

January 5, 1982

Materials Licensing Section
Region III USNRC
799 Roosevelt Rd.
Glen Ellyn
Illinois 60137

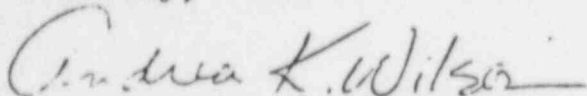
Dear Mr. Walleth:

On May 18, 1982, the Michigan Department of Natural Resources recommended and the Michigan Air Pollution Control Commission approved a permit (#93-731) for Dow Chemical Co. of Midland, Michigan to incinerate low-level radioactive waste. The permit is a mirror of the NRC license with condition to incinerate. Radionuclides with Atomic No. 1-83, by-products in the form of mixed fission products, and Americium 241 & Polonium 210 in the form of sealed sources are included on the NRC license.

I am requesting a legal opinion from the NRC on whether the State of Michigan has the authority to issue a permit for the incineration of low-level radioactive waste.

I would appreciate a timely response.

Sincerely,



Andrea K. Wilson, Director
Environmental Congress of Mid-Michigan (ECOMM)
P.O. Box 1494
Midland
Michigan 48640

517-632-7742

JAN 10 1983

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

*Signed by
Ruckelshaus
6/13/83*

ADMINISTRATOR'S RESPONSE TO
CENTRAL MICHIGAN CITIZEN'S PETITION
FOR INVESTIGATION AND ENFORCEMENT ACTION

I. INTRODUCTION

On March 16, 1983, the United States Environmental Protection Agency (EPA) received a document entitled "Citizen's Petition for an Investigation and Enforcement Action" submitted by the Environmental Congress of Mid-Michigan and the Foresight Society, two groups based in the central Michigan area. On April 20, 1983, the petitioners submitted a supplemental Petition through the Citizens Clinic for Accountable Government, a group based in Washington, D.C. The original and supplemental petition will be referred to collectively as the Petition.

The Petition makes numerous requests of EPA as follows:

- 1) the Petition makes a requests under Section 21(a) and (b) of the Toxic Substances Control Act (TSCA), 15 U.S.C. 2620(a) and (b), that EPA issue an administrative order to Dow Chemical Company under Section 6(b) of TSCA, 15 U.S.C. 2605(b);
- 2) the Petition requests a full field investigation into the effects of pollution on the residents and environment in Central Michigan, citing Section 21(b)(2) of TSCA, 15 U.S.C. 2620(b)(2);
- 3) the Petition states that it constitutes information of a significant risk under Section 4(f)(2) of TSCA, 15 U.S.C. 2603(f)(2), thereby implicitly seeking to have EPA take action to address this risk in 180 days;

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- 4) the Petition seeks an investigation of risks from hazardous waste disposal, citing Section 3013 of the Resource Conservation and Recovery Act, 42 U.S.C. 6933;
- 5) the Petition seeks investigations to determine the need to take actions under the emergency provisions of the Clean Air Act, the Clean Water Act, and the Safe Drinking Water Act;
- 6) the Petition states that it serves as the 60 day notice that is a prerequisite to the filing of citizen's suits to enforce TSCA, the Safe Drinking Water Act, the Clean Air Act, and the Clean Water Act;
- 7) the Petition requests that EPA assess the overall impact of the pollution discovered by its investigations;
- 8) the petitioners seek full participation in decisions made concerning any studies done that are relevant to the Petition; and
- 9) the Petition requests that EPA appoint an independent, expert consultant to oversee implementation of any study performed.

In order to fully answer the Petition, EPA has not limited its response to only those issues which the Agency believes it must address as part of any legal requirements. Instead, the EPA has attempted to address as fully as possible all of the issues raised in the Petition, primarily because the Agency has been concerned about potentially harmful levels of contaminants in the central Michigan area for several years.

The response will review those activities which the EPA and the State of Michigan are already undertaking to address the issues raised in the Petition, and will outline additional activities which the Agency proposes to undertake in the future. These activities, which are discussed in greater detail in the body of the response, include: 1) sampling and analytical work to develop a water discharge permit for the Dow facility (underway); 2) issuance of an

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request 1/ to Dow, under Section 308 of the Clean Water Act, requiring Dow to provide information necessary to develop a water discharge permit, and the filing of a lawsuit to force Dow to comply with that request (underway); 3) proposing a major study of dioxins and other toxic chemicals which would examine the presence and potential risk from these chemicals in the environment, with special emphasis on geographic areas of known or suspected dioxin contamination, including Midland; 4) issuance of an information request to Dow under the Clean Air Act, the Resource Conservation and Recovery Act, and the Comprehensive Environmental Response, Compensation and Liability Act requesting that Dow provide information available on disposal or release of dioxins or furans (underway); 5) issuance of notification to Dow to submit a full permit application under the Resource Conservation and Recovery Act, thereby submitting Dow's hazardous waste handling practices to detailed review and regulation (underway); 6) sampling of public and private water supply wells for organic contaminants (underway); 7) performing preliminary assessments of potentially hazardous waste sites, and site inspections of such sites where warranted by the preliminary assessment, under the Comprehensive Environmental Response, Compensation and Liability Act (underway); 8) filing enforcement actions under the several environmental statutes wherever appropriate to enforce pollution controls or require clean-up of hazardous situations (some completed, some underway).

In the course of recent discussions, the petitioners have indicated that they will provide the EPA with additional information on environmental contamination in their area, EPA will be prepared to take any new information into consideration in implementing the actions specified in this response. EPA welcomes any additional relevant information from any source, and the Agency points out that the statutes referenced in the response contain



1/ Information requests issued under EPA's various statutory authorities referred to throughout this document are legally enforceable requirements to produce information.

provisions which protect employees from reprisals by their employers for providing such information. The EPA requests that anyone wishing to provide additional relevant information send it in writing to Mr. David Stringham, Deputy Director, Waste Management Division, U.S. Environmental Protection Agency, 230 South Dearborn Street, Chicago, Illinois 60604. The EPA intends to further provide for public involvement in its actions to address issues raised in the Petition through the public participation mechanisms described in the following section.

II. PUBLIC PARTICIPATION AND OVERSIGHT

The Petition includes specific suggestions and requests for full participation by petitioners in the development of any study relevant to the Petition, and in the appointment of an independent expert to oversee implementation of any study. The EPA intends to conduct the proposed studies of environmental contamination in Michigan that are outlined in this response in a fully open manner. Accordingly, as a matter of its discretion, the EPA will provide the public, including the petitioners, with a description of any such study for their review and comments prior to its implementation. EPA cannot provide such a description at this time, however, because EPA's planning for possible studies is at a very preliminary, budgetary stage. When planning for any particular study is at a sufficiently definite stage that review and comment would be appropriate, EPA will provide this description to the petitioners and other members of the public. EPA has already discussed the probable objectives of proposed studies with the petitioners, the State, and other interested parties.

As studies proceed, EPA intends to design specific public participation mechanisms into the investigative effort. Further, EPA and the responsible



State agencies have already agreed to have the plans for and the results from the proposed study of dioxin and other toxic pollutants in the area subjected to scientific peer review. This peer review, coupled with the planned public participation mechanism, obviates the need for appointing a specific independent expert as requested in the Petition, and the EPA does not intend to appoint one.

It is important to note that the EPA has already provided well-established public participation procedures associated with several official actions it is taking in response to issues raised by the Petition. Noteworthy among such actions are the issuance of permits. Under the Clean Water Act, the Resource Conservation and Recovery Act, and the Clean Air Act, the petitioners can participate in the permit issuance processes to assure that their concerns and interests are considered by the EPA prior to its issuance of permits under these statutes.

III. SPECIFIC ACTIONS TO INVESTIGATE AND ADDRESS ISSUES RAISED BY THE PETITION.

A. Water Pollution

The Petition places an emphasis on water pollution concerns stating that "at a minimum the EPA must settle the controversy over Michigan's wastewater contamination." From the detailed description given in the Petition of past participation by the petitioners and others in developing a National Pollutant Discharge Elimination System (NPDES) permit for Dow's Midland facility, it is apparent that the petitioners are fully aware of the permitting system through which the EPA and the State seek to control discharges to surface waters. The EPA and the State of Michigan are making a concerted effort to bring the discharges from Dow Chemical Company's Midland facility under a permit that includes meaningful limitations on toxicant discharges. As a part of this effort, the EPA has performed a wastewater characterization study, currently nearing completion, on the discharges from the Dow facility.

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at an approximate cost of \$500,000. Preliminary results of this study have already been released. These results indicate that a large number of toxic organic pollutants, including dioxins, are found in the Dow effluent.

The EPA has also sought to gain additional information from Dow. This effort has included the issuance of an information request under Section 308 of the Clean Water Act requiring Dow to produce information needed to develop an effective permit. Dow has resisted EPA's effort to obtain complete and necessary information concerning the pollutants found in waste streams leaving specific processes and eventually reaching the Tittabawassee River. After extensive negotiations were unsuccessful in resolving the controversy, the EPA responded to Dow's refusal to produce such data by filing a lawsuit in Federal district court seeking to enforce EPA's information request. 2/

The EPA's efforts to control toxicant discharges to waterways in central Michigan have not been limited to addressing the Dow Chemical Company. EPA's ongoing and planned actions to address old hazardous waste disposal sites, discussed more fully in the "Land Pollution" subsection, below, often are focused on preventing the discharge of toxicants into water as one of their primary objectives. In a consent decree entered in federal district court in late 1982, for example, the EPA and the State of Michigan jointly negotiated an agreement with Velsicol Chemical Company requiring Velsicol to implement a multi-million dollar remedial plan to prevent toxic chemicals discharging

2/ U.S. v. Dow Chemical Company, Docket No. 83-CV 7011 BC (Eastern District of Michigan, Northern Division). This action, filed January 17, 1983, seeks an injunction requiring Dow to produce information still outstanding from EPA's information request, imposition of a fine for failure to provide the information in a timely manner, and a declaratory judgement holding that EPA has authority to require Dow to provide additional categories of information that will be required to develop effluent limits for the permit based upon "best available technology economically achievable", as required by the Clean Water Act.

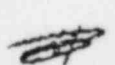
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into the Pine River, a tributary to the Tittabawassee River. 3/ In addition, the settlement resulted in the company providing the clean-up funds and other materials to the State to encapsulate the Gratiot County landfill, the number one Superfund site in Michigan.

On a broader scale, EPA has been taking actions to address toxic water pollution throughout the country, an effort that will aid future efforts to address such pollution in central Michigan. These actions include the development and proposal of effluent limitations guidelines for the pesticides and organic chemicals industries and the preparation of a water quality criteria document covering chlorinated dioxins. The pesticides and organic chemicals guidelines are currently scheduled for promulgation in December, 1983 and March, 1984, respectively. The dioxin water quality criteria document, which describes potential human health and environmental effects from different concentrations of dioxin and which recommends levels to allow for the protection of human health and the environment, is scheduled to be published for public comment in October, 1983.

In addition to the above actions, the EPA is planning a broad study of the presence of dioxins and other toxic chemicals in Michigan, with an emphasis on the Midland area. This study, if approved for funding, will be part of a national study focusing upon several geographic areas of suspected dioxin contamination. A national screening is proposed for dioxin and other toxicants in fish tissues and stream sediments from selected rivers across the country, including a number of rivers in Michigan. In the geographic areas chosen for more in depth investigation, including the Midland area, the proposed study

3/ U.S. v. Velsicol Chemical Company, Docket No. 82-10303, (Eastern District of Michigan, Northern Division). The consent decree in this action, entered on December 27, 1982, requires Velsicol to prevent groundwater from moving across the former site of its Saint Louis, Michigan, plant and entering the Pine River carrying several organic chemical contaminants, including polybrominated biphenyl (PBB).

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would examine the presence of toxic contaminants in the air, land, and ground-water as well as the water, and attempt to locate the sources of such contamination. As discussed earlier, EPA plans to provide the public, including the petitioners, an opportunity to review and comment on the proposed study prior to its implementation.

B. Air Pollution

With respect to potential risks from air pollution, the Petition primarily focuses on airborne emissions from the Dow Chemical Company facility in Midland, Michigan, although it does mention concern about emissions of other industrial pollutants in the central Michigan area. The Petition cites Dow's history of incineration of both toxic and radioactive wastes as a particular cause for concern. The status of the Midland area as a non-attainment area for certain air pollutants under the Clean Air Act is also cited. 4/

The EPA has been working to address this area's failure to attain national air quality standards for several years, in conjunction with efforts taken by the State. Indeed, the EPA's action in listing Midland County a non-attainment area is a legally significant action which requires the State to develop an implementation plan to decrease pollutant levels. The EPA has reviewed and approved Michigan's State Implementation Plan for control of all "criteria" pollutants. 5/ Implementation of the plan will result in meeting standards for the criteria pollutants. The EPA has further pursued enforcement

4/ The Midland County area is listed as a non-attainment area for ozone and for total suspended particulates. It formerly was also a non-attainment area for sulfur dioxide, but is now meeting standards for that pollutant.

5/ "Criteria" pollutants under the Clean Air Act are total suspended particulates, volatile organic compounds, lead, sulfur dioxide, carbon monoxide, and nitrogen dioxide.

litigation against Dow Chemical Company addressing pollutant emissions from its Midland facility, and entered into a Consent Decree with Dow before a federal district court requiring Dow to meet certain emission limitations at this facility. 6/ Recent data show that Dow is currently meeting the emission limitations set in the Consent Decree.

The petitioners' concerns about potential hazards from toxic air pollutants and radioactive air pollutants are harder to address, primarily because EPA has much less information available on the presence of these types of pollutants in the ambient air and a lack of information on the effects of exposure to many of the toxic air pollutants. EPA has promulgated or proposed emission standards for selected hazardous air pollutants, 7/ but these promulgated or proposed standards do not appear to cover most of the air pollutants of concern to the petitioners. In addition, EPA has proposed a maximum allowable dose standard of 10 millirems per year of total radionuclides.

Despite the lack of national emission standards covering the wide variety of toxic air pollutants of concern to the petitioners, the EPA is planning to sample for toxic chemicals in air emissions in the Midland, Michigan, area as part of its proposed study of dioxin and other toxic pollutants, outlined above. In this study, the EPA seeks to develop data on levels of toxic contaminants in the ambient environment as a result of past and present air emissions. The EPA is specifically considering a plan to analyze for toxicants

6/ U.S. v. Dow Chemical Company, Docket No. 80-40423 (Eastern District of Michigan, Northern Division). The Consent Decree entered 9/22/81, and amended 12/20/82, places specific limitations on sulfur dioxide (SO₂) and total suspended particulates.

7/ Asbestos, Beryllium, Vinyl Chloride, Mercury, Benzene.

in current emissions from industrial sources in the area (including the Dow incinerators), to analyze soils and dust from sites selected in a manner designed to show results of past emissions of toxicants, and, if appropriate, to analyze ambient air at selected locations. In addition, Dow is being required to submit information to EPA on the operation of its incinerators as part of its RCRA permit application (see "Land Pollution" section, below). The EPA has also required that Dow Chemical Company submit information concerning emissions of halogenated dioxins and furans from its Midland, Michigan facility, pursuant to EPA's authority under Section 114 of the Clean Air Act. Dow has provided some of the information, and has stated that further information in response to EPA's request will be forthcoming.

The concerns raised by the petitioners about air pollution hazards from emissions of radioactivity are a subject within the primary authority of the United States Nuclear Regulatory Commission, whose permits cover air and water emissions of radioactive materials. These permits will have to meet the EPA exposure standards, once those standards are promulgated. The EPA has initiated contacts with the Nuclear Regulatory Commission regarding the health concerns the petitioners have raised. The Nuclear Regulatory Commission informed EPA that it had already received a copy of the Petition directly from the petitioners, and would respond directly to the petitioners on those issues raised that are within its jurisdiction. The Nuclear Regulatory Commission further informed EPA that Dow's license to incinerate radioactive wastes would be up for renewal in October, 1983, and issues raised by petitioners would be considered in action taken on the license renewal.

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C. Groundwater Contamination And Drinking Water Supplies

The Petition cites concerns with contamination of groundwater and the potential for such contamination to threaten drinking water supplies. The petitioners' concerns stem primarily from leachate from hazardous waste disposal sites, injection of wastes and brine into injection wells, and surface spills of brine at injection wells. The Petition generally asks for a thorough check of drinking water supplies in the central Michigan area.

Under the Safe Drinking Water Act, the EPA and the State of Michigan have required testing of public water supplies for certain inorganic contaminants, radioactivity, and bacteria for many years. As part of a process to address contamination of drinking water supplies with organic chemical contaminants, the EPA issued an Advanced Notice of Proposed Rulemaking in March, 1982, that could ultimately set maximum contaminant levels for various organic compounds in drinking water supplies. In the interim before any such limits are in effect, the EPA has sought to encourage the states to set up programs voluntarily to test drinking water supplies for contamination with organic toxicants. The State of Michigan has established such a program in cooperation with the EPA, and the Michigan Department of Public Health has been sampling public water supply wells for volatile organic chemicals for approximately 18 months. Nearly 460 wells have been tested so far. Full completion of the program will take approximately five years.

In the eight county central Michigan area addressed in the Petition, wells serving 19 public water systems have been tested under this program as of this date. These water systems were chosen for sampling based upon a determination that they were more susceptible to contamination due to either proximity to industry or a possible pollution source, or presence of shallow

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overburden that would provide little resistance to migration of contaminants. This effort found no detectable levels of volatile organic chemicals in water systems in the area. Contamination of wells at the Wurtsmith Air Force Base was already known to government agencies, and is already addressed by well abandonment or treatment equipment at the drinking water source, as well as pumping and treating the contaminated aquifer.

The State of Michigan has also tested numerous private drinking water wells in the vicinity of areas known or suspected to have groundwater contamination problems. These areas were identified by the Michigan Department of Natural Resources on a list developed in 1979, and updated in 1982. The Michigan Department of Public Health is currently seeking funding through the Department of Natural Resources and the EPA to complete this private well testing program. The results to date, whether positive or negative, have been made available to the public by the State.

Private wells near the Rockwell Road site near Midland, one of the sites specifically addressed in the Petition, were tested by the State as a part of its private well testing effort. The testing of these wells did not detect contamination. The State very recently repeated testing in the area, and again failed to detect contamination in the private wells, sumps and surface run-off. The EPA intends to perform further assessment of possible hazards from the Rockwell Road site as set out in the Land Pollution section below.

The Michigan Department of Public Health has expressed a continuing interest in testing both public and private drinking water wells in areas

where groundwater contamination is suspected. Anyone who knows of a site with groundwater contamination problems that has not had nearby wells monitored for contamination should contact the Department of Public Health either directly, through their local health department, or through the EPA.

Brine return wells and waste disposal injection wells in the central Michigan area are not currently controlled by an EPA regulatory program, but rather by a control system established by the Michigan Department of Natural Resources (MDNR). The level of EPA involvement in this area will increase in the future, however, because EPA has promulgated national regulations for the underground injection control (UIC) program to control deep well injection of waste. This program, authorized by the Safe Drinking Water Act, requires that deep injection wells be constructed and operated in a way that does not endanger underground sources of drinking water (freshwater aquifers) above or near the injection zone. It provides for appropriate testing of injection wells to assure that drinking water is protected. This Act encourages States to assume primary enforcement authority for the UIC program, and requires EPA to implement the program in any State that declines to do so. Since Michigan does not intend to accept primary enforcement authority for the program, EPA will promulgate regulations to administer this program in the State of Michigan within the next six months. This program will require EPA approval of the construction and operation of any hazardous waste injection wells. However, EPA's statutory authority under the Safe Drinking Water Act does not cover the surface discharges of brine (as opposed to hazardous waste) which are of concern to the petitioners, and these will continue to be regulated by the State.

On April 11, 1983, EPA issued Dow an information request pursuant to several of EPA's statutory authorities, requiring the company to provide information on any halogenated dioxins or furans disposed of in its injection wells. The EPA will review information received pursuant to this request to investigate petitioners concerns over recent and past disposal practices of Dow. Although Dow has indicated they have closed their remaining injection wells as of January 1, 1983, any information obtained will be evaluated to determine possible contamination from previous disposal practices. If Dow in the future seeks to re-open any of its wells for waste disposal, it will be required to obtain EPA approval for construction and operation of the wells.

The EPA's proposed study of the presence of dioxins and other toxic pollutants in the environment around Midland includes a proposal to do some analysis of groundwater in the vicinity of waste injection wells. This effort will complement the information already available from State files and other sources in addressing the petitioners' concerns about waste injection practices.

D. Land Pollution

The Petition raises concerns about land disposal of hazardous wastes in the area, and pays specific attention to land pollution from spillage of brines and toxic wastes from Dow Chemical Company's injection well system. Potential environmental hazards from the handling of hazardous wastes, including those handled on the surface prior to their injection in deep wells, is addressed by EPA's authority under the Resource Conservation and Recovery Act.

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Dow currently has Interim Status for both the Midland facility and the Salzburg Road landfill under Section 3005(e) of RCRA. Interim Status allows an existing hazardous waste facility to continue in operation during the period prior to EPA's issuance or denial of a RCRA permit. Both the Midland facility and the Salzburg Road landfill are required to comply with Interim Status Standards found at 40 CFR Part 265.

An inspection was conducted by EPA, Region V and the MDNR on June 9-11, 1981, at the Midland facility to determine compliance with Interim Status Standards. The inspection found three minor violations which were corrected by Dow. The MDNR conducted another inspection on September 21, 1982, and found no violations. No inspections have been conducted at the Salzburg Road landfill by the EPA.

On March 23, 1983, Dow reported to the MDNR that liquid had been found in the liner failure detection system sump of the Salzburg Road landfill. According to the Act 64 permit issued by the MDNR for the landfill operation, Dow was to cease using any cell of the landfill which was connected to a cell which may be leaking. Dow continued to place wastes in an affected cell, an action which was in violation of its permit. On April 12, 1983, the MDNR issued a Cease and Desist Order requiring Dow to stop using the affected cell and to develop a plan to either cleanse the detection system or to excavate all wastes from the affected cell and place them in a secure cell.

Dow's investigation revealed that the leachate collection pump had malfunctioned, thereby causing a backup into the detection system. In addition to remedying the backup problem, Dow has purged the detection system with city water to clean it out. Dow has also submitted a proposal to the MDNR to perform tracer testing to determine if the landfill liner in the affected

cell has failed. The MDNR is now reviewing this proposal. Both the MDNR and Dow have found no evidence of groundwater contamination, and both believe the liner is not damaged. In the interim, Dow is operating the Salzburg landfill subject to a May 17, 1983, modified Cease and Desist Order and Consent Agreement endorsed by the MDNR.

On April 5, 1983, the EPA notified Dow that Part B applications for permits to store, treat, and dispose of hazardous waste are to be submitted within the next six months for both the Midland facility and the landfill. In preparing the applications, Dow is required to provide details on the operation of its incinerators and landfill, to describe its handling and transportation procedures for hazardous wastes, and to conform all of these practices to the requirements of EPA's regulations.

The EPA's call-in of the Part B permit application initiates the process of complete review of Dow's hazardous ~~waste~~ handling procedures. The petitioners, and the rest of the public, will have the opportunity to review and comment on any proposed Resource Conservation and Recovery Act permit before it is issued.

As previously mentioned, Dow has informed the EPA that it ceased its use of injection wells for the disposal of chemical wastes on January 1, 1983. However, if Dow chooses to employ this disposal method for hazardous wastes in the future, its methods of handling these wastes on the surface while transporting them to wells for disposal will be subjected to this permit review process.

Also as previously mentioned, the handling of brines (as opposed to hazardous wastes) on the surface prior to reinjection is outside the EPA's regulatory jurisdiction. Concerns about problems resulting from the handling of brines before reinjection into the ground must be referred to the State for resolution.

The Resource Conservation and Recovery Act permit for Dow will regulate much more than just the handling of hazardous wastes when it is issued. It will set operation, monitoring and emission standards for the Dow incinerators. It will establish requirements for operation of hazardous waste tanks and containers. It will require liability insurance for possible damages and require planning to cover closure and post-closure costs for hazardous waste areas. In short, it will subject all of Dow's ongoing hazardous waste activities to a comprehensive regulatory scheme, in an effort to keep such activities from causing environmental hazards in the future.

The petitioners are also very concerned about dangers caused by past hazardous waste handling and disposal practices, particularly at the Rockwell Road and Poseyville dump sites. The EPA's authority to take action on these types of problems is under the Comprehensive Environmental Response, Compensation and Liability Act, as well as the Resource Conservation and Recovery Act. Under these statutes, the EPA intends to perform a preliminary assessment of hazards from these dump sites, and follow up with site inspections if warranted by the preliminary assessments. A site inspection under this program involves sampling and collection of other technical information necessary so that the site can be scored under the hazard ranking system specified in the National Contingency Plan. This scoring system is an integral part of determining whether a site is placed on the National Priorities List for cleanup using the federal Superfund.

It is important to note that resources under the Comprehensive Environmental Response, Compensation and Liability Act must be applied on the basis of priority, and the State and EPA must decide how the hazardous waste problems in central Michigan relate to other areas or sites in Michigan. The EPA is currently negotiating a cooperative agreement with Michigan for performance

of preliminary assessments at 430 sites, and site inspections at 50 sites, throughout Michigan over a 15 month period. There currently are 21 site inspections scheduled in Michigan, with 4 of these sites located in the central Michigan area of concern to the petitioners. These sites are the Green Point Landfill, the Outer Drive Landfill, the Saginaw Township Landfill (Arthur) and the Saginaw Township Landfill (O'Connor), all in Saginaw County. Under the terms of EPA's statutory authorities, any federally-funded construction activities subsequent to the investigation of hazards and design of remedial measures will have to be cost-shared by the State. The public is encouraged to participate in activities at sites listed on the National Priorities List through a community relations program implemented for each site. This participation process is designed to inform the public of planned or ongoing actions, to provide the public the opportunity to be involved in decision making, and to focus and resolve any controversy.

E. Effects Of Contaminants On Humans

The Petition raises several issues concerning the effects of certain contaminants on human health, and the synergistic effects of exposure to a combination of toxic contaminants and radioactivity. Some of the issues raised here are of a kind that require basic research, rather than a field investigation, to determine appropriate remedies. The EPA monitors ongoing research on such issues. There is research underway at various institutions addressing some of the health issues that the petitioners have posed. 8/

8/ The health effects of polybrominated biphenyl (PBB) in bodies of Michigan residents is already under study by the University of Michigan Medical Center in Ann Arbor, at least in terms of developmental effects in young children. Research is underway at Michigan State University into the synergistic effects of various PBB congeners, and combinations of PBB and polychlorinated biphenyl (PCB).

EPA has also actively contributed to ongoing research into certain issues the petitioners have raised, including long term study of Michigan residents that have been exposed to polybrominated biphenyl, and a multi-year evaluation of persons who regularly consume Great Lakes fish. 9/ EPA's Research and Development Office has been directly involved in certain related research, notably an evaluation of health effects associated with exposure to dioxin that was performed as a part of the development of the dioxin criteria document mentioned in the Water Pollution subsection, above.

The utility of conducting further health effects studies in central Michigan is already the subject of discussions between the EPA, the Michigan Department of Public Health and the federal Centers for Disease Control. These agencies have primary responsibility for health effects studies, and the EPA will work closely with them to examine health effects research alternatives that would address concerns raised in the Petition.

By going beyond the effects of specific contaminants, however, and raising questions of synergistic effects of toxicants and radioactivity, the Petition raises very difficult questions. At this time, the EPA is primarily focusing its resources on determining whether and what environmental contaminants are present, and the effects of such contaminants themselves, in an attempt to fashion remedies to threatened hazards. The investigations that EPA will be performing to identify pollutants in different media should provide a basis for efforts to assess possible interactions of pollutants from different routes of exposure. At a minimum, the data will be collected in a manner to allow the calculation of risk to human health through certain routes of exposure, such as eating contaminated fish. As a step toward identifying

9/ These studies are being conducted by the Michigan Department of Public Health under cooperative agreements with EPA.

future research needs in this area, the EPA will initiate a literature search on the issue of synergism between toxicants and radioactivity.

The information that EPA gathers on health effects issues, whether developed by EPA or obtained through the research of other institutions, will be fully available to the petitioners and the rest of the public.

The remainder of this response will address the more specific actions that petitioners have sought to have the EPA perform under particular statutory provisions.

IV. PETITIONERS' REQUESTS UNDER TSCA

The Petition seeks, under Section 21 of TSCA, to have the EPA issue an order under Section 6(b) of TSCA requiring Dow to submit its quality control procedures, to revise such procedures where necessary, and to give public notice of unreasonable risks it has caused. The provisions of Section 6(b) relate to unreasonable risks caused by the manufacture or processing of chemical substances or mixtures.

The risks cited in the Petition from contaminated wastes reaching the environment are more appropriately addressed at this time under other environmental statutes. 10/ EPA has already employed and will continue to

10/ Congress specifically directed the EPA, in Section 9 of TSCA, 15 USC 2608, to use other statutes instead of TSCA if they could be used to eliminate or sufficiently reduce unreasonable risks. The other statutes relevant here include the Clean Air Act, the Clean Water Act, the Safe Drinking Water Act, the Resource Conservation and Recovery Act, and the Comprehensive Environmental Response, Compensation, and Liability Act. The issues relating to radioactivity are also more appropriately addressed under the Atomic Energy Act. These acts also provide ample authority to require the submission of process data necessary to administer their respective responsibilities.

11/ This information request was originally issued January 21, 1981, and modified on May 14, 1981. EPA is currently seeking enforcement of this request in federal court (see footnote 1 above).

employ its other statutory authorities to seek internal information from Dow where that information would assist EPA in assessing possible hazards from release of contaminated wastes to the environment. Most notably, internal waste stream information has been sought from Dow under the Clean Water Act 11/ on all processes that produce wastewaters, and information has been sought under the Clean Air Act and the Resource Conservation and Recovery Act on any processes that could emit certain toxic contaminants to the air, including the Dow incinerators. 12/ EPA is concerned about the quality control practices used in the manufacture of certain chemicals, and believes that it may become appropriate at some future time to employ an order under Section 6(b) of TSCA to address a risk posed by the manufacture or processing of chemical substances or mixtures. This determination will be based in part on the investigations outlined above, and on any further information obtained by EPA.

The Petition requests that EPA conduct a full field investigation before ruling on the Petition. Section 21(b)(3) of TSCA provides, however, that EPA shall either grant or deny a petition within 90 days after it is filed. Several of the investigations that EPA has underway or in planning stages will take far in excess of 90 days to complete. Rather than delay ruling on the Petition for the uncertain period of time that will be necessary to complete its investigations into the issues that have been raised, the EPA deems it appropriate to rule upon the Petition in the statutorily prescribed 90 day period.

For the reasons stated above, the EPA hereby denies the Petition to the

12/ An information request was issued on April 11, 1983 and a RCRA permit application was called in on April 5, 1983, as discussed earlier.

extent that it claims that it is necessary or appropriate at this time to issue an order to the Dow Chemical Company under Section 6(b) of TSCA.

The Petition also cites Section 4(f)(2) of TSCA, 15 U.S.C. 2603(f)(2), and states that it constitutes information sufficient to provide a reasonable basis to conclude that a chemical substance or mixture is presenting a significant risk of serious or widespread harm from cancer, gene mutations, or birth defects in the central Michigan area. ^{13/} The primary information supplied in the Petition on this subject is the information concerning increased incidents of birth defects and soft tissue sarcoma in the Midland County area. The EPA will continue to examine data already supplied by the petitioners and any additional information they bring to our attention. Further, the EPA will seek to locate and evaluate any other information on health risks in central Michigan, including information held by other state and federal public health agencies. At this time, the EPA is still collecting information to determine whether any chemical substances or mixture mentioned in the Petition are posing significant risks. The EPA will continue to study the problems addressed in the Petition and utilize whatever regulatory controls are appropriate based upon the information that is obtained.

V. SIXTY DAY NOTICES OF INTENT TO FILE CITIZENS' SUITS

The Petition states that it is intended to serve as a sixty day notice of intent to file citizen's suits under TSCA, the Safe Drinking Water Act, the Clean Air Act, and the Clean Water Act. The expiration of such notices without EPA action allows a notifier to file a citizen's suit against an

^{13/} Section 4(f)(2) is not subject to petition under Section 21 of TSCA, since it provides no direct authority for issuance, amendment or repeal of a rule.

alleged violator of the appropriate statute, or against the EPA for failing to take a non-discretionary action. Since the Petition does not identify any non-discretionary action that the EPA has failed to take at this time, the sixty day notices apparently are intended to allow petitioners to sue alleged violators of the listed statutes. It further appears from the Petition that the citizen's suits contemplated by the petitioners are suits under the emergency provisions of the various statutes. 14/ These emergency provisions allow the EPA, or the citizen notifier in this case, to file injunctive actions in federal district court seeking to require alleged violators to remedy any situation that is or may be presenting an imminent and substantial endangerment to health, welfare, or to the environment.

Upon receiving citizen sixty day notices concerning alleged violations of permit conditions, or specified discharge standards, the EPA can generally make a determination of whether a violation did or did not occur in a relatively straight-forward manner. EPA can then either take action or report it found no violation within the sixty day period. The determination of whether an action under one of the emergency provisions is appropriate is not nearly so straight-forward. The EPA will respond to the petitioners' sixty day notices by conducting its ongoing and proposed investigations as outlined in III above, and by taking action under its various authorities whenever the results of such investigations support such action. The EPA recognizes that this is not sufficient action to foreclose the petitioners right to file a citizen suit against any alleged violator under the cited statutes so long as all other jurisdictional requirements have been met.

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14/ Section 504 of the Clean Water Act, Section 303 of the Clean Air Act, Section 7 of TSCA, Section 1431 of the Safe Drinking Water Act.


VII. CONCLUSION

The central Michigan "Citizen's Petition for Investigation and Enforcement Action" raises numerous issues relating to the pollution of central Michigan's air, water, groundwater, land, and human population with toxic chemicals and radioactivity.

The Petition's request that the EPA exercise its discretion to perform a full investigation of hazards from widespread pollution in central Michigan is granted to the extent that it can be addressed within the context of EPA's various statutory authorities, as outlined in this response. The EPA intends to continue its ongoing efforts to broadly investigate toxic contamination of the air, water, soil, and groundwater in central Michigan under its several statutory authorities. The EPA is pursuing these efforts as a matter of its discretion, beyond what it is legally required to do in response to the Petition. The EPA will perform such investigations because it shares the petitioners' concern about contamination of the environment in Michigan, and has independently determined that such further investigations are appropriate. The EPA's investigations in this area will of necessity be carefully coordinated with the responsible State and federal agencies, in particular the Michigan Department of Natural Resources, the Michigan Department of Public Health, the Nuclear Regulatory Commission, and the Centers for Disease Control. The EPA welcomes additional input from the petitioners and other members of the public on further monitoring activities which should be conducted in this area as part of a full field investigation.

The Petition includes specific suggestions and requests for full participation by the petitioners in the development of any studies relevant to the Petition, and for appointment of an independent expert to oversee implementation of any studies. EPA states its intent to provide public participation mechanisms as a part of proposed investigations, but declines the suggestion

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to appoint an independent expert. EPA's stated intent to provide for peer review, in combination with the public participation mechanisms that will be provided, should meet the petitioners' concerns which led to the suggestion of the independent expert.

The Petition's request that a specific administrative order be issued to Dow Chemical Company under Section 6(b) of TSCA is denied as inappropriate at this time. The EPA has determined that the specific issues raised are more appropriately addressed under other statutory authorities, although the Agency may decide in the future to exercise Section 6(b) authorities to obtain information on quality control.

The Petition states that it serves as a sixty day notice of intent to file citizen suits, apparently against alleged polluters under the provisions of several environmental statutes. The EPA is subjecting this issue to further investigation, and will take action under these provisions whenever supported by available evidence.

Issued this _____ day of _____, 1983

Administrator

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