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Los Alamos National Laboratory
Los Alamos, New Mexico 87545

memorandum

TO Jesse Aragon, HSE Division Leader, MS P228 DATE May 17, 1985

THRU Wayne R. Hansen, HSE Associate Division Leader, MS P228 MAIL STOP/TELEPHONE K490/7-5021

FROM Thomas C. Gunderson, HSE-8 Group Leader SYMBOL HSE8-85-550

SUBJECT RECOMMENDATIONS FOR DISPOSITION OF TANKS AT FUEL FARM ON DP ROAD

Attached is a draft memorandum to Avedon Gallegos of the Department of Energy's Los Alamos Area Office for your consideration on the captioned subject.

Please call me if you have any questions.

TCG:mm

Att: a/s

- Cy: M. McCorkle, HSE-8, w/att., MS K490
- J. Ahlquist, HSE-8, w/att., MS K490
- Fritz, HSE-8, w/att., MS K490
- K. Balo, HSE-7, w/att., MS K592
- J. Warren, HSE-7, w/att., MS E516

Received by ER-RPF
 Date 21 1992
 Hsu



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memorandum

TO Avedon Gallegos, DOE/TP, MS A316 DATE 5/24/85

FROM Jesse Aragon, HSE Division Leader MAIL STOP/TELEPHONE P228/7-4218

SYMBOL HSE-DO-85-137

SUBJECT DISPOSITION OF TANKS AT DP ROAD FUEL FARM

The Environmental Surveillance Group (HSE-8) has completed an environmental survey of the subject area. Surface soil samples were analyzed for arsenic, lead [under the Environmental Protection Agency's Extraction Procedure (EP) Toxicity Test], hydrocarbons, and radioactivity. Based on the results, the surface soil is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).

At the time the tanks are exhumed, other materials (sludge remaining in the tanks, liquid from rinsing the sludge from the tanks, and soil that may have been saturated from a possible underground leak) must be analyzed to determine if they are "hazardous" wastes, as defined under RCRA. Selection of appropriate disposal procedures for these materials will be based on whether or not they are hazardous.

Specifically, Group HSE-8 recommends the following:

Diesel Tanks: Ten of the fifteen tanks stored diesel fuel. Please see attached figure. These tanks can be removed for salvage. Sludge and liquid from rinsing the tanks that are pumped from these tanks may be disposed of at a sanitary landfill. It would be preferable to dry the sludge or chemically solidify it before disposal. Any soil saturated by underground fuel leakage from the tanks must be evaluated. If the volume is large, the soil should be excavated and disposed of at a sanitary landfill. If the volume is small, the soil may be plowed/mixed in to other soil onsite. The Environmental Surveillance Group (HSE-8) should be contacted to evaluate the area. The Waste Management Group (HSE-7) should also be contacted with respect to proper disposal procedures.

Gasoline Tanks: Three of the fifteen tanks contained gasoline. Please see attached figure. These tanks may also be removed for salvage when acceptable residue standards are met. Sludge, liquid from rinsing out the tanks, and contaminated soil from possible underground leaks from these three tanks should be assumed to be hazardous wastes until EP Toxicity Tests prove otherwise. [Soil contaminated in excess of 5 mg/l of lead is considered a RCRA hazardous waste (RCRA:40 CFR 261.24)].

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Also, under RCRA:40 CFR 261.21, the substances from the gasoline tanks must be tested for ignitability. RCRA regulations state substances with ignition levels under 140 degrees F must be analyzed per RCRA ignition tests. If gasoline residues test positive, these residues are considered RCRA hazardous wastes. Material Disposal Area L at TA-54 has been shut down, so it will be impossible to dispose of this waste onsite. Long term onsite storage of expected volumes from this operation is also impossible. It is recommended the waste removal and disposal (incineration at a RCRA-approved facility) be handled by a RCRA-certified hazardous waste contractor from outside the Laboratory.

Kerosene Tanks: Two of the fifteen tanks at the farm held kerosene. Please see attached figure. These tanks can be removed for salvage as well. Sludge, rinsing liquids, and any soils saturated by an underground leak must be handled in a slightly different manner from diesel and gasoline wastes. Ignitability tests must be performed. If ignitability tests are negative, these wastes can be treated as uncontaminated wastes and disposed of in a sanitary landfill. If the tests are positive, the substances are considered to be RCRA hazardous wastes and must be disposed of (incineration at a RCRA-approved facility) by a RCRA-certified hazardous waste contractor from outside the Laboratory.

If these tanks are to be released for public sale, certain conditions and/or controls should be met so as to release the seller from liability. Individuals or companies purchasing these tanks, especially those buying the gasoline tanks, should be notified of their past contents and be advised against certain uses (i.e., a farmer should not use a gasoline tank for holding water for livestock). Although these tanks must be cleaned as thoroughly as possible, some residues will remain. RCRA legislation does recognize that trace/residue level can be left.

JA:mm

Att: a/s

Cy: HSE-DO, MS P228
CRM-4 (2), MS A150
HSE-8, MS K490

4/22/85 DP Fuel Farm Phoswich Survey

The phoswich survey results are provided on p 15. Because of variability in soil types (& thus radiation background) the analysis was grouped by soil type as indicated on the map. The instrument does drift with temperature & the instru natural variability is greater than that due to counting statistics alone, as is shown in the source checks ~~29~~ after the survey. The other reading is between 2-3% lower than the first run

Zone	n	\bar{E}	\sqrt{E}	σ	$\bar{E} \pm 2\sigma$	$\bar{E} \pm 3\sigma$	highest reading
I	12	834	29	53	940	993	935
II	8	825	29	31	887	857 918	858
III	2	863	29	35	933	968	887
IV	36	900	30	68	1036	1104	1035
V	2	867	29	69	865 1005	1074	916

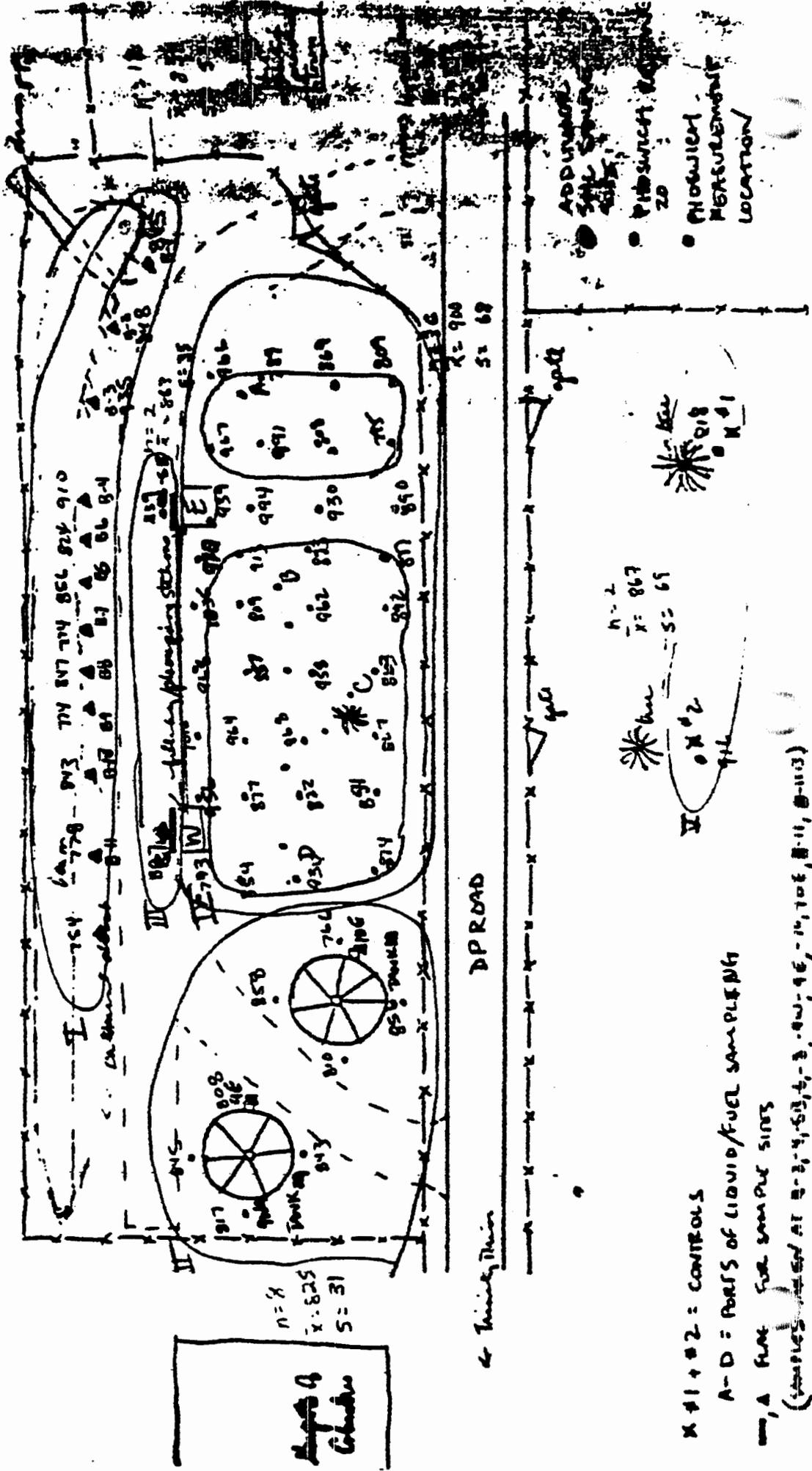
An updated reproducibility check on the phoswich may be in order.

A.J. Wilgus

Prosvich Survey 4/19/85 - by L. Fritz, & D. M. Egan
 DRY - FAIRLY DRY CONDITIONS
 DP ROAD - GAS TANK FARM SOIL SAMPLING LOCATIONS 1/17/80.

BACKGROUND = 822 (ON ASPHALT)
 COUNT = 20 SECONDS
 1 AM SOURCE BEFORE - 196912
 1 AM SOURCE AFTER - 195349
 196912 - 20 = 196034

10 SONS.



$n = 8$
 $\bar{x} = 825$
 $s = 31$

$n = 2$
 $\bar{x} = 867$
 $s = 69$

X #1 + #2 = CONTROLS
 A-D = PORTS OF LIQUID/FUEL SAMPLES
 * A FINE FINE SAMPLE SITES
 (SAMPLES TAKEN AT 8-2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100)