Monsanto

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XC : Denny Scott - Res Center

SEP 14 1979

FROM (NAME—LOCATION—PHONE) R. H. Sinise (2671)

DATE : September 13, 1979

SUBJECT : Trip Report - Beatty Nevada

REFERENCE : NECO Landfill Site

TO : File

cc: P.E. Heisler
M.W. Mc Combs
W.B. Papageorge
R.L. Liss
N.L. Davis ✓

Situation

A site visit was made on August 27, 1979 to Nuclear Engineering, Beatty, Nevada, to discuss disposal of PCB contaminated transformers. Max McCombs and I met with Mr. Thayer, site operations manager.

Recommendation

The Beatly, Nevada site is geographically ideal for the disposal of hazardous wastes. It has been inspected twice by the federal EPA and appears in the Federal Register for recommended PCB landfills. The landfill is primarily used by companies for PCB solids landfilling and by California companies for hazardous waste landfill. The limited size and analytical facilities plus its remote location make these facility only suited for PCB solids or a special one time waste disposal.

Background

I Site Description

The landfill is located eighty miles north of Los Vegas in a remote area. The nearest city is eleven miles away and nearest full time resident is nine miles away. A majority of the surrounding land is owned by the federal government for nuclear testing and missle storage. The site is 80 acreas with six acres allocated for chemical wastes, the rest for nuclear wastes. The company has an option on another eight acres to expand their chemical site. The landfill is fenced and the nuclear disposal site is fenced from the chemical site.

The site is not visible from the road. It was well maintained with no broken down equipment in the area. There was a small office building and a repair shop located on the landfill site.

II Geology

A survey map of the site was not available or required for permit since their are no contours. The groundwater level is 350 to 400 feet below grade. In addition there is 3 inches annual rainfall with 100% surface evaporation. There are ten monitering wells surrounding the site at various heights with the deepest 500 feet. Each is monitered monthly with none having any contamination and many having no water intrusion.

No soil testing has been made on the site and was not required by

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either the state EPA or federal EPA. The PCB trenches have 130 feet sandstone, 100 feet clay, followed by 160 feet of sandstone. Three distinct old river beds can be noticed layed through the trenches.

III Site Operations

The site receives on average 1.3 trucks of waste per day. Bill of Ladings are logging in a master book and the truck drives directly to the appropriate site. The drums are unloaded and drums driven into the trench by a forklift. Transformers are unloaded by crane in the trench. Drums are normally covered everyday. The day we visited, drums were left uncovered through the night due to a late shipment. However, since there is no rain, site management did not see this as a problem.

Drums are not opened or analyzed on site. State inspectors visit the site twice per month and have requested a drum analysis on some occasions. These are sent to Los Angelos for results.

IV Permit

Attached is the PCB landfilling permit. There is no official state permit. Trip reports by inspectors serve as the permit renewals. The PCB landfill permit must be renewed by December 1979.

V Safety

Drinking water was available in overhead horizontal drums. This same water served as a safety shower. A safety kit located inside a small garage structure at the chemical landfill trench is opened and checked every day. The site manager reviews the safety equipment requirements for every shipment with the personnel. They have had no recordable accidents in their history.

A drinking water well is also available at a depth of 380 feet. This well is sampled monthly for chemical contamination.

VI Personnel Observation

The site was well kept and clean. Operations were run in a methodical manner with extreme care due to the presence of nuclear wastes. This management style was then used in the chemical landfill site.

The federal EPA was impressed enough with the site to require only one PCB test well and no soil samples. They have visited the site twice since approval.

Conclusions

This site should be utalized for PCB contaminated articles and transformers by Monsanto. Its geographic conditions are perfect and its bid price for disposal was lower than several other landfills. Care must be taken to insure a secure packaging and loading of the articles on the truck. The load will remain for over 60 hours on the road.

R. Sinise

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PERMIT

PCBs

ATTACHMENT

~~APPROVAL~~ TO OPERATE A CHEMICAL WASTE LANDFILL
FOR
PCB DISPOSAL

In compliance with provisions of Section 6(e) of the Toxic Substances Control Act (15 USC 2601), the State of Nevada, the Department of Conservation and Natural Resources, the site owner, and Nuclear Engineering Company, Inc., the operator, of the NECO waste disposal site located 10.5 miles south-southeast of Beatty, Nevada, on U.S. Highway 95 in Nye County, are hereby approved to operate, jointly and severally, an existing chemical waste landfill facility to dispose of non-liquid polychlorinated biphenyls (PCB's) at the 8.26 acre area defined by coordinates N 9377.9 E 12580.0, N 9388.5 E 12007.0, N 8792.4 E 11979.6, and N 8781.7 E 12576.6 based on the northeast corner of Section 35 which is defined by coordinates N 10,000.00 E 13,965.32, in accordance with the plans submitted with the application dated May 23, 1978; with subsequent supplemental information submitted on August 17, 1978; October 18, 1978; and November 7, 1978; with the PCB regulations on marking and disposal (40 CFR Part 761); and with the conditions attached to this document and made a part of this approval. The owner and operator shall be jointly and severally responsible for complying with the terms and conditions of this approval.

The existing facility is the NECO waste disposal site located near Beatty, Nevada, in Nye County. The facility is currently operating as an industrial solid and liquid waste disposal site adjacent to a radioactive waste disposal site. The facility has disposed of PCB's prior to the effective date of the EPA marking and disposal regulations for PCB's.

Failure to comply with any condition or term set forth in this approval shall constitute a violation of Section 15(1)(C) of the Toxic Substances Control Act and 40 CFR Part 761, and will be considered grounds for enforcement action pursuant to Section 15, 16, and 17 of the Toxic Substances Control Act. In particular failure to comply with Conditions No. II. 10 and No. II. 13 of this approval will be grounds for immediate termination of this approval.

This approval grants no relief from the responsibility for compliance with any other applicable provision of 40 CFR Part 761 or any applicable Federal, State, or local regulations.

This approval shall become effective immediately.

DATED DEC 8 1978

Sheila M. Prindiville
acting Regional Administrator
EPA, Region IX

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CONDITIONS

I. MODIFIED CONDITIONS

In accordance with 40 CFR 761.41(c)(3) and (4)the Regional Administrator of the Environmental Protection Agency in Region IX, based upon the finding that such operation will not present an unreasonable risk of injury to health or the environment, hereby waives and modifies the requirements of 40 CFR 761.41(b) as follows:

1. The requirement that only three sampling points, equally spaced on a line through the center of the disposal area and extending from highest water table elevation area to lowest water table elevation area be necessary for underlying earth materials which are homogeneous, impermeable, and uniformly sloping in one direction (Section 761.41(b)(5)(ii)(a)) is waived. The owner and operator of the NECO site shall immediately install at least one monitoring well in addition to the existing wells specified in their application and Operations Plan in accordance with the specifications of Section 761.41(b)(5)(ii)(b) to be located near the center of the site in a PCB trench. The depth of the well shall be below the deepest burial level of the trench and shall be screened or slotted below that level and cased at the bottom for liquid retention. This well shall be monitored on a monthly basis for the parameters PCB, pH, specific conductance, and chlorinated organics. The ten existing observation wells shall continue to be monitored for the presence of liquid on a monthly basis. If any liquid is detected, samples shall be taken and analyzed for the required parameters above. The site water well shall also be monitored on a monthly basis for the above parameters. The EPA has determined that the monthly monitoring of the existing observation wells, the newly installed monitoring well, and the site water well will be adequate for early detection of any PCB leachate.

2. In regards to monitoring well construction, the requirement that the annular space between the monitor zone and the surface be completely backfilled or plugged with portland cement (Section 761.41(b)(5)(ii)(b)) is modified for the site water well. It is determined that the use of drilling mud in the annular space as a sealing medium is adequate to effectively prevent percolation of surface water into the well bore considering the arid climate of the site and the depth of the well bore.

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3. The requirement that an acceptable leachate collection system be installed beneath the chemical waste landfill (Section 761.41(b)(6)) is modified. The top of the uppermost aquifer is 326 feet below the surface. 115 feet of the 326 feet of material between the surface and the nearest aquifer comprise of clay or substantial clay mixture. The clay layers would limit the downward movement of any leachate by absorption on the alluvium, thus protecting the groundwater from contamination. There are no perennial streams within 10 miles of the site. The expected rate of precipitation is 2.5 to 5.0 inches per year, and the expected evaporation rate is 100 inches per year. Minimal water is expected to collect at the site. No leachate collection system as described in the regulations is deemed necessary. The Operations Plan shall be amended to address specific actions to be taken in the event PCB or any liquid is detected in any of the monitoring wells. Specific actions shall include pumping out and properly disposing of any liquids detected in the wells each month. Action shall also include steps to be taken in the event PCB is detected at the site water well.

4. The requirement that diversion structures capable of diverting all surface water runoff from a 24-hr 25 yr storm be provided for a landfill site above the 100-yr floodwater elevation is modified. In consideration of the following, adequate assurance to divert surface water runoff is provided: (a) 2.5 to 5.0 inches per year average rainfall, (b) 1.5 inches rainfall for the 24-hr 25 yr storm, (c) 100 inches per year evaporation rate, (d) topographical slope range of 1:100 to 1:200, (e) the slight knoll on which the PCB site is located, (f) small berms about 1 foot high surrounding the site at the fence boundary, and (g) unpaved roads with 1 foot deep V-ditches and scraped land areas with a rise of about a foot surrounding the perimeter of the site. The owner or the operator of the site shall amend the Operations Plan to include measures to be taken in the event surface water runoff become inadequately controlled. In addition, a report shall be made in writing to the EPA immediately each time surface water runoff is observed at or near the site.

II. GENERAL AND SPECIFIC CONDITIONS

The following conditions are general requirements embodied in the PCB regulations (40 CFR Part 761) as well as additional requirements pursuant to 40 CFR 761.41(c)(3)(ii):

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1. The following PCB wastes are the only PCB wastes authorized for disposal at the site:

   A. Non-liquid PCB mixtures in the form of soil or debris which have been contaminated by PCB as a result of a spill;

   B. Contaminated materials not resulting from a spill (landfilled only until January 1, 1980);

   C. PCB transformers which have been drained in accordance with requirements of Section 761.10 (c)(1)(ii);

   D. PCB large high or low voltage capacitors (landfilled only until January 1, 1980);

   E. PCB containers which have been drained in accordance with requirements of Section 761.10(c)(1)(ii);

   F. Small PCB capacitors owned by PCB capacitor manufacturers (landfilled only until January 1, 1980);

   G. Dredged spoils and municipal sewage treatment sludges that are of PCB mixtures.

2. Landfill disposal requirements as specified in 40 CFR Part 761 Sections 761.10, 761.41, and 761.45(b) shall be adhered to at all times. The requirements of Section 761.42 shall be adhered to should PCB's be stored for disposal.

3. Water quality sampling methods and analytical procedures shall be performed in accordance with 40 CFR Part 136 as amended in 41 Federal Register 52779 (December 1, 1976).

4. Operational guidelines and procedures shall be adhered to at all times and shall be as specified in the Operation Plan, submitted to the EPA on August 17, 1978, as Exhibit of the supplemental information to the application and hereby attached to and incorporated as a condition of this Approval to Operate, along with any amendments required to be submitted pursuant to this Approval to Operate or any future amendments. Upon approval by the Regional Administrator of EPA in Region IX, such amendments shall become conditions of this Approval to Operate.

5. The Operations Plan shall be amended to state that defined water sources at or near the site will be sampled indefinitely on a frequency of not less than once every six months after final closure of the PCB disposal site.

6. The Operations Plan shall be amended to specify that all PCB wastes be placed in the burial trenches carefully and not be dumped or pushed into the burial trenches from the lip of the trenches; that no PCB wastes be buried at any depths where there is evidence of liquid at such levels; that all PCB wastes be buried at least three feet below the natural land surface; that no other wastes be buried above or below the PCB wastes; and that PCB wastes be segregated from other wastes in each trench by construction of separation walls of at least three feet of earth.

7. The Operations Plan shall be amended such that all sampling and analysis data from ground and surface water monitoring be prepared and maintained along with records of other data required by Section 761.45(b) of the PCB regulations. Such record of data shall also be submitted to the EPA on a monthly basis. The Operations Plan shall also be amended to include recordkeeping of three dimensional burial coordinates for any other chemical wastes buried in cells adjacent to PCB burial cells in the trenches.

8. The EPA shall be notified in writing of all required amendments to the Operations Plan within thirty (30) days from the date of this approval. Such amendments shall be subject to EPA approval pursuant to 40 CFR 761.41(b)(7)(ii). Also any amendments to the Operations Plan thereafter shall be subject to EPA approval and the EPA be notified thereof.

9. The owner or operator of the disposal site shall submit in writing to the EPA on a monthly basis a report of any PCB materials received during the month resulting from a spill. The report shall include the spilled material source, the shipper, and the quantity received. In addition, the monthly report shall include a description of any event which is not normal to the operation of the PCB site (e.g., accidents, entry by unauthorized persons or animals, erosions, excessive rainfalls, etc.).

10. The owner or operator of the disposal site shall immediately report in writing to the EPA any instance of detection of PCB's at any of the monitoring wells or the site water well.

11. At the request of any State or local government in whose jurisdiction the disposal facility is located, an annual written notice, during the time the facility is used for PCB disposal, of the quantities and general description of PCB's disposed of during the year shall be submitted no more than twenty (20) days after the end of the year covered.

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12. EPA officials, upon presentation of credentials, shall be permitted access to the disposal site for the purpose of inspections and sampling.

13. If at any time the EPA determines that the PCB site is creating a situation of imminent hazard, this EPA office will notify you as to what steps are necessary to prevent imminent hazard. Such steps must be taken by the date provided in such notice.

14. This approval shall be subject to periodic review as deemed appropriate by the EPA and may be modified, suspended, or revoked in whole or in part for cause including, but not limited to, the following:

    A. Violation of any terms or conditions of this approval;

    B. Obtaining this approval by misrepresentation or failure to disclose fully all relevant facts; or

    C. A material change in any condition that requires cessation of the authorized burial.

15. All reports, notifications, mail or other submittals required to be submitted to the EPA under this Approval to Operate shall be sent to the Director, Enforcement Division, U.S. Environmental Protection Agency, Region IX, 215 Fremont Street, San Francisco, CA 94105, Attn: E-3.

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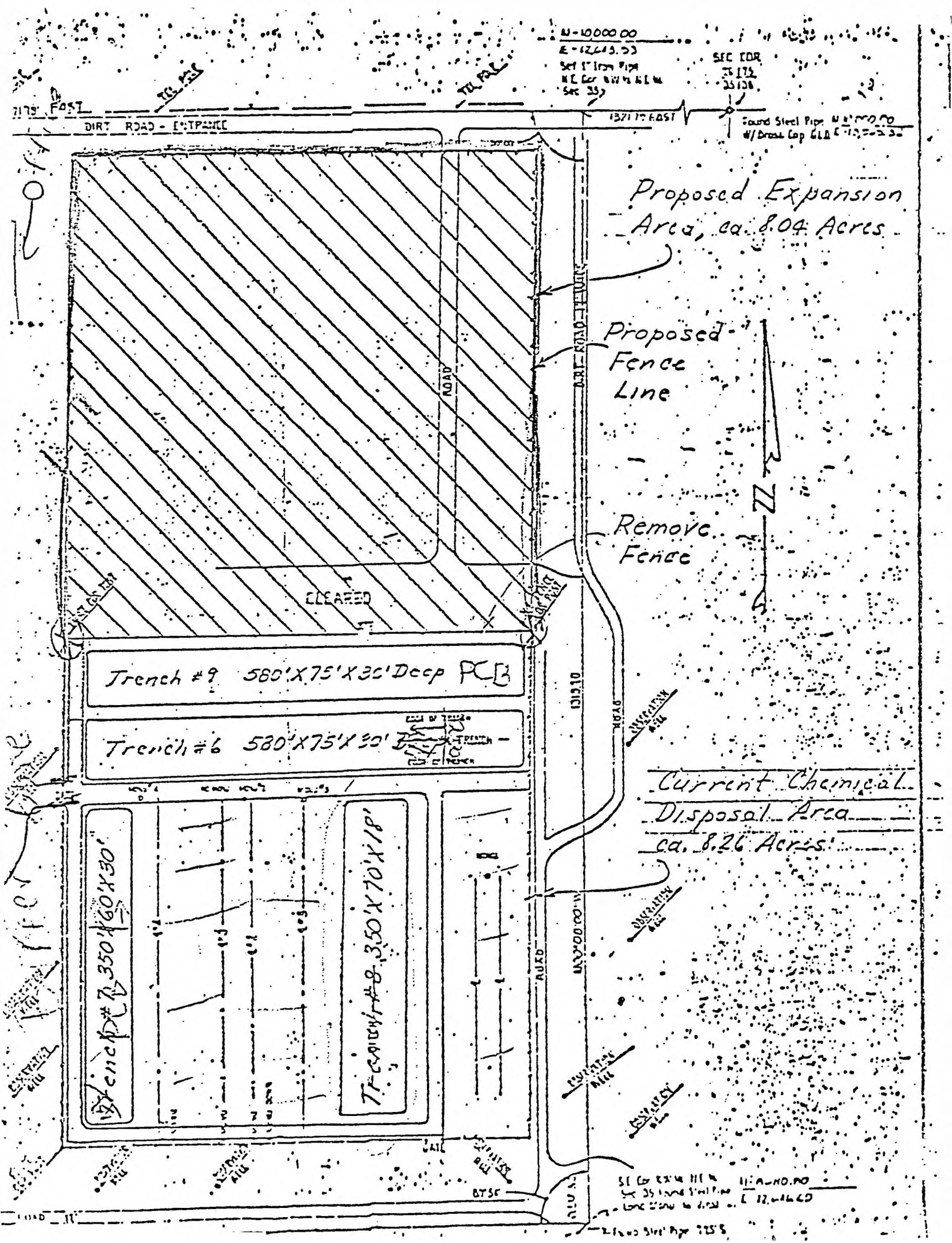

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ADDENDUM NO. 1

1. Title to and Risk of Loss for the Goods passes to Nuclear Engineering Company, Inc. (Contractor) upon delivery by Monsanto Company (Monsanto) at Monsanto's John F. Queeny Plant. Delivery is deemed to occur after the Goods are loaded into or onto the transport vehicles or facilities provided by Contractor to transport said Goods and such loaded vehicles have departed from Monsanto's plant. Monsanto shall label, placard and package the Goods in compliance with all applicable DOT regulations and load said Goods into or onto the transport vehicles or facilities and Contractor shall be solely responsible for securing such Goods after they have been loaded.

2. (a) The general descriptions of the various types of Goods to be delivered to Contractor for disposal are set out on Schedule A and the Hazardous Waste Shipment Record Form. (For the purposes of this Addendum, Schedule A and the Hazardous Waste Shipment Record Form shall include any deviations thereof or supplements thereto as mutually agreed upon in writing by Monsanto and Contractor.) The percent composition of such Goods may, however, vary from shipment to shipment and from one container to another, because of variations in process operations and the maintenance procedures of Monsanto's plants. (For the purpose of this Addendum,

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general description shall mean that description mutually agreed upon in writing by Monsanto and Contractor.) It is understood by the parties that Contractor will rely solely on Schedule A and the Waste Shipment Record Form for the general description of the Goods, and Contractor shall not be required to analyze, sample or test such Goods. Provided, however, that Contractor shall be required to examine the general description in Schedule A and the Waste Shipment Record Form prior to disposal of the Goods to determine whether the Goods are sufficiently described thereon to enable Contractor to properly dispose of such Goods.

(b) Contractor shall within fifteen (15) days after delivery of the Goods, give notice to Monsanto of Goods which vary materially from the general descriptions thereof as set forth in the attached Schedule A and Hazardous Waste Shipment Record Form and which, as a result thereof, are unsuitable for disposal at Contractor's disposal facility. For such varying Goods, Monsanto agrees to pay Contractor all inspection, transportation and handling costs actually and reasonably incurred by Contractor, both to Contractor's place of disposal and return to Monsanto's plant or to such other storage or disposal facility designated by Monsanto. Such inspection, transportation and handling charges shall not be paid if Contractor fails to give such notice within said fifteen (15) day period.

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(c) For Goods which vary materially from the general description set out in Schedule A and the Hazardous Waste Shipment Form, but which remain suitable for disposal at Contractor's disposal facilities, Monsanto agrees to reimburse Contractor for increased costs actually and reasonably incurred by it in disposing of such varying Goods, provided (i) that Contractor notifies Monsanto in writing prior to disposal or within fifteen (15) days after delivery, whichever comes first, that its cost of disposal is increased as a result of the Goods materially varying from the general description, specifying the nature of the variance, its best estimate of the increase in cost, and an explanation of such increase in cost and (ii) that Monsanto shall have the right to inspect the Goods before disposal to determine whether such variance does exist. If Monsanto and Contractor disagree as to the extent of such variance and the amount of the additional cost of disposal, and cannot reach a mutually acceptable compromise, the varying Goods shall be returned in the same manner and under the same conditions as set out in Paragraph 2(b). Contractor shall not be reimbursed for such increased cost, if it fails to give such notice prior to disposal or within said fifteen (15) day period, whichever comes first. Such payments for either the return or increased cost of disposing of any varying Goods by Monsanto shall be the limit

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of Monsanto's liability to Contractor for such varying Goods. Subject to Monsanto's obligations under Paragraph 2(a) and its obligation to package, label, placard and load the Goods, Monsanto MAKES NO OTHER REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, AS TO MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE, OR ANY OTHER MATTER WITH RESPECT TO THE GOODS, WHETHER USED ALONE OR IN COMBINATION WITH OTHER SUBSTANCES.

3. Contractor acknowledges that it has received a general description of the Goods, that it is familiar with the hazardous nature thereof, and that it has the knowledge and expertise to handle, haul and dispose of the Goods in a safe and efficient manner, as such Goods are generally described in Schedule A and the Hazardous Waste Shipment Record Form.

4. Contractor shall indemnify and hold Monsanto, its employes and agents harmless from and against any and all liabilities, claims, damages, penalties, actions, suits, losses, costs and expenses (including cost of defense, settlement and reasonable attorneys' fees), whether the foregoing are based in contract, negligence, strict liability or other legal theory, for any personal injuries, including death, and/or property damage, or for any contamination of or adverse effect on humans, domestic animals, aquatic and wildlife, food, animal feed or the environment, arising out of or in connection

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with the receipt, possession, handling, distilling, use, resale, transfer or disposal of the Goods, distillates or residues therefrom or any components thereof by Contractor or others, whether alone or in combination with other substances. Monsanto, if it so elects, shall have the right to tender its own defense, which right shall include, but not be limited to, the selection of counsel and the preparation of Monsanto's defense. Notwithstanding the foregoing and provided Contractor has properly performed its duties and obligations under this Agreement, Contractor shall not be required to indemnify or hold Monsanto, its employes and agents harmless in the event (a) the Goods materially vary from the general descriptions thereof set forth in the attached Schedule A and the Hazardous Waste Shipment Record Form, and such variance is the cause of such personal injury, including death, and/or property damage, or (b) such personal injury, including death, and/or property damage is caused by the negligence of Monsanto (i) in furnishing or utilizing defective containers into which the Goods may be stored (ii) in labelling, placarding or packaging the Goods contrary to applicable DOT regulations or (iii) while loading the Goods onto Contractor's transport vehicles or facilities.

5. The terms and conditions of this Addendum shall supersede any contrary or conflicting terms in Monsanto's purchase orders or Contractor's Hazardous Waste Shipment Record Form.

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6. Monsanto and Contractor acknowledge and agree that Section 2, Sentence 2, of Contractor's Hazardous Waste Shipment Record Form, #116 LNC shall be null and void.

7. EXCUSE OF PERFORMANCE. Performance under this addendum and purchase order, except for the payment of money for services performed, may be suspended by either party in the event of: act of God, war, riot, fire, explosion, accident, flood, sabotage; lack of adequate fuel, power, raw materials, labor, containers or transportation facilities; compliance with governmental requests, laws, regulations, orders or actions; breakage or failure of machinery or apparatus; national defense requirements or in the event of labor trouble, strike, lock-out or injunction (provided that neither party shall be required to settle a labor dispute against its own best judgment); or any other event beyond the reasonable control of such party, which event prevents the delivery, transportation, acceptance or disposal of Goods. Any party claiming the existence of an excuse of performance shall promptly notify the other party of its existence, expected duration and effect on this addendum and purchase order.

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Material	Composition	Special Handling Precautions
Resin MHP Filter Cartridges	Filter Cartridges Saturated with a Toluenesulfonamide/Formaldehyde resin and various impurities.	Avoid breathing vapors.
Crude Resin MHP Filter Cake	40-60% Toluenesulfonamide/ Formaldehyde Resin 40-60% Diatomaceous Earth and various Impurities	Avoid breathing vapors.
Rej. Product 26456 in Clay	33-38% n(2-methyl-2 nitro propyl)-4-nitro aniline and various organics 62-67% Clay	Will decompose releasing NOx fumes if contacted by strong acids or bases or held at 125°F or above for prolonged periods. Water should be used to quench any reaction.
Benzoic Acid Residue	75-85% Benzoic Acid and impurities 15-25% Dibenzyl-o-Biphenyl	Avoid skin contact and Inhalation.
2 TAP Distillation Residue	90-99% Polymeric Amines and Tars 1-10% 2-Thenyl aminopyridine	Avoid any direct contact Wear rubber gloves, goggles and apron.
CD Filter Cake	Various silicate phosphate and phthalate esters in filter media.	None.
CD Filter Cartridges	Filter cartridges saturated with various silicate, phosphate and phthalate esters and Impurities.	None.
TMB Filter Cake	80-90% Diatomaceous Earth 5-10% Isopropyl Alcohol 3-5% Water 0-2% TMB	Keep away from sparks or flame. Use water, foam, CO_2 or dry chemical in case of fire.
MPF Filter Cake	30-40% Diatomaceous Earth 55-60% Carbon 0-5% Methylpyrilene fumarate 5-10% Isopropyl Alcohol	Keep away from sparks or flame. Use water, foam, CO_2 or dry chemical in case of fire.
MPHCl Filter Cake	35-40% Diatomaceous Earth 55-60% Carbon 0-5% Methylpyrilene HCl 5-10% Isopropyl Alcohol	Avoid vapor inhalation and eye and skin contact. Keep away from sparks or flame. Use water, foam, CO_2 or dry chemical in case of fire.

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Material	Composition	Special Handling Precautions
MPF Filter Cartridges	Filter cartridges saturated with Methylpyrilene Fumarate and Isopropyl Alcohol	Keep away from sparks or flame. Use water, foam, CO_2 or dry chemical in case of fire.
MPHCl Filter Cartridges	Filter cartridges saturated with Methylpyrilene HCl and Isopropyl Alcohol.	Avoid vapor inhalation and eye and skin contact. Keep away from sparks or flame. Use water, foam, CO_2 or dry chemical in case of fire.
TMB Filter Cartridges	Filter cartridges saturated with water, Isopropyl alcohol and trimethoxybenzaldehyde.	Keep away from sparks or flame. Use water, foam, CO_2 or dry chemical in case of fire.
Piping contaminated with Dichloroaniline	Pipe and DCA.	Avoid skin contact. Wear rubber gloves, goggles and apron if direct contact is required.
Zinc Chloride	Zinc Chloride and impurities.	Avoid contact with eyes. Contact with water or moisture in the air will liberate HCl gas. Wear rubber gloves, goggles and apron if direct contact is required. In case of fire use dry chemical, CO_2 or foam. Do not use water.
FH-132 Filter Cartridges	30-40% 1,2-bis(phenylthio) ethane 60-70% Isopropyl Alcohol Trace 2-chloroethyl phenyl sulfide.	Avoid skin contact or inhalation. Wear rubber gloves, goggles and apron if direct contact is required. Keep away from spark or flame. In case of fire use water, foam, CO_2 or dry chemical.
Aspirin Dust Collector Tubes	Tubes Impregnated with Aspirin/ Salicylic Acid.	Avoid dust inhalation.
P-22 Filter Cartridges	Filter Cartridges saturated with Triphosphonate and various Impurities.	Heating to approximately 100°C or above releases toxic vapors.

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Material	Composition	Special Handling Precautions
Resin MS-80% Filter Cake	40-80% Diatomaceous Earth 20-60% Toluenesulfonamide/ Formaldehyde Resin, Butyl Acetate, and various Impurities.	Avoid vapor inhalation and skin contact. Keep away from sparks or flame. In case of fire use water, foam, CO_2 or dry chemical. Wear rubber gloves, goggles and apron if direct contact is required.
TP Base Distillation Residue	92-98% Polymeric Amines and tars. 1-3% 2-Thenyl Aminopyridine 1-5% Thenyl Pyramine Base Trace Lithium Salts 100% o-Nitrochlorobenzene and various trace Impurities.	Acute toxicity tests being performed. Currently no problems associated with handling have occurred. Use water, foam, CO_2 or dry chemical in case of fire.
ONCB Contaminated Equipment	100% o-Nitrochlorobenzene and various trace Impurities.	Avoid skin contact and inhalation. Wear rubber gloves, goggles and apron when handling. Use water, foam, CO_2 or dry chemical in case of fire.
CAC Scrubber Packing	Plastic scrubber packing with only trace amounts of organic contamination.	None. Use water, foam, CO_2 or dry chemical in case of fire.
Fumaric Acid Dust Collector Tubes	Dust collector tubes impregnated with Fumaric Acid	Avoid eye and skin contact and dust inhalation. Use water, foam, CO_2 or dry chemical in case of fire.
Empty FH-132 Residue Drums	25-35% Isopropal Alcohol and Tars 25-35% Thiophenol 10-20% Chloroethyl Phenyl Sulfide 5-10% Diphenyl disulfide 0-5% 1,2 bis (phenylthio)ethane	Avoid eye and skin contact and vapor inhalation. Wear rubber gloves, goggles and apron if direct contact is required. Use water, foam, CO_2 or dry chemical in case of fire.

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Material	Compositions	Special Handling Precautions
ONA Filter Cartridges	Filter Cartridges saturated with o-Nitroanisole, inorganic salts and various trace impurities.	Avoid skin and eye contact.
Phthalic Anhydride	Phthalic Anhydride contaminated with small quantities of various organic and inorganic materials.	Avoid skin and eye contact and inhalation.
AZO Residue	50-70% Triethylamine Salt 10-40% 2,6-diethylphenyl-azomethine 1-20% 2,6-diethylaniline 1-10% Formaldehyde	Avoid skin and eye contact. A Class B poison by DOT regulations. Avoid contact with acids and bases. Use foam, CO_2 or dry chemical to fight fires.
OS-E Residue	OS-E (a polyphenyl ether) with various organic tars and small quantities of potassium phenoxyphenate.	Avoid skin and eye contact.
Sodium Silicate	Sodium Silicate with small quantities of various impurities.	Avoid skin and eye contact and inhalation.
Orth-EV Cut	85-99% o-Ethylvanillin 1-10% Ethylvanillin 0-10% o-Ethexyphenol	Avoid skin and eye contact.

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