that construction work regarding the new sewer line can be concluded prior to the end of the current fiscal year, and in order to prepare an official DOE request for alternative PCB spill cleanup pursuant to 40 CFR 761.120 (c) for your approval.

Thank you for your timely consideration.

Sincerely,

Kenneth G. Hargis for

Charlie Nylander
Environmental Surveillance
Group (HSE-8)

[redacted]:bjh

Cy: J. Puckett, HSE-DO, MS K491
T. Gunderson, HSE-DO, MS K491
K. Hargis, HSE-8, MS K490
S. Brown, LC GEN, MS A187
J. Phoenix, DOE/LAAO, MS A316
Lou Cathey, USEPA, 6T-PT, Dallas, TX.
CRM-4 (2), MS A150

INTEROFFICE MEMORANDUM

Date: 26-Sep-1989 04:46pm MDT
From: Charles Nylander
Org: HSE-8
Mail Stop: K490
Tel No: 6650453

TO: John Puckett, HSE-DO
TO: Thomas Gunderson, HSE-DO
TO: Kenneth Hargis, HSE-5
TO: Sheila Brown, LC-GENERAL

CC: A Drypolcher, HSE-7

Subject: PCB SPILL CLEANUP EAST JEMEZ RD. -EID INSPECTION

At 1:00 p.m. today Chuck Hules, NM Environmental Improvement Division came up to inspect the PCB Spill Cleanup on East Jemez Road. He was here at the request of Lou Cathey, US EPA Region VI, to gather information that will assist Lou in determining what cleanup criteria to use to mitigate this old historical spill. Lou is considering the letter I telefaxed to her last week, and needed some local "eyes and ears" to advise her so that she can reply formally to my letter. Her response will enable me to prepare a formal cleanup request thru DOE to EPA that contains all of the "pre-approved" cleanup criteria. Hopefully, this will make for a smooth process, without a lot of back and forth negotiations.

Chuck spent two hours with us and did not have any real concerns. He visited the County landfill to look at the subsurface geology along the pit walls (and also probably to sense whether the landfill was the source), and drove down East Jemez toward TA 53 looking at the geology. He left me with the impression that there were worse PCB spill locations and that he could basically live with the terms of cleanup proposed in my recent letter. He said we should hear from EPA tomorrow by telephone.

P.S. Lou had told me last Friday that if the bottom of the sewer trench showed less than 10 ppm PCB we could backfill and finish the sewer installation. Samples were collected Saturday, contained less than 10 ppm at the last critical locations, and the trench has been backfilled. The adjacent areas to the sewer trench will be sampled during early October to characterize the extent of contamination and the degree. This will be charged to the ER program. Depending on EPA's cleanup response, we may be able to leave any other contaminated soil in place. Hopefully, Tony we won't have any more dirt for you. Thanks.

PAN AM WORLD SERVICES, INC.
MEMORANDUM

TO: S. J. Calanni, PMGR

THRU: Joe J. Lopez, Manager, PHSE

FROM: Environmental Engineer, PENV

DATE: September 2, 1989 MEMO NO. PENV-89-382

SUBJECT: CONTAINMENT OF 1,2,4 TRICHLOROBENZENE

Soil east of Jemez Road near the Mountain Mobile Mix cement plant is contaminated with 1,2,4-trichlorobenzene. CAID personnel uncovered this soil while preparing to dig a new sewer main. The sewer main from TA-02 and TA-41 is now in the way of planned expansion of the LA County Landfill. The substance is considered a hazardous constituent (40 CFR 261 Appendix VIII); the soil is considered a hazardous waste. Trichlorobenzene is about 1.5 times as heavy as water. It probably leached through the top 2 feet of sandy soil and lodged in the clay. Contaminated clay extends throughout the length of the 15 foot ditch. Core samples will be necessary to determine the extent of the contamination. This work will delay the construction of the sewer main as planned. Marke Talley asked Dave McInroy to explore the history of this site with the Environmental Remediation Technical Support Office (ERTSO) to learn how and when the solvent was spilled.

In accordance with suggestions from Dave McInroy, CAID personnel worked after hours on September 1 and on Saturday to contain all contaminated soil removed from the ditch. PPE consisted of full-face masks with organic canisters, rubber gloves, and saranex coated tyvek coveralls with booties. By Saturday afternoon, the soil was hand shoveled into new barrels. The ditch is lined with heavy plastic and then filled with clean soil, which is covered with another heavy layer of plastic and about 5 inches of dirt. The barrels are currently on bermed tarps near the ditch. Used gloves and coveralls are contained in a separate barrel.

CAID workers reported to PSFT that the soil in the ditch smelled peculiar during the third week of August. John Graham, PSFT, brought a sample to PENV on August 24. The following week, CAID workers complained of light-headedness from the smell. The contaminated soil was reported to Dave McInroy and Charles Nylander, HSE-8, on September 1. Dave McInroy requested a rush volatile report, which showed the presence of 1,2,4-trichlorobenzene. George Talley, HSE-5, provided the attached MSDS. This material is not used by

Pan Am. George Talley obtained more complete information by means of a computer retreival data base on hazardous substances from Bethesda, Maryland. The material is irritating to skin and eyes and acts as a cumulative liver toxin.

Charles Nylander said the barrels could be stored on bermed plastic at Sigma Mesa until disposal methods are decided.

Marke Talley

Marke Talley

Attachments: Material Safety Data Sheet

cy: Charles Nylander, HSE-8, K490 /
David McInroy, HSE-8, K490
M. R. Heineman, HSE-3
Charles Barnett, PENV
Oliver Wilton, PSFT
file
reading file

W-73-74

MATERIAL SAFETY DATA SHEET

DIVISION ADDRESS
MOBAY CORPORATION
Organic & Rubber Chemicals Division
Mobay Road
Pittsburgh, PA 15205-9741

ISSUE DATE 3/26/86
SUPERSEDES 11/19/84

TRANSPORTATION EMERGENCY: CALL CHEMTREC
TELEPHONE NO: 800-424-9300 DISTRICT OF COLUMBIA: 202-483-7616

MOBAY NON-TRANSPORTATION EMERGENCY NO.
(412) 923-1800

I. PRODUCT IDENTIFICATION

PRODUCT NAME.....: Trichlorobenzene
PRODUCT CODE NUMBER.....: N-779
CHEMICAL FAMILY.....: Chlorinated benzene
CHEMICAL NAME.....: 1,2,4-Trichlorobenzene
CAS NUMBER.....: 120-82-1
T.S.C.A. STATUS.....: On inventory
CHEMICAL FORMULA.....: $C_6H_3Cl_3$

II. HAZARDOUS INGREDIENTS

COMPONENTS:	%	CURRENT TLV:
Trichlorobenzene (CAS NO. 170-82-1)	100	(ACGIH 1985-86) TWA (Ceiling) 5 ppm 40 mg/m³

III. PHYSICAL DATA

APPEARANCE.....: Liquid
COLOR.....: Colorless
ODOR.....: Faint aromatic
MOLECULAR WEIGHT.....: 181.5
BULK DENSITY.....: Approximately 1500 kg/m³
SOLUBILITY IN WATER.....: Approximately 0.4 g/l

IV. FIRE & EXPLOSION DATA

FLASH POINT °F(°C).....: 230°F (110°C) C.C.
EXTINGUISHING MEDIA.....: All extinguishants allowed
SPECIAL FIRE FIGHTING PROCEDURES/UNUSUAL FIRE OR EXPLOSION HAZARDS:
Firefighters should wear full protective clothing including a self-contained breathing apparatus. During a fire, irritating and/or toxic gases from the combustion/decomposition products may be present.

V. HEALTH EFFECTS DATA

ANIMAL TOXICITY -
ORAL, LD50
(INGESTION).....: 756 mg/kg (Rat)
EYE EFFECTS.....: Irritating (Rabbit)
SKIN EFFECTS.....: Irritating (Rabbit-24 hour exposure)

V. HEALTH EFFECTS DATA - cont.

HUMAN EFFECTS
OF OVEREXPOSURE.....: Product is irritating to the eyes and skin.

THRESHOLD LIMIT VALUE....: Refer to Section II

VI. EMERGENCY & FIRST AID PROCEDURES

EYE CONTACT.....: Flush eyes with plenty of lukewarm water for at least 15 minutes. Contact a physician.
SKIN CONTACT.....: Wash with soap and water. Remove contaminated clothing and wash before reuse. Contact a physician.
INHALATION.....: Remove to fresh air.

VII. EMPLOYEE PROTECTION RECOMMENDATIONS

EYE PROTECTION.....: Safety goggles
SKIN PROTECTION.....: Rubber gloves
RESPIRATORY PROTECTION...: NIOSH/MSHA approved organic vapor cartridge respirator.
VENTILATION.....: Local exhaust ventilation

VIII. REACTIVITY DATA

STABILITY.....: Stable
POLYMERIZATION.....: Will not occur
HAZARDOUS DECOMPOSITION
PRODUCTS.....: By fire: hydrogen chloride

IX. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Sweep up waste material and place in an appropriately marked container. Utilize recommended protective clothing and equipment.
WASTE DISPOSAL METHOD: Waste material may be incinerated under conditions which meet federal, state and local environmental control regulations.

X. SPECIAL PRECAUTIONS & STORAGE DATA

STORAGE TEMPERATURE
(MIN./MAX.).....: Ambient
AVERAGE SHELF LIFE.....: Two years
SPECIAL SENSITIVITY
(HEAT, LIGHT, MOISTURE): None
PRECAUTIONS TO BE TAKEN
IN HANDLING AND STORING: Store in a cool, dry place away from food and drink. Keep container tightly closed. Adopt precautionary measures against the build up of electrostatic electricity which may arise from appliances and handling of containers in which the product is packed.

XI. SHIPPING DATA

TECHNICAL SHIPPING NAME..: 1,2,4-Trichlorobenzene
D.O.T. HAZARD
CLASSIFICATION.....: None-regulated
FRT. CLASS BULK.....: Trichlorobenzene
FRT. CLASS PKG.....: Trichlorobenzene, in barrels
PRODUCT LABEL.....: Trichlorobenzene

REASON FOR ISSUE.....: Addition to section II
APPROVED BY.....: J. J. Gerulis
TITLE.....: Manager, Ind. Hygiene & Reg. Affairs
DATE APPROVED.....: 11/20/85