



BUTLER COUNTY

human services council

P.O. Box 922

Hamilton, Ohio 45011

July 19, 1985

U.S. Dept. of Justice
Assistant Attorney General
Land and Natural Resources Division
10th and Pennsylvania N.W.
Washington, D.C. 20530
*(U.S. v. Chem-Dyne et al., D.J.
Ref 90-7-1-43).

EPA Region 5 Records Ctr.



253031

Dear Sir:

I would like to submit this letter, on behalf of residents of Hamilton, Ohio, as official comment on the recent settlement--U.S. v. Chem-Dyne et al., D.J. Ref 90-7-1-43--presided by Chief Judge Carl B. Rubin. We have a number of outstanding concerns to which we would like to draw your attention.

We are distressed about the level of contamination which will remain in our groundwater after extraction and treatment. The acceptable level of contamination has been set at 100 parts per billion. For quite a number of chemicals, the acceptable level across the nation has only been two to three parts per billion. Yet, here in Hamilton, we will be accepting a level (98% higher) which may prove to be quite dangerous to the community.

After this marginal level of cleanup, the water is to be either reinjected back into our aquifer or dumped into the Ford Canal. We find this methodology to be unacceptable. Dayton, Cincinnati and other communities are all dumping into the same waterways. The Canal and River cannot be expected to effectively dilute all of the toxins barraging its channels. In regard to reinjection, the problem is further exacerbated by the fact that the cap which will be placed on the site has no sides or bottom as a part of its structure. Therefore, the reinjected groundwater will freely move horizontally away from the site. The claim is that this will serve as a means for further dilution of the level of contamination. However, the acceptable standard at the outlining monitoring stations will be 80 parts per billion--a still extremely dangerous level of contamination.

Finally, in regard to groundwater monitoring and treatment, the U.S. EPA has declared that it will test for metal toxicity in the water, but the "Remedial Action Plan" does not outline a treatment methodology to impact on the problem should one be found. It has been our experience that it takes approximately one year for the U.S. EPA to develop an appropriate treatment methodology before it is ready for implementation. The complexity of this process would be further compounded by the number of generators who would necessarily be involved in the negotiating process. We believe that the methodology for the treatment of metal toxicity in our groundwater should be outlined at the onset of the sub-surface cleanup endeavor (i.e., in the "Remedial Action Plan").

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In regard to other areas of concern:

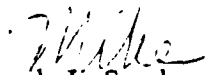
We believe it is unacceptable for a majority of the contaminated soil to be left on location. The settlement proposes off-site disposal of only 1% (approx.) of the total volume of contaminated soil found at Chem-Dyne. While allowing for the fact that all of the soil cannot be removed, an excavation of only "one percent" seems at best insignificant (if it has any merit at all). We believe that a majority of the contaminated soil should be removed from the site; especially since there is no provision for adequate containment of the contamination.

We further believe that a clause should be included in the current cleanup proposals which specifically stipulates that the generators will be held responsible for cleanup of the contaminated sediment in the Ford Canal once the appropriate technology has been developed. At this time, a "no action" plan has been proposed in regard to this issue. This is unacceptable to the residents of this community.

Finally, it has been confirmed that the level of PCB contamination found in Ford Canal fish is significantly higher than health standards set by the Food and Drug Administration. However, the settlement does not require the generators to address this problem. We believe that the justification for this conclusion is unfounded and that the generators must be held responsible for the damage our aquatic life has suffered.

Thank you for the opportunity to share our concerns in regard to this settlement. We will be awaiting news that our concerns have in fact been addressed. We believe it is crucial for this cleanup to be an exemplary effort as it has repeatedly been cited as one which will set a precedent for the cleanup of hundreds of other sites throughout the nation in the future.

Sincerely,


Michael J. Sanders
President

cc: U.S. EPA
Ohio EPA
Rep. Thomas N. Kindness
Senator John H. Glenn
Senator Howard Metzenbaum
Senator Donald E. Lukens
Rep. Michael A. Fox

July 19, 1985

U.S. Department of Justice
Assistant Attorney General
Land and Natural Resources Division
10th and Pennsylvania NW
Washington D.C. 20530
ATTN: U.S. v. Chem-Dyne et al D.J. Ref. 90-7-1-43

Dear Remedial Action Reviewers:

As a soil ecologist and a southwestern Ohio resident, I cannot accept the remedial action plan that has been prepared for the Chem-Dyne hazardous waste holding site. The reasons are several, which I hope I can present in a systematic and scientific manner. My own expertise in this area includes much work concerning the effects of toxic metals on soil microbiota, as well as surveys on microbiotic changes in stressed ecosystems. Currently, I am working actively as a Co-PI on an EPA grant concerning the role of toxic metals in an ecosystem from a botanical and mycological viewpoint. This type of work requires an extensive knowledge of soils, as well as chemical properties of toxicants. Though I recognize that effort on the part of the USEPA shows a concern for resolution of the problem, the plan in its current form cannot hope to remedy the situation at Chem-Dyne.

The almost total reliance upon VOCs for the assessment of chemical wastes is erroneous. In the proposal, contaminated plumes containing VOCs were the central reasoning for the implication of air-stripping technology. Granted, I am well aware of the relatively high efficiency of air-stripping in removing substances such as carbon tetrachloride, chloroform and 1,1,2,2-Tetrachlorethane from groundwater, the remedial action plan has almost completely ignored other chemicals found on the site that have a low or non-existent response to air-stripping. Many of these chemicals found on the Chem-Dyne site that are also listed in Section 307(a) (1) of the Clean Water Act include base/neutral compounds such as Benzo(b)fluoranthene, anthracene and hexachlorethane; pesticides and metabolites such as γ -BHC (lindane)-Gamma, dieldrin and 4,4'-DDT; and other compounds such as PCB-1260, 2,4-dinitrophenol, lead and mercury. Even taking into account metal oxide formation, it is presumptuous to assume that air-stripping will be successful on these compounds. Furthermore, the use of injection/extraction wells and subsequent disposal of 30% of the site effluent into Ford Canal may actually increase the magnitude of the problem. Even if we assume VOC removal, there is going to be widespread pollution in the canal and subsequently the Great Miami River resulting from concentrations of the above chemicals and many more that will threaten the health of Hamilton and downriver communities. Any clean-up of the hazardous waste site should include several iterations of activated charcoal filtration of the effluent and constant sample analysis with complete assurance that any "leakage" into the Ford canal be below toxic concentrations. The

100 ppb determination in the remedial action plan is a completely unacceptable and dangerous assumption. Many of these chemicals have toxic or carcinogenic manifestations at concentrations less than 5 ppb. Any effluent flowing into Ford canal must not exceed these toxic concentrations!

Perhaps the most unsatisfactory portion of the plan includes the soil sampling, excavation and capping that has either taken place or will take place.

The assessment of the Chem-Dyne site has opened itself up for numerous inaccuracies that could prevail and overwhelm any contingency plan that is currently being considered. The soil sampling procedure was completely inadequate on a site that contains toxicants that are dangerous at virtually any concentration. The use of aerial photographs in determining the sampling of soil has contributed to this inadequacy. Photographs which illustrate points in time, do not illustrate events which may have occurred at different time periods other than when the photograph was taken. Incidental spillage during operation cannot possibly be determined using photographs. Also the widespread standing water often found on the sites suggests that contamination of water-soluble toxicants may be widespread away from the barrel locations.

The number of samples taken reflects how little we know the site, yet we are basing an entire clean-up operation upon this paucity of information. The statements made at the public meeting in Hamilton in June justifying this inadequate sampling were definitely not scientifically founded and quite possibly very dangerous thought propagations. For instance, the idea that it is impossible to completely and adequately sample the area to statistical satisfaction in a cost-effective manner is a defeatist attitude that contributes to the danger of the current plan. Though expense may be prohibitive to do a square centimeter by square centimeter assay, that is no justification for the current sample information. An increase of sampling, including a regular sampling array, does not have to be prohibitive, and can only contribute useful information. Let us consider the price of clean up. The term "cost-effective" should be considered not only in the light of the clean-up cost, but should include the consideration concerning the price that the north-side citizens of Hamilton have to pay for decreased land values. What may be "cost-effective" for the industrial clean-up proposal could be "cost-ineffective" for the Hamilton citizen who has to take a cut in sale price for their home because buyers realize that all of the waste has not been removed from the site, or "cost-ineffective" for the Hamilton citizen who develops a disease as a result of a toxicant which may not have been detected in the poor sampling design.

The soil removal that has occurred and will occur on the site was based on the incomplete information commented on in the above paragraph. No selective soil removal should be addressed until the site is better characterized. Until this occurs, we

must assume that the entire site, including off-site areas, are contaminated and all of the unsaturated soil horizons should be removed. The unsaturated zone will not be significantly cleansed using the injection/extraction wells, hence removal is the only alternative in ridding the site of toxicants that may persist in the soil for many years to come.

The idea of installing a clay cap has not been thoroughly researched to use it as a main emphasis on the clean-up of this site. The integrity of the cap in a temperate environment (freezing and thawing episodes) is questionable. Clay soils in this area after compaction return to their uncompacted bulk densities in as little as 7 years due to freeze action common in areas containing Grey-brown podzolics (according to a study at the ERC prairie plots at Miami University). The liner that is used in combination with the clay could be quickly disturbed upon revegetation. Root-zone friction, a common soil-building process, has been known to penetrate and etch rock, so the questionability of this technology rapidly increases. The comment regarding animal destruction of cap integrity appeared to be dismissed at the public meeting in Hamilton. This dismissal is unfounded. Small mammals can cause much damage to earthworks, and have been shown to dredge subterranean material to the surface of burrows, an action that would defeat the purpose of a clay cap. Maintaining the integrity of the cap may prove much more expensive than originally planned and must occur indefinitely if the unsaturated soil is not removed. All of the contaminated unsaturated soil should be removed if there is any hope of reduced danger due to cap leakiness. This "band-aid" approach may have other negative impacts as well. Even though you cap the site, everyone knows that the toxicants are still there albeit hidden. This constant threat of recontamination due to possible leakages of chemicals whose toxicity are <5 ppb will not increase the property values of northern Hamilton residents. Many of the excuses put forth that discourage soil removal should be reconsidered. The costliness of the operation is undeniable, however, we must recognize the immense costs that these residents have suffered or may suffer in the future if soil continues to contaminate the surrounding environment. The dust created by the excavation processes can be reduced substantially by a simple wetting mist that can be sprayed on areas under excavation.

In conclusion, I would like to propose that an abundance of information is still lacking about the Chem-Dyne site -- information that should be an integral part of any operation where human danger is involved. There can be no good definitive plan for clean-up unless the statistical rigorosness of the soil sampling regime is improved. Basing such a clean-up upon the current paucity of information is completely unsatisfactory from a logical standpoint. Upon this uncertainty, we should also consider the uncertainty of clay-capping as well as the uncertainty of injection/extraction wells in areas of fluctuating water tables and even the uncertainty of the historical topography of the site (the canal and reservoir that were once present on the property). Please reconsider the proposed clean-

up plan as put forth by the settlement. Very real dangers to the community of Hamilton still exist, and it would be a dangerous precedent to go in blindly in any clean-up program. Though I have mentioned several items that need attention, I cannot help but feel that I have just hit the tip of the iceberg. The 30-day public response period to a problem of this magnitude is a severe injustice toward any further investigation on the part of the public in response to the proposed plan. The lengthy documents (approximately 150 pages in length) that make up the Consent Decree and the Remedial action plan, as well as the very late availability of the Ohio EPA permit documents (July 15) precluded an adequate criticism for the whole operation, especially when the general public does not have the financial capabilities to hire environmental consulting firms.

Sincerely,

Paul T. Arnold
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Summit

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July 19, 1985

U.S. Department of Justice
Assistant Attorney General
Land and Natural Resources Division
10th and Pennsylvania NW
Washington, D.C. 20530

U.S. v. Chem-Dyne, et al.,
D.J. Ref. 90-7-1-43

Gentlemen:

This office represents a group of individuals who are residents of the neighborhood in Hamilton, Ohio, immediately adjacent to the Chem-Dyne site. We have recently been able to make a review of the proposed consent decree relative to the above matter and would like to make the following comments concerning the same. We earlier addressed a comment letter to you dated July 17, 1985, however we decided to make some revisions to the same, and if this revised letter is timely received by you, please substitute this letter for that one.

1. Although there is apparently no evidence of contamination of the city of Hamilton's south wellfield at this time, we are concerned that the state of Ohio would be allowed to agree to indemnify the defendants against any claims brought under CERCLA which might be made in the future concerning contamination at that site. The Ohio EPA is the primary watch-dog agency for this vital public water supply, and we are concerned that they are also going to be monetarily responsible for dealing with any contamination which might be discovered in the future. The new role which the state is assuming in this regard seems to be in conflict, or at least inconsistent, with its monitoring responsibilities. This indemnity provision puts the state in a potentially adversarial position to the citizens whom it is supposed to protect. This Indemnity Agreement will also have a chilling effect on the ability of private litigants to recover their response costs under CERCLA. Instead of looking to the waste generators, private litigants will be forced to seek recovery from the pockets of their own state government, i.e., their own tax dollars.

2. The decree should more clearly spell out that it is not designed or intended to have any effect on the rights of individuals who claim to have suffered individualized losses from the Chem-Dyne situation and who may seek recovery from the defendants either under CERCLA, ⁴⁴ other statutory remedies or the common law. It should be made clear that the consent decree is only between the United States, the state of Ohio and the settling defendants and the rights of private plaintiffs are not limited in

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INDUSTRIAL DIVISION
ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

any way by the consent decree. At a public information meeting held in Hamilton on June 24, 1985, representatives of the USEPA stated that the consent decree is not really a settlement and that the USEPA was not releasing anyone, other than the premium settling defendants, from any further liability for the clean-up of the Chem-Dyne situation. Assuming these were accurate representations, this should be made clearer in the consent decree. Specifically, we believe that the language of paragraph 14(C)(1) is vague in that it fails to state that the premium settling defendants are not being released from CERCLA claims of private litigants. Even more distressing is the fact that there is no paragraph comparable to paragraph 14(C)(1) in paragraph 13, which clearly preserves the litigation rights of the private parties against the settling defendants. While state and federal representatives have assured us that they have not adversely affected any claims of private litigants, we feel the decree should clearly spell this out.

3. There is no provision in the consent decree for medical evaluations of residents of the community to assess what effects this situation may have had on the community health. The decree should provide for a fund to make this type of assessment.

4. There is no provision for a community health survey and the establishment of a registry of affected people. This type of data is essential as a data base from which conclusions might be formulated concerning the health effects this situation has had on the residents of this community.

5. There is no provision for compensating persons who may be forced to relocate from this neighborhood as a result of this situation.

6. There is no provision for providing, and paying for, an alternative source of drinking water in the case of contamination of the current drinking water supplies.

7. The test data upon which a great deal of the consent decree is based, i.e., the treatment of the groundwater, is insufficient to judge the full extent of migration of the contaminated ground water and also pre-dates the decree by more than eighteen months. In short, we are not satisfied that the groundwater testing data, upon which many of the assumptions for the remedy contained in the decree are based, is a reliable indicator of the extent of the problem.

8. The decree fails to address the personal injuries, property damage and psychological and emotional injuries which have been suffered by the residents of the community. In short, the decree takes an approach to the Chem-Dyne situation which looks only to the general concern of preventing further public health threats in the future. Regardless of whether the decree successfully attains its goals in that area, it completely disregards the need to assess and compensate the private injuries which have already occurred. We believe that the money being paid by the defendants in this case is cheap in comparison to the total magnitude of the harm their action, or inaction, has caused, or may cause in the future.

9. We believe the defendants should not be given control over the clean-up process, but that an independent consultant should be handed the reins over the project.

We appreciate the opportunity to make these comments and hope that they will be given serious and thoughtful consideration. Please do not let the glow of what appears to be a rather sizeable settlement blind you to the overall magnitude of the crisis. We ask that you amend the consent decree to address these concerns. We would appreciate receiving a written response to the concerns raised in this revised comment letter.

Sincerely yours,


Carl Morgenstern

OFFICE OF THE MAYOR
AND
CITY COUNCIL



July 19, 1985

Department of Justice
Tenth and Pennsylvania Avenue, N.W.
Washington, D.C. 20530

ATTENTION: F. Henry Habicht II
Assitant Attorney General
Land and Natural Resources Division

Re: U. S. A. v. Chem-Dyne Corp., et al.
D. J. Reference: 90-7-1-43

Dear Sir:

On behalf of the City of Hamilton, Ohio, this letter of comment relates to the proposed consent decree lodged with Judge Carl B. Rubin of the United States District Court for the Southern District of Ohio on June 13, 1985.

We have examined the proposed consent decree and wish to inform the Department of Justice of our whole-hearted approval of the proposed decree and the Remedial Action Plan.

We feel that the implementation of the contents of the decree should take place at the earliest possible time.

The actions taken in concert by the numerous defendants indicate a willingness to have this decree placed in final form so that the necessary steps toward cleanup of the Chem-Dyne site may be accomplished.

For those of us living in the Hamilton, Ohio, area this is a great step forward and shows a combined effort of the District Court, the Federal and State agencies, as well as the Department in reaching a solution satisfactory to us all.

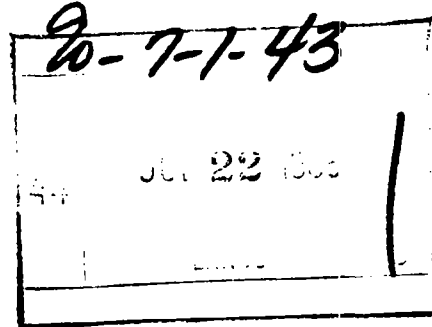
I suggest that the decree in final form should refer to the legal descriptions of the Chem-Dyne site attached as an Exhibit to the decree and therefore can be recorded against the appropriate property owners.

The City of Hamilton pledges its cooperation to those responsible for carrying out the terms of the various decrees.

Respectfully submitted,

Gregory V. Jolivette
Councilman
City of Hamilton, Ohio

GVJ:bz
cc: Mayor and Council Members





MIAMI UNIVERSITY

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July 19, 1985

U.S. Department of Justice
Assistant Attorney General
Land and Natural Resources Division
10th and Pennsylvania NW
Washington D.C. 20530
ATTN: U.S. v. Chem-Dyne et al D.J. Ref. 90-7-1-43

Dear Sir:

I am an Assistant Professor of Zoology at Miami University and the current President of the Indiana-Kentucky-Ohio Society of Environmental Toxicology and Chemistry. As a resident of Butler County, Ohio and as a concerned citizen I have been diligently following the proceedings at the Chem-Dyne hazardous waste site for the past three years. I have brought my professional training as an environmental toxicologist to bear upon the solution to this problem. I have been deeply disturbed at many features of Remedial Action Plan proposed by the consent decree settlement.

The review process utilized by the Federal and State Environmental Protection Agencies has effectively excluded substantive, active participation of the concerned public in the major phases of the Chem-Dyne remediation. Once again, the time period for review of lengthy, technologically-complex documents from the state and federal government has forced a condensation of cogent research and written commentary. Therefore, at the outset of this letter, I would like to affirm that I am available for further elaboration of any and all points discussed in this report.

As a measure of my dissatisfaction with the public access to the decision process regarding Chem-Dyne cleanup, I would like to document the following:

1. The Remedial Investigation (a multi-volume report) was made available in July of 1984. Substantive criticism was prepared and submitted to the federal EPA on September 28, 1984. Not until mid-December after the second major report, the Feasibility Study, was released and public commentary requested did I receive an inadequate reply from the EPA.
2. The Feasibility Study was made available at the end of November 1984. I read the lengthy report and suggested specific actions during the 2 week review period. The EPA response to this criticism was not made public until more than six months had passed.

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3. I was assured by the federal EPA that all written commentary of the waste generators would be subject to public review. Only one letter (a 2 page summary) from a generator-hired consulting group was made public in the Responsiveness Summary. Therefore, the EPA was able to negotiate directly and in secret with waste generators.
4. The public response to this consent decree is restricted to a brief 30 day interval. The Remedial Action Plan and Consent Decree are both lengthy documents (more than 150 pages total). The permit documents of the Ohio EPA (critical to the evaluation of state-defined measures of cleanup safety) were not received by the designated information repositories until July 15: five days before the closing time for commentary.

A tremendous amount of time and technical expertise is demanded to complete a knowledgeable criticism of the cleanup plan. This must be accomplished by citizens in their spare time. We do not have the resources to evaluate and hire paid environmental consulting firms. While waste generators and EPA legal personnel can secure several month extensions of negotiations, the public must make their review in one month for a settlement which may last 20+ years.

This letter will detail my criticism and support in three areas:

- a. general evaluation and approach
- b. groundwater
- c. groundwater treatment technology

A. GENERAL EVALUATION AND APPROACH

The Chem-Dyne hazardous waste site stands as the worst 'Superfund' National Priority List site in the state of Ohio. It has received national recognition in both print and video media. The endangerment of the public stems from the enormous volume and diversity of toxic chemicals deposited on the site from 1975-1980.

Citizens in the surrounding neighborhood believe that their health has been impaired by exposure to volatile chemicals emanating from the site. The Ohio EPA holds Chem-Dyne responsible for more than one million fish killed along a 35 mile stretch of the Great Miami River. The governmental inability to act immediately to remove materials from the site has now generated contamination of the Great Miami Aquifer system upon which more than 250,000 downstream communities depend.

The present settlement between the U.S. Government and the Waste Generators does not mandate the most thorough removal of all chemical contaminants. Rather, this document proposes action very different from the publically pronounced cleanup. In reality, this settlement proposes the location of a hazardous waste facility against all prudent siting guidelines for such a toxic waste dump:

1. The site will be situated above a sole-source, productive drinking water aquifer.
2. The site will be located in close proximity to a high population density center.
3. The site will not have the containment structure normally demanded of such a facility: namely, clay-lined bottom, sides and top; underlaid with equipment for detecting any chemical leakage.
4. The site will not provide the public with reasonable access for determining its location, but will have been negotiated in secret with waste generators.
5. There are no provisions for public review of operations onsite prior to its closure.

Failure to remove chemical contaminants demands that government oversight be maintained continuously since elemental toxicants and many organic compounds in the anaerobic unsaturated zone cannot be expected to degrade. A finite monetary settlement indicates that after some period of time the local and state citizenry must either assume the financial burden or again be threatened by chemical contaminants in a major drinking water aquifer.

I believe that the most prudent action at the Chem-Dyne abandoned hazardous waste site requires:

- a. destruction of all buildings on site and removal off-site of all contaminated materials to an approved hazardous waste facility. (PROPOSED in the Remedial Action Plan)
- b. simultaneously, there should be instituted a program of hydraulic interception of the contaminated groundwater flow. (PROPOSED)

- c. treatment of contaminated groundwater to remove all carcinogens, teratogens, mutagens, and other toxicants to a background level of exposure found in the drinking water of the aquifer. In all likelihood, this will demand the maintenance of a triple treatment strategy: lime treatment of water to remove metals; steam-stripping of volatile organic compounds; and packed-activated-charcol (PAC) treatment for removal of non-volatile organic compounds. (NOT PROPOSED)
- d. the treatability study for extracted groundwater must address the dimensions of full chemical cleanup in a defined public forum. (NOT PROPOSED)
- e. the complete removal of all on-site soil unless that soil has been demonstrated to be free of contamination via chemical analysis. (NOT PROPOSED in the Remedial Action Plan)
- f. the EPA in their Remedial Investigation indicated significant off-site soil contamination, and therefore an immediate, scientifically-designed and publicly-reviewed survey of contamination off-site must be initiated. (NOT PROPOSED)
- g. the proven damage to the Ford Canal and associated environment of the Great Miami River (fishkills, contaminated sediments, and cancer-causing chemicals in unacceptably high concentrations in local fish) must be seen as sufficient cause to initiate a thorough investigation of the status of these ecosystems. This will require an inventory of species in the vicinity of Chem-Dyne and their reproductive/growth status. A chemical inventory of the water quality and sediment contamination burdens must be initiated. (NOT PROPOSED)
- h. initiation of a health inventory of all individuals reasonably expected to have been exposed to chemical contamination from the Chem-Dyne site. In addition, a long-term plan (20-30 years) for tracking the health status of this community. Despite a national mandate to address health impact at hazardous waste sites under the 'Superfund' legislation, the Center for Disease Control (CDC) which is the designated subcontractor to EPA and despite community demands for such a health inventory at the Chem-Dyne site, no such action has been taken by CDC or the Ohio Department of Health. The consent decree has a major failing in denying the importance of long-term community health status as a legal responsibility. (NOT PROPOSED)

B. GROUNDWATER

The highest priority environmental concern from the Chem-Dyne site contamination is the leaching of chemicals into the groundwater beneath the site and flowing off-site. After extensive consultation with academic hydrogeologists, I welcome the development of a system of extraction wells as a hydrological barrier to intercept chemical flow off-site. However, the information generated during the Remedial Investigation assumes a greater homogeneity of geological structure throughout the near-field aquifer. In all likelihood there will be a need for readjustments in groundwater dynamic calculations as the system is installed and operated.

There are two areas in the groundwater plan which bear substantial criticism: 1. selection of the total Volatile Organic Compounds (VOCs) concentrations at 0.1 parts per million (ppm) as a standard level of contamination for initiating extraction activity; 2. selection of wells for standards of cleanliness compliance when some of these wells will be already contaminated with concentrations of VOCs.

1. The 0.1 ppm Total VOC Concentration Isopleth.

According to the Remedial Action Plan, the location of extraction wells will be based upon the situation of the 0.1 ppm plume of total VOCs, and the performance criterion for the proposed extraction/injection well system is based on achieving a total priority pollutant VOC concentration less than 0.1ppm at the end of the 10-year operation of the system. Most importantly, the U.S.EPA Criteria and Standards Division in the Office of Drinking Water recognizes that there is no rationale for selecting total VOCs as a measure of any significance to drinking water quality and that the concentrations of individual VOCs may pose unacceptable drinking water health risks at levels far below the 0.1 ppm level for total VOCs.

Also, the Remedial Action Plan does not readily address the fact that 56 additional priority pollutants (not classified as VOCs) are also found at the Chem-Dyne site. In addition, further migration has occurred since 1983 and will continue to occur with all contaminants until July of 1986 when the pumping and treatment will begin according to the project schedule, so a very different (and more expensive) network of extraction and monitoring wells may be demanded.

The following is a brief review of all classes of chemical contaminants found at the Chem-Dyne location and listed in the EPA Remedial Investigation Study. This review demonstrates that the non-VOC classes of contaminants all contain several dangerous compounds. An appended list identifies the names and characterizes a portion of chemical status of all priority pollutants found in groundwater at the Chem-Dyne site. It should be emphasized that there are many more chemicals present in these samples, but for the sake of brevity only the most well recognized toxic chemicals are discussed in this report.

Inorganic Compounds : Eight elements on the EPA's priority pollutant list were identified in the Remedial Investigation, with three elements, lead, barium, and mercury, exceeding IPDWS Standards (Interim Primary Drinking Water Standards).

Base/Neutral Compounds : Twenty-four base/neutral compounds on the EPA's priority pollutant list were identified in the Remedial Investigation. Three are known carcinogens, and twelve others are suspected carcinogens (National Toxicology Program, 1982). Several of these compounds were found in the groundwater samples at levels up to one thousand times greater than published Water Quality Criteria for carcinogenicity protection. Furthermore, the base/neutral compounds, as a group, are a class of persistent chemicals (i.e., they are not readily biodegradable or chemically degradable and absorb strongly to soil particles).

Acid Compounds : Four acid compounds on the EPA's priority pollutant list were identified in the Remedial Investigation.

Pesticides and Metabolites : These compounds are considered persistent and relatively toxic, with two of them identified as known carcinogens and four as suspected carcinogens. Two of these, r-BHC-(lindane)-Gamma and b-BHC-Beta, were monitored at least one time at levels exceeding Water Quality Criteria for carcinogenicity protection.

Volatile Organic Compounds (VOCs) : The largest proportion of organic groundwater contaminants identified in the Remedial Investigation consist of nineteen priority pollutants classified as volatile organic compounds (VOCs). VOCs were identified in 25 of the 36 shallow monitoring wells, as well as in some of the deep monitoring wells (approximately 65 ft. deep). As a group, VOCs are described in the Remedial Investigation as very persistent and contain five known carcinogens and three suspected carcinogens. Individually, certain VOCs pose unacceptable health risks at concentrations far below the 0.1ppm concentration. This risk is being decided in the scientific community at this very point in time. I suggest that the Department of Justice consult the Federal Register Vol.49 No. 114; June 12, 1984 for proposed rules under the Safe Drinking Water Act for National Primary Drinking Water Regulations on Volatile Synthetic Organic Chemicals. This provides a cogent analysis of national policy in regards to some important chemicals found at the Chem-Dyne site (i.e., trichloroethylene; tetrachloroethylene; vinyl chloride; chlorobenzene). In August, 1985 the Recommended Maximum Contaminant Levels (RMCLs) based upon health considerations and Maximum Contaminant Levels (MCLs) based upon enforceable standards will be presented in the Federal Register for several of these chemicals. None of this important information appears to be addressed by the consent decree and remedial action plan.

2. Selection of Compliance Wells and Standards of Cleanliness

The 1983 Remedial Investigation of groundwater characterized a typical porosity, flow gradient, and an average hydraulic conductivity; and thereby suggested a range of groundwater velocities from 0.15 ft/day to 3.5 ft/day. Multiplied by 3 years and 365 days/year and assuming similar travel times for contaminants, significant change will have occurred in the concentrations of individual priority pollutants in the groundwater around the Chem-Dyne site. This should demand that there be an immediate resurvey of chemical characteristics of the monitoring well system, and a public review of the information to determine location of the extraction well network for the remedial action.

Finally, the Remedial Action Plan suggests a compliance standard for cleanliness to be observed in the Great Miami Aquifer by requiring that contamination not exceed the concentrations to be found in an arc of off-site wells which may not be drilled until 1986. In one location to the west of the site, near the Great Miami River, the EPA estimates there will already be a burden of VOC contamination. The waste generators must be held to restoring the aquifer to its state of drinking water purity, not to this unacceptable standard of pollution. Again, there is no clarity of purpose by the state and federal government in negotiating this 'cost-effective' solution.

C. GROUNDWATER TREATMENT TECHNOLOGY

Extraction of contaminated groundwater from the aquifer is only step one of a multi-part program of cleanup. The treatment process for extracted water proposes to remove volatile organic compounds from the groundwater via air-stripping technology. While scientific endeavors in the area of groundwater chemical cleanup remain in their infancy, some recent research suggests inefficacy of the remedial action planned for Chem-Dyne. The problem with this portion of the settlement includes: 1. Selection of the air-stripping technology as sole described and identified technology; 2. Standards for 'cleaned' groundwater. I have no confidence that the proposed action will remove all compounds (which include carcinogens, suspected carcinogens, and compounds resistant to degradation as listed in the above section). The public must be assured that (once all phases of the Remedial Action Plan have been enacted) their concerns for alleviating a potential health hazard will not be obviated by a 'cost-effectiveness' equation negotiated in secret by the waste generators and government officials who live in Chicago, Columbus, and Washington D.C.

1. Air-Stripping Process

Section 4.2 of the Remedial Action Plan states, "After thorough review of treatment objectives and available treatment alternatives, air stripping was selected as the most feasible means for removing the priority pollutant VOCs present in the extracted groundwater." However, two scientific articles in particular, "Removal of volatile organic contaminants from groundwater" by Robeck and Love (1983; EPA-600/D-83-011) and "Contaminated groundwater treatability-a case study" by Stover and Kincannon (1983; Journal of the American Water Works Association Vol.75 pp.292-298), give substantial evidence of potential weaknesses of an air-stripping system.

Molecular properties of the contaminants are most important of all factors that can influence air stripping effectiveness. This factor is best demonstrated by Henry's Law Constant which represents a ratio between the concentration of the contaminant in air and water phases at equilibrium. According to Robeck and Love (1983), past experimental testing has shown air stripping efficiency to vary directly with this parameter. The diagram below indicates relative ease of air-stripping fourteen of the priority pollutants found at Chem-Dyne. The data shows that 1,2-Dichloroethane is more difficult to strip from water than Chlorobenzene, which in turn is more difficult to strip than 1,1-Dichloroethylene. Again, an effort to achieve cleanliness based upon total VOCs is unacceptable when it will likely permit unsafe aquifer burdens of carcinogens or suspected carcinogens even though these might be below the total VOC level of 0.1 ppm. Right now the settlement decree should require the waste generators to provide detailed efficiencies of removal for each VOC and additional treatment strategies to be employed should these not prove effective in restoring drinking water quality to the impacted portion of the aquifer.

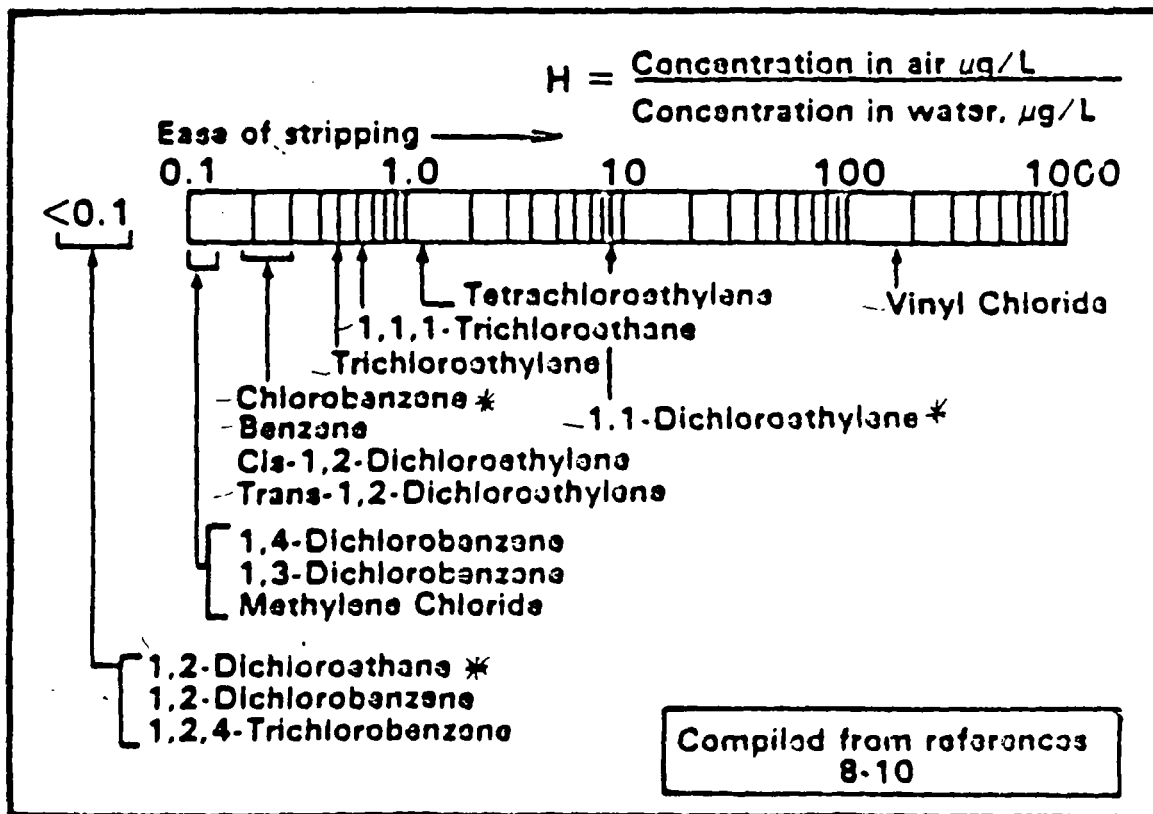


Figure 1. Comparison of Henry's Law Constants for Selected Organics.

Stover and Kincannon (1983) studied several treatment methods employed and tested during groundwater cleanup attempts. They compared the relative effectiveness of the following: air stripping; steam stripping (similar to air-stripping, but using additions of heat to increase the volatilization of the contaminants); pre-treatment with calcium carbonate (lime) to reduce iron oxide, manganese oxide and other metals; and powdered activated carbon (PAC)-Treatment, which adsorbed VOCs onto the surfaces of the carbon particles.

The results permitted four general conclusions: (1) Most of the organic compounds were not readily removed by air stripping; (2) The steam stripping system, whose construction is essentially the same as that for air stripping, was effective in significantly more effective in reducing contaminant concentrations; (3) Powered Activated Carbon (PAC)-Treated water or its variations, particularly the combination of steam stripping and PAC-Treated water, was most effective in reducing organic compound concentrations; and (4) pre-treatment was essential to reduce metal oxide clogging of the stripping facility, and it also reduced toxic metal concentrations in the extracted groundwater (as must be achieved at Chem-Dyne).

To emphasize these points, I have included in the following two pages copies of graphs from Robeck and Love (1983). They show the effectiveness of VOC removal from groundwater in a contaminated New Jersey aquifer. Clearly the superior removal was effected by the activated carbon material. For example, tetrachloroethylene could be reduced from 0.118 ppm to less than detectable limits (0.001ppm) with activated carbon; conversely, air-stripping reduced the concentration only to 0.009 ppm. This becomes significant when we consider that the anticipated tetrachloroethylene at the Chem-Dyne treatment facility will be 0.250 ppm (higher than the New Jersey contamination), and that the maximum allowable level in surface waters is only 0.0008.

The Remedial Action Plan indicates that a treatability study will be conducted to select the most feasible treatment alternative, although air stripping is emphasized to the exclusion of all other technologies. The concerned public has not had access to the negotiations that presented air-stripping as the treatment of preference. If 'cost-effectiveness' was one of the primary concerns in the selection of a treatment system, an itemized account of costs and benefits of this treatment alternative as compared to the others described above should be made available for public inspection and comment. The prevention of further contamination of the aquifer, the Ford Canal, and the Great Miami River has the highest concern among the people of Butler County. I cannot accept the hidden 'cost-effectiveness' negotiated with the waste generators.

Furthermore, I am concerned with the fact that although a hydrogeologic investigation of the Chem-Dyne site was conducted, data from such a study reveals factors affecting the movement of the contaminants, but does NOT address how these contaminants will react at the site. The Remedial Investigation (Vol.1) admits that the mobilities of organic and inorganic compounds are uncertain due to complex and unknown interactions; nevertheless, a treatment alternative was chosen for the Chem-Dyne site.

$$1000 \mu\text{g}/\ell = 1000 \text{ ppb} = 1 \text{ ppm}$$

-6-

$$100 \mu\text{g}/\ell = 100 \text{ ppb} = 0.1 \text{ ppm}$$

↓

1000

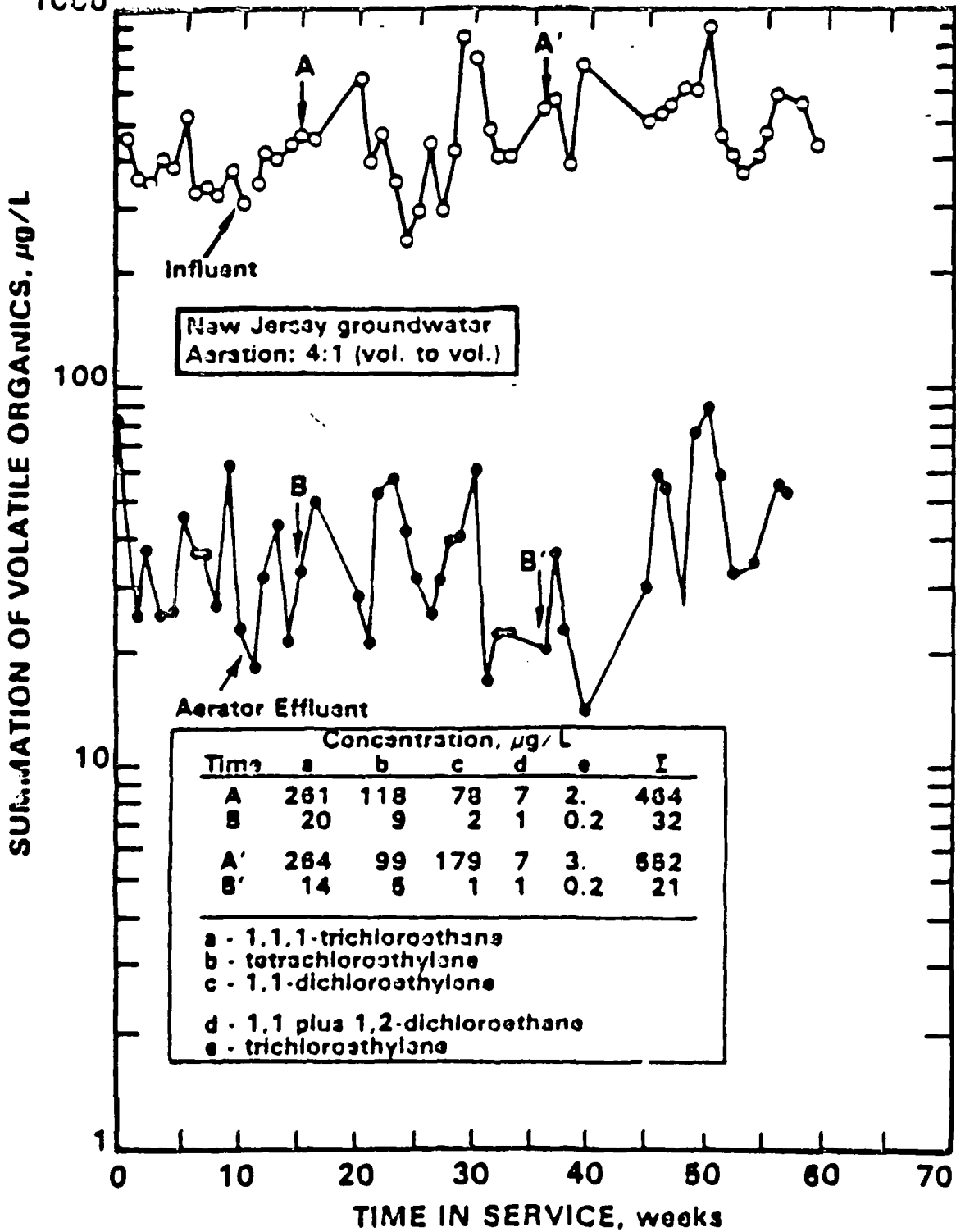


Figure 3. Removal of Volatile Organic Compounds by Aeration.
(Pilot-Scale Study) (3)

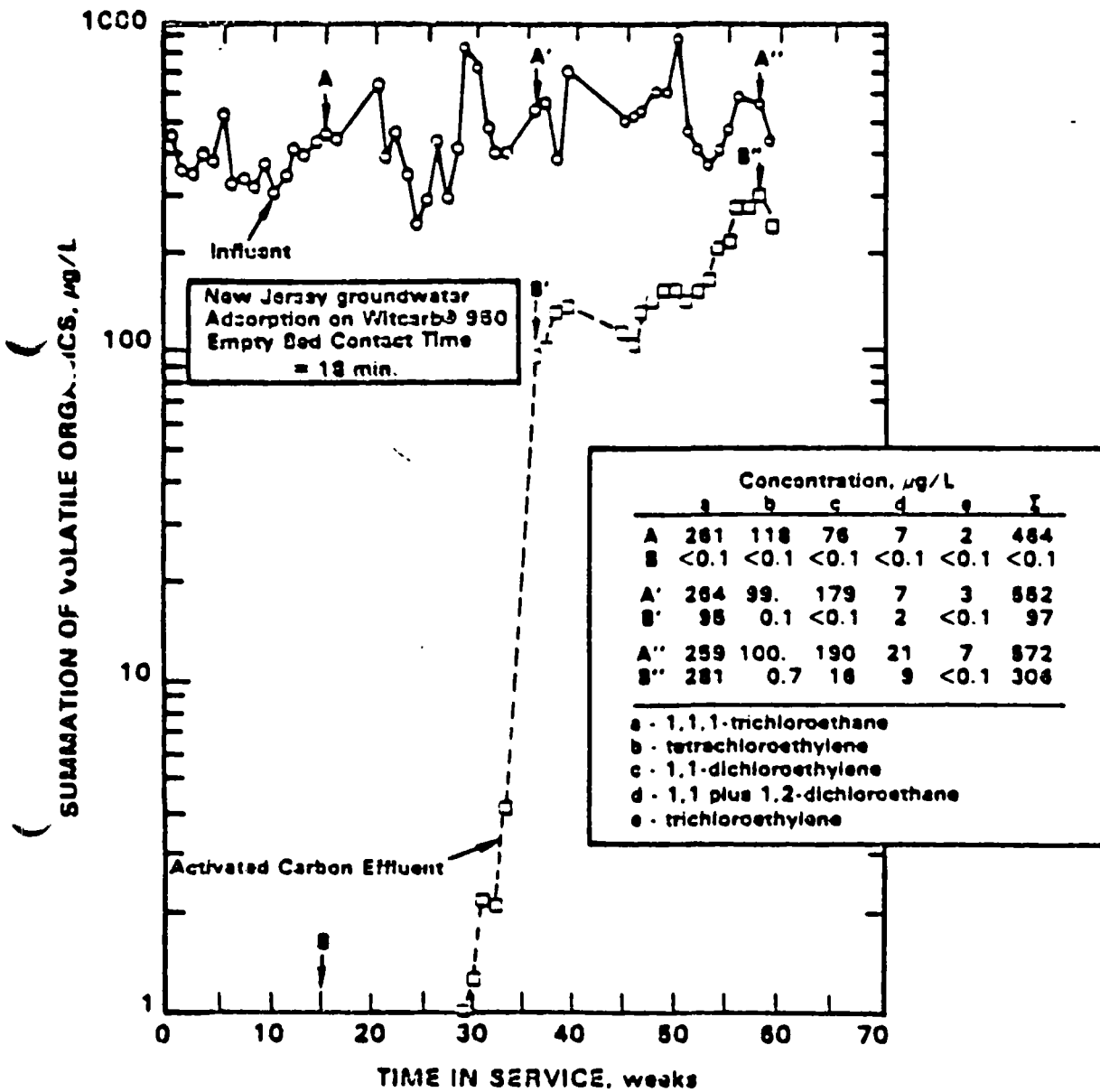


Figure 5. Removal of Volatile Organic Compounds by Adsorption on Granular Activated Carbon (Pilot-Scale Study) (3)

To select a remedial action plan without knowing how the treatment will affect the contaminants violates common sense and lessens the chance that the treatment objectives will be successfully satisfied. Only after a separate, detailed study assessing contaminant behavior has been analyzed should a treatment alternative be selected.

2. Standards for Termination of Cleanup Actions on Groundwater

The performance criterion for groundwater is defined in the consent decree as achieving less than 0.1ppm total VOCs in the extracted groundwater after 10-years of operation of extraction/treatment facilities. To establish that this has occurred will require that a stable or constant concentration of total priority pollutant VOCs be established for 12 consecutive sampling periods. As discussed above, there are many other priority pollutants found in the groundwater beneath the Chem-Dyne site. Standards based solely upon a broad chemical class measurement denies the high concern of many environmental toxicologists about the individual toxicant's impact even at levels considered safe in the broader designation.

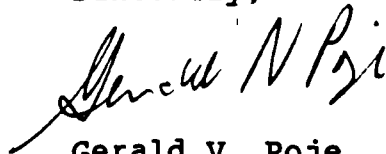
The consent decree will alleviate the waste generators of the burden of responsibility for further aquifer cleanup once the total VOC standards of compliance have been met. Yet, currently there is no scientific consensus on the health significance of interactions among VOC toxicants at levels expected to remain at the Chem-Dyne site: are their combined actions additive, antagonistic, or synergistic? For example, chemical 'A' may increase the number of liver cancer cases in a population of one million people by 1 case when consumed for a lifetime at a level of 1 ppm in drinking water; and chemical B may increase the liver cancer cases by 1 case when consumed also at a level of 1 ppm. When the same population drinks water that contains 1 ppm 'A' and 1 ppm 'B', will the cancer cases increase by 1 case (additive); 0 cases (antagonistic); or 10 cases (synergistic).

The conservative drinking water health action as perceived by the citizens consumers of the Great Miami Aquifer would be to treat the chemical waste mixtures as acting synergistically in some capacity. Therefore, levels of permissible contamination at the end of treatment should: (1) demand much lower levels of priority pollutant VOCs; (2) specify terminal cleanup parameters for other non-VOC priority pollutants as well as non-priority pollutants; and (3) these should be defined for each individual toxicant, not broad categories of contaminants with a specific charge to set lower limits than if these chemicals will be found in complex mixtures.

The standard of groundwater cleanup to which the Chem-Dyne site will be held in this 1985 agreement may be proven very unsafe by 1995 even though the VOC standard has been met. The technology for organic and metal contaminant removal in 1985 can be expected to appear naively simplistic and ineffective by 1995 technology: just as the typewriter used by the concerned citizen of 1975 appears simplistic, slow, and prone to uncorrectable errors in comparison to the word-processing computers of 1985; and just as the analytical chemistry equipment of 1975 had neither the sensitivity, accuracy, nor speed of the equipment used for the same purpose in 1985.

In conclusion, Chem-Dyne site represents one of the very first EPA Superfund sites for which remedial action has been initiated. It is precedent setting for other sites also in the Great Miami Aquifer, and has the potential as a model upon which other Superfund remedial actions can be patterned. If time permitted additional analysis, I would raise significant criticism of the soil treatment strategy, and that employed for rectifying the contamination of the Ford Canal, Great Miami River, and the wildlife in these systems. Unfortunately, the proposed Consent Decree and Remedial Action Plan avoid some very important categories of conservative cleanup. If this is implemented as written, a final solution to the groundwater contamination problem faced by the residents of Hamilton, Ohio will not be achieved.

Sincerely,



Gerald V. Poje
Assistant Professor

HOME: 733 B Daniel Drive
Oxford, OH 45056
513-529-3624 (wk)
513-523-5987 (hm)

APPENDIX A - Chemicals in Groundwater at Chem-Dyne

Toxic pollutants listed pursuant to section 307(a) (1) of the Clean Water Act which have been detected on the Chem-Dyne site. These materials are subdivided into appropriate chemical categories, and their carcinogenicity and relative persistence are identified using the information presented in the Remedial Investigation.

COMPOUND NAMES

VOLATILE ORGANIC COMPOUNDS (VOCs)	IDENTIFICATION
Carbon tetrachloride ++, PPP	A. Known carcinogen ++
Benzene ++, P	B. Suspected carcinogen +
Chloroform ++, PPP	
1,2-Dichloroethane ++, PP	C. Highly persistent PPP
Vinyl chloride ++	D. Somewhat persistent PP
Chlorobenzene +, P	E. Persistent P
1,1,2,2-Tetrachloroethane +, PPP	
1,2-Trans-Dichloroethylene +	
1,1,2-Trichloroethane PPP	
Ethylbenzene PP	
Toluene PP	
Trichloroethylene P	
Methylene chloride P	
1,1,1-Trichloroethane	
1,1-Dichloroethane	
1,1-Dichloroethylene	
1,2-Dichloropropane	
Dichlorobromomethane	
Tetrachloroethylene	

BASE/NEUTRAL COMPOUNDS	IDENTIFICATION
Benzo(a)anthracene ++, W	A. Known carcinogen ++
Benzo(a)pyrene ++, P, W	B. Suspected carcinogen +
Benzo(b)fluoranthene ++, W	
Chrysene +, W	C. Persistent P
Anthracene +, W	D. Widespread; high concentrations W
Pyrene +, W	
Indeno(1,2,3-cd)pyrene +	
Phenanthrene +	
Acenaphthene +	
Hexachloroethane +, P, W	
Bis(2-chloroethyl) ether +	
Dichlorobenzidine +	
Fluoranthene +	
Naphthalene +	
N-Nitrosodiphenylamine +	
Bis(ethylhexyl)phthalate P, W	
Butyl benzyl phthalate P, W	
Di-n-butyl phthalate P	
Di-n-octyl phthalate W	
1,2,4-Trichlorobenzene P	
Hexachlorobenzene P, W	
1,2-Dichlorobenzene W	
1,3-Dichlorobenzene W	

1,4-Dichlorobenzene W

PESTICIDES AND METABOLITES

r-BHC-(lindane)-Gamma ++
Dieldrin +
Chlordane +
Heptachlor +
Heptachlor epoxide
Hexachlorocyclohexane +
a-BHC-Alpha
b-BHC-Beta
Endosulfan sulfate
Endrin
Aldrin
4,4'-DDT
4,4'-DDE
4,4'-DDD

IDENTIFICATION

A. Known carcinogen ++
B. Suspected carcinogen +

POLYCHLORINATED BIPHENYLS

PCB-1260 ++

IDENTIFICATION

A. Known carcinogen ++

ACID COMPOUNDS

Phenol
2-Nitrophenol
4-Nitrophenol
2,4-Dinitrophenol

ELEMENTS

Antimony (total)
Arsenic (total)
Beryllium (total)
Chromium (total)
Copper (total)
Lead (total) **
Mercury (total) **
Nickel (total)
Zinc (total)

IDENTIFICATION

A. Exceeds IPDWS Interim **
Drinking Water
Standards

NOTE: The element barium also exceeds IPDWS
Drinking Water Standards.



MIAMI GROUP

Ohio Chapter
Sierra Club

Handwritten signature

July 19, 1985

U.S. Department of Justice
Assistant Attorney General
Land and Natural Resources Division
10th and Pennsylvania N.W.
Washington D.C. 20530

In re: U.S. v. Chem-Dyne et. al.
D. J. Ref. 90-7-1-43

With regard to the Consent Order in the above named case, The Miami Group of the Sierra Club wishes to register several concerns that have come to our attention in preliminary review of the documents associated with the clean-up of Chem-Dyne.

PUBLIC PARTICIPATION

First and foremost is our deep concern that public participation in this extremely important decision not be limited to a thirty day comment period on a decree that took several years to develop. Examination of documents associated with the Consent Order indicate that a careful effort has been made to respond to public concern, and we feel that this will bear much fruit in terms of cooperation and peace of mind from neighbors and other affected persons, and in finding the best solutions to the problems presented at Chem-Dyne.

In many respects the Consent Order is clearly a landmark in the necessary process of salvaging our damaged natural resources, and yet by its very nature, being an experiment, there are many uncertainties which may not have been dealt with definitively in the Order.

The Sierra Club is unable to be a party in most of the legal actions on environmental issues of concern to it. Nonetheless the Club is a key part of our society's environmental awareness, and in fact has much to do with the existence and funding of Government agencies which are capable of identifying and handling problems like Chem-Dyne.

Especially in this situation, where the project is subject to frequent and careful review, and is expected to last twenty years or more, it would seem appropriate for the Court to allow public comment to occur periodically, in a manner which would encourage the Sierra Club and other organized and individual members of the public to help in seeking a beneficial solution. We will continue to review the documents available to us, and monitor the progress on the site and elsewhere as it relates, and expect to have further observations as to how to make the cleanup effective.

Included in this need for public participation is the designation of an individual or agency who is responsible to answer concerns that the public

90-7-1-43

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has. Comparable situations often create unnecessary public animosity or fear because no one takes the time to explain the details, or the responsibility to give correct answers. Written responses to questions raised at the public meetings is a very good start in this direction. Whether or not the Consent Order can encompass a resolution to this issue is unclear.

We are not considering any kind of right or process whereby work on the site should be held up pending our review, but wish to ensure that the public is not excluded from a process which is being undertaken on the public's behalf.

PROJECT OVERSIGHT

Although a Consent Order might not usually bear instructions on how the Plaintiff should oversee the Defendant's reparations, we are concerned as to how the OEPA and U.S. EPA will monitor the cleanup, especially during the initial phases. It seems clear that the intent of the Order is to allow additional costs such as this to be included in the settlement, but perhaps the inclusion of a section specifying that this particular activity was not limited in any way by the estimates of cost described in the Consent Order might be of value.

FORD CANAL/GREAT MIAMI EVALUATION

We are not satisfied that the Ford Canal and the Great Miami River downstream from the site will be restored to an adequate condition without investigation of the condition on those bodies. Although it is not clear just how cleanup of river beds can be accomplished without aggravating the distribution of pollutants, it is certainly reasonable to ask that the Remedial Action Plan include a thorough investigation of the level of residual contaminants within the near future so that 1) any remedial action taken is timely, and 2) in the case that no action is deemed effective, but that contamination exists, that warnings may be posted along the banks of the canal and river and the community adequately informed that bathing and fishing hazards are present.

Although a response to the public meeting included some observations about Ohio Department of Health plans to do further investigations in this area, it is not clear how thorough those investigations will be, and it does not seem that the Consent Order clearly requires the defendants to take responsibility for any actions that may be called for.

CAP CONSTRUCTION

The proposed construction of the cap over the site seems consistent with contemporary methodology for dealing with sites requiring sealing from rain penetration. There was no specification for the degree of compaction of the clay layer, which would be required to make the clay layer function as desired.

QUALITY OF WORK

We are concerned that the initial phases of construction and demolition especially, and the whole project ultimately, utilize qualified staff,

materials, and subcontractors. We are unclear as to how much control the Plaintiffs will have over the process of creating this project, and hope that they will be assured of the close contact and control necessary to ensure that the plume containment is completed as soon as possible, and successfully.

In closing, we offer our compliments to the Court and to the Parties for the overall quality of the Consent Order. Inasmuch as this experiment will be repeated hundreds if not thousands of times all over the country in the next few decades, it is essential that all aspects of a complete cleanup be achieved, and we are reassured that this is the common goal. As discussed above, we will continue to have questions and concerns about Chem-Dyne, and hope that there will be a specifically designated party to which we can address our concerns.

Sincerely,



Ned Ford
Conservation Chair
6 Bella Vista Place
Cincinnati, Ohio 45206

(513) 861-7807

cc: U.S. EPA
OEPA

July 19, 1985

RECEIVED

JUL 20 1985

U.S. EPA REGION V
WASTE MANAGEMENT DIVISION
HAZARDOUS WASTE ENFORCEMENT (HAWEN)

U.S. Department of Justice
Assistant Attorney General
Land and Natural Resources Division
10th and Pennsylvania NW
Washington D.C. 20530
ATTN: U.S. v. Chem-Dyne et al D.J. Ref. 90-7-1-43

Dear Sir:

My name is Scott Skinner. I am a graduate student in the Master of Environmental Science program at Miami University in Oxford, Ohio. My academic training has included extensive coursework and study in the areas of Chemistry, Physics, Zoology, and specifically Ecological Toxicology and Environmental Chemistry. Thus, I have acquired an acute awareness of the hazardous waste problem that our nation is facing. As I have chosen 'Hazardous wastes and toxic substances' for my area of study within the Master's program, I wanted to learn as much as possible about the proceedings at the Chem-Dyne site in Hamilton, Ohio. Therefore, in the past two months, I have familiarized myself with the Final Investigation Report (Vol. 1), the Remedial Action Plan, and the Responsiveness Summary for the Feasibility Study. Additionally, I conducted a literature search of recent research involving groundwater contamination and treatability.

Based on what I have learned and as a concerned citizen, I strongly disagree with many aspects of the Remedial Action Plan proposed by the consent decree settlement. In this letter, I wish to express my concern about two points of the Remedial Action Plan in particular: (1) the Remedial Action Plan's focus on the group of compounds known as volatile organic compounds (VOCs) to the exclusion of several other classes of chemical contaminants at the Chem-Dyne site; (2) the selection of an air stripping treatment for the removal of priority pollutant VOCs from the contaminated groundwater despite the fact that air stripping systems are not extremely effective in removing organic compounds from groundwater.

Part I. Chemical Contaminants at the Chem-Dyne Site

While the Remedial Action Plan recommends air stripping as the most viable means of removing priority pollutant VOCs from extracted groundwater and while the performance criterion for the proposed extraction/injection well system is based on achieving a total priority pollutant VOC concentration less than 0.1ppm at the end of the 10-year operation of the system, the Remedial Action Plan does not readily address the fact that 56 priority pollutants not classified as VOCs are also found at the Chem-Dyne site. The proposed treatment process is not designed for the removal of these compounds from the groundwater or soil. Rather, the Remedial Action Plan proposes that these compounds, which include carcinogens, suspected carcinogens, and compounds resistant to degradation, will not represent a health hazard once all phases of the Remedial Action Plan are enacted.

However, there is no risk assessment for these demonstrated contaminants included with this proposed action.

The following is a brief review of the classes of chemical contaminants found at the Chem-Dyne location. This review should demonstrate that the non-VOC classes of contaminants all contain several dangerous compounds:

Inorganic Compounds: Eight elements on the EPA's priority pollutant list were identified in the Remedial Investigation, with three elements, lead, barium, and mercury, exceeding IPDWS Standards (Interim Primary Drinking Water Standards).

Base/Neutral Compounds: Twenty-four base/neutral compounds on the EPA's priority pollutant list were identified in the Remedial Investigation. Three are known carcinogens, and twelve others are suspected carcinogens (National Toxicology Program, 1982). Several of these compounds were found at levels up to one thousand times greater than published Water Quality Criteria for carcinogenicity protection. Furthermore, the base/neutral compounds, as a group, are a class of persistent chemicals (i.e., they are not readily biodegradable or chemically degradable and absorb strongly to soil particles).

Acid Compounds: Four acid compounds on the EPA's priority pollutant list were identified in the Remedial Investigation.

Pesticides and Metabolites: These compounds are considered persistent and relatively toxic, with two of them identified as known carcinogens and four as suspected carcinogens. Two of these, γ -BHC-(lindane)-Gamma and β -BHC-Beta, were monitored at least one time at levels exceeding Water Quality Criteria for carcinogenicity protection.

Volatile Organic Compounds (VOCs): The largest proportion of organic groundwater contaminants identified in the Remedial Investigation consist of nineteen priority pollutants classified as volatile organic compounds (VOCs). VOCs were identified in 25 of the 36 shallow monitoring wells, as well as in some of the deep monitoring wells (approximately 65 ft. deep). As a group, VOCs are described in the Remedial Investigation as very persistent and contain five known carcinogens and three suspected carcinogens.

(Note: See attached list for the names of all priority pollutants found at the Chem-Dyne site.)

Toxic pollutants listed pursuant to section 307(a) (1) of the Clean Water Act which have been detected on the Chem-Dyne site. These materials are subdivided into appropriate chemical categories, and their carcinogenicity and relative persistence are identified using the information presented in the Remedial Investigation.

COMPOUND NAMES

VOLATILE ORGANIC COMPOUNDS (VOCs)	IDENTIFICATION
Carbon tetrachloride ++, PPP	A. Known carcinogen ++
Benzene ++, P	B. Suspected carcinogen +
Chloroform ++, PPP	
1,2-Dichloroethane ++, PP	C. Highly persistent PPP
Vinyl chloride ++	D. Somewhat persistent PP
Chlorobenzene +, P	E. Persistent P
1,1,2,2-Tetrachloroethane +, PPP	
1,2-Trans-Dichloroethylene +	
1,1,2-Trichloroethane PPP	
Ethylbenzene PP	
Toluene PP	
Trichloroethylene P	
Methylene chloride P	
1,1,1-Trichloroethane	
1,1-Dichloroethane	
1,1-Dichloroethylene	
1,2-Dichloropropane	
Dichlorobromomethane	
Tetrachloroethylene	

BASE/NEUTRAL COMPOUNDS	IDENTIFICATION
Benzo(a)anthracene ++, W	A. Known carcinogen ++
Benzo(a)pyrene ++, P, W	B. Suspected carcinogen +
Benzo(b)fluoranthene ++, W	
Chrysene +, W	C. Persistent P
Anthracene +, W	D. Widespread; high concentrations W
Pyrene +, W	
Indeno(1,2,3-cd)pyrene +	
Phenanthrene +	
Acenaphthene +	
Hexachloroethane +, P, W	
Bis(2-chloroethyl) ether +	
Dichlorobenzidine +	
Fluoranthene +	
Naphthalene +	
N-Nitrosodiphenylamine +	
Bis(ethylhexyl)phthalate P, W	
Butyl benzyl phthalate P, W	
Di-n-butyl phthalate P	
Di-n-octyl phthalate W	
1,2,4-Trichlorobenzene P	
Hexachlorobenzene P, W	
1,2-Dichlorobenzene W	
1,3-Dichlorobenzene W	
1,4-Dichlorobenzene W	

PESTICIDES AND METABOLITES

IDENTIFICATION

r-BHC-(lindane)-Gamma	++	A. Known carcinogen	++
Dieldrin	+	B. Suspected carcinogen	+
Chlordane	+		
Heptachlor	+		
Heptachlor epoxide			
Hexachlorocyclohexane	+		
a-BHC-Alpha			
b-BHC-Beta			
Endosulfan sulfate			
Endrin			
Aldrin			
4,4'-DDT			
4,4'-DDE			
4,4'-DDD			

POLYCHLORINATED BIPHENYLS

IDENTIFICATION

PCB-1260	++	A. Known carcinogen	++
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ACID COMPOUNDS

Phenol
 2-Nitrophenol
 4-Nitrophenol
 2,4-Dinitrophenol

ELEMENTS

IDENTIFICATION

Antimony (total)		A. Exceeds IPDWS Interim	**
Arsenic (total)		Drinking Water Standards	
Beryllium (total)			
Chromium (total)			
Copper (total)			
Lead (total)	**		
Mercury (total)	**		
Nickel (total)			
Zinc (total)			

NOTE: The element barium also exceeds IPDWS Drinking Water Standards.

Part II. Selection of Treatment Technology

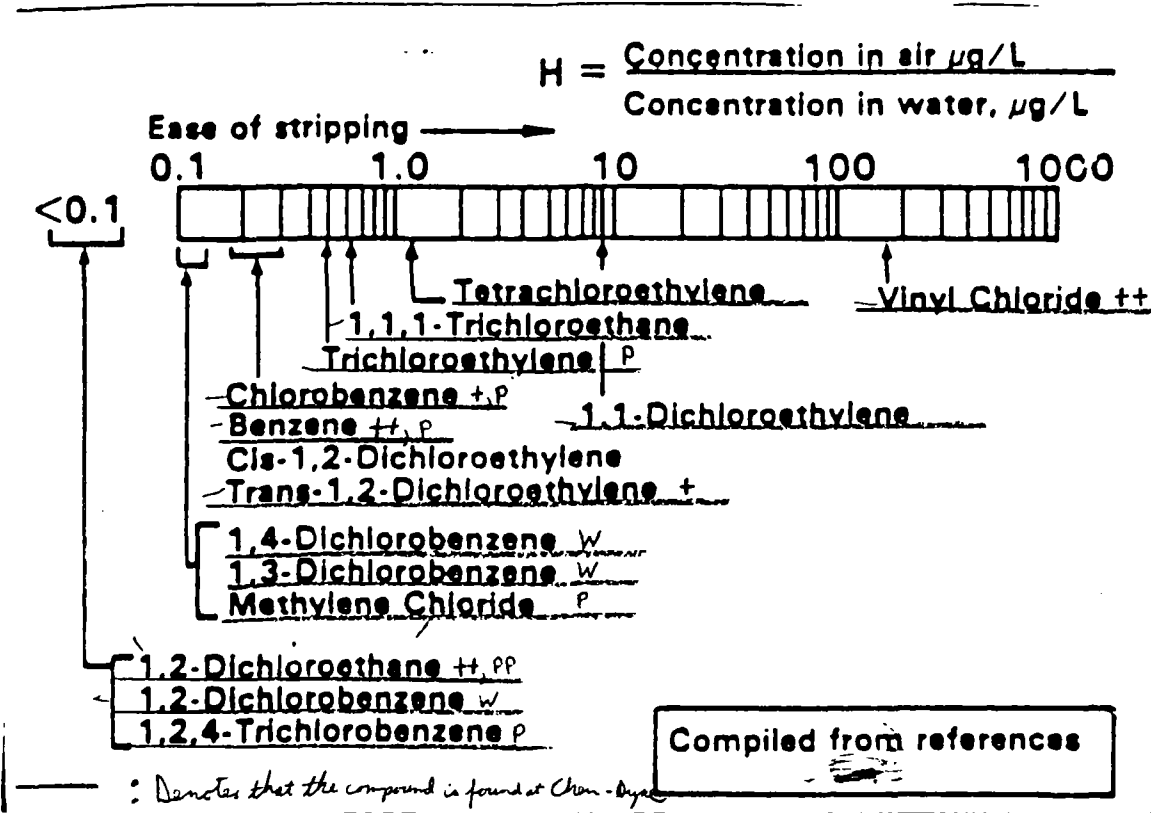
In Section 4.2 of the Remedial Action Plan, one finds the statement, "After thorough review of treatment objectives and available treatment alternatives, air stripping was selected as the most feasible means for removing the priority pollutant VOCs present in the extracted groundwater." However, two scientific articles in particular, "Removal of volatile organic contaminants from groundwater" by Robeck and Love (1983) and "Contaminated groundwater treatability—a case study" by Stover and Kincannon (1983), give substantial evidence of potential weaknesses in an air stripping system.

Of all factors that can influence air stripping effectiveness, one of the most important is the molecular properties of the contaminants. This factor is best demonstrated by Henry's Law Constant which represents a ratio between the concentration of the contaminant in air and water phases at equilibrium. According to Robeck and Love (1983), past experimental testing has shown air stripping efficiency to vary directly with this parameter. Referring to the diagram on subsequent page, which shows fourteen of the priority pollutants found at Chem-Dyne, we see, for instance, that 1,2-Dichloroethane is more difficult to strip from water than Chlorobenzene, which in turn is more difficult to strip than 1,1-Dichloroethylene.

In Stover and Kincannon's study, several treatment methodologies were tested and compared in tabular form. To demonstrate the relative effectiveness of air stripping and two treatment alternatives, steam stripping and Powdered Activated Carbon (PAC)-Treatment, over which air stripping was chosen, I have included three tables of results from Stover and Kincannon's paper (with compounds identified at Chem-Dyne underlined in red on the second following page). To interpret these results, compare the original contaminant concentrations in the groundwater, found in the column titled 'Raw Water', to the contaminant concentrations remaining in the groundwater after each treatment.

From the results, one can make four general conclusions: (1) Most of the organic compounds were not readily removed by air stripping; (2) The steam stripping system, whose construction is essentially the same as that for air stripping, was significantly more effective in reducing contaminant concentrations; (3) Powdered Activated Carbon (PAC)-Treated water or its variations, particularly the combination of steam stripping and PAC-Treated water, was most effective in reducing organic compound concentrations; (4) pretreatment with calcium carbonate was effective at reducing metal oxides which could clog the stripping facility, and which could remove toxic priority pollutant elements.

Though the Remedial Action Plan states a treatability study was conducted to select the most feasible treatment alternative, air stripping, the concerned public has not had access to the results of this study. If cost effectiveness was one of the primary concerns in the selection of a treatment system, an itemized account of each treatment alternative should have been done upfront and made available for public inspection and comment.



Comparison of Henry's Law Constants for Selected Organics.

Removals of volatile organics by air stripping †

Volatile Organic Compound	Concentrations in Groundwater—µg/L						
	Raw Water	Run 1	Run 2	Run 3	Run 4	Run 5	Run 6
Tetrahydrofuran	22 000	.	.	.	.	.	.
1,1,1-Trichloroethane	140 000	83 000	86 000	60 000	38 200	2 600	66 300
Benzene †† P	68 750	82 850	88 720	32 500	285 000†	36 000	68 750
Trichloroethylene †	338 000	239 000	306 000	108 000		189 000	307 000
Methyl isobutyl ketone	76 400	45 000	60 000	24 400	42 800	18 500	60 200
Toluene †† PP	92 000	30 000	23 300	29 000	27 100	6 600	44 800
Ethylbenzene †† PP	23 500	83	.	438	638	.	1 035

*None detected (no peaks on chromatograms)

†Benzene and trichloroethylene peaks combined into one peak.

Results of steam-stripping studies using raw groundwater

Compound	Concentrations in Groundwater—µg/L					
	Raw Water	Run 1	Run 2	Run 3	Run 4	Run 5
Volatile organic compounds						
Tetrahydrofuran	22 000	.	.	.	.	.
1,1,1-Trichloroethane	150 000	.	.	150	2135	.
Benzene †† P	68 750	.	.			.
Trichloroethylene † P	338 000	.	.	290†	1640†	.
Methyl isobutyl ketone	76 400	.	.	.	.	.
Toluene †† PP	92 000	128	.	.	.	53
Ethylbenzene †† PP	23 500	.	.	.	892	.
Extractable organic compounds						
1,4-Dichlorobenzene † W	35	.	17	.	.	.
1,2-Dichlorobenzene † W	5	.	.	.	.	.
Naphthalene †	≤1	.	≤1	.	.	.
2-Chlorophenol	540	.	40	.	.	.
2-Nitrophenol	15	.	6	.	.	.
Phenol †	370	.	20	.	.	.
2,4-Dimethylphenol	20	.	.	.	.	.
o-Cresol	80	.	25	.	.	.
m-Cresol	220	.	.	.	.	.
Benzoic acid	1230	.	.	.	.	.
Pentachlorophenol	40	.	40	.	.	.

*None detected (no peaks on chromatograms)

†Benzene and trichloroethylene peaks combined into one peak.

Test results from various activated carbon studies

Extractable Organic Compound	Concentration in Water—µg/L				
	Raw Water	Lime-Treated Water*	PAC-Treated Water	Lime- and PAC-Treated Water†	Steam-Stripped and PAC-Treated Water
1,4-Dichlorobenzene/w	35	35	‡	≤1	‡
1,2-Dichlorobenzene/w	5	5	‡	2	‡
Naphthalene †	≤1	≤1	‡	≤1	‡
2-Chlorophenol	540	540	8	6	≤1
2-Nitrophenol	15	15	≤1	8	‡
Phenol †	370	370	≤1	‡	‡
2,4-Dimethylphenol	20	20	2	≤1	‡
o-Cresol	80	80	10	‡	‡
m-Cresol	220	220	≤1	‡	‡
Benzoic acid	1230	1230	≤1	‡	‡
Pentachlorophenol	40	40	≤1	‡	‡

*Water's pH adjusted to 10.0

†Water samples adjusted to pH 10.0, then the supernatant was adjusted to pH 6.5 with sulfuric acid before PAC treatment.

‡None detected (no peaks on chromatograms)

The prevention of further contamination of the aquifer, the Ford Canal, and the Great Miami River has the highest concern among the people of Butler County. I cannot accept the hidden 'cost-effectiveness' negotiated with the waste generators.

Furthermore, I am concerned with the fact that although a hydrogeologic investigation of the Chem-Dyne site was conducted, data from such a study reveals factors affecting the movement of the contaminants, but does NOT address how these contaminants will react at the site. The Remedial Investigation (Vol.1) admits that the mobilities of organic and inorganic compounds are uncertain due to complex and unknown interactions; nevertheless, a treatment alternative was chosen for the Chem-Dyne site. To select a remedial action plan without knowing how the treatment will affect the contaminants violates common sense and lessens the chance that the treatment objectives will be successfully satisfied. Only after a separate, detailed study assessing contaminant behavior has been analyzed should a treatment alternative be selected (Block et al 1984).

To conclude, the Chem-Dyne site is one of the very first EPA Superfund sites for which remedial action has been initiated; thus, Chem-Dyne has the potential for being a role model after which other Superfund remedial actions can be patterned. Unfortunately, the proposed Remedial Action Plan contains many flaws and, if implemented 'as is', will not be a final solution to the groundwater contamination problem faced by the residents of Hamilton, Ohio.

I strongly believe that the most prudent and essential action at the Chem-Dyne abandoned waste site must include: (A) a program of hydraulic containment of the contaminated groundwater flow; (B) treatment of the contaminated groundwater to remove ALL carcinogens and other toxicants to a background level of exposure. To do so effectively will require a triple treatment system: lime treatment of groundwater to remove metals; steam-stripping to remove volatile organic compounds; and powdered activated carbon (PAC)-treatment for the removal of non-volatile organic compounds; (C) the complete removal of all on-site soil identified by chemical analysis as contaminated; and (D) the public's active participation in the major phases of the remedial action. If protection of the citizens of Hamilton, Ohio from the environmental hazard at Chem-Dyne is to be the objective of remedial action at the site, then it is absolutely imperative to redesign the proposed Remedial Action Plan so that it will properly address the above concerns.

Sincerely,



Scott Skinner
605 McGuffey Apt. 245
Oxford, Ohio 45056
(513) 523-4629

References

Robeck, G.G., and Love, O.T., Jr., "Removal of Volatile Organic Contaminants from Groundwater," EPA-600/D-83-011, U.S. EPA, Cincinnati, OH(1983), NTIS Accession No. PB83168617.

Stover, E.L., and Kincannon, D.F., "Contaminated Groundwater Treatability-A Case Study," Jour. American Water Works Association, Vol. 75, pp. 292-298, (June 1983).

Block, R.M., Dragan, J., and Falinowski, T.W., "A Chemical Engineer's Guide to Groundwater Contamination," Chemical Engineering, Vol. 91, pp. 64-78, (November 26 1984).

Page *JournalNews* of Opinions

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Managing Editor
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Assistant Managing Editor

Page A-4

Thursday, July 18, 1985

Readers' letters

Chem-Dyne cleanup plan not best possible solution

EDITOR:

I've been following newspaper accounts of the recent settlement and public reaction concerning sub-surface cleanup at the Chem-Dyne site.

I believe that some of the information has been both confusing and misleading and, therefore, requires a bit of clarification.

It is true that residents are dissatisfied with aspects of the settlement.

Some of the concerns include, but are not limited to, off-site disposal of less than one percent of the contaminated soil, a groundwater cleanliness standard of 100 parts per billion (ppb), no specific plans either now or in the future to address the problem of sediment contamination in the Ford Canal and no within-settlement plans to act on the high PCB contamination found in the fish of this area.

Residents have been told that they have attained the best settlement possible and that they cannot expect the site to once again be 100 percent free of contaminants.

While I agree with the latter point, it would seem that there is a great deal of room for further negotiation between the one percent minimum standard of effectiveness offered to us and the 100 percent ideal.

I am, of course, referring to the removal of only one percent of the total volume of contaminated soil and to the accepted standard of groundwater cleanliness (100 ppb), which is 98 percent higher than safety standards set for many chemicals around the nation.

We need to stop focusing on the amount of dollars which will be expended and start concentrating on what we're actually getting for the money, which, in some cases,

is absolutely nothing (e.g., no sediment or fish cleanup.)

It is essential for residents to understand that they have not been offered the best possible settlement. They have a right to question the matter and to voice their concerns.

The means to do this is currently available by writing: U.S. Department of Justice, Assistant Attorney General, Land & Natural Resources Division, 10th and Pennsylvania N.W., Washington D.C. 20530. Residents must write by July 20 and cite U.S. vs. Chem-Dyne et al., D.J. Ref 90-7-1-43.

There have been claims that such comments would delay the cleanup work indefinitely. This is untrue and, as such, an unfair burden to place on citizens.

The superfund law was expressly designed to prevent long cleanup delays due to court proceedings.

In bringing this question to the U.S. Environmental Protection Agency, a two- to three-month delay at most was expected as a result of strong residential input.

In light of the fact that this cleanup endeavor will set a precedent for hundreds of other cleanup efforts throughout the nation, and that the Chem-Dyne cleanup itself will occur over a minimum of 10 to 20 years, with consequences reaching into the next generation, I believe it is crucial to take a little time to achieve the best cleanup possible for our community and its people.

Readers, please take a few minutes to write the U.S. Department of Justice.

You owe it to yourselves and to your families.

Judy A. Gillens
Executive Director
HAPSO

I AM IN total agreement
Joy Rotundo
776 Beverly Dr
45043

RECEIVED
JUL 29 1985
U.S. ENVIRONMENTAL PROTECTION AGENCY
WASTE MANAGEMENT DIVISION
HEALTH, SAFETY AND ENVIRONMENTAL DIVISION

Santals 15
July 18, 1985
751 Beavly Dr
Hamilton, OH
45013

To Whom it May Concern
I absolutely agree with the
person who wrote the enclosed published
letter to the editor.

I do not know this writer
and I live on the total opposite
area (west side) that the writer
lives in.

I like many other citizens
in this city and county have
not to my knowledge been able
to learn the identity of the
low down money hungry person
or persons involved in permitting
Chem-Dyne to establish its
poisonous probably long term
health tragedies to our citizens
and our wonderfully clean
good tasting water.

Therefore I cite:

U.S. versus Chem Dyne et. al.; DJ
Ref 90-7-1-43

Thank You
Joy Rotundo

90-7-1-43

DATE OF RECEIPT	RECORDED
JUL 24 1985	D
LANDS DIVISION	
POLLUTION ENFORCEMENT	



URBAN THICKETS

Landscape Maintenance Alternative

July 18, 1985

U. S. Department of Justice
Assistant Attorney General
Land and Natural Resources Division
10th and Pennsylvania NW
Washington, D.C. 20530

Ref: U.S. vs. Chem-dyne et al D.J. Ref. 90-7-1-43


Dear Sir:

Our company, URTH, recently purchased the property directly adjacent to the former Chem-dyne site in Hamilton, Ohio. One of the reasons for acquiring this facility was the proposed clean-up of Chemdyne's underground water and remaining site contamination, sealing it and restoring the vegetation to a level consistent with the long term management of this problem site. We applaud the thorough effort by many agencies at all government levels to get to this point.

We strongly feel there should be no further delay in beginning the site work, not because we are next door neighbors, but because the underground contamination plume relentlessly spreads, potentially affecting our entire region, not just a small corner of our city. Yet above ground, time consuming discussion rambles on regarding techniques and standards of clean-up, and whether the amount of money set aside for the effort is enough.

There may be unknowns about the Chem-dyne disaster and modifications may be necessary as clean-up proceeds. But let's get on with the process to protect one of the most significant water resources in this country.

Sincerely,



Warren H. Klink
Landscape Architect

JH DAB B

LAW OFFICES
CARL MORGENSTERN Co., L. P. A.
604 FIRST NATIONAL BANK BUILDING
HAMILTON, OHIO 45011

CARL MORGENSTERN
MICHAEL S. MORGENSTERN
ROGER S. GATES

(513) 893-6122

July 17, 1985

U.S. Department of Justice
Assistant Attorney General
Land and Natural Resources Division
10th and Pennsylvania NW
Washington, D.C. 20530

U.S. v. Chem-Dyne, et al.,
D.J. Ref. 90-7-1-43

Gentlemen:

This office represents a group of individuals who are residents of the neighborhood in Hamilton, Ohio, immediately adjacent to the Chem-Dyne site. We have recently been able to make a review of the proposed consent decree relative to the above matter and would like to make the following comments concerning the same.

1. Although there is apparently no evidence of contamination of the city of Hamilton's south wellfield at this time, we are concerned that the state of Ohio would be allowed to agree to indemnify the defendants against any claims which might be made in the future concerning contamination at that site. The Ohio EPA is the primary watch-dog agency for this vital public water supply, and we are concerned that they are also going to be monetarily responsible for dealing with any contamination which might be discovered in the future. The new role which the state is assuming in this regard seems to be in conflict, or at least inconsistent, with its monitoring responsibilities. This indemnity provision puts the state in a potentially adversarial position to the citizens whom it is supposed to protect.

2. The decree should more clearly spell out that it is not designed or intended to have any effect on the rights of individuals who claim to have suffered individualized losses from the Chem-Dyne situation and who may seek recovery from the defendants either by statutory remedies or under the common law. It should be made clear that the consent decree is only between the United States, the state of Ohio and the settling defendants and the rights of private plaintiffs are not limited in any way by the consent decree. At a public information meeting held in Hamilton on June 24, 1985, representatives of the USEPA stated that the consent decree is not really a settlement and that the USEPA was not releasing anyone other than the premium settling defendants, from any further liability for the clean-up of the Chem-Dyne situation. Assuming these were accurate representations, this should be made clearer in the consent decree. Specifically, we believe that the language on page 66 @ paragraph C(3) and

that on page 68 @ paragraph C(1) is not clear that it only applies to the premium settling defendants and not to the other defendants.

3. There is no provision in the consent decree for medical evaluations of residents of the community to assess what effects this situation may have had on the community health. The decree should provide for a fund to make this type of assessment.

4. There is no provision for a community health survey and the establishment of a registry of affected people. This type of data is essential as a data base from which conclusions might be formulated concerning the health effects this situation has had on the residents of this community.

5. There is no provision for compensating persons who may be forced to relocate from this neighborhood as a result of this situation.

6. There is no provision for providing, and paying for, an alternative source of drinking water in the case of contamination of the current drinking water supplies.

7. The test data upon which a great deal of the consent decree is based, i.e., the treatment of the groundwater, is insufficient to judge the full extent of migration of the contaminated ground water and also pre-dates the decree by more than eighteen months. In short, we are not satisfied that the groundwater testing data, upon which many of the assumptions for the remedy contained in the decree are based, is a reliable indicator of the extent of the problem.

8. The decree fails to address the personal injuries, property damage and psychological and emotional injuries which have been suffered by the residents of the community. In short, the decree takes an approach to the Chem-Dyne situation which looks only to the general concern of preventing further public health threats in the future. Regardless of whether the decree successfully attains its goals in that area, it completely disregards the need to assess and compensate the private injuries which have already occurred. We believe that the money being paid by the defendants in this case is cheap in comparison to the total magnitude of the harm their action, or inaction, has caused, or may cause in the future.

We appreciate the opportunity to make these comments and hope that they will be given serious and thoughtful consideration. Please do not let the glow of what appears to be a rather sizeable settlement blind you to the overall magnitude of the crisis.

Sincerely yours,


Carl Morgenstern

July 17, 1985

Samuel B

U. S. Department of Justice
Assistant Attorney General
Land and Natural Resources Division
10th and Pennsylvania, N.W.
Washington, D.C. 20530

Subject: U. S. vs. Chem-Dyne, et al
D. J. REF 90-7-1-43

Dear Sir:

We are writing in regard to the Consent Decree for the Chem-Dyne hazardous waste site in Hamilton, Ohio. As residents of the area, the proposed methods of clean-up for this site are of great importance to us.

There are significant problems with the methods proposed. These are:

- Inadequate analysis of the extent of soil contamination, due to very limited testing of the soil.
- Inadequate treatment of contaminated groundwater. That is, using a method which will only deal effectively with a small portion of the compounds found at the site.
- Using VOC's as the measurement of the level of contamination, thereby ignoring those compounds which are not VOC's but which are present in significant quantities and are carcinogenic, teratogenic, and mutagenic.
- Having a questionable method of determining the end point for pumping contaminated groundwater and not providing for frequent testing (quarterly) of Hamilton's wells in regard to the abovementioned compounds, as well as public dissemination of the information.

These problems can be corrected by:

- Adequate soil testing of the area (on and off site) and removal of all contaminated soil.

(Continued)

90-7-1-43

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U. S. Department of Justice
July 17, 1985
PAGE TWO

- Using an adequate method of water treatment to remove contaminants. That is, simply to use a particular procedure to remove a particular class of chemicals, rather than use one method directed at VOC's.

This would be:

- 1) Lime treatment to remove metals
 - 2) Steam stripping to remove VOC's
 - 3) Packed-activated charcoal (PAC) for treatment of non-volatile organic compounds.
- Base the end point for pumping on non-volatile compounds as well as VOC's and relate these to health-effects levels for each of these compounds.
 - Provide for analysis for all these contaminants in frequent tests of the water taken from City of Hamilton and Water Association wells. This information must then be made a matter of public record.

These are the most important issues to be addressed. If they are responded to with an awareness of the limitations of the proposed techniques, then the terms "historic" and "precedent setting" which have been applied to this settlement might have value. At present, the precedent that will be established is that of an inappropriate response to the situation. The significance of this is that it need not be so. The appropriate technology is available to solve the problems at Chem-Dyne.

We would appreciate your consideration of this issue.

Sincerely,

Robert A. Vogel M. En.
Jeanne Heet

July 17, 1985

U.S. Dept of Justice
Assistant Attorney General
Land and Natural Resources Division
10th. & Pennsylvania N.W.
Washington, D.C. 20530

Ref: U.S. v. Chem-Dyne et al. D.J. Ref. 90-7-1-43

Dear Sir:

An article in March 1985 National Geographic states that Chem Dyne is one of the most hazardous sites in the U.S. Some of the proposed methods to clean up the site are good, but I feel they do not go far enough.

Toxic and cancer causing chemicals persist in the soil surrounding the site and threaten the well fields. My concern is that the acceptable level of contamination for the nation is two to three parts per billion, but the level of contamination at Chem- Dyne will be 100 parts per billion. This is going to allow 98% more contamination than should be allowed in some cases. Why?

The people down stream from Chem- Dyne should be assured of safe drinking water. We don't want a Love Canal in our area.

Sincerely,

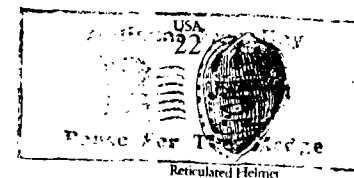
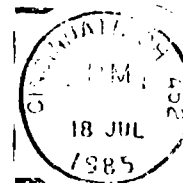
Cyrillus H. Hare

Cyrillus H. Hare
5723 Windermere Ln.
Fairfield, Ohio
45014

cc Mr. Donald Bruce
U.S. E.P.A.
Region V

RECEIVED
AUG 5 1985
U.S. EPA. REGION V
WASTE MANAGEMENT DIVISION
HAZARDOUS WASTE ENFORCEMENT BRG.

Mr. C. R. Hare
5723 Windermere Ln.
Fairfield, Ohio
45014



Mr. Donald Bruce
U.S. Environmental Protection Agency
Region V
230 S. Dearborn St.
Chicago, Illinois 60604

July 11, 1983

U.S. Dept. of Justice
Assistant Attorney General
Land and Natural Resources Division
Washington, D.C.

Subject: U.S. v. Chem-Dyne et al
D.J. Ref 70-7-1-43

Dear Sir,

Since Chem-Dyne chemicals
have already spread as far as the
Championville area (the Great Miami
River), I plead that the maximum
be spent in cleaning up this mess.

The aquifer from Chem-Dyne
supplies water for 6,000 citizens of
Hamilton Co and for 250,000 people
south of Hamilton.

Please give this request your
best efforts.

I thank you

Hugh D. Barrios

1716 Shirley Ave

Hamilton Ohio 45011

1983 JUN 25 11 44 AM

U.S. DEPT. OF JUSTICE
LAND AND NATURAL RESOURCES DIVISION

120227

7-17-85

Please Read this clipping and see
if the way you are now planning to
clean up Chen Dye in Hamilton Ohio
and then think if this is the
way to do it I say no
you should remove at least 10 feet
of soil just of all

Thank you
542 North 5th St
Hamilton Ohio 45011

1985 JUL 23 PM 1:11

FEDERAL BUREAU OF INVESTIGATION
SPECIAL INVESTIGATION DIVISION

120293

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DEPARTMENT OF JUSTICE	
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L...	

LANDS DIVISION
FEDERAL BUREAU OF INVESTIGATION

Rosie Fields
542 North 5th St
Hamilton Ohio 45011

Rosie Fields Hamilton Ohio
Hazardous-Waste Dump Turns Ky. Home Into A Prison

BY JAY COOPERIDER
Enquirer Contributor

CYNTHIANA, Ky.—Ernest Jones works five months out of the year for an oil company near Alaska's Prudhoe Bay. He likes the money he makes but says the loneliness is "like a prison."

But now, he says, he lives in another kind of prison—in his own home near Cynthiana in northern Harrison County.

"We can't leave here," said Jones, looking at his spotless white clapboard farmhouse, a quarter mile back from the road.

"We bought this house as an investment and a place to retire, but I couldn't get half what I paid for it," he said.

Jones lives on a one-lane road swept by leaves this time of year, where farmhouses dot the rolling hills. It isn't the kind of place where real estate values should be dropping.

Jones and his neighbors share a problem that not only threatens their property but perhaps their health.

BARRY BURRUS, an environmental engineer for the state of Kentucky, said toxic chemicals were illegally dumped on the hillside above Jones' property during 1973 and 1974. Barrels and old

paint cans accumulated for two years, when the dumping stopped as quickly as it began.

It started unnoticed. No permit was granted, no precautions taken for the safety of residents. Burrus said it amounted to a deal between a land owner, a trucking company and Inmont Corp. of Cincinnati, manufacturer of paint-related products and solvents.

Federal Environmental Protection Agency Superfund money was used to clean up the site in March. Jones said he thought his troubles were over when federal inspectors left.

So did his neighbor, Denzal Hyatt.

"I thought they did a real good job. It looked just like a lettuce bed with fresh dirt and everything," said Hyatt, a farmer.

THE CLEANUP cost the government \$50,000. The Kentucky Natural Resources and Environmental Protection Cabinet paid 10%.

Now Jones, Hyatt and several other neighbors think their problems are back.

"We wouldn't have known anything if the grass had grown" on the 75 by 140-foot lagoon which had been filled with topsoll,"

Jones said. "We thought they were going to haul all that old soil out and bring in new."

During the summer Jones, his wife, Joselyn, and Hyatt did not think a lot about the old dump.

"When the humidity and the heat got just right, it put out a strong odor, but not as bad as before the cleanup when you would walk out on the back porch and it would gag you," said Mrs. Jones.

The heavy rains in the past few weeks washed over the exposed topsoll, uncovering golden chunks of what Burrus said is plastic resin, and that brings a feeling of dread to Jones and his neighbors.

THE PLASTIC resin looks like rock and appears harmless enough, but Jones hesitates to go near it after reading the list of chemicals that were dumped there.

"I figure anything that was brought here was dangerous," said Jones, kicking one of the chunks down the hillside.

"Why would someone pay to have this stuff trucked here if they could just throw it in a dumpster?" asked Jones.

The last tests taken near Jones' house before the cleanup indicated an environmentalist's nightmare was in the sludge above Jones' land. Such chemicals as

benzene, xylene, toluene, polychlorinated biphenyls, mercury and lead were left in barrels strewn across about an acre of land.

According to Bernard Saltzman, an environmental scientist at the University of Cincinnati, large amounts of these chemicals cause birth defects, liver and bone marrow damage, tumors and cancer.

THE EPA cleanup took care of 170 barrels and some of the soil, said Burrus, environmental engineer for the state of Kentucky.

"But what went down into the soil is still there, as far as we're concerned," said Jones.

Hyatt agrees. About 30 of his cattle died, he said, after drinking from a pond fed by a spring which runs under the area where the lagoon used to be. That was before the cleanup.

He has lost two more cattle since the cleanup, one last month.

Whether the threat of contamination from the chemicals was taken away when the last EPA truck rumbled past Jones' house toward US 27 is not yet known because the results of two sets of tests are not available, Burrus said.

Burrus added that he thought the results would show the area to

be as clean as it's going to get, but Hyatt and Jones say that isn't clean unless you're not going to have that looking like a golf course."

THE DEAD grass may be a result of the clay which was used in the cleanup, he said.

Jones and Hyatt scoff at that.

"If I had \$350,000 I could grow some grass, I'll tell you that," said Hyatt. To prove it, Hyatt and Jones planted two fields with the same seed used over the old lagoon. The fields are lush with grass.

"I've gotten two cuttings" of hay from the fields, Jones said.

The original cost of the cleanup was estimated at \$100,000, but when EPA inspectors saw the amount of chemicals, they needed more Superfund money.

"We thought we would only have to remove a few inches of sludge from the bottom of the lagoon," said Burrus. "When we got down there we saw we had to dig out more like eight inches."

Burrus said the state may sow more seed over the old dump, but nothing more.

"WE'VE DONE \$50,000 worth of tests there already," said Burrus.

But Jones isn't satisfied.

"I want this stuff tested," said Jones. "They sit up there in their

offices and tell us everything is alright. That's a long way to have X-ray vision."

Jones and his neighbors are not only eager to get state inspectors back to the area, they are eager to get Inmont and Container Corporation of America, the Cleveland firm they say trucked the waste to Cynthiana, into court.

Five families in the area filed a \$40 million suit in U.S. District Court against the two companies, asking punitive and compensatory damages, complete cleanup of the site and creation of a fund by the companies to pay for health screening.

Inmont and Container Corp. representatives could not be reached for comment.

"THAT'S FOR the children, because we don't know how this is affecting them," said Mrs. Jones, who moved to Covington two years ago when she was pregnant because she feared what might happen if she stayed.

David Altman, attorney for the families, said the plaintiffs are claiming damages against the two companies under an EPA statute that will make them liable for the health screening.

"All we have to do is prove the material came from there," he said.

Burrus and Altman said the EPA is also trying to recover the \$350,000 from the first cleanup cost.

Dr. John M. Blocher, Jr.

 Consultant

J. Blocher
915 Silvoor Lane
Oxford, Ohio
45056, U.S.A.
(513) 523-2311

U.S. Dept. of Justice
Asst. Atty. Gen., Land and Natural Resources Div.
10th and Pennsylvania, N.W.
Washington, D.C. 20530

16 July, 1985

U.S. v. Chem-Dyne et al., D.J. Ref. 90-7-1-43

Dear Sir:

I have recently read the Settlement Decree (SD) for the Chem-Dyne clean-up and have re-read the Remedial Action Plan (RAP). The time allotted is too short to permit making a thorough study of these documents. However, I wish to comment on at least one aspect of the problem with which I have had considerable experience.

I am still concerned about the inadequacy of soil sampling upon which the RAP is based. A systematic sampling of the soil and removal of contaminated material should have been included in the RAP. Granted, the planned capping procedure will aid in containment of the soil contamination. However, it must be recognized that this action will convert the Chem-Dyne site into a permanent waste-storage facility. In addition to having an unknown inventory, this site will be in violation of many of the other EPA regulations for such waste-storage facilities. Despite these shortcomings, the EPA is apparently convinced that (1) the ground water treatment plan will be effective in removing ground water contamination in 10-20 years and (2) seepage from the capped contaminated soil into the ground water will be effectively eliminated by preventing leaching by surface water. If post-clean-up monitoring proves that to be the case, all will be well. If not, we will be faced with having to find and remove the pockets of contaminated soil leading to uncontrollable ground-water contamination. It would have been much more prudent and eventually less expensive to have identified and removed these areas before capping.

The fact that the RAP calls for the removal of soil from certain identified "hot spots" reflects the EPA's recognition that the clay cap may not be as effective as desired. However, in its present form, the "hot spot" excavation can't be viewed as being more than cosmetic, since the sampling procedure has been inadequate to disclose the many other "hot spots" that may exist.

For example, in the 57,000-square-foot off-site area south of the fence adjacent the Blue Warehouse (RAP Fig. 22), there are deemed to be two "hot spots" 317 ft. apart, and the RAP calls for excavating and removal of a ring of soil 10 feet in radius around each sample site, a total of 157 square feet or less than 3 tenths of one per cent of the area in question. Even granting that no significant contamination exists within 10 feet of the other 6 sample sites in the area which were deemed to show no contamination, 98.9 % of the area remains unsampled on that basis.

9-7-1-43

16 July, 1985

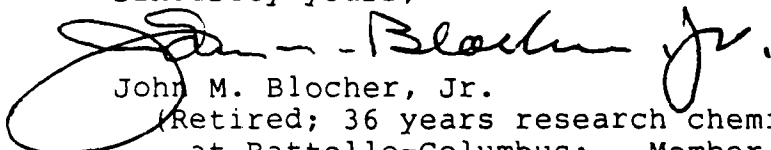
The response of the EPA to previous criticisms of the sampling protocol has been that this was not intended to be a "scientific" survey of the site contamination. My answer to that is: the problem requires no science and but a minimum of common sense to understand; no prospector in his right mind would find gold in two places 317 feet apart and limit his claim to two areas twenty feet in diameter around each. Either more sampling is justified, or the expense of excavating these two little "hot spots" is unjustified. One can't have it both ways.

In my opinion, the Court should mandate* as a minimum that, (1) to get some idea of the possible magnitude of future problems, and (2) to address the real fear that off-site soil contamination may well be more extensive than indicated by the EPA, this off-site area should be given a thorough sampling. Further, as the excavation of hot spots and other contaminated soil areas proceeds, samples taken at the periphery of these areas should be analysed to assess the effectiveness of the "cancer" removal, or is the EPA afraid of what such sampling would reveal?

Since in my opinion, the sampling procedure has not been adequate to ensure the absence of serious future problems and expense at the Chem-Dyne site, a judgement that would absolve the Defendants from future liability is premature.

Regardless of how these legal questions are resolved, it must be emphasized that careful monitoring of the ground-water contamination at and near this site will require vigilance not only during the clean-up, but for an indefinite time in the future.

Sincerely yours,



John M. Blocher, Jr.

(Retired; 36 years research chemist and research supervisor
at Battelle-Columbus; Member, Oxford Audubon Society.)

* Perhaps the court can't act in this way; but who represents the taxpayer, who will bear the burden when the RAP is shown to be ineffective?

July 16, 1985

Assistant Attorney General
U.S. Department of Justice
Land and Natural Resources Division
10 th and Pennsylvania N.W.
Washington, D.C. 20530

Dear Sir:

I write to you with reference to U.S. versus Chem-Dyne et al., (D.J. ref 90-7-1-43). The purpose of this letter is to bring to your attention, through the comment period, serious deficiencies and well as possibly intentional oversights associated with the consent decree settlement as applicable to the remedial action plan for soil contamination.

As a proud citizen of our great United States, I am pleased and grateful to see efforts being made to undo some of the environmental contamination problems stemming from mismanaged hazardous waste sites. The case at Chem-Dyne is unique in that it may become the "model" for future hazardous waste site clean-up operations and/or set a precedent for future settlement with waste generators. Because of this, all facets of site clean-up at Chem-Dyne must be executed to perfection without sacrificing proven scientific principles and quality control. To date, I feel that the remedial action plan, accepted behind closed doors, as settlement by affected waste generators falls quite short of adequately addressing the problem. I find the soil section of the abatement plan inadequate and incomplete. As a result, I urge you to take action to ensure that the problem is properly addressed now so that future problems can be prevented.

Soil and groundwater contamination are major recognizable problems attributed to the Chem-Dyne hazardous waste site. The soil remedial action plan fails to protect public health, welfare and the environment. It would be a great mistake to proceed with the clean-up because the character of the soil both on and off-site is not fully known. An insufficient number of soil samples were taken and became the basis for final soil removal abatement plans. I find this both unscientific and unjustifiable! There is no statistical reliability on which to make any statement about the extent of soil contamination. Yet, with sketchy evidence, major critical decisions have been made about the extent of soil contamination. This certainly raises serious questions about EPA competency.

Comments received from EPA supporting their poor soil sampling strategy and conclusions were hair-raising. The on-scene coordinator stated that more sampling should have been done but cost limits prohibited EPA from doing a scientific evaluation of the extent of contamination. Furthermore, the EPA recognized that the extent of contamination was great on the 22 acre site, yet they chose to guesstimate the extent of contamination. This is unacceptable!

For example, in areas where only one soil sample was taken, EPA has decided to remove the soil to a depth of one foot around a ground area having a ten foot diameter. Interestingly enough, there is no sound decision for making such a determination. EPA does not know if the soil is contaminated around a 30, 40, 100 foot radius at varying depths surrounding each sampling site. How can the groundwater, the environment and the residents around the area be protected by using charlatan-type innacurate soil assessments in such a critical problem area that is to be used as a model site clean-up?

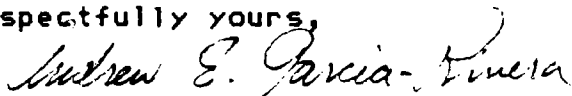
Use of the selected remedial alternative without further soil sampling and analytical testing would diminish public trust in the EPA, insult the scientific community, and most important, take advantage of innocent, trusting and unsuspecting residents and users of the affected groundwater system.

In order to do the best soil clean-up operation extensive soil removal may be warranted to mitigate groundwater contamination and effectively remove the major cause of the problem. One cannot simply hide the Chem-Dyne problem by placing a clay cap over it or by taking quick and dirty action to appease city officials and waste generators. Such a strategy may be acceptable to uninformed persons, but to environmental scientists it is not!

In closing, please recognize that soil contamination is not the only problem associated with the remedial action plan. Treatment technologies selected to be employed for groundwater clean-up have poor track records and should not be used knowing that better systems are available. In addition, treated contaminated water effluent release levels are too high and unacceptable. Please force EPA to go back, reassess the problem, and execute an environmentally sound settlement. Yes, it will be costly to do the Chem-Dyne clean-up correctly.

I certainly hope that my comments will be considered and are found to be useful in raising your awareness about my dissatisfaction with the proposed Chem-Dyne clean-up operation.

Respectfully yours,



Andrew E. Garcia-Rivera, M.S.
713 S. Locust Street
Oxford, Ohio 45056

senior citizens, inc.

in murstein house

Donald B.

140 Ross Avenue ★ Hamilton, Ohio 45013 ★ Phone (513) 895-6978

executive director
Betty J. Clausen

July 16, 1985

U.S. Dept. of Justice
Assistant Attorney General
Land and Natural Resources Division
10th & Pennsylvania N.W.
Washington, D.C. 20530

Dear Sir,

I am writing in behalf of Hamilton Senior Citizens to express our concern about the Chem-Dyne issue (U.S. v. Chem-Dyne et al., D.J. Ref. 90-7-1-43.) We understand that steps are being taken to reduce the amount of contamination being allowed to enter our water sources but fear that these measures will be insufficient.

A token amount of contaminated soil is being removed but even Chem-Dyne admits that it is just that--a token amount. They do not expect the removal of this small amount of dirt to make any difference. Twenty years down the road the remaining soil will still be causing contamination.

In an attempt to contain the contamination, Chem-Dyne intends to dig trenches around the site. One hates to be a cynic, but it is hard to imagine that a few feet of dirt will do much towards slowing down the traveling contaminants.

The most baffling of the issues concerning the clean-up procedure is the percentage of contamination being defined as "acceptable." For some chemicals, the acceptable level around the nation has been two to three parts per billion. Why is it that at the Chem-Dyne site 100 parts per billion of contamination has been termed to be "acceptable?" Does that mean that Hamilton citizens will be drinking water 50 times more contaminated than the average for most other communities across the nation?

Although we appreciate any effort that has been planned, we would like to see more drastic measures taken to clean up the soil and groundwater at Chem-Dyne. Now is the time to recognise--and come to terms with--the effect our environment can have on our health and the health of our grandchildren. It is essential that preventive action be taken now to ensure that Hamilton will not become another "Love Canal Statistic."

Sincerely,

Jeanine Matula

Jeanine Matula
Information & Referral **44**

cc Mr. Donald Bruce

90-7-1-43

DEPARTMENT OF JUSTICE	RECORD
JUL 18 1985	
LANDS	

33 DIVISION

an agency of United Way of Hamilton & Fairfield

funded in part by Title III of the Older Americans Act



July 16, 1985

F. Henry Habitch, Esquire II
Assistant Attorney General
Land and Natural Resources Division
United States Department of Justice
Tenth and Pennsylvania Avenue, N.W.
Washington, District of Columbia 20530

Re: United States of America v. Chem-Dyne Corp., et al.
D.J. Ref. 90-7-1-43

Dear Mr. Habitch:

Please consider the enclosed request for a hearing and letter of April 24, 1985, as comments on the proposed Consent Decree in the Chem-Dyne case.

The issue raised by Rohm and Haas and Halocarbon Products Corp. is the failure of the proposed settlement to give any consideration to the companies for expenses they incurred for remedial actions at the Chem-Dyne site in Hamilton, Ohio.

The policy of the Department of Justice of not giving credit for voluntary action in settlements was stated by Carol E. Dinkins, the former Assistant Attorney General, Land and Natural Resources Division (now Deputy Attorney General) in three prepared speeches as follows:

1. American Bar Association Annual Meeting
August 9, 1982

"In evaluating settlement offers, credit is not given for past cleanup activity at a site. The reason for this is that only future expenditures and

undertakings will form the basis of the relief sought by the government. While laudable, past voluntary activity simply cannot form the basis for settlement of future liabilities."

2. Ohio State Bar Association October 15, 1982

"In evaluating settlement offers, credit is not given for past cleanup activity at a site; only future expenditures and undertakings will form the basis of the relief sought by the government. While laudable, past voluntary activity simply cannot form the basis for settlement of future liabilities. The reason for this is quite simple, to the extent that a credit diminishes liability, Superfund must pick up the tab and there may not be enough Superfund to clean up sites where solvent financial parties are unavailable."

3. American Law Institute - American Bar Association Conference on Hazardous Wastes; Superfund and Toxic Substances November 5, 1982

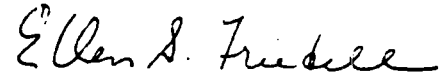
"Moreover, we have frowned upon credits for past clean up activities at a site because the government's focus is on future work and simplistic notions of credits open a Pandora's box of complex problems in light of the myriad past activities and movements of wastes at most sites. The question of credits is under review."

The Department's policy is obviously unfair to those companies who chose to take voluntary action before agreement is reached on an allocation formula -- a process which invariably takes a very long time. It is also a policy which contradicts the often-stated government goal of encouraging voluntary action and prompt clean up of sites.

F. Henry Habitch, Esquire II
July 16, 1985 -- Page Three

As a result of the government's policy, the Department rejected Rohm and Haas Company's good-faith settlement offer in 1982 and sued the company. The hour is late but there is still time for the federal government to right the wrong that has been done in the Chem-Dyne case. We urge the Department to abandon its policy of not giving credit for voluntary action in settlements and to support our request for a hearing before Judge Rubin on the issue.

Sincerely,



Ellen S. Friedell
Senior Counsel

ESF:clg

cc: James R. Adams, Esquire
Michael C. Donovan, Esquire
W. Roger Fry, Esquire
Theodore L. Garrett, Esquire
James Kelly, Esquire
Angus MacBeth, Esquire
Honorable Carl B. Rubin
Barry S. Sándals, Esquire
Christopher R. Schraff, Esquire
Thomas T. Terp, Esquire
Mr. Lee Thomas
Charles H. Tisdale, Esquire



July 16, 1985

Honorable Carl B. Rubin, Judge
United States District Court
Southern District of Ohio
Western Division
Post Office & Courthouse Bldg.
Fifth & Walnut Streets
Cincinnati, Ohio 45202

Re: United States vs. Chem-Dyne Corp., et al.
Case No. C-1-82-840

Dear Judge Rubin:

Please consider my letter of April 24, 1985, enclosed, as a request for a hearing before Your Honor on the proposed Consent Decree in this case lodged on June 13, 1985. Mr. Angus Macoeth has authorized me to state that he joins in this request on behalf of his client, Halocarbon Products Corp.

Rohm and Haas Company and Halocarbon Products Corp. ask for modification of the proposed Consent Decree to provide each company appropriate credit for remedial actions taken at the site, at their expense, before the Chem-Dyne site became the subject of the case before Your Honor. The modification we seek is in the public interest and can be accomplished without jeopardizing the settlement of this case.

We can well appreciate the desire of the parties to put this case to rest. Without modification, however, the settlement will forever stand for the proposition that companies should leave their drums to rot until scores of attorneys spend months and years to devise an allocation formula.

Our clients did what was right in Hamilton, Ohio when they removed their materials as soon as they learned of Chem-Dyne's collapse. Because of the failure of the proposed settlement to give any consideration for the substantial expenses they incurred, it is unlikely that others will follow their lead.

Honorable Carl B. Rubin, Judge
July 16, 1985
Page Two

We respectfully urge Your Honor to grant our request for a hearing.

Respectfully submitted,

Ellen S. Friedell

Ellen S. Friedell
Senior Counsel

ESF:clg
Enclosures

cc: James R. Adams, Esquire
Michael C. Donovan, Esquire
W. Roger Fry, Esquire
Theodore L. Garrett, Esquire
F. Henry Habitch, Esquire II
James Kelly, Esquire
Angus MacBeth, Esquire
Barry S. Sandals, Esquire
Christopher R. Schraff, Esquire
Thomas T. Terp, Esquire
Mr. Lee Thomas
Charles H. Tisdale, Esquire



April 24, 1985

Honorable Carl B. Rubin, Judge
United States District Court
Southern District of Ohio
Western Division
Post Office & Courthouse Bldg.
Fifth & Walnut Streets
Cincinnati, Ohio 45202

Re: United States v. Chem-Dyne Corp.,
Case No. C-1-82-840

Dear Judge Rubin:

There is an aspect of the proposed settlement of this case which is unjust and not in the public interest. The settlement proposal does not reflect voluntary remedial actions taken by a number of defendants before the Chem-Dyne site became the subject of the case now before Your Honor. These private actions removed over 16,000 drums of material from the site and thereby made a substantial contribution towards solving the Chem-Dyne problem.*

As an example, on February 16, 1980, Mr. Kenneth Harsh of the Ohio EPA called Mr. W.W. Moore, Environmental Contracts Administrator of the Rohm and Haas Company, and told him that Chem-Dyne had abandoned its site and that Rohm and Haas waste drums were at the site. On February 18, 1980, Mr. Moore flew to Ohio and began the process of removing all Rohm and Haas material from the site.

What Mr. Moore found was a hodge-podge of drums stacked four high in places and presenting a tremendous material handling problem.

* (See attachment 1, Chem-Dyne Corporation Inventory Reduction 4 Feb. 1980 - 26 Apr. 1982 prepared by the Ohio EPA).

Because of primitive conditions at the site, he had to make arrangements to rent a pair of Bobcat loaders to assist in the movement of Rohm and Haas drums and those of other companies. Mr. Moore spent weeks at the site supervising the removal of Rohm and Haas drums. He worked in an atmosphere of chaos and in terrible weather. By September of 1980, he had succeeded in removing over 4,000 drums containing Rohm and Haas waste as well as that of other companies. In 1981, he removed 700 more drums.

Rohm and Haas waste drums were readily identifiable. By the end of the remedial project, Mr. Moore was convinced that he had removed virtually all Rohm and Haas drums from the site, as well as over 100 drums of other companies.

In addition, Rohm and Haas provided Chem-Dyne workers with much needed safety equipment, including rubber gloves, because they had none. And when it had completed its remedial program, Rohm and Haas bought for \$23,189.66 the two Bobcats it had used at the site and gave them to the court-appointed receiver so that they could be used to move the drums of other companies.

Rohm and Haas spent about \$350,000 on its remedial program -- not counting the costs of Mr. Moore's labor and that of other Rohm and Haas employees involved in the program. This expenditure is not reflected in the proposed Consent Decree.

By the terms of the proposed Consent Decree, Rohm and Haas must pay \$849,008.30. This figure is dictated by an allocation formula based solely on waste volumes allegedly sent to Chem-Dyne, according to government estimates. It does not reflect that Rohm and Haas removed its drums from the site at its own expense. Instead, the formula treats Rohm and Haas as if it had not removed its wastes. It also ignores the \$23,188.46 spent for the pair of Bobcats -- despite a written commitment from the State of Ohio to allow a credit in this amount against any future liability of Rohm and Haas for the costs of cleanup. (See attachment 2).

In raising the voluntary cleanup issue with Your Honor, Rohm and Haas does not seek to endanger the settlement of this case. The parties have already spent many millions of dollars on litigation. The case cannot be tried without the expenditure of many more millions of dollars. Rohm and Haas supports settlement of this case.

The voluntary cleanup issue can be resolved without in any way jeopardizing settlement. Indeed, a fair resolution of this issue will make it easier to settle future cases like Chem-Dyne.

Fortunately, there is an unexpected source of funds -- a provision in the proposed Consent Decree which gives some defendants the option of paying a premium in exchange for a full release from further liability at the site. Until recently, the parties had not contemplated that there would be such a provision in the settlement. Rohm and Haas

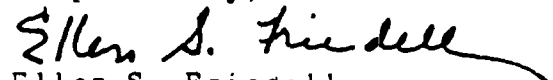
proposes that these funds be used to refund to each company that performed voluntary cleanup activities the amount it spent.*

The issue Rohm and Haas Company raises here is not simply one of equity, but rather one of public policy. (See attachments 3-7). The failure to recognize voluntary remedial programs in settlements discourages the kind of timely and responsible action that Rohm and Haas and others took in Hamilton, Ohio. If the proposed settlement is not adjusted, the message will be clear -- companies which take voluntary action will have to choose between expensive litigation or foregoing any consideration in order to settle a case.

We respectfully request Your Honor's assistance regarding this important public policy issue by scheduling a settlement conference at your earliest convenience prior to the entry of the Consent Decree. If there is an alternative procedure for resolution of this dispute which Your Honor wishes the parties to employ, please advise us accordingly.

Thank you for your attention to this matter.

Respectfully,



Ellen S. Friedell
Senior Counsel
Rohm and Haas Company

Of Counsel:

Christopher R. Schraff
Porter Wright Morris and Arthur

cc: Charles H. Tisdale, Jr., Esquire
Thomas T. Terp, Esquire
James R. Adams, Esquire
W. Roger Fry, Esquire
Theodore L. Garrett, Esquire
Barry S. Sandals, Esquire
Michael C. Donovan, Esquire
James Kelly, Esquire

*Paragraph XIV of the proposed Consent Decree provides that "premium settling defendants" may obtain a full release in return for the payment of an amount shown for each company in Column 9 of Appendix _____. The extra amount collected from "premium settling defendants" will likely exceed \$2 million. The total amount spent on voluntary remedial activities at the site is about \$1.5 million, based on information obtained from government records and defense counsel. Liason counsel have indicated that the extra funds will be used in the event of cost overruns in the remedial program. The proposed Consent Decree provides, however, that overruns will be covered by further contributions from the settling defendants (Rohm and Haas will pay a larger portion of cost overruns than any other defendant, except one.)

CHEM-DYNE CORPORATION
 INVENTORY REDUCTIONS
 4 FEB 1980 - 26 APR 1982

ATTACHMENT #1

GENERATOR	QUANTITY DISPOSED	QUANTITY REMAINING
ACME UNITED CORP.	--	5
ALBANY INTERNATIONAL CORP.	--	50
ALLIED CHEMICAL CORP.	228	--
ALUMINUM COMPANY OF AMERICA	--	120
AMERICAN GREETINGS CORP.	--	120
AMERICAN ROLLER CO.	--	40
AMF INCORPORATED	275	20
ANDERSON DEVELOPMENT CO.	436	350
APPLETON PAPERS INC.	--	60
APPLIED TECHNOLOGY	-- *	80 *
ASTRO CONTAINERS INC.	172	5
CALHIO CHEMICALS INC.	95	5
CHAMPION PAPERS INC.	17	--
CIBA-GEIGY CORP.	343	20
CLOPAY	--	60
CLOUDSLEY COMPANY	--	60
COMPO CHEMICAL COMPANY INC.	--	60
CONSOLIDATED MOLDED PRODUCTS INC.	--	10
DART INDUSTRIES INC.	130	--
DIAMOND INTERNATIONAL CORP.	--	200
DIEMAKERS INC.	24	--
DOVER CHEMICAL CORP.	122	5
E.I. DUPONT DE NEMOURS & CO.	295	10
EGYPTIAN LACQUER MANUFACTURING CO.	--	60
ESSEX GROUP INC.	34	20
ETHYL CORP.	35	--
FACET ENTERPRISES INC.	--	30
FMC CORPORATION	479	10
FORMICA CORPORATION	137	5
FRIES & FRIES	--	20

* Excludes wastes listed under other generators.

CHEM-DYNE CORPORATION
 INVENTORY REDUCTIONS
 4 FEB 1980 - 26 APR 1982

GENERATOR	QUANTITY DISPOSED	QUANTITY REMAINING
GENERAL ELECTRIC CO.	--	10
GEORGIA PACIFIC CORP.	--	80
GOODYEAR TIRE & RUBBER CO.	270	10
GLYCO INC.	--	10
HAMMERMILL PAPER CO.	73	10
HALOCARBON PRODUCTS CORP.	1-5	--
INTERNATIONAL PAPER CO.	--	-5
INMONT CORPORATION	--	30
KEMPER TAPPAN	--	100
KOPPERS COMPANY INC.	1-19	30
LAKEWAY CHEMICAL	--	50
LIBERTY SOLVENTS & CHEMICAL CO. INC.	--	40
LINDE	3	--
LOCTITE CORPORATION	--	50
LORD KINEMATICS	83	10
LUDLOW CORPORATION	--	120
MEARL	215	--
MERRELL	39	10
MONSANTO COMPANY	13	--
M&T CHEMICAL CO.	422	60
OWENS CORNING FIBERGLASS	575	5
OWENS ILLINOIS INC.	11	--
OXYMETALS	79	90
PHILLIPS PETROLEUM CO.	--	400
PROCTOR & GAMBLE CO.	19	--
RHONE-POULENC	3	--
ROGERS CORPORATION	75	--
ROHM & HAAS	4792	30
SCHOLLE CORPORATION	--	100
SIEMENS ALLIS	--	60
SPRINGFIELD GRAVURE CORP.	--	30

CHEM-DYNE CORPORATION
 INVENTORY REDUCTIONS
 4 FEB 1980 - 26 APR 1982

GENERATOR	QUANTITY DISPOSED	QUANTITY REMAINING
STAUFFER CHEMICAL CO.	277	5
STRUCTURAL FIBERS INC.	51	--
STRUCTURLITE PLASTICS CORP.	35	--
SUN CHEMICAL CORP.	--	80
SWS SILICONES	303	30
TOM'S RIVER CHEMICAL	3131	5
TRAVENOL LABORATORIES INC.	--	51
UNION CARBIDE CORP.	92	10
USS CHEMICALS	--	350
VANDERBILT CHEMICAL CORP.	--	80
VELSICOL CHEMICAL CORP.	351	(Bulk)
VOLKSWAGEN OF AMERICA INC.	305	20
WHIRLPOOL CORPORATION	63	20
XOMAX CORPORATION	30	--
C. W. ZUMBIEL COMPANY	--	300
<hr/>		
SUMMATION:	16,154	DRUM-EQUIVALENTS 4010
	42	GENERATORS 59

ESTIMATED QUANTITIES REMAINING ON-SITE:

9821	CONTAINERIZED
5000	BULK
<hr/>	
14,321	DRUM EQUIVALENTS

State of Ohio
Office of the Attorney General

ATTACHMENT #2



William J. Brown
Attorney General

December 5, 1980

Bruce J. Rekey
First Assistant Attorney General
David P. Hiller
Chief Counsel
Henry E. Melling, III
Executive Assistant Attorney General
G. Duane Welsh
Deputy Attorney General

Ellen S. Friedell, Esq.
Rohm and Haas Company
Independence Mall West
Philadelphia, Pennsylvania 19105

Dear Ms. Friedell:

Without admitting any liability on its part to do so, Rohm and Haas Company has voluntarily undertaken to comply with the request of the Ohio Environmental Protection Agency to effect the removal of Rohm and Haas waste products which were stored at the Chem-Dyne facility in Hamilton, Ohio, even though Rohm and Haas contends that the failure of Chem-Dyne properly to dispose of such wastes after accepting payment for such disposal constituted a fraud upon Rohm and Haas. At this point, nearly all drums containing Rohm and Haas waste products have been removed from the Chem-Dyne facility. Rohm and Haas agrees to complete the removal and disposal of its drums from the Chem-Dyne facility. Up to one thousand dollars of the offset granted on page two of this letter is to be applied for the completion of the drum removal.

The wastes of other generators still remain on site. In addition, there are numerous other tasks such as soil removal and ground water monitoring which must be performed before the site clean up is completed. The Ohio Environmental Protection Agency would like to have the continued use of two Bobcats which Rohm and Haas has leased from Bobcat Enterprises, Inc. for use in the total site clean up. As a further, voluntary contribution toward the ultimate decontamination and restoration of the Chem-Dyne premises, Rohm and Haas Company agrees to furnish such Bobcats to Jack Zettler, Receiver of Chem-Dyne Corporation et al., in the following manner:

(1) Rohm and Haas Company will pay the sum of twenty three thousand one hundred and eighty dollars and forty six cents (\$23,188.46) to Bobcat Enterprises, Inc. in exchange for a bill of sale transferring ownership of the two Bobcats on Chem-Dyne premises to Jack A. Zettler, Receiver of Chem-Dyne Corporation, et

(2) Rohm and Haas Company will cause the aforementioned bill of sale for the two Bobcats to be delivered to Jack A. Zettler, Receiver of Chem-Dyne Corporation, et al.

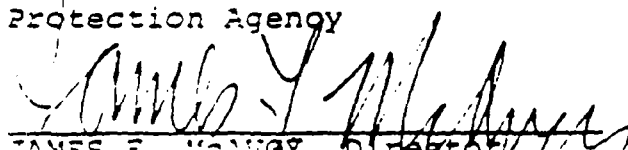
The Ohio Environmental Protection Agency hereby agrees that upon furnishing two Bobcats to Jack Zettler, the Rohm and Haas Company shall be entitled to offset against any further clean up costs attributed to Rohm and Haas the sum of twenty three thousand one hundred eighty eight dollars and forty six cents (\$23,188.46), subject to the limitation set forth on the preceding page.

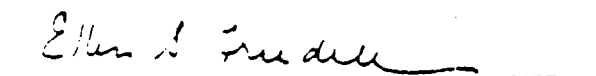
Nothing in this agreement letter shall be construed as an admission of liability on the part of Rohm and Haas Company. Further, except to the extent that the Ohio Environmental Protection Agency herein recognizes the right of Rohm and Haas to an offset against further clean up costs, nothing in this agreement letter shall in any manner prejudice the rights of any of the parties to this agreement in any future litigation. Finally, Rohm and Haas Company expressly preserves any and all remedies it may have against William Kovacs, Bruce Whitten, Chem-Dyne Corporation, Spray-Dyne Corporation, Whitco Enterprises, Inc., B & W Enterprises, K.O.I. Petroleum Company, Seymour Recycling Company, Resort Rentals Properties, or any other entities controlled by or affiliated with any of the foregoing. Nothing in this agreement letter releases, extinguishes, reduces, compromises or affects in any manner any claims of Rohm and Haas Company against any of the foregoing entities.

This agreement letter becomes binding on all parties hereto upon acceptance by authorized representatives of all such parties.

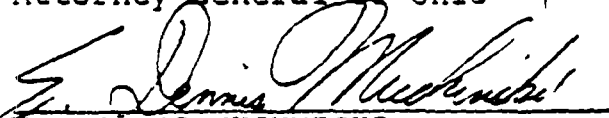
For the Ohio Environmental Protection Agency


For Rohm and Haas Company


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ROHM AND HAAS COMPANY
PHILADELPHIA, PA.

D. L. FELLEY
PRESIDENT

September 3, 1982

Ms. Anne M. Gorsuch
Administrator
U. S. Environmental Protection Agency
401 M Street, S.W.
Washington, DC 20460

Dear Ms. Gorsuch:

May I express my concern with the policy of the United States government not to credit companies for voluntary action in Superfund settlement negotiations. As a result of this policy, the United States has sued Rohm and Haas Company in a case involving a waste handling site owned and operated by Chem-Dyne Corporation.

In 1980 State of Ohio officials informed us of problems at the Chem-Dyne site in Hamilton, Ohio, and asked us to remove our wastes voluntarily. We promptly removed almost 5,000 drums, including some wastes of other companies, at a cost to us of about \$350,000. We also provided the State with drum moving equipment desperately needed at the site.

We made a \$50,000 settlement offer before the lawsuit was filed. The Justice Department rejected our offer and indicated that the United States government will not credit companies for past cleanup activities at a site. Our offer was more than fair considering that Rohm and Haas has already removed its wastes and is only one of over 280 users of the site. Ironically, the EPA and other federal government agencies generated some of the wastes at the site.

September 3, 1982

Our \$50,000 offer, coupled with the \$350,000 already spent, is very generous compared with the average contribution of under \$22,000 accepted from the 112 companies who settled with the government for a combined \$2.4 million.

The government's policy on voluntary action is wrong as a matter of equity. And it is wrong as a matter of public policy. I have instructed our lawyers to defend the case vigorously because the government's policy makes no sense. It serves to discourage the kind of responsible action Rohm and Haas took in Hamilton, Ohio.

Rohm and Haas strongly supported the passage of Superfund. We continue to be committed to working with the government to solve the difficult and complex problems of waste disposal.

I urge you to review and change the government's policy.

Sincerely yours,

D. L. Felley

DLF/cag

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Tinkering with utility rates

The cost of electric power is still headed upward at a fast clip. And the situation will get worse if proponents of various policy changes get their way (p. 44). Utilities are pushing various schemes to force rates up more quickly. And many politicians would like to see industry pay more for power so residential users could pay less.

For industry as a whole, the scariest threat is the possible abandonment of pricing based on the cost of service. Traditionally, large companies have paid a lot less per unit of power than small users pay, reflecting in part the utilities' economies in serving large users. But increasingly, utility commissions have agreed to changes aimed at subsidizing residential and other small users—for example, by freezing the price of the initial "block" of power and allowing compensatory rises in the rates for higher-consumption blocks. That sort of social tinkering can only increase with the trend to elected, rather than appointed, commissioners.

As for the changes the utilities want, the biggest fight right now is over cost of work in progress, or CWIP. Under current rules in most states, a new power plant does not go into a utility's rate base until it is in operation. But there is a growing trend to allow utilities to put CWIP into the rate base and begin to

get a cash return years ahead of plant startup. The result: Industrial and other power consumers pay for power that is not being delivered.

Then there is so-called capital substitution. Historically, an industrial user's utility bill has carried separate demand and energy charges. The demand charge, which covers fixed costs, is based on the maximum number of kilowatts that a utility must provide a company on demand. The energy charge, along with the fuel-adjustment charge, covers variable costs and is based on the number of kilowatt-hours a company uses. Now utilities are trying to shift some of the fixed costs into the variable-cost component. That would be a blow to companies that operate steadily on two or three shifts, and no industry would be hit harder than the chemical business. In effect, such a change penalizes the companies that use their physical assets most efficiently.

Without question, the nation's utilities need to generate more cash if they are to attract investors and keep up with even the slower growth in demand that is now forecast. Helping them do that may well require changes in public policy. The trick is to make sure that those changes don't do more harm than good by sapping industrial profits and throttling industrial growth. □

A bad approach on Superfund

The Environmental Protection Agency, understandably eager to erase any impression that it is dragging its feet on implementing the Superfund law, is vigorously moving to clean up the Chem-Dyne transfer/dump site located in Hamilton, O. (CW, Sept. 8, p. 10). But, on the whole, the federal approach is contrary to the spirit of Superfund.

EPA is using the carrot and stick. The carrot, an invitation for voluntary agreement to pay for the Chem-Dyne cleanup, got a good response. Out of 289 organizations with potential liability there, 109 agreed to pay \$2.4 million, 70% of the total estimated cost.

But the the stick is being wielded indiscriminately. The Justice Dept. is bringing suit against a number of companies, including some—such as Allied, Ciba-Geigy, and Rohm and Haas—that have already spent considerable sums

at the site. In 1980, for example, before Superfund was enacted, Rohm and Haas, at the request of the state of Ohio, spent \$350,000 to remove more than 5,000 drums. Although the company feels it did more than its share, it agreed to pay an additional \$50,000.

According to Justice, that sum does not reflect the amount of waste that the company sent to the site. But it bases that assertion on conditions that existed before Rohm and Haas removed the drums, and refuses to give credit for the \$350,000 that was spent voluntarily.

Moreover, Justice has adamantly refused to give any rationale for its position. Its attitude is a disincentive for voluntary cleanup, one that sure makes EPA's carrot unappetizing. A just as surely, it will set back, rather than advance, Superfund's objective cleaning up hazardous dumps.

9-26-82

(146. 180) A-1

BNA's Daily Reporter System

DAILY REPORT FOR EXECUTIVES

REGULATORY AND
LEGAL DEVELOPMENTSENVIRONMENT: GORSUCH OPTIMISTIC CONGRESS WILL
EXTEND CLEAN AIR ACT DEADLINES TO AVOID SANCTIONS

Environmental Protection Agency Administrator Anne M. Gorsuch said Sept. 21 she continues to be optimistic that Congress will revise the Clean Air Act this year to avoid the consequences of many areas not meeting the Dec. 31, 1982, attainment deadlines.

"I remain sanguine that there will be congressional action this year. I know that's optimistic," she told the Environmental Industry Council, adding, "It's not from lack of knowledge that I speak."

The act has been stalled in the House Energy and Commerce Committee since Aug. 19, with members unable to agree on even an abbreviated bill, and with many industry and congressional representatives predicting that the bill is dead this year (Report No. 180, A-6).

Asked if information from the White House, possibly on a new strategy for the act, is behind her thinking, Gorsuch told BNA that while she has discussed the possibility of a short bill with other Administration officials, her statement is based on her own thinking that Congress ultimately will not allow widespread imposition of sanctions and will not make automakers in 1983 certify all automobiles to meet emission standards at high altitudes in 1984 (Report No. 183, A-1).

However, she told the group, it could take a "long debate" to enact a short bill.

One stumbling block to a short bill is the refusal by Rep. Henry Waxman (D-Calif), who leads the environmental faction of the committee, to agree to Committee Chairman John D. Dingell's (D-Mich) proposal that it include a relaxation of the carbon monoxide standard, according to congressional and industry sources.

Three months ago, Gorsuch also said consequences of missing the deadlines would argue for the likelihood of amendments this year. But she also said then that, because of the small amount of time left in the session and the wide differences between the House and Senate bills, she was not optimistic that there would be a bill.

If the act is not amended this year, the Administration has no plans to change its positions on the act for the debate next year, Gorsuch said. Those positions were announced in August 1981 as 11 basic principles. The Administration's positions have been sound and defensible, she said, including one to relax automobile emission standards for carbon monoxide and nitrogen oxides, which she said was probably the most controversial.

On any changes next year in the way the Administration would try to get its positions enacted, Gorsuch said, "There's always room for improvement. To the extent our procedures have not been fully successful, I'll be the first to admit it, but I won't take the full blame, mind you."

On another topic, Gorsuch commented that as a result of a "miscommunication" between EPA and the Justice Department, the recent Chem-Dyne dumpsite settlement and lawsuit may have left the impression that EPA does not intend to give companies any credit for cleanup before a hazardous waste settlement agreement. EPA intends to give some credit for monies spent by responsible parties for early cleanup efforts to provide incentives to voluntarily clean up hazardous waste sites, she said.

Also, she said it is a "myth" that the nation's environmental policies were well-managed during the Carter Administration. "Former President Carter appeared under the spell of this myth last month when he offered himself as a 'point man' for the nation's environmental movement," she said.

- 0 -

EPA steps up the pace on toxic dumps

Two years ago, amid a firestorm of publicity aimed at the chemical industry, a lame-duck Congress passed the Superfund bill—more formally known as the Comprehensive Environment Response, Compensation and Liability Act—as an attempt to solve the problem of abandoned hazardous waste dumps before the Reagan Administration swept into office. The act placed a levy on chemical feedstocks to provide funds to help clean up the sites. And it gave the Environmental Protection Agency power to use the funds to do the cleaning up, then to sue the companies involved for triple damages.

The public took the act as a sign that a quick fix to the toxic waste problem was imminent. But in actuality, no deadlines for the cleanup were specified. And now disappointment is rampant among environmentalists, some congressmen, and some industry people as well. "Superfund is falling short of the expectations," says Mark McCullough,

executive director of the citizen's advisory council to the Pennsylvania Dept. of Environmental Resources. "The press raised those expectations much too high."

Demand for more. If the public does indeed push for a speedy and massive cleanup of all hazardous waste dumps, it could cost the chemical industry dearly. The tax on feedstocks, according to the act, expires upon the collection of \$1.6 billion or at the end of 1985, whichever comes first. And already environmentalists and some state officials are pressuring Congress to extend the deadline and the dollar amount and even to set up

a separate tax to compensate victims of hazardous waste.

But most of the heat right now is focused on EPA's handling of the \$250 million that has already been collected. In fact, supporters and detractors of EPA's method of administering the fund are forming two camps: one comprised of those who think the cleanup effort is moving too slowly and is snarled in politics; the other of those who say EPA's pace and procedures are about right.

For the most part, congressmen who fought for Superfund in the late 1980s are the most vocally disappointed in the results. James J. Florio (D., N.J.) admits that "funds are starting to flow," but he complains that "a garage in Baltimore" is the only site that has been cleaned up. Senator Bill Bradley (D., N.J.), adds that "further delays will only breed more public fear and anger."

Private-sector reaction, meanwhile, is split practically down the middle. Waste haulers, who continue to resist most of

EPA's attempts to get them to pay into the cleanup kitty, say the agency is fumbling in its cleanup efforts. Yet chemical industry executives have, for the most part, placed themselves in EPA's court. "Considering the magnitude of the task, EPA has to get high marks," insists Will D. Carpenter, director of Monsanto's corporate environmental policy staff.

Too much for too little. EPA has clearly faced an uphill battle in getting much cooperation, let alone fiscal satisfaction, from dumpers of chemical waste. The agency has tried to work out settlements with waste generators and site operators. But too often those companies have coughed up only tiny sums.

For example, in New Jersey, which has some of the worst hazardous waste sites in the nation, settlements haven't even come close to meeting cleanup costs. At the Bridgeport Rental and Oil Services site in Logan Township, for instance, there is a lagoon that holds 50 million gal of waste oil and will cost millions of dollars to clean up. As a result of a June 29 settlement, however, property owners Dominick and Elia Borrelli will pay just \$25,000, plus 10% of whatever gains they realize from the eventual sale of the land and buildings there. EPA environmental scientist Larry Weiner says the settlement was the best the agency could reach because it lacked concrete evidence linking the Borrellis to the waste problem.

At the LiPari Landfill in Pitman, N.J., which holds some 3 million gal of chemicals and waste oil, EPA in September committed \$1.9 million to cap the

landfill and construct a wall to prevent leakage. In August, the site managers agreed to pay \$75,000 for a fence around the property. The fence actually cost \$100,000. "We didn't get a lot out of them," EP. Weiner concedes, but notes that the agency currently holding negotiations with companies suspected of contributing waste at the site.

More bucks. Des such apparent setbacks EPA Administrator M. Gorsuch insists the agency has set an exemplary performance in tackling Superfund. "I've never seen a federal program get underway so fast," Go

The biggest Superfund sites

EPA region	State	Site	Site work	Millions of dollars Money spent	Funds allocated
1	N.H.	Keefe	1,2,3,4	\$18	\$2.2
1	N.H.	Environmental	1,2,3,4	4.4	4.4
1	R.I.	Picillo Farm	1,2,3,4	4.9	5.4
2	N.J.	King-Bue	1,2,3,4	3.1	3.2
2	N.J.	LiPari	1,2,3,4	1.9	1.9
2	N.J.	Spence Farm	1,2,3,4	2.5	2.5
2	N.Y.	Love Canal	1,2,3,4	8.3	8.3
2	N.Y.	PAS Oswego	1,2,3,4	3.5	3.5
3	Pa.	Bruin Lagoon	3,4	3.7	3.7
3	Pa.	High Electric	1,2,3,4	1.8	1.8
4	Fla.	Biscayne Aquifer	1,2,4	2.0	2.3
4	N.C.	Roadside PCB wastes	3,4	2.5	4.0
4	S.C.	Bluff Road	1,2,3,4	1.2	4.2
5	Mich.	Berlin & Ferro	1,2,3,4	1.0	1.0
5	Ohio	Chem-Dyne	1,2,4	3.8	3.8

*1. Site investigation; 2. feasibility study; 3. design; 4. site construction.



Carpenter: Extending Superfund would be "incorrect."

says. As for her congressional critics, she shrugs and notes that "whenever there is a big pot of money, there will be great congressional pressure to spend it."

EPA has, in fact, loosened the purse strings a bit of late. On Oct. 4, EPA awarded contracts potentially worth up to \$200 million over the next four years for investigation and feasibility studies at hazardous waste sites around the country. It has already spent \$70 million on long-term cleanups at 62 sites and has approved the spending of an additional \$80.4 million. Some \$26.7 million is going for emergency cleanup work at 35 other sites.

Moreover, the agency has signed cooperative agreements with 34 local governments in 18 states for remedial work to correct imminent hazards. Another 19 such pacts are awaiting approval.

Nonetheless, EPA has barely dipped into the Superfund, spending only \$82 million of the \$250 million it has collected. One reason is that EPA's task in getting Superfund up and running has involved much more than simply allocating funds. For one thing, it had to locate the sites that need priority treatment. The agency's initial list of 115 sites, which included the 62 sites involved in current long-term cleanup efforts, was expanded to 178 sites on the Interim Priority List that it published earlier this year. And EPA has promised

to publish by Jan. 1 a final list of 400 sites destined for Superfund cleanup.

But EPA's thorniest problem has been private-sector resistance to accepting responsibility for hazardous waste dumps. The agency is still wrestling with the question of whom, specifically, should be charged with cleaning up hazardous chemicals: all contributors to a dump site or just those whose specific chemicals are causing hazards. Some sites have 400 or more contributors, and EPA has been working with state governments to identify all of the companies involved. The agency has had its hands full even getting such huge numbers of defendants together to talk about sites. At the Seymour hazardous waste site in Indiana, where a \$7.7 million settlement with the 24 largest waste contributors was announced on Oct. 27, EPA identified 430 defendants and needed four

meetings, with roughly 100 companies each, just to organize negotiations.

Stonewall. EPA's method of notifying allegedly culpable companies has been a particularly sore point with its private-sector antagonists. Their legal advisors

Under the Superfund act, EPA has the power to force waste dumpers to clean up

have come down especially hard on EPA's use of "prelitigation notice letters" sent to "persons allegedly liable for correction of problem sites." The agency has sent 1,600 such letters to waste generators, haulers and dumpers regarding their potential liability for cleanup at 100 sites. But critics charge that the letters were not strongly worded, and indeed, EPA received few responses. Jeffrey R. Diver, senior environmental attorney for Waste Management, the nation's largest waste disposal company, says that the letters fail to advise the companies of what they have done to incur liability. Yet he says that companies asking for more information get "stonewalled."

Monsanto, for example, is one of 250 generators identified by EPA as contributing to the Chem-Dyne waste site in Hamilton, O. (p. 10). Yet it has refused to settle until the agency documented that involvement. "We got the data in

the last month or so," says Carpenter, "and now we probably will settle."

In the meantime, hundreds of other companies are dangling in the wind. "It is very frustrating trying to figure out how EPA got you involved with a specific site," says James A. Rogers, an attorney with the Washington law firm Skadden, Arps, Slate, Meagher & Flom and the lawyer for 10 companies allegedly connected to the Seymour site. Yet once a notice letter is received, he says, "EPA gives you just 72 hours to reply." In the courts, Rita Lavelle, EPA's assistant administrator for solid waste and emergency response, concedes that at first notice letters "were not as specific as they could have been." But, says Lavelle, the agency is working to solve this and other enforcement problems.

Unfortunately for the agency, its entire enforcement system has been under a shroud of confusion since September, when two separate courts delivered conflicting opinions on EPA's power to force alleged dumpsite contributors to pay for site work. In the first case, *U.S. vs. Wade*, the U.S. District Court for the Eastern District of Pennsylvania said on Sept. 7 that:

- EPA could not force "nonnegligent" offsite generators—those companies no longer dumping waste at a site—to pay for site work, even though they may have ultimate liability for damages caused by chemicals they had previously dumped at the site.

- EPA could not make a notice letter serve as an injunction to force a company to help clean up a site.

The U.S. Court of Appeals for the Third Circuit in Philadelphia, however, disagreed with half that ruling. In *U.S. vs. Price*, the court said that EPA's notice letters could indeed have the force of an injunction. But the court failed to address the issue of liability for nonnegligent offsite generators of waste.

In the meantime, companies that are willing to pay a fair share of cleanup costs complain that they are being saddled with far too high a bill. In 1980, before Superfund was passed, Rohm & Haas began a \$350,000 cleanup program at the Chem-Dyne site. Now the company is being pressed for more.

"We felt we had done a good job," says Ellen S. Friedell, senior counsel for Rohm & Haas. "But the federal government is now saying that when they consider a settlement offer, they do not consider previous voluntary cleanup efforts." Friedell says Rohm & Haas offered EPA an additional \$50,000 but was turned down. Although most of the waste generators at Chem-Dyne have

settled with EPA, Rohm & Haas is still in negotiations. "It appears that EPA is aware of our concerns, but we are not sure how it will turn out," says Freidell.

At the Seymour site in Indiana, there is a brouhaha over an alleged disparity in EPA's handling of large and small contributors to the site. Attorney Rogers wrote EPA Administrator Gorsuch on Oct. 1 to protest the government's entering into a settlement that Rogers says would allow the largest contributors to contract with a consulting firm to do the surface cleanup at the site in exchange for immunity from any further responsibility for cleanup costs. **Unfair burden.** The result of that settlement, Rogers says, is that the large contributors are paying only \$7.7 million of an estimated total cleanup tab of \$30 million. Therefore, he complained in his letter, "it appears that the small generators, who probably had far less opportunity to know [about how the cleanup was] being conducted at the Seymour site, will each pay—on the basis of the alleged percentages of waste contributed to that site—twice what the larger generators will pay on a percentage ba-

sis." EPA refuses to discuss the Seymour situation, other than to confirm that a settlement was reached.

The agency is by no means unwilling to turn to the courts as part of its solution. While EPA has not referred as many enforcement cases to Justice this

Disappointment is rampant among those who expected a quick fix for toxic waste

year as it did in 1981, its pace seems to be quickening. So far in 1982, EPA has referred 10 cases to the Justice Dept. for civil action, compared with 12 in 1981. Five of those referrals have come in recent weeks. As for criminal action, the agency has referred 4 this year, compared with 9 in 1981. Notes Robert M. Perry, EPA's associate administrator for legal and enforcement counsel, "We're getting more and more enforcement numbers every day; we have something to show."

That track record does not satisfy hardliners, though, many of whom complain that EPA is paying more attention

to politics than to hazardous waste problems. Florio, for one, worries that recent spurts in expenditures are "prompted by the upcoming election." And Kristine L. Hail, attorney with the Environmental Defense Fund, says flatly that "lately there has been some effort to get things moving, but mostly because of the election pressures."

Politics. Of course, EPA's motivation in awarding contracts is difficult to prove. For example, on Oct. 4, EPA awarded to NUS a two-year, \$39 million contract for screening 3,600 toxic dumps in its four Eastern regions, and to draw up feasibility plans for disposing of the wastes. The contract does not call for any actual cleaning up, yet Paul Goldstein, NUS vice-president, already predicts that it will swell to nearly \$75 million before it runs out. EPA critics point to such contracts as part of the agency's hurry to make a showing before the election; the agency, of course, points to them as sign that it is indeed implementing Superfund.

Some of the most vehement criticism is coming from the waste disposal specialists. Randy Mott, spokesman for t-

How they settled Chem-Dyne

At 5 p.m. on Aug. 17, David B. Graham, deputy general counsel for Velsicol Chemical, called the Environmental Protection Agency with a precedent-setting piece of news: Most of the companies involved in the tedious negotiations over who was responsible for cleaning up the Chem-Dyne dump site in Hamilton, O., (*CW*, Sept. 8, p. 10) had come to agreement on how to divvy up costs.

Since then, EPA has pointed to the settlement as proof that its negotiation and enforcement procedures for administering the Superfund, despite constant criticism, do indeed work. Although EPA is still involved in negotiations with some Chem-Dyne waste generators who were not party to the agreement, the agency is "very happy with this settlement," says Michael A. Brown, acting EPA enforcement counsel. "It was the first of its kind."

Cheaper than court. Talks with companies involved in the Chem-Dyne negotiations indicate that the process toward settling was by no means painless. They complain about "drop-dead deadlines" imposed by EPA. They say that to this day EPA has not pro-

vided adequate information about individual companies' involvement at the sites—information deemed vital for an equitable assessment of costs. And several companies are still rankled that EPA refused to consider in its cost assessments the cleanup expenditures they had made before Superfund was created.

Still, Graham concedes that it was "better and cheaper than going to court." Thus, the chronology of the Chem-Dyne settlement could well serve as a blueprint for other companies ready to enter negotiations.

EPA did not send out its "prelitigation notice letters"—missives telling companies that they are liable for cleanup costs at a dump site—until this past April. By that time several of the nearly 300 companies involved with the site had been working with state environmental authorities for more than a year. Velsicol, for example, had spent \$170,000 to remove its wastes from the site. Then in June 1981 the company made a monetary offer to the state "to resolve our involvement with the site and to eliminate future liability," Graham recalls.

The state refused, and the arduous task of negotiations with EPA began.

On Apr. 26, barely three weeks after the notice letters, EPA met with the 46 largest contributors to the site and urged them to form a committee to simplify negotiations over who should pay how much. "Just 10% of the parties involved contributed but 70% of the waste at the site," Brown explains, so the feeling was that would be unnecessarily complicated. The group decided to include all 300 waste generators in the negotiations. Moreover, EPA and the companies decided to keep the discussions focused on cleaning surface waste and funding a subsurface study. The group decided to limit negotiations over any cleanup groundwater for the future.

Goals. EPA was very clear about what it wanted in that initial stage. By May 1 it wanted a commitment from generators for \$2.7 million for subsurface cleanup and by June 18 a commitment of \$700,000 for the subsurface study. The agency left it to the companies to set the priorities in cleaning and to decide how the costs should be allocated. "One of our first decisions," says EPA's Brown, "was to refrain from comparing the relative toxicity of, say, TCE [trichloroethylene] and PCBs [polychlorinated biphenyls]."

Hazardous Waste Treatment Council, a group of waste disposal and treatment companies, grouches that EPA is giving in to pressure from congressmen who want cleanup funds allocated in their areas in hopes of getting votes. "Every hazardous waste site has now become a political issue," he complains.

A few friends. Perhaps the only kudos EPA has been getting of late have come from the chemical industry. One achievement, says Daniel McGrade, manager for environmental control at Stauffer Chemical and chairman of the Chemical Manufacturers Assn.'s Superfund group, "is that the scope of the [hazardous waste] problem is better-defined than two years ago."

Indeed, when Superfund was first conceived, recalls Monsanto's Carpenter, a study done for Representative Bob Eckhart (D., Tex.) estimated that some 50,000 abandoned hazardous waste sites would have to be handled. "Since then, the estimated number of sites has steadily decreased," he says, noting that many that were included in the original estimate turned out to be far less of a problem than originally

As far as the companies were concerned, those June deadlines were the first of what Graham refers to as a series of "drop-dead dates." He says he had barely finished setting up a small group of chemical company attorneys to act as the negotiating committee when the deadlines hit. "We had one meeting to form a steering committee and had scheduled another," he says, adding that the committee had not even figured out how to raise its own working capital.

Eventually, the committee assessed the 40 largest contributors to the site \$1,000 each for an immediate study of site conditions and \$500 each for the committee's administrative costs. The rest of the companies were assessed \$50 to cover correspondence costs.

Getting them to cough up the \$3.4 million that EPA wanted was a different matter. "An assessment of \$50,000 for each of the largest contributors and about \$5,000 for each of the smallest contributors would have raised the \$3.4 million demanded by EPA," says Graham. "But a lot of companies were not participating at this point."

The June deadlines slipped by as the companies steamed toward an agreement. Finally, on July 16, Graham, with Robert St. Aubin, FMC's attorney, made a counteroffer of \$1.5 mil-

lion. EPA offers no official estimate of the total number of abandoned hazardous waste sites across the nation, but privately agency officials say the number is now in the order of 30,000.

Still, chemical company executives remain worried about EPA's methods of

The fear now is that funds will run out, raising cries to extend the feedstock levy indefinitely

negotiating cleanup settlements, even for that pared-down number of sites. "We fear that in cases where many parties are involved, EPA has not yet developed adequate procedures to promote good-faith settlements," says McGrade.

It is almost impossible to get details of on-going negotiations. But there is a general feeling among many in industry that EPA is suddenly coming on too fast and too hard-nosed. Charges Mott of the Hazardous Waste Treatment Council: "EPA is putting alleged violators in an unreasonable position on negotiations of 'take it or leave it.'" He insists that negotiations at such sites as Sey-

lion. EPA rejected it and threatened to sue for the full amount.

EPA was banking that its authority to take recalcitrant dumpers to court to get 100% of the cleanup money would be an effective sword over the negotiators' heads. The agency "proceeds on a dual track, pursuing a settlement with the generators and working with contractors to get a firm price for the actual cleanup," explains Brown. "There is an incentive for firms to get in on a settlement before court costs and EPA administrative costs are added on."

At the table. After EPA refused the \$1.5 million counteroffer, Graham began a "dialing for dollars" campaign, calling the companies involved at Chem-Dyne to persuade them to up the ante. By July 23 he had verbal commitments from 112 companies to pay a total of \$2.5 million—\$1 million more than the first offer but still shy of the \$3.4 million EPA sought for surface cleanup and the subsurface study. Graham attributes the higher offer to "an assessment by the companies of what it was worth for them to settle—what it was worth not to be sued by EPA, not to pay outside counsel fees, and to develop better relations with the government."

EPA's initial reaction was negative,

mour in Indiana and Chem-Dyne in Ohio fall into that category.

EPA, for its part, insists that the ultimatum approach is built into its dual-track method of enforcing Superfund. This system allows the agency to begin cleaning up the very worst sites while litigation is pursued or while the responsible parties engage in negotiations with EPA. "We're not going to be able to have a gentlemanly discussion and take a lot of time," says Michael Brown, EPA's deputy general counsel and acting enforcement counsel, "because of the growing size of the Superfund priority list."

Ironically, the same environmentalists that complain of EPA's snail's pace in cleaning up the dumps simultaneously grouse that the agency acts too precipitously in its negotiations. They say that local groups most interested in getting a site cleaned up are regularly frozen out of the talks. "EPA to date has allowed for only token involvement of local citizens," says Hall of the Environ-



Graham: cheaper than going to court.

but on July 30 the agency agreed to the \$2.5 million offer. Graham's committee then embarked on intense negotiations to get the companies to agree to the details of the final contract. The upshot was the Aug. 17 phone call that brought the process to an end.

Looking back, Brown says that the Chem-Dyne settlement worked against all possible odds. "There was no precedent for negotiating with Chem-Dyne's almost 300 waste generator and there was no time to deal individually with the companies." Although he acknowledges that many of the companies felt unfairly squeezed, says "it was not a deliberate squeeze. It's just the way Superfund works.

mental Defense Fund. "Requests for data have often been denied, and when information has been provided, there was insufficient time to review the documents." To correct that problem, Gorsuch has asked public interest groups to prepare public participation guidelines for the Superfund program.

The states' burden. But perhaps the greatest irony in the controversy over EPA's implementation of the Superfund Act revolves around money. While congressmen and environmentalists complain that EPA is not spending enough of the available funds, state and local officials are already worrying that Superfund money—and more significantly, state money—will run out before the hazardous waste problem is jicked.

As the Superfund law reads, states must put up 10% of the cost of a clean-up, with the Superfund providing the other 90%. The states wind up bearing the brunt of investigation costs involved in figuring out whether a particular site warrants Superfund action.

"What's lost to the state is all the money spent on investigating sites that are not found to come under Superfund," says Robert L. Orwan, chief of the compliance section of the Pennsylvania Bureau of Solid Waste Management. Further, he says, the state has to commit itself to 10% of the cost of a Superfund project before the final cost is known. This, he says, "makes it difficult to handle the 10% commitment in a fiscally responsible manner."

The states are uncomfortable relying on EPA—or on EPA's ability to get financial satisfaction from the private sector—for the major share of the funding. "Simply getting on [EPA's] list doesn't guarantee that there will be money for cleanup," warns Pennsylvania's McCullough. Others fear that, despite EPA's promise to have a fairly comprehensive list issued before the year is out, the full list will not be developed in time. Orwan, for one, is concerned that "Superfund money will run out before we can identify the sites needing attention."

Not enough. Indiana officials are also worried. Karen Evans, Superfund coordinator on the state health board, says the state has "14 sites out of 100 considered that stand an excellent chance of making EPA's new 400 list." She adds: "How many others there might be is difficult to say because of a lack of research funds at the state level."

Not surprisingly, such concerns are providing the impetus for state environmental authorities to push Washington to extend the feedstock fee, perhaps in-

definitely. "We've raised this point before congressional committees," says Robert Kuykendall, in charge of land pollution control for the Illinois EPA. He notes that EPA projects that it will have 170 to 200 sites cleaned up under Superfund by the end of fiscal 1984. But he says, "I don't think that the public is going to be particularly sympathetic to having only 170 out of 400 [top priority] sites cleaned up."

Kuykendall has plenty of company. Anthony Cortese, commissioner of Massachusetts' Environmental Quality Engineering Dept., estimates that federal money will meet only 5% of the nation's hazardous dump problems. He insists without further federal funding,



Friedell: EPA is overbidding Acorn & Haas.

will be no cleanup of most of the sites. The state's revenue-generating systems cannot cope with the task."

The chemical industry, of course, hopes that Congress will not make a precipitous decision to extend the tax until all the facts are in. "A decision to Montinue Superfund now," insists Carpenter, "would be premature and probably incorrect."

An extension of Superfund may not be industry's biggest headache in the next Congress. Environmentalists are already pushing for yet another tax on the chemical industry, the proceeds of which would provide compensation for victims of hazardous waste. The Chemical Manufacturers Assn. has already called a special meeting of its executive committee to discuss Superfund II, as the projected bill has been dubbed.

This could make the original look like peanuts," says one chemical industry source. "It's a little like the 'black lung' issue. We're talking in the \$100 billion range." □

POLYMER SCIENCE AND ENGINEERING COURSE. Sponsored by the Plastics Institute of America. Adams Mark Hotel, Houston, Tex., Nov. 30-Dec. 1. (Mary Ann La Verghetta, PIA, Stevens Institute of Technology, Hoboken, N.J. 07030; 201 420-5550).

SOFTWARE REQUIREMENTS COURSE. Offers methodologies for the performance of software requirements, specification and test phases of micro- and minicomputer system development. Sponsored by Integrated Computer Systems. Boston, Nov. 30-Dec. 3. (Ruth Dordick, Integrated Computer Systems, 3304 Pico Blvd., P. O. Box 5339, Santa Monica, Calif. 90405; 213 450-2060)

NACD MEETING. Theme: dollars in your pocket. Sponsored by the National Assn. of Chemical Distributors. Don Cesar Hotel, St. Petersburg Beach, Fla., Nov. 30-Dec. 3. (NACD, 1406 3rd National Bldg., Dayton, O. 45402; 513 223-8486)

INVENTORY SEMINAR. Topic: how to plan and control inventories. Sponsored by the Center for Inventory Management. Harley Hotel, Atlanta, Ga., Dec. 1. (Brenda Jones, CIM, 941 Carlisle Rd., Stone Mountain, Ga. 30083; 404 296-6020)

COLORIMETRY SEMINAR. Discusses fundamentals of colorimetry and how to service the D25-2 colorimeter. Sponsored by Hunterlab. Hunterlab Corporate Headquarters, Reston, Va., Dec. 1. (Hunterlab, 11495 Sunset Hills Rd., Reston, Va. 22090; 703 471-6870)

COSMETIC CHEMISTRY MEETING. Covers lipids, odor, structuring of cosmetics, methodology and evaluation. Sponsored by the Society of Cosmetic Chemists. Sheraton Centre Hotel, New York City, Dec. 2-3. (SCC, Suite 1701, 1395 Broadway, New York, N. Y. 10023; 212 374-0600)

DECORATIVE PRECIOUS METALS PLATING SYMPOSIUM. Sponsored by the American Electroplaters' Society. Biltmore Plaza, Providence, R. I., Dec. 1-2. (Mary Lou Dowdell, AES, 1201 Louisiana Ave., Winter Park, Fla. 32789; 305 647-1197)

SYNTHETIC TEXTILE FIBERS COURSE. Sponsored by the Plastics Institute of America. University of Tennessee. Knoxville, Tenn., Dec. 7-9. (Mary Ann La Verghetta, PIA, Stevens Institute of Technology, Hoboken, N. J. 07030; 201 420-5550) □

LEGAL TIMES - MONDAY, JANUARY 24, 1983

Voluntary Cleanups Credited by EPA In Settlement Policy

**By W. John Moore
Legal Times Staff**

The Environmental Protection Agency, reversing its current settlement policy, will allow hazardous waste generators to deduct some of the cost of voluntary remedial actions from their share of the liability for cleaning up hazardous waste sites.

Details of the new policy, including how much a generator should be credited for voluntary cleanup efforts, must be worked out by EPA lawyers, the agency's hazardous waste program office, and the Justice Department. "The policy is excellent, but how we accomplish it remains unclear," said an EPA attorney.

The decision to credit generators for voluntary cleanup efforts represents a

Continued on page 8

EPA Settlement Policy Credits Voluntary Cleanups

Continued from page 1

major departure from the government's existing settlement procedure, which often has rankled potential defendants. Under current policy, EPA and Justice established total cleanup costs and then determined on a volumetric basis how much each company should pay. No credit was given to prior cleanup efforts, although the government envisioned that generators would decide among themselves what credit would be allowed.

"We are committed to doing nothing to discourage voluntary action at these sites, and we realize that some formal credit has to be given for those cleanup efforts," Michael A. Brown, enforcement counsel at EPA, said in an interview. "We need some sort of mechanism so that anything done at the site is taken into consideration when the government is taking a final tally at the site," he said, adding that it was still too early to tell how this policy will be implemented.

EPA's 'Light of Reason'

EPA's policy shift was hailed by environmental lawyers, who maintained that the government's earlier policy

provided a powerful disincentive for voluntary cleanup of hazardous waste sites. "It appears to be the first glimmering of the light of reason from EPA," said Phocion S. Park, environmental counsel for the Monsanto Company in St. Louis.

How EPA would ensure that the credit would be given to companies in hazardous waste settlements remains unclear. Some EPA attorneys are concerned that the government could be forced to seek more than one settlement decree to guarantee that a waste generator who has cleaned up part of a waste site receives credit. The government usually prefers to make single settlement, with the generators forced to pay a bottom-line sum for cleanup—regardless of how these generators then divide the costs among themselves, said an industry lawyer.

EPA's Brown acknowledged this tension between the agency's desire to force an entire class of generators to settle a case and to encourage individual companies to clean up hazardous waste sites voluntarily. "If companies aren't receiving credit within the generator groups for cleanup actions taken in advance of settlement talks, that's totally against our interest because it destroys any interest in voluntary ac-

tion which is needed at those sites," said Brown.

Fairness Questioned

Environmental lawyers viewed the EPA plan as the first indication that the government would listen to individual generator complaints about fairness. In the Chem-Dyne settlement last August, several attorneys noted that generators who had removed drums of waste were not rewarded either by the government or other generators for efforts that actually reduced the total cost of cleanup. Some defendants did not settle because of their resentment over what they perceived as government intransigence in this area, said the environmental counsel of a company involved in the Chem-Dyne settlement. "There has been a disincentive created by Chem-Dyne to the spending of many ahead of time to clean up hazardous waste sites," added the lawyer.

"This is a very important step in the right direction," emphasized David B. Graham, deputy general counsel of Velsicol Chemical Corp., a subsidiary of Northwest Industries, Inc. in Chicago. "If we have a situation where there is not a disincentive to spend money ahead of time, it would benefit the settlement process and get more sites cleaned up," Graham added. With a major source of disagreement between the generating companies thus resolved, the companies will become more eager to settle, predicted Graham. This policy "will keep companies together in their pursuit for a settlement," he said.

The policy also is expected to spur cleanup activity by some companies in advance of agreements with EPA and Justice, predicted Randy M. Mott, of D.C. Zuckert, Scout, Rasenberger & Delaney. "I think it gives more flexibility to the whole process, and companies will be more able to sell environmental cleanup to their top brass," added Ridgway M. Hall Jr. of D.C.'s Crowell & Moring.

The new policy also may encourage some hazardous waste generators upset with earlier settlements to try again. Barry J. Trilling of D.C.'s Trilling & Kennedy noted that large companies often have been reluctant to clean up a second site after receiving no credit for doing so in a previous instance. "Some generators were really unhappy with the government's attitude on Superfund enforcement. They anticipated getting the credit, and found themselves stuck with the bill that didn't take into account what they already had accomplished," noted Trilling.

Other lawyers believe that once in court, the waste generators could press a strong legal argument for receiving additional credit. "It is pretty clear that in a judicial proceeding, material removed from a site should be considered part of the parties' involvement at the site," said Monsanto's Park.

Agreeing that EPA's policy probably encouraged voluntary cleanup, Anthony Z. Roisman, head of the Trial Lawyers for Public Justice, warned that the change should not get in the way of broad settlements. ■

Jan 3 1985



FAMILY SERVICE OF BUTLER COUNTY

111 Buckeye Street • Hamilton, Ohio 45011 • Phone 868-3245

IRMA SANDAGE,
Executive Director

July 12, 1985

U.S. Department of Justice
Assistant Attorney General
Land & Natural Resources Division
10th & Pennsylvania, NW
Washington, DC 20530

RE: U.S. Chem-Dyne et al.,
D.J. Ref 90-7-1-43

Dear Sir:

As an agency serving residents of Hamilton, Ohio we are deeply concerned over the things that are not going to happen in the clean-up of the Chem-Dyne site. We had understood that soil would be removed from the site -- not so, it appears. It is only being removed in a few isolated spots around the site and those only to a depth of one foot! MOST OF THE CONTAMINATED SOIL WILL BE LEFT THERE! Neither the "cap" or the trench will contain the contaminants. We are also very concerned about the "acceptable level" of contamination of 100 parts per billion. This leaves nearly 98% more contamination than should be allowed in the case of some of the contaminants.

We sincerely urge that action be taken to ensure adequate soil and groundwater clean-up at the site. Our very future and the well being of generations to come depend on proper action being taken now!

Sincerely,

Patricia Moloney
Staff Liaison
Public Issues & Advocacy Committee

cc: Donald Bruce, U.S. Environmental Protection Agency
Michael Fox, Ohio State Representative
Thomas Kindness, U.S. Representative
Cale Logsdon, Donald Dixon & Ed Shelton; Butler County Commissioners
William Karwisch, Commissioner of Health, City of Hamilton, Ohio 10 1985

9-7-1-43
DEPARTMENT OF JUSTICE
10 1985

PM/cs

Jaxson B



HAMILTON APPALACHIAN PEOPLE'S SERVICE ORGANIZATION
522 BUTLER STREET • HAMILTON, OHIO 45011
(513) 868-0950

July 11, 1985

RECEIVED

JUL 29 1985

U.S. Dept. of Justice
Assistant Attorney General
Land and Natural Resources Division
10th and Pennsylvania N.W.
Washington, D.C. 20530
*(U.S. v. Chem-Dyne et al., D.J.
Ref 90-7-1-43).

U.S. EPA. REGION V
WASTE MANAGEMENT DIVISION
HAZARDOUS WASTE ENFORCEMENT BRANCH

Dear Sir:

I would like to submit this letter, on behalf of residents of Hamilton, Ohio, as official comment on the recent settlement--U.S. v. Chem-Dyne et al., D.J. Ref 90-7-1-43--presided by Chief Judge Carl B. Rubin. We have a number of outstanding concerns to which we would like to draw your attention.

We are distressed about the level of contamination which will remain in our groundwater after extraction and treatment. The acceptable level of contamination has been set at 100 parts per billion. For quite a number of chemicals, the acceptable level across the nation has only been two to three parts per billion. Yet, here in Hamilton, we will be accepting a level (98% higher) which may prove to be quite dangerous to the community.

After this marginal level of cleanup, the water is to be either reinjected back into our aquifer or dumped into the Ford Canal. We find this methodology to be unacceptable. Dayton, Cincinnati and other communities are all dumping into the same waterways. The Canal and River cannot be expected to effectively dilute all of the toxins barraging its channels. In regard to reinjection, the problem is further exacerbated by the fact that the cap which will be placed on the site has no sides or bottom as a part of its structure. Therefore, the reinjected groundwater will freely move horizontally away from the site. The claim is that this will serve as a means for further dilution of the level of contamination. However, the acceptable standard at the outlining monitoring stations will be 80 parts per billion--a still extremely dangerous level of contamination.

Finally, in regard to groundwater monitoring and treatment, the U.S. EPA has declared that it will test for metal toxicity in the water, but the "Remedial Action Plan" does not outline a treatment method.

90-7-1-43

DEPARTMENT OF JUSTICE	R E C O R D
JUL 29 1985	
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POLLUTION/ENFORCEMENT	



dology to impact on the problem should one be found. It has been our experience that it takes approximately one year for the U.S. EPA to develop an appropriate treatment methodology before it is ready for implementation. The complexity of this process would be further compounded by the number of generators who would necessarily be involved in the negotiating process. We believe that the methodology for the treatment of metal toxicity in our groundwater should be outlined at the onset of the sub-surface cleanup endeavor (i.e., in the "Remedial Action Plan").

In regard to other areas of concern:

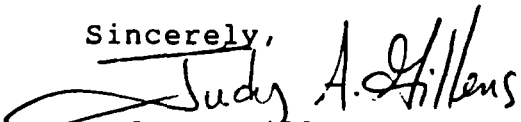
We believe it is unacceptable for a majority of the contaminated soil to be left on location. The settlement proposes off-site disposal of only 1% (approx.) of the total volume of contaminated soil found at Chem-Dyne. While allowing for the fact that all of the soil cannot be removed, an excavation of only "one percent" seems at best insignificant (if it has any merit at all). We believe that a majority of the contaminated soil should be removed from the site; especially since there is no provision for adequate containment of the contamination.

We further believe that a clause should be included in the current cleanup proposals which specifically stipulates that the generators will be held responsible for cleanup of the contaminated sediment in the Ford Canal once the appropriate technology has been developed. At this time, a "no action" plan has been proposed in regard to this issue. This is unacceptable to the residents of this community.

Finally, it has been confirmed that the level of PCB contamination found in Ford Canal fish is significantly higher than health standards set by the Food and Drug Administration. However, the settlement does not require the generators to address this problem. We believe that the justification for this conclusion is unfounded and that the generators must be held responsible for the damage our aquatic life has suffered.

Thank you for the opportunity to share our concerns in regard to this settlement. We will be awaiting news that our concerns have in fact been addressed. We believe it is crucial for this cleanup to be an exemplary effort as it has repeatedly been cited as one which will set a precedent for the cleanup of hundreds of other sites throughout the nation in the future.

Sincerely,



Judy A. Gillens
Executive Director

cc: U.S. EPA
Ohio EPA
Rep. Thomas N. Kindness
Senator John H. Glenn
Senator Howard Metzenbaum
Senator Donald E. Lukens
Rep. Michael A. Fox

Duplicate

July 11, 1985

RECEIVED

JUL 17 1985

U.S. DEPARTMENT OF JUSTICE
HONORABLE ATTORNEY GENERAL
HARRISON WASTE TREATMENT FACILITY

Re; Chem-Dyne clean-up
U.S. Versus Chem-Dyne et-al
Ref 90-7-1-43

Assistant Attorney General
U.S. Department of Justice
10th & Pennsylvania N.W.
Washington, D.C..

Dear Sir:

May I also voice my disapproval, along with many concerned citizens of Hamilton, Ohio, of the proposed and long over-due clean-up of the toxic materials at the Chem-Dyne site.

I know that money has been allocated for capping and trenching, but feel that more adequate plans should be made for better soil and ground water clean-up for this unacceptable mess.

Yours truly,

Evelyn Hammons

Evelyn Hammons
312 Lockwood Avenue
Hamilton, Ohio 45011

cc:
Mr. Donald Bruce, EPA
Judy Gillens, Hapso

Wm. Palmer Taylor
416 Ross Ave.
Hamilton, Ohio 45013

July 7, 1985

Subject: U.S. vs Chem-Dyne et al D.J. Ref.90-7-1-43

U.S. Department of Justice,
Assistant Attorney General,
Land & Water Resources Division,
10th & Pennsylvania Ave., NW,
Washington, D.C. 20530

The following comments relate to a few technical details of the Remedial Action Plan for the Chem-Dyne settlement. They are not intended as a criticism of the Consent Decree, which I consider deserving of high praise.

The Remedial Action Plan (of April, 1985) calls for pumping 550 gallons per minute of polluted water from the Chem-Dyne area, running it through an air-stripping process, discharging 350 gpm to the Miami River, and re-injecting 200gpm. I fear that we shall find the air-stripping and re-injection more trouble than they are worth; simply percolating the water through activated carbon and dumping it into the river may well be simpler, better, and no more expensive. In any case, I think that we should be prepared to find that

1) the large amounts of calcium and magnesium bicarbonates, and the appreciable quantities of iron and manganese, react to air stripping by precipitating calcium and magnesium carbonate, plus iron and manganese oxides - perhaps as coatings on the pipes, pumps, and tower packing; perhaps as colloidal suspensions which will plug the injection wells.

2) the stripping tower will, in hot weather, develop a lush growth of algae, fungi, bacteria, etc., which will reduce the flow and give off odors;

3) the pollutants include solvents for polypropylene which will, on lengthy exposure, cause the tower packing to swell, soften and sinter;

4) the water which is re-injected will do little good. It will simply flow from the injection well to the nearest extraction well through the most permeable formation - which will already have been scoured clean by incoming fresh water from outside the area.

I hope I'm wrong. Sincerely, *Wm Palmer Taylor*
Wm Palmer Taylor

July 5, 1985

Duplicate

Rev. Elizabeth J. Brown
Ninth Street United Methodist Church
907 Sycamore Street
Hamilton, Ohio 45011

U.S. Dept. of Justice
Assistant Attorney General
Land and Natural Resources Division
10th & Pennsylvania N.W.
Washington, D.C. 20530
* (U.S. v. Chem-Dyne et al., D.J.
Ref 90-7-1-43)

7-5-85
U.S. EPA REGION V
WASTE MANAGEMENT DIVISION
HAZARDOUS WASTE ENFORCEMENT BRANCH
JUL 10 1985
RECEIVED

Assistant Attorney General:

This letter is an expression of my personal concerns and needs for better soil and groundwater clean-up plans at Chem-Dyne. My anxiety has been fostered through a notification sent out by the Hamilton Appalachian People's Service Organization of Hamilton, Ohio which has pressed upon me, in graphic detail, what I deem to be gross negligence in the proposed plans for the removal of contaminated soil from that site.

Listed among the "oversights" are ambitions to remove soil only from certain isolated spots around the site, some only to a depth of one foot; the provision for a "cap" upon the structure that will contain the contaminated soil with no regard to the possibility of diffusion through the sides or bottom; and the unacceptable level of contamination at Chem-Dyne recorded to be 100 parts per billion.

Speaking as a clergyperson, the ideas of progress and development grew out of religious concepts that saw humankind's role on earth as a transitory stage on its journey to the eternal life of the hereafter. "Work" meant, for the most part, converting natural resources into things that could be sold that could reflect God's blessings and desired prosperity. There was little serious question about humankind's right to do this; indeed, it was often conceived to be a duty. Hopefully, however, our environmental ethics, as well as Christian consciousness reflect ideals of liberation, rather than accumulation in our present development.

Theodosius Dobzhansky once wrote in essence: "By changing what we know about the world, we change the world we know; but by changing the world in which we live, we change ourself." To me, this is the greater impact of the Chem-Dyne situation. We are not speaking so much of the way in which we might adversely alter the ecological balance of the Chem-Dyne site by contaminated soil, as we are speaking about how this activity might affect who I am, or my child, or my best friend, or one of my parishoners, or any of thousands of others now faceless in the future.

Your consideration concerning the severity of this issue is appreciated.

Respectfully Yours,

Rev. Elizabeth J. Brown

Rev. Elizabeth J. Brown

July 5, 1985

RECEIVED
U.S. DEPT. OF JUSTICE

1985 JUL -9 AM 2:45

U.S. Dept. of Justice
Asst. Attorney General
Land & Natural Resources Div.
1000 Pennsylvania Ave.
Washington, D.C. 20530

Dear Sir:

I am very concerned about the proposed cleanup plans at the Chem-Dyne site in Hamilton, Ohio. Almost all of the contaminated soil will still be there--now and in the future.

The cap and trench will be worthless. The contamination will be almost 98% more than should be allowed. The toxicants will be mixed both in and above one of the most productive aquifers which supply the water for the citizens of Hamilton and ultimately for many of the people south of the city. The disposal dump will not meet drinking water cleanliness for the chemicals in the dump site, nor will it meet a standard of cleanliness which reduces cancer risk to a one-in-a-million background level, nor will it meet ambient water quality standards for the protection of fish and aquatic life. A toxicologically unsafe level at less than 100 parts per billion for a broad class of chemicals held constant during sampling periods will be accepted as sufficiently clean.

We residents of Hamilton have suffered enough already. Regarding issues of environmental health and drinking water quality, we are decidedly unimpressed with other matters such as: the 100 ppb volatile organic compounds standard around the site; no specified cleanup standards for metals or non-volatile compounds on site; high PCB concentrations in Ford Canal fish; non-volatile organic concentrations in Ford Canal sediments at high levels; off-site disposal of much less than 1% of the Chem-Dyne soil; suspected Chem-Dyne chemicals already spread as far as Champion Wells across the Great Miami River.

State and local government may feel the settlement was good; WE DO NOT! It is a dangerous precedent!

We demand a much better and thorough soil and groundwater cleanup job for these poisons. Why must this disposal dump receive sub-standard treatment unlike other hazardous waste disposal sites? Our lives and the lives of our children are at stake so we deserve better.

Respectfully yours,

Geneva Molinsky
Geneva Molinsky (Mrs. Ed)
10 Carter Terrace
Hamilton, Ohio 45011

cc: Mr. Donald Bruce
U.S. Environmental Protection Agency - Region V
230 S. Dearborn St.
Chicago, Il. 60604

Sandals



July 3, 1985

U. S. Department of Justice
Asst. Attorney General
Land and Natural Resources Division
10th and Pennsylvania, N.W.
Washington, DC 20530

Re: U. S. vs Chem-Dyne et al.
D. J. Ref. 90-7-1-43

Dear Sir:

This letter is in support of the Consent Decree which was outlined by USEPA at their June 24, 1985 meeting at Hamilton City Hall in Hamilton, Ohio. The City of Hamilton has been involved with the Chem-Dyne Corp. and its related problems for nine years. The Chem-Dyne Corp. was an extensive hazardous waste site that handled waste for over 500 generators throughout the United States. The Chem-Dyne Corp. began operations before Ohio had a Hazardous Waste Act and prior to USEPA having administrative regulations regarding their Hazardous Waste Act. Chem-Dyne Corp. sued the City of Hamilton for over \$30 million for harassment in our attempt to put this company out of business. The City of Hamilton also sued Chem-Dyne Corp. for building and zoning code violations. The problems which were associated with Chem-Dyne Corp. included many spills, leaks and odor complaints. There were several major fires involving the Chem-Dyne Corp.

The Chem-Dyne Corp. was finally placed in receivership in February of 1980 and the receiver began operations to remove the surface material, which included 30,000 drums of hazardous materials and over 300,000 gallons of liquid materials in bulk storage.

In 1983 the remaining surface material was removed by the U.S. Army Corps of Engineers, overseeing a contract with a USEPA contractor. Since 1980 the USEPA and Ohio EPA have been involved in studies to determine the impact of the environmental damage from the Chem-Dyne operation. Unfortunately, the Chem-Dyne Corp. sat atop one of the best aquifers in North America. The City has been concerned with the contamination of the aquifer since the operations began in 1976. The City of Hamilton had four goals besides the surface clean up. All four have been addressed by the Consent Decree and are supported by the City of Hamilton. They are:

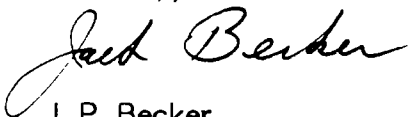
- Removal of toxic soil,
- removal of all buildings on the site,
- construction of a cap over the site to stop percolation of water through the site, and finally,
- a pumping operation that would remove the contaminated water from the upper parts of the aquifer and through an air-stripping process, cleanse the contaminated zone.

We feel that the Consent Decree provides the greatest amount of safety, not only for our community, but cleansing the aquifer of the contaminated chemicals so that it will be useful as a water resource for this region for hundreds of years to come. The USEPA and Ohio EPA have spent several millions of dollars in research and studies regarding the best methods for the the clean up of this site. We feel wholeheartedly that Geo-Trans, working for the State of Ohio, and CH2M Hill, working for USEPA, are well qualified and have provided the best known methods for the clean up of this site. We feel that the Consent Decree provides the best method of clean up available that is known to science today. Further, the clean up is not limited to dollars nor a specific date. It is based upon water quality standards, irrespective of cost and time involved. We feel that this provides the best insurance for a total clean up.

This position of the City of Hamilton is different than the Hamilton Appalachian Peoples Service Organization at 522 Butler Street, Hamilton, Ohio. The City of Hamilton, City Administration and City Council represents 68,000 citizens. The Hamilton Appalachian Peoples Service Organization "HAPSO" represents a small group of citizens that have made comments during the various steps of this clean up and the associated public hearings. We are relying on the experts utilized by the State of Ohio and USEPA to base our decision. HAPSO has been involved with some university professors who have not had the expertise available to Ohio and USEPA. We do not feel that the HAPSO position is correct. The City of Hamilton supports the Consent Decree and the related studies that have been accomplished by the consultants for Ohio and USEPA. We would hope that no further delays would be involved in the aquifer clean up. It is imperative that the work begin immediately so that the contaminated zone in the aquifer remains in an area that can be treated as soon as possible.

If you have any questions, please let us know.

Sincerely,



J. P. Becker
City Manager

JPB:jb

June 30, 1985 105



League of Women Voters of Hamilton-Fairfield Area, Ohio

From: Action Chair, Peggy Collins - LWV - H.F. Area

To: U.S. Dept. Justice, Asst. Attorney General, Land & Natural Resources Div.

Re: U.S. - vs. Chem-Nyne et al, D.J. Ref. 90-7-1-43

After attending the several Chem-Nyne public hearings and reading the various prepared documents, I wish to express several concerns for the record.

- 1- I question the performance standards in the Air Stripping / Carbon Adsorption water treatment process. Since this is a new technique, I would hope there is flexibility in achieving a safe level for VOC removal. We need to continually upgrade any procedures and expected performance standards.
- 2- The monitoring procedures appear rather speculative. Specific areas must be routinely monitored to ensure protection of the aquifer over the long term and covering a wide area of pollution exposure. More than one-half million area residents depend on this aquifer for their "safe" drinking water supply. (Most of Butler County and the northern area of Hamilton County)
- 3- The necessity for cautious, safe off-site disposal of excavated materials is essential.
- 4- Will there ever be a useful purpose for this site - in the future - after the proscribed treatment processes? Will there be forced, safe zoning with top priority enforcement - to prevent improper uses of this land?

Peggy Collins
Action Chair

5299 Dee Alva Drive
FAIRFIELD, OH 45014

513-828-9153

10-7-1-43
DEP
CHANDLER

715 S. College Ave. Apt. 11
Oxford, Ohio 45056
(513)-523-7001
June 16, 1985

Dear Assistant Attorney General:

Although I appreciate EPA's efforts in having developed the Remedial Action Plan for the Chem-Dyne Site, the proposed plan falls far short if the health of some 250,000 people in Southwest Ohio is to be adequately protected. These people receive their drinking water from well fields located within several miles from Chem-Dyne in the direction that the chemical wastes are believed to be moving.

The Remedial Action Plan can be attacked justifiably on several fronts; these include the total disregard for the Ford Canal, the okaying of a 100 parts per billion ceiling for volatile organic chemicals to be reinjected in the the Great Miami Aquifer when the Federal Clean Water Act places the limit on some of these VOCs at 2 to 3 parts per billion, the air stripping technology being proposed is geared only for the removal of VOCs but not the other chemicals contaminants at Chem-Dyne such as heavy metals, PCBs, and nonvolatile organics, and the soil cap and excavation technology proposed will not rid us of the contaminants. For several reasons, I shall limit my discussion to the latter of these criticisms. My criticisms of the cap and excavation technologies to be employed should help show why that even on this one issue the Remedial Action Plan has severe flaws that need to be corrected.

As EPA Remedial Project Manager Don Bruce stated at the Chem-Dyne Public Meeting in Hamilton, Ohio on June 24, a multi-layered cap will supposedly stop water from reaching the chemicals adhered to soil particles in the unsaturated soil layers at the Chem-Dyne Site. First off, water already has and continues to reach these chemicals and the migration of underground chemicals has already been significant. Nothing short of complete excavation is likely to stop these chemicals from continued migration. Second, at the meeting, Don Bruce and the other EPA and OEPA officials led the public to believe that the entire Chem-Dyne site will be capped. In reading the Remedial Action Plan, I found this not to be true. A significant portion of the site designated as area 5 on Figure 19 in Section 5.2 of the Remedial Action Plan will not be capped. Third, the cap will not prevent underground movement of water from offsite locations to infiltrate the site so that water, not necessarily from Chem-Dyne, will still be able to contact and release the underground chemicals. Fourth, the cap may in itself exert additional pressures in the pore waters already in the unsaturated soils to migrate and pick up chemicals in the soils. (Please consult John L. Splendore et al, "Putting The Lid On Chemical Waste Sites - A Basic Approach, "Pollution Engineering, June 1983, pp. 44-47, specific ref. on pp. 45-46.) Fifth, the long term viability of the cap has to be called to question. Plant roots, small animals, rains, and floods all have the ability to penetrate or break down soils. One should also be reminded that the public has been led to believe that from here until eternity structures capable of breaking the cap will be banned from construction at the Site. That this will occur is highly unlikely. One must only look at EPA inquiries as to the rehabilitation of the infamous Love Canal area to call into question

this lofty goal.

Moving on, the proposed trench to be built around the periphery of the Site must also be scrutinized. Although it is true that the trench will allow EPA to locate and remove any conduits leading offsite; therefore stopping migration through any pipes, the trench will do little or nothing to prevent the flow of chemicals moving through underground pore spaces.

Additionally, plans to remove soils around the only two meaningful EPA offsite samples taken during the so called Remedial Investigation presents even more flaws in the Remedial Action Plan. The EPA took a total of four offsite soil samples during the Remedial Investigation. Only two of these were designed to determine just how far the pollution plume had moved. The other two were meant to determine background levels. Both of the soil samples that were to be used to determine the extent of the pollution plume showed high levels of contamination.

Now rather negligently, along comes EPA who says that these will be the only two offsite areas where contaminated soil will be removed. Nothing at all will be done at any other offsite area. My God, doesn't common sense suggest that if the only two offsite samples taken showed high levels of contamination that more offsite sampling should be taken to determine the extent of the plume and to take corrective measures? And the technology that will be used to remove the contamination threat is just as negligent. Soil an area 10 feet in radius and one foot in depth will be excavated at each site and replaced with clean fill. How did EPA come up with these dimensions? They do not say. Are we to believe that contamination did not then nor does not now exist beyond the ten foot mark nor below one foot? This is madness!

In closing, the cap and excavation technology proposed to be employed

will not adequately protect public health. Don Bruce admitted at the meeting all soil samples taken by EPA were done so not less than eighteen months ago. Yet, plans to clean up the Site will rely on the pollution plume designation made from those soil samples. It should be obvious that new soil samples should be taken to determine the pollution plume as it exists today. Even worse, Section 6.1 of the Remedial Action Plan leaves EPA with the option of not removing any soils if EPA deems it cost-ineffective. Placing a cap over a chemical storage site means that we all must hope the chemicals will stay in place. Adequately performed soil removal is the only way we can be sure that the chemicals will not come back to haunt us and should be pursued. I give EPA credit for getting the waste generators and waste haulers to agree to pay for the cleanup, but putting a cap over chemical contaminants can more appropriately be described as a cover-up not a clean up. The 250,000 people living in Hamilton and in neighboring communities deserve better.

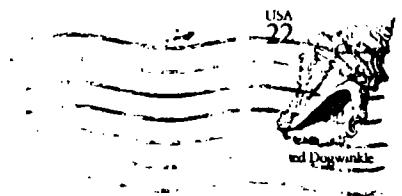
Thank you,



Dean H. Sutton

P.S. I am a graduate student in the Institute of Environmental Sciences at Miami University in Oxford, Ohio. I would be more than happy to provide whatever additional information I could. I can be contacted at the above address.

Rosie Lee Fields
542 NORTH 5TH AC
HAMILTON, OHIO



MR. DONAL BRUCE

U.S. ENVIRONMENTAL PROTECTION
REGION V. 230 S. DEARBORN ST
CHICAGO, ILLINOIS, 60604



Very please to see in the

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MR. DON BRUCE
US EPA- Region V.

RECEIVED

AUG 5 1985

U.S. EPA. REGION V
WASTE MANAGEMENT DIVISION
HAZARDOUS WASTE ENFORCEMENT GROUP

Dear MR BRUCE
FIRST OF ALL I AM GOING TO SAY I
THINK THERE HAS BEEN A VERRY BIG JOB
DONE. AT THE CHEM DYNESIGHT. AT
500 FORD BIVD. IN HAMILTON. OHIO. AND I AM
VERRY PLEASED TO SEE ALL OF THE BI' MESS
OF BLACK - RUSTY - SHAMBLED DRUMS - BARRELL
GONE AND I KNOW YOU ALL HAD A BIG JOB
TO DO A I WANT TO THANK YOU FOR BEING
SUCH A VERRY NICE PERSON ALWAYS WILLING
TO EXPLAIN, AND ANSWER QUESTIONS AND
YOU ALWAYS SEEM TO KEEP SO CALM. AND YES
DAVE STROYER ALSO. YOU ALL TREATE ME
AND MY HUSBAN SO GOOD AT THE CHEM DYNES
SIGHT. AND WE WANT EVER FORGET IT.
AND NOW, I WANT TO WRITE ABOUT THE
SURFACE CLEAN UP. I PERSONLEY KNOW,
EVERY ONE HAS A JOB TO DO AND EVERY
ONE HAS A HIGHER SUPERVISER OVER THEM
AND I FEEL IN MY HEART - MIND, THAT THE
EPA. HAS REALLY BEEN WORKING WITH THIS
FOR A LONG TIME. I PERSONLEY
FEEL THAT THE CITY OF HAMILTON IT

AT THE TOP OF THE LIST FOR THE BIAME
 OF CHEM DYNE, BUT I THINK OUR
 PRESIDENT, SHOULD HAVE SHOWN US
 CITIZANS OF HAMILTON, THAT HE AT
 LEAST HAD SOME CONCERN FOR US AT THE
 LEAST, OUR DRINKING WATER IS VERRY
 IMPORTANT TO EVERY ONE AND THE
 CHEM DYNE SIGHT WAS LISTED AS ONE OF
 THE WORST HAZARDS WAST SIGHTS IN
 THE NATIONS AND NOT ONE TIME DID HE
 GIVE US ANY OF HIS TIME TO VISIT
 THE SIGHT, NOR DID HE EAVEN TAKE
 THE TIME TO ANSWER MY LETTER AND
 NO ONE ELSE THAT I KNOW, OR AS MUCH
 ANSWER ME BACK WITH A PHONE CALL,
 THIS MAY SEEM LITTLE TO HIM BUT IT
 MEANS OUR HEALTH TO EVERY ONE HERE,
 NOW I WOULD LIKE TO SAY FOR THE MEANS
 OF THE CLEANING UP JOB I TRULY THINK
 THAT AT LEAST 6, TO 10, FEET OF THE DIRT
 SHOULD BE COMPLETELY REMOVED OFF THE
 INTAIR SIGHT TO BE PERFECTLY SURE
 THAT THERE IS NO MORE DRUMS UNDER NEATH
 AND I KNOW THIS IS TALKING BIG MONEY,
 BUT I DONT THINK THE PROBLEMS WILL
 EVER BE COMPLETELY GONE IT STILL

HAS A ODER IN THE AIR. AT TIMES
 WORSE THAN OTHERS WHEN IT IS
 RAINING IT IS WORSE. AND I DON'T
 BELIEVE THE AQUAFER - PURIFIER IS
 ALL THE ANSWER. BUT IF THIS IS
 WHAT IS GOING TO BE DONE. I SURE
 HOPE AND PRAY FOR EVERY ONE CONCERNED
 IN THIS MATTER THAT IT IS DONE RIGHT
 IT DASE STOP THE PROBLEM SO EVERY ONE
 CAN BE AT EASE. I AM ENCLISING
 A CLIPPING I WOULD LIKE TO BRING TO
 THE EPA ATTENTION. THAT HAPPEN IN
 CYNTHANA, KY. AND HOPE THIS ONE DASEN'T
 END UP THIS WAY. I'M ALSO SENDING A COPY
 OF THIS LETTER NEWS PAPER CLIPPING TO

US DEPT OF JUSTICE
 ASSISTANT ATTORNEY GENERAL
 LAND AND NATURAL RESOURCES DIV
 WASHINGTON DC

THANK YOU SO MUCH
 ROSIE LEE FIELDS
 542 NORTH 5th St
 HAMILTON OHIO. 45011
 PHONE 513-868-3066

112655

AUG 5 1985

U.S. EPA, REGION V
WASTE MANAGEMENT DIVISION
HAZARDOUS WASTE ENFORCEMENT GROUP

Hazardous-Waste Dump Turns Ky. Home Into A Prison

BY COOPERIDER
Special Contributor

CYNTHIANA, Ky.—Ernest Jones works five months out of the year for an oil company near Alaska's Prudhoe Bay. He likes the money he makes but says the loneliness is "like a prison."

But now, he says, he lives in another kind of prison—in his own home near Cynthiana in northern Harrison County.

"We can't leave here," said Jones, looking at his spotless white clapboard farmhouse, a quarter mile back from the road.

"We bought this house as an investment and a place to retire, but I couldn't get half what I paid for it," he said.

Jones lives on a one-lane road swept by leaves this time of year, with farmhouses dot the rolling hills. It isn't the kind of place where real estate values should be dropping.

Jones and his neighbors share a problem that not only threatens their property but perhaps their health.

BARRY BURRUS, an environmental engineer for the state of Kentucky, said toxic chemicals were illegally dumped on the hillside above Jones' property during 1973 and 1974. Barrels and old

paint cans accumulated for two years, when the dumping stopped as quickly as it began.

It started unnoticed. No permit was granted, no precautions taken for the safety of residents. Burrus said it amounted to a deal between a land owner, a trucking company, and Inmont Corp. of Cincinnati, manufacturer of paint-related products and solvents.

Federal Environmental Protection Agency Superfund money was used to clean up the site in March. Jones said he thought his troubles were over when federal inspectors left.

So did his neighbor, Denzal Hyatt.

"I thought they did a real good job. It looked just like a lettuce bed with fresh dirt and everything," said Hyatt, a farmer.

THE CLEANUP cost the government \$350,000. The Kentucky Natural Resources and Environmental Protection Cabinet paid 10%.

Now Jones, Hyatt and several other neighbors think their problems are back.

"We wouldn't have known anything if the grass had grown" on the 75 by 140-foot lagoon which had been filled with topsoil,

Jones said. "We thought they were going to haul all that old soil out and bring in new."

During the summer Jones, his wife, Joselyn, and Hyatt did not think a lot about the old dump.

"When the humidity and the heat got just right, it put out a strong odor, but not as bad as before the cleanup when you would walk out on the back porch and it would gag you," said Mrs. Jones.

The heavy rains in the past few weeks washed over the exposed topsoil, uncovering golden chunks of what Burrus said is plastic resin, and that brings a feeling of dread to Jones and his neighbors.

THE PLASTIC resin looks like rock and appears harmless enough, but Jones hesitates to go near it after reading the list of chemicals that were dumped there.

"I figure anything that was brought here was dangerous," said Jones, kicking one of the chunks down the hillside.

"Why would someone pay to have this stuff trucked here if they could just throw it in a dumpster?" asked Jones.

The last tests taken near Jones' house before the cleanup indicated an environmentalist's nightmare was in the sludge above Jones' land. Such chemicals as

benzene, xylene, toluene, polychlorinated biphenyls, mercury and lead were left in barrels strewn across about an acre of land.

According to Bernard Saltzman, an environmental scientist at the University of Cincinnati, large amounts of these chemicals cause birth defects, liver and bone marrow damage, tumors and cancer.

THE EPA cleanup took care of 170 barrels and some of the soil, said Burrus, environmental engineer for the state of Kentucky.

"But what went down into the soil is still there, as far as we're concerned," said Jones.

Hyatt agrees. About 30 of his cattle died, he said, after drinking from a pond fed by a spring which runs under the area where the lagoon used to be. That was before the cleanup.

He has lost two more cattle since the cleanup, one last month.

Whether the threat of contamination from the chemicals was taken away when the last EPA truck rumbled past Jones' house toward US 27 is not yet known because the results of two sets of tests are not available, Burrus said.

Burrus added that he thought the results would show the area to

be as clean as it's going to get, but Hyatt and Jones say that isn't clean unless you're not going to have that looking like a golf course."

THE DEAD grass may be a result of the clay which was used in the cleanup, he said.

Jones and Hyatt scoff at that.

"If I had \$350,000 I could grow some grass, I'd tell you that," said Hyatt. To prove it, Hyatt and Jones planted two fields with the same seed used over the old lagoon. The fields are lush with grass.

"I've gotten two cuttings" of hay from the fields, Jones said.

The original cost of the cleanup was estimated at \$100,000, but when EPA inspectors saw the amount of chemicals, they needed more Superfund money.

"We thought we would only have to remove a few inches of sludge from the bottom of the lagoon," said Burrus. "When we got down there we saw we had to dig out more like eight inches."

Burrus said the state may sow more seed over the old dump, but nothing more.

"WE'VE DONE \$50,000 worth of tests there already," said Burrus.

But Jones isn't satisfied.

"I want this stuff tested," said Jones. "They sit up there in their

offices and tell us everything is alright. That's a long way to have X-ray vision."

Jones and his neighbors are not only eager to get state inspectors back to the area, they are eager to get Inmont and Container Corporation of America, the Cleveland firm they say trucked the waste to Cynthiana, into court.

Five families in the area filed a \$40 million suit in U.S. District Court against the two companies, asking punitive and compensatory damages, complete cleanup of the site and creation of a fund by the companies to pay for health screening.

Inmont and Container Corp. representatives could not be reached for comment.

"THAT'S FOR the children, because we don't know how this is affecting them," said Mrs. Jones, who moved to Covington two years ago when she was pregnant because she feared what might happen if she stayed.

David Altman, attorney for the families, said the plaintiffs are claiming damages against the two companies under an EPA statute that will make them liable for the health screening.

"All we have to do is prove the material came from there," he said.

Burrus and Altman said the EPA is also trying to recover the \$350,000 from the first cleanup cost.