

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

In the Matter of:

ZF Active Safety US Inc.
Kelsey-Hayes, Milford
101 Oak Street, Milford, Oakland County, Michigan

EGLE Docket No. AO-RRD-22-001

Respondent.

Proceeding under Section 20119 of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, MCL 324.20119.

ADMINISTRATIVE ORDER FOR RESPONSE ACTIVITY

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I. JURISDICTION

This Administrative Order (Order) is issued pursuant to the authority vested in the Michigan Department of Environment, Great Lakes, and Energy (EGLE) by Section 20119 of Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), MCL 324.20119.

II. PARTIES BOUND

This Order shall apply to and be binding upon ZF Active Safety US Inc. ("Respondent") and its successors. No change in ownership or corporate status shall in any way alter Respondent's responsibilities under this Order. Respondent shall provide a copy of this Order to all contractors, subcontractors, laboratories, and consultants retained to conduct any portion of the work performed pursuant to this Order within three (3) calendar days of the effective date of such retention. Notwithstanding the terms of any such contract, Respondent is responsible for compliance with the terms of this Order, and shall ensure that such contractors, subcontractors, laboratories, and consultants perform all work in conformance with the terms and conditions of this Order.

III. DEFINITIONS

3.1 "Act 399" means the Michigan Safe Drinking Water Act, 1976 PA 399, MCL 325.1001 *et seq.*, as amended and it's the Administrative Rules promulgated thereunder.

3.2 "Day" means a calendar day, unless otherwise specified in this Order.

3.3 "DWEHD" means the Drinking Water and Environmental Health Division of EGLE and its successor entities.

3.4 "Effective Date" means the date the EGLE Director issues this Order. All dates for the performance of obligations under this Order shall be calculated from the Effective Date.

3.5 “EGLE” means the Michigan Department of Environment, Great Lakes, and Energy, its predecessor entities, its successor entities, and those authorized persons or entities acting on its behalf.

3.6 “Facility” means the Property and any area, place, parcel or parcels of property, or a portion of a parcel of property where a hazardous substance originating from the Property in excess of the concentrations that satisfy the cleanup criteria for unrestricted residential use, has been released, deposited, disposed of, or otherwise comes to be located.

3.7 “Feasibility Study” means the January 11, 2022, Vinyl Chloride Treatment Focused Feasibility Study Report that was prepared by Wood Environment & Infrastructure Solutions, Inc. for the Village of Milford, attached as Exhibit A.

3.8 “Financial Assurance Mechanism” means a performance bond, escrow, cash, certificate of deposit, irrevocable letter of credit, corporate guarantee, or other equivalent security, or any combination thereof necessary to ensure the Monitoring and Operation of the treatment system installed pursuant to the Scope of Work. The Financial Assurance Mechanism shall remain in a form that allows the Village of Milford or EGLE to immediately contract for the Monitoring and Operation for which financial assurance is required.

3.9 “Monitoring and Operation” means the necessary long-term inspection, operation and maintenance of the treatment system installed pursuant to this Order.

3.10 “Order” means this Administrative Order, No. AO-RRD-22-001, issued to Respondent to perform response activities relating to the Facility.

3.11 “Part 201” means Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), MCL 324.20101 *et seq.*, and the Part 201 Administrative Rules promulgated thereunder.

3.12 “Parties” means the Respondent and EGLE.

3.13 “Property” means the former Kelsey-Hayes Company, Milford property located at 101 Oak Street, Milford, Oakland County, Michigan, legally described in Exhibit B.

3.14 “Response activity” means evaluation, interim response activity, remedial action, demolition, or the taking of other actions necessary to protect the public health, safety, or welfare, or the environment. Response activity also includes health assessments or health effect studies carried out under the supervision, or with the approval of the Michigan Department of Health and Human Services and enforcement actions related to any response activity.

3.15 “RRD” means the Remediation and Redevelopment Division of EGLE and its successor entities.

3.16 “Scope of Work” means the design, permitting, installation, and implementation of the treatment system described in Paragraphs 4.1.1.1 and 4.1.1.2 of the Feasibility Study.

3.17 Unless otherwise stated herein, all terms used in this Order, which are defined in Part 3, Definitions, of the NREPA, MCL 324.301; Part 201 of the NREPA, MCL 324.20101, *et seq.*; or Act 399, shall have the same meaning in this document as in Parts 3 and 201 and Act 399.

IV. FINDINGS OF FACT AND DETERMINATIONS

4.1 The former Kelsey-Hayes, Milford Property is located at 101 Oak Street, Milford, Oakland County, Michigan. The Property housed a main manufacturing plant, a 1,600 square foot storage building, and a guard house.

4.2 In August 1989, EGLE was notified that cis-1,2-dichloroethene (cis-1,2-DCE), a volatile organic compound (VOC), was detected in the Village of Milford municipal drinking water wells. EGLE investigated several potential sources including Kelsey-Hayes. In June 1994, the Village of Milford requested EGLE to review and monitor the remedial investigation performed by Kelsey-Hayes.

4.3 Various reports compiled between February 1995 and November 1996 and reviewed by EGLE indicated the presence of hazardous substances including but not limited to tetrachloroethylene (PCE) and trichloroethylene (TCE) migrating off the Property. On February 4, 1997, EGLE notified Kelsey-Hayes (now Respondent) that the Property was a Facility, and that Respondent was an owner or operator responsible for an activity causing a release of a hazardous substance, and therefore liable under Section 20126 of Part 201 for performance of response activities under Section 20114, including but not limited to determining the nature and extent of the release at the facility. (Exhibit C)

4.4 In June 1997, a soil vapor extraction (SVE) system was approved by EGLE and operated by Kelsey-Hayes from approximately 1997 until 2001. In 1999, Kelsey-Hayes, as an interim response activity, constructed a groundwater pump and treat system with an air stripper that included the installation of two pumping wells along Commerce Street to intercept the groundwater plume, remove contaminated groundwater, and prevent contaminants from reaching the village of Milford's municipal drinking water wells.

4.5 In 2001, the manufacturing plant on the Property shut down and the structures were demolished. The Property is currently a fenced vacant parcel of land,

except for the paved southern parking lot. The only remaining building on the Property is the groundwater treatment system building. On May 31, 2019, the name of the company changed from Kelsey-Hayes Company to ZF Active Safety US Inc.

4.6 In a letter to EGLE dated March 27, 2006, Kelsey-Hayes acknowledged awareness of Part 201 Facility status for the Property and of its obligations under Section 20107a and 20114 of Part 201. Kelsey-Hayes also informed EGLE that it had undertaken substantial investigation and remediation activities for several years with respect to soils on-site and groundwater off-site and was committed to satisfying its obligations to diligently pursue response activities consistent with the provisions of Part 201. (Exhibit D)

4.7 In June 2021, EGLE received groundwater sampling data that identified exceedances of vinyl chloride above Part 201 generic drinking water criteria in monitoring well OW-16D2, which is a component of Respondent's monitoring well network and is closest in proximity to and located less than 200 feet from the Village of Milford's municipal drinking water wells. Vinyl chloride and cis-1,2-DCE are both breakdown products of PCE and TCE.

4.8 The presence of vinyl chloride in OW-16D2, and cis-1,2-DCE in the Village of Milford municipal drinking water wells, indicates that Respondent's VOC plume is beyond the influence of the Respondent's pump and treat system. The presence of vinyl chloride in monitoring well OW-16D2, a known carcinogen, represents an imminent and substantial endangerment to the public health, safety, welfare, or the environment within the meaning of Section 20119 of NREPA, MCL 324.20119.

4.9 In a letter dated September 1, 2021, EGLE requested Respondent to increase groundwater monitoring, and submit a Response Activity Plan with a schedule to address the groundwater contamination. In a letter dated October 25, 2021, EGLE requested Respondent commit to installing treatment on the Village of Milford drinking water system to protect the public from the imminent and substantial endangerment

caused by the chlorinated solvent plume emanating from former Kelsey-Hayes Property.

4.10 On January 11, 2022, the Village of Milford had a Feasibility Study prepared. The Feasibility Study evaluated two alternatives for their ability to meet remedial objectives, technical feasibility, and cost. Alternative 1, utilizing a packed air stripper, was recommended as the permanent remedy.

4.11 The presence of vinyl chloride above Part 201 generic drinking water criteria in monitoring well OW-16D2 poses an imminent and substantial endangerment to the public health, safety, welfare, or the environment within the meaning of Section 20119 of NREPA, MCL 324.20119.

4.12 In order to protect public health, safety, and welfare, and the environment, and to abate the danger or threat caused by the release or threat of release of hazardous substances from the Facility, it is necessary and appropriate that response activities be performed. Section V (Order) of this Administrative Order specifies the response activities that must be performed.

4.13 On the basis of these Findings of Fact, EGLE has determined that entry of this Order is necessary to expedite the performance of effective response activities to abate the imminent and substantial endangerment and that the entry of this Order is in the public interest.

V. ORDER

Based upon Section IV (Findings of Fact and Determinations), Respondent is hereby ordered to perform the response activities set forth in this Order including but not limited to all attachments and documents incorporated by reference into this Order. All response activities performed pursuant to this Order shall comply with the requirements of Part 201, the Part 201 Rules, the Michigan Safe Drinking Water Act, 1976 PA 399 and Administrative Rules, as amended (Act 399), and all other state and federal laws.

5.1 Performance Objectives. The performance objectives of this Order are:

5.1.a. Provide for a long-term permanent treatment solution to abate the imminent and substantial endangerment to the public health, safety, welfare, or the environment posed by the proximity of vinyl chloride in groundwater near the Village of Milford municipal drinking water wells, and to prevent vinyl chloride from entering the Village of Milford municipal drinking water system.

5.1.b. Increase monitoring well sampling frequency until the long-term treatment solution is fully operational.

5.1.c. Provide for financial assurance to ensure the Monitoring and Operation of the long-term treatment solution.

5.1.d. If necessary, to provide for short-term interim response measures to immediately mitigate injury to public health.

5.2 Installation of Air Stripper. Pursuant to the schedule below, Respondent shall diligently provide for and fully cooperate with the Village of Milford to design, install, implement, and maintain and operate the packed tower air stripper consistent with the Scope of Work no later than 365 days after the Effective Date of this Order. All work shall be conducted in accordance with the requirements of this Order.

5.2.a. Within 35 days of the Effective Date, Respondent shall conduct an initial design meeting with the Village of Milford and DWEHD Warren District Office (WDO).

5.2.b. Within 30 days after the initial design meeting, Respondent shall conduct an 80% design meeting with the Village of Milford and DWEHD WDO and provide 80% design plans and specifications to the Village of Milford and DWEHD for preliminary review.

5.2.c. Within 30 days after the 80% design meeting, Respondent shall submit to DWEHD WDO an approvable application for an Act 399 construction permit and supporting plans and specifications that detail work necessary to implement treatment. The Act 399 construction permit application must be approved and signed by the Village of Milford.

5.2.d. Within 60 days from the Act 399 construction permit issuance, construction activities to install the air stripper shall commence in accordance with the Act 399 construction permit and the plans and specifications approved by DWEHD.

5.2.e. Upon completion of all construction activities, the Respondent shall notify DWEHD WDO to schedule a final inspection. Such notification shall be made, in writing, to the DWEHD WDO.

5.2.f. The construction activities shall not be deemed to be completed in accordance with the Act 399 construction permit and the plans and specifications approved thereunder until DWEHD issues a letter to the Village of Milford granting approval to commence operation.

5.2.g. For the purposes of communication with the DWEHD WDO, communications shall be directed to:

Tiffany Yusko-Kotimko, Environmental Engineer
Warren District Office Drinking Water and Environmental Health Division
Michigan Department of Environment, Great Lakes, and Energy
27700 Donald Court, Warren, Michigan 48092
Phone: 586-817-9120
Fax: 586-753-3831
E-mail Address: YuskokotimkoT@Michigan.gov

5.3 **Increase monitoring well sampling frequency.** Beginning 45 days after the Effective Date and continuing monthly until this Order is terminated, Respondent shall sample monitoring well OW-16D2. Collected samples shall be analyzed for VOCs with results reported to EGLE in the progress reports pursuant to Section XII.

5.4 Financial Assurance. Within 180 days of the Effective Date, Respondent shall propose a Financial Assurance Mechanism to EGLE for approval. The Financial Assurance Mechanism shall be sufficient to ensure the Monitoring and Operation for a period of 30 years. The cost of the Monitoring and Operation covered by the Financial Assurance Mechanism shall be documented based on an annual estimate of reasonable costs of the Monitoring and Operation as if they were to be conducted by a person under contract to the Village of Milford, not employees of the Respondent. The proposed Financial Assurance Mechanism shall also include all assumptions and calculations used in preparing the necessary cost estimate and shall be signed by an authorized representative of Respondent who shall confirm the validity of the data.

5.4.a. Sixty (60) days prior to the five (5) year anniversary of the Effective Date and each subsequent five (5) year anniversary, Respondent shall provide to EGLE a report containing the actual Monitoring and Operation Costs for the previous five (5) year period and an estimate of the amount of funds necessary to assure Monitoring and Operation Costs for the following thirty (30)-year period given the financial trends in existence at the time of preparation of the report (Monitoring and Operation Cost Report). The Monitoring and Operation Cost Report shall also include all assumptions and calculations used in preparing the necessary cost estimate and shall be signed by an authorized representative of Respondent who shall confirm the validity of the data. Respondent may only use a present worth analysis if an interest accruing Financial Assurance Mechanism is selected.

5.4.b. Within sixty (60) days after Respondent's submittal of the Monitoring and Operation Cost Report to EGLE, Respondent shall capitalize or revise the Financial Assurance Mechanism in a manner acceptable to EGLE to address Monitoring and Operation Costs consistent with the conclusions of the Monitoring and Operation Cost Report unless otherwise notified by EGLE. If EGLE disagrees with the conclusions of the Monitoring and Operation Cost Report, Respondent shall capitalize the Financial Assurance Mechanism to a level acceptable to EGLE within thirty (30) days of EGLE notification. If, at any time, EGLE determines that the Financial Assurance Mechanism does not secure sufficient funds to address Monitoring and

Operation Costs, Respondent shall capitalize the Financial Assurance Mechanism or provide an alternate Financial Assurance Mechanism to secure any additional costs within thirty (30) days of request by EGLE.

5.5 **Achievement Report.** Upon completion of the response activities conducted pursuant to Paragraphs 5.1 through 5.4, Respondent shall submit for EGLE review and approval an achievement report documenting the completion of the response activities undertaken to satisfy the requirements of this Order. The achievement report shall include the following:

5.5.a. The letter issued by DWEHD to the Village of Milford granting approval to commence operation.

5.5.b. Certified financial statements or other appropriate documentation of funding of the Financial Assurance Mechanism approved by EGLE.

VI. EMERGENCY RESPONSE

6.1 If at any time drinking water monitoring data indicates the presence of Vinyl Chloride or other VOCs in the Village of Milford drinking water at levels exceeding the maximum contaminant level (MCL), Respondent shall immediately and fully cooperate with the Village of Milford and EGLE to provide for interim response measures to mitigate injury to public health. If the provision of alternate water supply (such as bottled water) is necessary to mitigate injury to public health, Respondent shall immediately provide it to all Village of Milford drinking water customers until such time that other interim response measures are effectively implemented to mitigate the injury to public health.

VII. PROJECT MANAGERS AND COMMUNICATION/NOTICES

7.1 Within thirty (30) days of the Effective Date of this Order, Respondent shall designate and provide contact information to a Project Manager who shall have primary responsibility for overseeing the performance of the response activities at the Facility and other requirements specified in this Order for Respondent. The EGLE Project Manager shall be Kevin Wojciechowski, who can be contacted as follows:

Kevin Wojciechowski, Project Manager
Warren District Office Remediation and Redevelopment Division
Michigan Department of Environment, Great Lakes, and Energy
27700 Donald Court, Warren, Michigan 48092
Phone: 586-623-2948
Fax: 586-751-4690
E-mail Address: WojciechowskiK@Michigan.gov

The EGLE Project Manager will be the primary designated representative for EGLE for the Facility, unless otherwise directed pursuant to Paragraphs 5.2.a – g. Unless otherwise specified by this Order, whenever notices are required to be given or progress reports, information on the collection and analysis of samples, sampling data, approvals or disapprovals, or other technical submissions are required to be forwarded by one party to the other party under this Order, or whenever other communications between the Parties are needed, such communications shall be directed to the EGLE Project Manager at the address listed above. If any party changes its designated Project Manager, the name, address, and telephone number of the successor shall be provided to the other Party, in writing, as soon as practical.

7.2 EGLE may designate other authorized representatives, employees, contractors, and consultants to observe and monitor the progress of any activity undertaken pursuant to this Order.

7.3 This paragraph does not relieve Respondent from other reporting obligations under applicable state and federal laws and regulations.

VIII. ACCESS

8.1 Upon the Effective Date of this Order, Respondent shall allow EGLE and its authorized employees, agents, representatives, contractors, and consultants to enter the Facility and associated properties at all reasonable times to the extent access to the Facility and any associated properties are owned, controlled by, or available to Respondent. Upon presentation of proper credentials and upon making a reasonable effort to contact the person in charge of the Facility, EGLE staff and its authorized employees, agents, representatives, contractors, and consultants shall be allowed to enter the Facility and associated properties for the purpose of conducting any activity for which access is required for the implementation of this Order or to otherwise fulfill any responsibility under state or federal laws with respect to the Facility, including, but not limited to, the following:

8.1.a. Monitoring response activities or any other activities taking place pursuant to this Order at the Facility;

8.1.b. Verifying any data or information submitted to EGLE;

8.1.c. Assessing the need for, or planning, or conducting investigations relating to the Facility;

8.1.d. Obtaining samples;

8.1.e. Assessing the need for, or planning, or conducting response activities at or near the Facility;

8.1.f. Assessing compliance with requirements for the performance of monitoring, operation and maintenance, or other measures necessary to assure the effectiveness and integrity of the remedial action;

8.1.g. Inspecting and copying non-privileged records, operating logs, contracts, or other documents;

8.1.h. Determining whether the Facility or other property is being used in a manner that is or may need to be prohibited or restricted pursuant to this Order; and

8.1.i. Assuring the protection of public health, safety, or welfare, or the environment.

8.2 Any person granted access to the Facility pursuant to this Order shall comply with all applicable health and safety laws and regulations.

8.3 Notwithstanding any provision of this Order, EGLE shall retain all of its information gathering, inspection, enforcement, and access authorities under Part 201 of the NREPA and any applicable statute or regulation.

IX. COMPLIANCE WITH OTHER LAWS

All actions required to be taken pursuant to this Order shall be undertaken in accordance with the requirements of all applicable or relevant and appropriate state and federal laws and regulations, including but not limited to Parts 3 and 201 and Act 399 and laws relating to occupational safety and health, and other state environmental laws and any other necessary permits. In the event that there is a conflict in the application of federal or state laws or regulations, the more stringent of the conflicting provisions shall apply. Other agencies may also be called upon to review the conduct of work under this Order.

X. RECORD RETENTION/ACCESS TO INFORMATION

10.1 Respondent and its representatives, consultants, and contractors shall preserve and retain, during the pendency of this Order and for a period of ten (10) years after its termination, all records relating to Respondent's performance of the response activities required by this Order or that are maintained or generated pursuant to any requirement of this Order. After the ten (10) year period of document retention, Respondent and its successors shall obtain EGLE's written permission prior to the destruction of such documents and, upon request, Respondent and/or its successors shall relinquish custody of all documents to EGLE. Respondent's request shall be accompanied by a copy of this Order and sent to the following address:

Director
Remediation and Redevelopment Division
Michigan Department of Environment, Great Lakes, and Energy
P.O. Box 30473
Lansing, Michigan 48909

10.2 Respondent shall, upon request, provide to EGLE all documents and information within its possession, or within the possession or control of its employees, contractors, agents or representatives relating to the implementation of this Order, including, but not limited to, sampling, analysis, chain of custody records, receipts, reports, sample traffic routing, correspondence or other documents or information related to the work. Respondent shall also, upon request, make available to EGLE, upon reasonable notice, Respondent's employees, contractors, agents or representatives with knowledge of relevant facts concerning the performance of the work.

XI. SUBMISSIONS AND APPROVALS

11.1 Submissions required by this Order shall comply with all applicable laws and regulations and the requirements of this Order, and shall be delivered to EGLE in accordance with the schedules set forth in this Order. The Submission delivered to EGLE for approval shall be marked "Draft" and shall include in a prominent location the following disclaimer:

Disclaimer: This document is a DRAFT document that has not received final approval from the Department of Environment, Great Lakes, and Energy (EGLE). This document was prepared pursuant to a governmental administrative order. The opinions, findings, and conclusions expressed are those of the authors and not those of the EGLE.

11.2 Any Submission that is required to be submitted for approval pursuant to this Order, EGLE will in writing: (a) approve the Submission; (b) approve the Submission with conditions; (c) disapprove the Submission; or (d) shall notify Respondent that the Submission does not contain sufficient information for EGLE to make a decision. Upon receipt of a notice of approval with conditions, disapproval, or that the Submission does not contain sufficient information to make a decision from EGLE, Respondent shall address the identified deficiencies in the Submission as directed by EGLE.

11.3 Informal advice, guidance, suggestions, or comments by EGLE regarding any Submission provided by Respondent shall not be construed as relieving Respondent of its obligation to obtain any formal approval required under this Order.

XII. PROGRESS REPORTS

12.1 Respondent shall provide to the EGLE Project Manager written progress reports regarding response activities and other matters at the Facility related to the implementation of this Order. These progress reports shall include the following:

12.1.a. A description of the activities that have been taken toward achieving compliance with this Order during the specified reporting period.

12.1.b. All results of sampling and tests and other data that relate to the response activities performed pursuant to this Order received by Respondent, its employees, or authorized representatives during the specified reporting period.

12.1.c. The status of any access issues that have arisen, which affect or may affect the performance of response activities, and a description of how Respondent proposes to resolve those issues and the schedule for resolving the issues.

12.1.d. A description of data collection and other activities scheduled for the next reporting period.

12.1.e. Any other relevant information regarding other activities or matters at the Facility that affect or may affect the implementation of the requirements of this Order.

12.2 The first progress report shall be submitted to EGLE within 60 days following the Effective Date of this Order. Thereafter, progress reports shall be submitted monthly. Pursuant to Section XIII of this Order, EGLE may approve modification of the schedule for the submission of progress reports.

XIII. AMENDMENTS/INCORPORATION BY REFERENCE

This Order may only be amended in writing by signature of the Director of EGLE or his or her authorized representative. Any required response activity may only be modified by the RRD Director or his or her authorized representative.

XIV. PENALTIES FOR NON-COMPLIANCE/WORK TAKEOVER

Pursuant to Sections 20119(4) and 20137(1) of NREPA, MCL 324.20119(4) and MCL 324.20137(1), Respondent is advised that if, without sufficient cause, Respondent commits any violation, or fails or refuses to comply with any provision of this Order, or any portion thereof, Respondent may be: (a) fined in a civil action brought in circuit court up to twenty-five thousand dollars (\$25,000.00) for each day in which such violation occurs or such failure to comply continues; and/or (b) subject to liability for exemplary damages in the amount of three (3) times the amount of any costs incurred by the State of Michigan as a result of Respondent's failure to comply with this Order, as provided in MCL 324.20119(4).

XV. DISCLAIMERS

The State of Michigan, including EGLE and its employees, agents and consultants, shall not be liable for injuries or damages to persons or property resulting from acts or omissions by Respondent, their officers, employees, agents, or contractor(s) in carrying out activities pursuant to this Order. The State of Michigan, including EGLE, shall not be held as a party to any contract entered into by Respondent or their officers, employees, agents, or contractor(s) in carrying out activities pursuant to this Order.

XVI. RESERVATION OF RIGHTS BY EGLE

16.1 EGLE expressly reserves all rights and defenses that it may have, to request or order Respondent to perform response activities in addition to those detailed in this Order. In addition, EGLE reserves the right to undertake response activities at any time and to perform any and all portions of the response activities required by this Order that Respondent have failed or refused to perform properly or promptly. EGLE, in cooperation with the Michigan Department of Attorney General, reserves any and all rights to take any enforcement action pursuant to Part 201, or any other available legal

authority, including the right to seek injunctive relief, monetary costs, damages or penalties, or punitive damages for any violation of law or of this Order.

16.2 Nothing in this Order shall be deemed to limit the power and authority of EGLE or the State of Michigan to take, direct, or order all appropriate action to protect the public health, welfare, or the environment or to prevent, abate or minimize a release or threatened release of hazardous substances, pollutants, contaminants, or hazardous wastes on, at, or from the Facility.

XVII. RESPONDENT'S INTENT TO COMPLY WITH THIS ORDER

In accordance with Section 20119(3) of NREPA, MCL 324.20119(3), Respondent is advised that within thirty (30) days of the Effective Date of this Order, Respondent is required to indicate to EGLE in writing whether or not Respondent intends to comply with this Order to:

Mr. Mike Neller, Director
Remediation and Redevelopment Division
Michigan Department of Environment, Great Lakes, and Energy
P.O. Box 30426
Lansing, Michigan 48909-7926

Via Courier

Mr. Mike Neller, Director
Remediation and Redevelopment Division
Michigan Department of Environment, Great Lakes, and Energy
Constitution Hall, 5th Floor, South Tower
525 West Allegan Street
Lansing, Michigan 48933-1502

XVIII. OPPORTUNITY TO CONFER

Respondent may, by email or otherwise notifying the EGLE Project Manager in writing within seven (7) days after receipt of this Order, request a conference with EGLE to discuss the correctness of any factual determinations upon which the Order is based, the applicability of this Order to Respondent, and the appropriateness of any action Respondent is ordered to take. If Respondent requests a conference, such conference shall be held either Monday, March 28, 2022 1:00 p.m. to 3:00 p.m. or Thursday, March 31, 2022 1:00 p.m. – 3:00 p.m. Respondent may submit materials for EGLE’s consideration prior to a conference held pursuant to this paragraph. Any conference held pursuant to Respondent’s request will be held remotely and Respondent may appear on their own behalf or through an attorney or other representative for the purpose of orally presenting any objections, defenses or contentions that Respondent may have regarding this Order, provided that such presentations shall not be a part of the administrative record upon which this Order is based.

XIX. SEVERABILITY

The provisions of this Order shall be severable, and should any provision be declared by a court of competent jurisdiction to be inconsistent with state law, and therefore unenforceable, the remaining provisions of this Order shall remain in full force and effect.

XX. TERMINATION OF CERTAIN PROVISIONS


Sections 5.2, 5.3, 5.5, VI, and XII of this Order shall terminate upon EGLE’s approval of the Achievement Report. All other Sections of this Order shall remain in force and effect.

XXI. EFFECTIVE DATE

This Order is effective on the date of its issuance.

IT IS SO ORDERED BY:

Issued at Lansing, Michigan, this 16th day of March, 2022.



Liesl Eichler Clark, Director
Michigan Department of Environment, Great Lakes, and Energy

APPROVED AS TO FORM:

Danielle Allison-Yokom
Danielle Allison-Yokom (P70950)
Assistant Attorney General
Environment, Natural Resources, and Agriculture Division
Michigan Department of Attorney General

Date: 3/15/22

EXHIBIT A
Feasibility Study



**Village of Milford Vinyl Chloride Treatment
Focused Feasibility Study Report**

Prepared for:
Village of Milford

Prepared by:
Wood Environment & Infrastructure Solutions, Inc.
46850 Magellan Drive, Suite 190
Novi, Michigan 48377

January 11, 2022

Project: 16207x13

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Table 5	Opinion of Probable Cost: Alternative 2 - Ozone System

1.0 INTRODUCTION

The Village of Milford (Village) extracts groundwater from two municipal production wells (PW-2 and PW-4). These production wells are located in Central Park. While not detected in either PW-2 or PW-4, vinyl chloride has been detected at a concentration of up to 3.5 micrograms per liter (ug/L) in a groundwater monitoring well (OW-16D2) which is located within 200 feet of Milford's municipal production wells. The drinking water criteria for vinyl chloride, its maximum contaminant level (MCL), is 2 ug/L. The Village has requested Wood PLC (Wood) to prepare a Focused Feasibility Study (FFS) to evaluate alternatives necessary to treat vinyl chloride, if necessary, given the proximity of the recent detections and threat to the Village's municipal water supply wells.

This FFS will summarize the items of concern, discuss the selection of appropriate goals, and present alternatives for the treatment of groundwater from the Village's production wells. In this FFS, each alternative is presented and a comparison is made of its potential effectiveness to meet objectives, its ease of implementation, and associated costs. Costs were generated based on previous project experience, and vendor price estimates.

1.1 Report Purpose and Objectives

The purpose of this FFS is to identify and evaluate alternatives that can effectively reduce vinyl chloride (VC) concentration in groundwater to levels below its respective MCL to address the threat to the Central Park production wells, thereby reducing potential risks to public health. The objectives of this FFS are to:

- Identify remediation technologies that will meet objectives
- Compare and evaluate the identified remediation technology alternatives
- Prepare a rough order of cost analysis for each technology alternative.

1.2 Background and Description

The Village's municipal wells are located in Central Park within the Village of Milford. Groundwater from production wells PW-2 and PW-4 are pumped to a control building located just north of them. Within the control building, water treatment including iron removal via an aeration system and filters, and addition of chlorine occurs. ZF Active Safety US Inc. (formerly Kelsey-Hayes Company) has been determined by EGLE as the responsible party for vinyl chloride impacted groundwater that has migrated to within 200 feet of the Village municipal production wells. EGLE has requested that ZF Active Safety US Inc. initiate the installation of a permanent treatment solution on the Village of Milford drinking water system due to the threat caused by the chlorinated solvent plume emanating from former Kelsey Hayes Property.

2.0 CONCEPTUAL SITE MODEL

The current and future uses of Central Park are for municipal drinking water pumping and treatment. Central Park is also maintained by the Village for recreational purposes.

EGLE has indicated that the source of chlorinated volatile organic constituents (CVOC's) including vinyl chloride in groundwater is ZF Active Safety US Inc. (ZF) which is located hydraulically

upgradient of the Central Park production wells. Chemicals of concern (COC's) for this FFS consists of vinyl chloride. Vinyl Chloride has recently been detected in groundwater upgradient (OW-16D2) of PW-2 and PW-4 at concentrations ranging from 1.0 to 3.5 ug/L. The Village has been conducting certain interim response measures (IRMs) since detections of VC above the MCL were discovered in OW-16D2. These IRMs include collecting monthly samples from a nearby monitoring well (MW-3), the Central Park production wells, and from the system distribution sampling tap, and are also evaluating additional IRMs as part of this FFS. IRM's, near the ZF facility have been implemented by ZF. The primary goal for this FFS is to identify treatment alternatives to reduce vinyl chloride concentrations, should they ever be detected in the Village's municipal water supply, from up to 50 ug/L in groundwater pumped from the municipal wells to levels below 2ug/L.

3.0 INTERIM RESPONSE MEASURES

Three interim response measures (IRMs), identified below, are available as a short-term emergency response if vinyl chloride is detected in the Village's water supply at concentrations approaching or exceeding drinking water quality standards before a long-term solution has been implemented. These IRMs would only to be used as an emergency interim solution while the design and construction of the final remedy is being performed.

- IRM 1: Use existing iron removal system to strip vinyl chloride from incoming water
- IRM 2: Mobile granular activated carbon (GAC) system
- IRM 3: Mobile air stripper system

3.1 Existing Iron Removal System

The existing iron removal system at the water treatment building utilizes air to oxidize and separate iron from the water. Vinyl chloride readily transitions from aqueous phase to vapor phase when in contact with air, so this IRM simply uses the existing infrastructure for a beneficial secondary use. The current iron removal system is not optimized for stripping CVOCs from the water stream however, so air/water interface contact area is limited and the air/water ratio is about half of what is recommended to be used in an air stripper. Review of existing water quality data appears to indicate that the iron removal system is also reducing cis-1,2-Dichloroethene by approximately 70%. With those considerations, the existing iron removal system will likely reduce vinyl chloride concentrations in treated water, but it will probably not be effective at reducing concentrations sufficiently to be considered a permanent solution.

As an IRM, the use of the existing iron removal system will likely provide sufficient vinyl chloride reduction if concentrations remain at or below 2 ug/L while installing a permanent remedy. One operational adjustment that could improve stripping efficiency would be to maximize air flow by increasing flow from the blowers while also decreasing the pumping rate from the municipal supply well to increase the air/water ratio. Given the water quantity needs of the Village, decreasing the pumping rate is not a viable option.

Vinyl chloride removal via air stripping is a very common solution. The current iron removal system is efficient at removing iron from the groundwater but its effectiveness in reducing vinyl chloride concentrations is limited. Pilot testing would be required to understand the ability of the existing iron removal system to also strip vinyl chloride from the water, but it should be assumed that it will only be able to strip between 0.5 ug/L and 2 ug/L vinyl chloride concentrations from the influent water. Aside from increased sampling frequency, no additional cost is anticipated to implement this IRM.

3.2 Mobile Granular Activated Carbon System

This IRM uses mobile granular activated carbon (GAC) units to reduce vinyl chloride concentrations in groundwater to less than 2 ug/L. This alternative is more robust than relying on the existing iron removal system and can handle higher vinyl chloride influent concentrations.

GAC has poor affinity to vinyl chloride and is generally not recommended for stand-alone treatment. Mobile GAC vessels are, however, one of the only quickly implementable IRMs available for treating water. This conceptual design assumes the use of two 20,000-pound GAC vessels in series to treat groundwater with a vinyl chloride concentration of up to 5 ug/L. The vessels can be delivered by truck and can be skid mounted or kept on a flatbed trailer.

Plumbing to connect to the existing system is assumed to be done primarily with temporary flexible hoses. Because of the low affinity of vinyl chloride to GAC it is anticipated that the lead GAC vessel will require changeouts biweekly, and after each changeout the vessel with new GAC will become the lag vessel. Because of the high GAC consumption and associated cost of this alternative it is impractical as a long-term solution.

Sampling should be performed weekly, at a minimum, to check for breakthrough and indicate when GAC changeouts are required. Head-loss through the vessels should be relatively low, so no additional pumps are assumed to be required for the operation of this system. Mobile GAC units as an IRM will be effective at keeping effluent concentrations below 2 ug/L if sampling is performed regularly and GAC changeouts are performed as soon as breakthrough is detected.

The current state of the supply chain, contractor workload, and other factors are making any quickly implementable alternative a feasibility challenge, however it is plausible to implement this solution within two weeks or less of the initial request. If the desired 20,000-pound vessels are not available, using additional smaller vessels is potentially an option to expedite the implementation of this alternative. Plumbing modifications will be required to connect the mobile GAC units into the existing infrastructure, but these modifications and connections are relatively simple and should not be difficult to execute. The cost to install and operate rental mobile GAC units as an IRM for three months is estimated to be between \$400,000 and \$1,700,000. A breakdown of costs is presented in **Table 1**.

3.3 Mobile Air Stripper

Air strippers are one of the most common methods used to treat vinyl chloride in drinking water. The technology has been tested and proved effective.

This IRM was evaluated assuming the use of Evoqua STAT 720 low-profile, trailer- or skid-mounted air stripper, however other manufacturers and models would likely also be effective. This stripper is approximately 11 feet tall and has a footprint of 6 foot by 12 foot. The air stripper is made of stainless steel. The stripper should be installed after the water passes through the existing iron removal system, otherwise scaling and fouling of the stripper will likely occur.

The maximum flow rate of a single mobile air stripper is 1,000 gallons per minute (gpm). Additional mobile air strippers could be installed in parallel to increase capacity of treatment if required to meet the Village flow requirements.

These air strippers are relatively low maintenance and only require periodic inspection if scaling or fouling isn't regularly occurring. This system also uses a 40 hp blower that will require periodic maintenance.

For the first month of operation sampling should be performed daily for a week, then weekly to confirm the stripper is effectively reducing vinyl chloride concentrations to below 2 ug/L. After that, monitoring of the effluent should be done in accordance with the standard sampling protocol.

This alternative uses common techniques, but rental equipment for potable use may be challenging to find. Potable water rated mobile air strippers that can be mobilized quickly as an IRM are difficult to acquire, so this is only feasible as an IRM, if a potable water rated system can be identified on a timely basis. This alternative has no implementation challenges anticipated. The cost to install and operate one, 1,000-gpm mobile air stripper unit as an IRM for three months is estimated to be between \$121,000 and \$484,000. A breakdown of costs is presented in **Table 2**.

4.0 LONG TERM ALTERNATIVES

Wood evaluated two alternative technologies for a permanent solution:

- Alternative 1: Packed tower air stripper
- Alternative 2: Ozone treatment system

Each alternative includes performance monitoring and maintenance for 15 years. It is likely that treatment will be required for more than 15 years unless the source of groundwater contamination is adequately remediated. Opinions of probable costs for each long-term alternative have been tabulated and are summarized in **Table 3** and provided in **Tables 4, 4A, and 5**. Assumptions common to both proposed alternatives include:

- Vinyl chloride is the only contaminant of concern. Other VOCs are present but do not threaten to exceed drinking water criteria at this time.
- The anticipated peak flow rate of groundwater that must be treated is 1,375 gpm.
- Any space, electrical, or plumbing requirements can be accommodated.

4.1 Alternative 1: Packed Tower Air Stripper

Packed tower air strippers are one of the most common methods used to treat vinyl chloride in drinking water. The technology has been tested and proved effective. Vinyl chloride has a

relatively high Henry's law constant of 0.03 atmosphere-cubic meter/mole, which makes it an ideal candidate for volatilization using an air stripper which is listed as the best available treatment technology by the US EPA. An air stripper forces air flow, countercurrent to the flow of water, to evaporate chlorinated volatile organic compounds (CVOCs) in water, such as vinyl chloride. The air and CVOCs are then vented to the atmosphere if CVOc concentrations are low enough. If CVOc concentrations are high, then they must be treated prior to discharge to the atmosphere.

4.1.1.1 Conceptual Design

This alternative was evaluated assuming the use of a Delta Cooling Towers Vanguard® Model ΔS8-200DAC air stripper with an assumed flow rate of 1,375 gpm for the subject application. The required removal efficiency to meet drinking water criteria of 2 ug/L is 96%, this unit provides a calculated removal efficiency of greater than 98%. The stripper is a 96-inch diameter Aluminum column with 20-foot of DELTAPAK® structured Packing, factory installed prior to shipment. The tower shell will be fabricated from aluminum and coated internally with an NSF approved epoxy coating system. It will include the necessary wall re-distribution rings and shell body flanges. The stripper must be installed after the water moves through the existing iron removal system, otherwise scaling, and fouling of the stripper will likely occur, resulting in substantial additional operation and maintenance costs.

Michigan requires systems that emit contaminants to the air to be permitted for construction and operation if the emissions exceed certain criteria. For this scenario, the VOCs in the groundwater that are removed by the air stripper are what would be considered contaminant emissions; this is regulated under Rule 290. To be compliant with Rule 290, uncontrolled emissions of VC and other VOCs must be less than 20 pounds per month and controlled emissions must be less than 10 pounds per month. When influent concentration of VC exceeds 39 ug/L, this system has potential to emit greater than 20 pounds per month, so a control device would be required on the air effluent prior to discharge to the atmosphere. This will most likely be treated with GAC, however, there may be other treatment options that are better suited to vinyl chloride than GAC. It is assumed two 5,000-pound GAC vessels will be utilized to control emissions to be compliant with Rule 290. If emissions after the GAC vessels are less than 10 pounds per month, it is considered de minimis and no additional permitting is required. Emissions must be calculated and recorded monthly.

The other equipment included with the pack tower air stripper include the following:

- The tower will include One (1) 10 horsepower (hp) Inline blower designed for 9,200 cubic feet per minute (cfm).
- The blower will be supplied with the intake screen, outlet flexible connection, and ductwork from the blower to the tower. All ductwork material is fiberglass reinforced plastic (FRP).
- The tower column will be provided with the flanges, nozzles, connections and manways.
- The tower will also be supplied with the required internals; FRP packing support plates, PVC mist eliminators, and PVC / Stainless Steel inlet distribution systems.

- An 8-inch stainless steel influent pipe terminating at a flange approximately 5-feet above the base of the stripper, and a 10-inch effluent flanged end Aluminum nozzle connection (side discharge).
- Blower Pressure Switch and Packed Bed Differential Pressure Gauge.
- Standard tower sump to provide approximately 5-feet of usable sump to allow for pumping discharge.
- Basic NEMA 3R control panel to control all aspects of air stripper tower operation, including blower, pump, sump level control, and pressure switch.

4.1.1.2 Monitoring and Operation

These air strippers are relatively low maintenance and only require an annual inspection if scaling or fouling isn't regularly occurring. This system also utilizes a 10hp blower motor and a centrifugal pump to pump water from a sump to the water distribution network. Both will require periodic maintenance.

For the first month of operation sampling should be performed daily for a week, then weekly to confirm the stripper is effectively reducing vinyl chloride concentrations to below 2 ug/L. After that, monitoring of the effluent should be done in accordance with the standard sampling protocol at the facility.

Air emissions will have to be monitored or calculated and reported monthly in accordance with Rule 290 requirements.

4.1.1.3 Technical Criteria Assessment

This alternative was assessed based on its effectiveness, feasibility, and cost in the following sections.

Effectiveness in protecting health, safety, and welfare of the public and environment

This alternative is expected to be effective at reducing vinyl chloride concentrations in the drinking water to less than 2 ug/L.

Feasibility

This alternative uses common techniques and equipment and has no implementation challenges anticipated.

Cost

The 15-year present value to implement this alternative is estimated to be between \$251,000 to \$1,004,000. A breakdown of costs is presented in **Table 4**.

If air emissions exceed Rule 290 limits, an air treatment system must be added; it is projected that this will not be needed unless influent water concentrations exceed 39 ug/L. If this does occur, the additional 15-year present value to implement the air treatment system is estimated to be between \$468,000-\$1,869,000, however the projected principal cost is \$151,000, and O&M costs could potentially be lower than estimated if a more efficient treatment media is used. A breakdown of costs for the air treatment system is presented in **Table 4A**.

A -50% to +100% cost estimate accuracy range applies to this alternative and a 7% annual discount rate was applied to all present value costs based on EPA's FFS cost estimating guidance document (USEPA, 2000).

4.2 Alternative 2: Ozone Treatment System

Chemical oxidation using an oxidant, such as ozone, is an effective treatment as the oxidant readily breaks down vinyl chloride into carbon dioxide, water, and dichlorine monoxide. The simplified stoichiometric reaction of ozone with vinyl chloride is shown below, note that there may be additional byproducts pending the specific water chemistry.



Water with high organic content (TOC) is not ideal for ozone treatment because of the high loading rate, but drinking water typically has concentrations of constituents that will compete with the vinyl chloride for the ozone, making this an ideal candidate. Water from PW-2 and PW-4 was sampled for TOC, and it is not expected to interfere. This treatment technology can also provide some additional disinfection that may be useful to the water treatment system operator.

4.2.1 Conceptual Design

This alternative assumes the use of an 800 gram/hour (g/hr) turnkey ozone generation and injection system provided by Oxidation Technologies; however, other ozone systems may be available. This system is designed specifically to produce ozone and efficiently dissolve it into water and is capable of treating a flow rate of 1,375 gpm.

This system uses a water-cooled ozone generator capable of producing 800 g/hr ozone from oxygen at 6.5% by weight. An integrated closed-loop water chiller is integrated on the system to cool the ozone generator and keep the system operation as consistent as possible. Oxygen is provided with an industrial 195 standard cubic feet per hour (SCFH) oxygen concentrator for consistent ozone production.

This system is supplied as a turn-key system that requires only an ozone mixing tank, compressed air, and electrical power and water connections for operation. All other equipment for operation is included and plumbed in a ready-to-operate fashion.

A compressor capable of providing 36 cfm at 90 pounds per square inch (psi) and an ozone mixing tank were included in this assessment for a complete system. Also, a building to house the ozone generator and compressor has been included in this assessment.

Prior to full scale implementation, a pilot study should be performed to confirm the ozone dosing rate and the required mixing tank size. It is assumed the pilot study will be performed using the actual impacted groundwater. This could be achieved by installing a temporary 5-inch diameter PVC temporary well adjacent to OW-16D2. A rental pilot test ozone treatment system unit will be utilized, and it is expected to require 20 gpm of water flow to generate useful data. The effluent of the pilot test is expected to be able to be discharged to the municipal wastewater system. A small aeration system and bag filters should be used during the pilot test to imitate the existing iron removal system.

4.2.1.1 Monitoring and Operation

The system will require monthly maintenance such as checking lubrication level and filters, but this is considered routine and not likely to impact day to day operations at the water treatment building.

For the first month of operation, sampling should be performed daily for a week, then weekly to confirm the ozone system is effectively reducing vinyl chloride concentrations to below 2 ug/L. After that, monitoring of the effluent should be done in accordance with the standard sampling protocol at the facility.

In addition to monitoring the drinking water, the ambient air inside the ozone building will have to be monitored because ozone is a toxic gas that can be harmful at high concentrations. Ozone detectors must be installed in the ozone building to monitor for ozone and alert staff if ozone is detected.

4.2.1.2 Technical Criteria Assessment

This alternative was assessed based on its effectiveness, feasibility, and cost in the following sections.

Effectiveness in protecting health, safety, and welfare of the public and environment

This alternative is expected to be effective at reducing vinyl chloride concentrations in the effluent to less than 2 ug/L. However, ozone can have negative impacts on existing water treatment and conveyance infrastructure that has not been designed for use with ozone. Also, it will be unknown exactly how the ozone will react with the water chemistry until a pilot test is performed and the effluent can be evaluated. The results of the pilot test may indicate that further study or adjustments are required before a full-scale system can be installed, which may increase risk to the public while waiting on the final permanent installation.

Feasibility

This alternative uses common techniques and equipment and has no implementation challenges anticipated.

Cost

The 15-year present value to implement this alternative is estimated to be between \$315,000 and \$1,260,000. A breakdown of costs is presented in **Table 5**.

A -50% to +100% cost estimate accuracy range applies to this alternative and a 7% annual discount rate was applied to all present value costs based on EPA's FFS cost estimating guidance document (USEPA, 2000).

5.0 SUMMARY AND RECOMMENDATIONS

Two alternatives were evaluated on their ability to meet the remedial objectives, technical feasibility, and cost. The alternatives are summarized in **Table 3** and included:

- Alternative 1: Packed tower air stripper
- Alternative 2: Ozone treatment system

Alternative 1, as permanent response measures, utilizes a packed tower air stripper, which is the most conventional technology to remove vinyl chloride from water. The capital cost to install a packed tower air stripper is estimated to be \$426,000, and the present value cost range to install and operate for 15 years is between \$251,000 and \$1,004,000. If air emissions require an additional air treatment system (expected at influent water concentrations above 39 ug/L) the capital cost to install an air treatment system is estimated to be \$151,000, and the present value cost range to install and operate for 15 years is between \$468,000 and \$1,869,000.

Alternative 2 utilizes an ozone treatment system to address vinyl chloride concentrations up to 50 ug/L. The upfront capital cost is estimated to be \$505,000 and the present value cost range to install and operate for 15 years is between \$315,000 and \$1,260,000. The successful implementation of ozone treatment requires a pilot study to evaluate dosing rate and retention time. The estimated costs here represent the vendor's best estimate based on available data, but they could change after results of the pilot test are evaluated.

It is recommended that a packed tower air stripper sized to be able to treat vinyl chloride concentrations up to 50 ug/L be installed as the permanent remedy to address vinyl chloride impacts in the drinking water. This solution is the most robust alternative and will be effective as a stand-alone technology until air emissions exceed Rule 290 limits, at which point an air treatment system will be required (this is not expected until influent water concentrations exceed 39 ug/L, which is unlikely to occur). A packed tower air stripper is the most thorough and proven treatment alternative for vinyl chloride. Also, ozone can have potential negative impacts on the drinking water infrastructure and there can be unanticipated chemical reactions between the ozone and water chemistry, which could set back the timeline to complete the work. Air strippers also do not require a pilot test and, therefore, can be implemented faster.

Wood appreciates the relationship with the Village of Milford and the opportunity to assist with this important project. We look forward to discussing this focused feasibility study and are available at any time to answer questions.

Sincerely,

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TABLES

Table 1
Opinion of Probable Cost: IRM Mobile Granular Activated Carbon System
Drinking Water Treatment
Village of Milford, Michigan

CAPITAL AND FIXED COSTS

Item	Quantity	Units	Unit Cost	Present Worth	
Design and Procurement Support					
Design, Specifications and Drawings	1	LS	\$12,000	\$12,000	
Contract Procurement	1	LS	\$8,000	\$8,000	
Permitting	1	LS	\$5,000	\$5,000	
Construction Cost					
System Rental	3	Month	\$18,000	\$54,000	
Mobilization	1	LS	\$140,000	\$140,000	
Installation	1	LS	\$30,000	\$30,000	
40,000 pound carbon changeout	6	biweekly	\$93,000	\$558,000	
Construction Oversight					
Construction Observation and Documentation (includes startup/shakedown)	2	Week	\$5,900	\$11,800	
Construction Management Support	2	Week	\$1,540	\$3,080	
Construction Report	1	LS	\$5,000	\$5,000	
CAPITAL AND FIXED COSTS SUBTOTAL				\$826,900	
Minimum	-50%			\$413,450	
Maximum	100%			\$1,653,800	
CAPITAL AND FIXED PRESENT VALUE COST RANGE			\$413,450	to	\$1,653,800

- Notes:
1. This opinion of probable cost was prepared using costs considered appropriate for typical operations. It is intended for use in comparing the relative cost of remedial alternatives. Actual costs may differ.
 2. 7% annual discount rate was applied to all present value costs (A Guide to Developing and Documenting Cost Estimates During the Feasibility Study. July 2000. US EPA 540-R-00-002 OSWER 9355.0-75. www.epa.gov/superfund)
 3. -50 to +100 percent cost estimate accuracy range applied for feasibility study alternative screening (A Guide to Developing and Documenting Cost Estimates During the Feasibility Study. July 2000. US EPA 540-R-00-002 OSWER 9355.0-75. www.epa.gov/superfund)

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Rev. By: JJH 11/3/2021

Table 2
Opinion of Probable Cost: IRM Mobile Air Stripper System
Drinking Water Treatment
Village of Milford, Michigan

CAPITAL AND FIXED COSTS

Item	Quantity	Units	Unit Cost	Present Worth	
Design and Procurement Support					
Design, Specifications and Drawings	1	LS	\$12,000	\$12,000	
Contract Procurement	1	LS	\$8,000	\$8,000	
Permitting	1	LS	\$5,000	\$5,000	
Construction Cost					
STAT720	3	Month	\$9,000	\$27,000	
Mobilization	1	LS	\$120,000	\$120,000	
Installation	1	LS	\$50,000	\$50,000	
Construction Oversight					
Construction Observation and Documentation (includes startup/shakedown)	2	Week	\$5,900	\$11,800	
Construction Management Support	2	Week	\$1,540	\$3,080	
Construction Report	1	LS	\$5,000	\$5,000	
CAPITAL AND FIXED COSTS SUBTOTAL				\$241,900	
Minimum	-50%			\$120,950	
Maximum	100%			\$483,800	
CAPITAL AND FIXED PRESENT VALUE COST RANGE			\$120,950	to	\$483,800

- Notes:
1. This opinion of probable cost was prepared using costs considered appropriate for typical operations. It is intended for use in comparing the relative cost of remedial alternatives. Actual costs may differ.
 2. 7% annual discount rate was applied to all present value costs (A Guide to Developing and Documenting Cost Estimates During the Feasibility Study. July 2000. US EPA 540-R-00-002 OSWER 9355.0-75. www.epa.gov/superfund)
 3. -50 to +100 percent cost estimate accuracy range applied for feasibility study alternative screening (A Guide to Developing and Documenting Cost Estimates During the Feasibility Study. July 2000. US EPA 540-R-00-002 OSWER 9355.0-75. www.epa.gov/superfund)

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**Table 3
Long Term Alternatives Summary**

Interim Response Measure Alternatives					
Long Term Alternatives					
#	Alternative	Construction Duration	Cost		
			Capital	Present Value	Cost Range
1	Packed Tower Air Stripper	3	\$ 425,800	\$ 250,844	\$ 1,003,378
1A	Air Treatment for Air Stripper (If VC>39 ug/L)	3	\$ 150,800	\$ 467,195	\$ 1,868,780
2	Ozone	3	\$ 505,200	\$ 314,920	\$ 1,259,679

Table 4
Opinion of Probable Cost: Alternative 1 - Packed Tower Air Stripper
Drinking Water Treatment
Village of Milford, Michigan

CAPITAL AND FIXED COSTS

Item	Quantity	Units	Unit Cost	Present Worth	
Design and Procurement Support					
Design, Specifications and Drawings	1	LS	\$25,000	\$25,000	
Contract Procurement	1	LS	\$8,000	\$8,000	
Permitting	1	LS	\$5,000	\$5,000	
Construction Cost					
Submittals	1	LS	\$10,000	\$10,000	
Mobilization	1	LS	\$15,000	\$15,000	
Air Stripper and Control Panel	1	LS	\$240,000	\$240,000	
Installation	1	LS	\$40,000	\$40,000	
Insulation and heat trace	1	LS	\$20,000	\$20,000	
Electrical and instrumentation	1	LS	\$20,000	\$20,000	
Discharge Pump	1	LS	\$8,000	\$8,000	
Construction Oversight					
Construction Observation and Documentation	4	Week	\$5,900	\$23,600	
Construction Management Support	4	Week	\$1,540	\$6,160	
Construction Report	1	LS	\$5,000	\$5,000	
CAPITAL AND FIXED COSTS SUBTOTAL				\$425,800	
Minimum	-50%			\$212,900	
Maximum	+100%			\$851,600	
CAPITAL AND FIXED PRESENT VALUE COST RANGE			\$212,900	to	\$851,600

MONITORING COSTS

Item	Quantity	Unit	Unit Cost	Total Cost	
Annual Monitoring Estimate					
None				\$0	
O&M ANNUAL COSTS SUBTOTAL				\$0	
Annual Minimum	-50%			\$0	
Annual Maximum	+100%			\$0	
15 YEARS MONITORING 15-YEAR PRESENT VALUE COST RANGE			\$0.00	to	\$0

Table 4 Continued
OPERATION AND MAINTENANCE COSTS

Item	Quantity	Unit	Unit Cost	Total Cost
Annual O&M Estimate				
Electrical Usage	1	LS	\$4,374	\$4,374
Annual Inspection and possible cleaning	1	LS	\$750	\$750
O&M ANNUAL COSTS SUBTOTAL				\$5,124
Annual Minimum	-50%			\$2,562
Annual Maximum	+100%			\$10,248
15 YEARS O&M 15-YEAR PRESENT VALUE COST RANGE			\$23,334.48	to \$93,338
Item	Quantity	Unit	Cost	Cost
3rd, 6th, 9th, and 12th Year - Periodic Additional O&M Estimate				
Equipment Repairs Allowance	1	LS	\$7,500	\$7,500
ANNUAL COSTS SUBTOTAL				\$7,500
Annual Minimum	-50%			\$3,750
Annual Maximum	+100%			\$15,000
3rd YEAR PERIODIC O&M 3-YEAR PRESENT VALUE COST RANGE			\$3,060	to \$12,240
6th YEAR PERIODIC O&M 6-YEAR PRESENT VALUE COST RANGE			\$2,498	to \$9,990
9th YEAR PERIODIC O&M 9-YEAR PRESENT VALUE COST RANGE			\$2,040	to \$8,160
12th YEAR PERIODIC O&M 12-YEAR PRESENT VALUE COST RANGE			\$1,665	to \$6,660
Item	Quantity	Unit	Cost	Cost
15th Year - Periodic Additional O&M Estimate				
Replace motors	1	LS	\$15,000	\$15,000
YEAR 15 - COSTS SUBTOTAL				\$15,000
Year 15 - Minimum	-50%			\$7,500
Year 15 - Maximum	+100%			\$30,000
15th YEAR PERIODIC O&M 15-YEAR PRESENT VALUE COST RANGE			\$5,347.50	to \$21,390.00
TOTAL 15-YEAR PRESENT VALUE COST RANGE			\$250,844	to \$1,003,378

- Notes:
1. This opinion of probable cost was prepared using costs considered appropriate for typical operations. It is intended for use in comparing the relative cost of remedial alternatives. Actual costs may differ.
 2. 7% annual discount rate was applied to all present value costs (A Guide to Developing and Documenting Cost Estimates During the Feasibility Study. July 2000. US EPA 540-R-00-002 OSWER 9355.0-75. www.epa.gov/superfund)
 3. -50 to +100 percent cost estimate accuracy range applied for feasibility study alternative screening (A Guide to Developing and Documenting Cost Estimates During the Feasibility Study. July 2000. US EPA 540-R-00-002 OSWER 9355.0-75. www.epa.gov/superfund)

Prp. By: NBP 10/26/2021
Rev. By: JJH 11/3/2021

Table 4A
Opinion of Probable Cost: Alternative 1A - Air Stripper Vapor Treatment
Drinking Water Treatment
Village of Milford, Michigan

CAPITAL AND FIXED COSTS

Item	Quantity	Units	Unit Cost	Present Worth	
Design and Procurement Support					
Design, Specifications and Drawings	1	LS	\$20,000	\$20,000	
Contract Procurement	1	LS	\$8,000	\$8,000	
Permitting	1	LS	\$5,000	\$5,000	
Construction Cost					
Submittals	1	LS	\$8,000	\$8,000	
Mobilization	1	LS	\$15,000	\$15,000	
Installation	1	LS	\$40,000	\$40,000	
Electrical and instrumentation	1	LS	\$20,000	\$20,000	
GAC air scrubber (potential to emit exceed 20 pounds per month)		LS	\$150,000	\$0	
Construction Oversight					
Construction Observation and Documentation	4	Week	\$5,900	\$23,600	
Construction Management Support	4	Week	\$1,540	\$6,160	
Construction Report	1	LS	\$5,000	\$5,000	
CAPITAL AND FIXED COSTS SUBTOTAL				\$150,800	
Minimum	-50%			\$75,400	
Maximum	+100%			\$301,600	
CAPITAL AND FIXED PRESENT VALUE COST RANGE			\$75,400	to	\$301,600

MONITORING COSTS

Item	Quantity	Unit	Unit Cost	Total Cost	
Annual Monitoring Estimate					
Rule 290 Air emissions monitoring and reporting	12	Month	\$2,000	\$24,000	
O&M ANNUAL COSTS SUBTOTAL				\$24,000	
Annual Minimum	-50%			\$12,000	
Annual Maximum	+100%			\$48,000	
15 YEARS MONITORING 15-YEAR PRESENT VALUE COST RANGE			\$109,294.97	to	\$437,180

Table 4A Continued
OPERATION AND MAINTENANCE COSTS

Item	Quantity	Unit	Unit Cost	Total Cost
Annual O&M Estimate				
Air scrubber carbon changeouts	1	LS	\$60,000	\$60,000
O&M ANNUAL COSTS SUBTOTAL				\$60,000
Annual Minimum	-50%			\$30,000
Annual Maximum	+100%			\$120,000
15 YEARS O&M 15-YEAR PRESENT VALUE COST RANGE			\$273,237.42	to \$1,092,950
Item	Quantity	Unit	Cost	Cost
3rd, 6th, 9th, and 12th Year - Periodic Additional O&M Estimate				
Equipment Repairs Allowance	1	LS	\$7,500	\$7,500
ANNUAL COSTS SUBTOTAL				\$7,500
Annual Minimum	-50%			\$3,750
Annual Maximum	+100%			\$15,000
3rd YEAR PERIODIC O&M 3-YEAR PRESENT VALUE COST RANGE			\$3,060	to \$12,240
6th YEAR PERIODIC O&M 6-YEAR PRESENT VALUE COST RANGE			\$2,498	to \$9,990
9th YEAR PERIODIC O&M 9-YEAR PRESENT VALUE COST RANGE			\$2,040	to \$8,160
12th YEAR PERIODIC O&M 12-YEAR PRESENT VALUE COST RANGE			\$1,665	to \$6,660
Item	Quantity	Unit	Cost	Cost
15th Year - Periodic Additional O&M Estimate				
None				\$0
YEAR 15 - COSTS SUBTOTAL				\$0
Year 15 - Minimum	-50%			\$0
Year 15 - Maximum	+100%			\$0
15th YEAR PERIODIC O&M 15-YEAR PRESENT VALUE COST RANGE			\$0.00	to \$0.00
TOTAL 15-YEAR PRESENT VALUE COST RANGE			\$467,195	to \$1,868,780

- Notes:
1. This opinion of probable cost was prepared using costs considered appropriate for typical operations. It is intended for use in comparing the relative cost of remedial alternatives. Actual costs may differ.
 2. 7% annual discount rate was applied to all present value costs (A Guide to Developing and Documenting Cost Estimates During the Feasibility Study. July 2000. US EPA 540-R-00-002 OSWER 9355.0-75. www.epa.gov/superfund)
 3. -50 to +100 percent cost estimate accuracy range applied for feasibility study alternative screening (A Guide to Developing and Documenting Cost Estimates During the Feasibility Study. July 2000. US EPA 540-R-00-002 OSWER 9355.0-75. www.epa.gov/superfund)

Prp. By: NBP 10/26/2021
Rev. By: JJH 11/3/2021

Table 5
Opinion of Probable Cost: Alternative 2 - Ozone System
Drinking Water Treatment
Village of Milford, Michigan

CAPITAL AND FIXED COSTS

Item	Quantity	Units	Unit Cost	Present Worth	
Design and Procurement Support					
Design, Specifications and Drawings	1	LS	\$50,000	\$50,000	
Contract Procurement	1	LS	\$15,000	\$15,000	
Permitting	1	LS	\$5,000	\$5,000	
Pilot Test	1	LS	\$35,000	\$35,000	
Pilot Test temporary extraction well and associated costs	1	LS	\$30,000	\$30,000	
Construction Cost					
Submittals	1	LS	\$7,500	\$7,500	
Mobilization	1	LS	\$7,500	\$7,500	
Ozone generator system (500g/hr @ 6.5% by weight)	1	LS	\$80,000	\$80,000	
Upgrade to 800g/hr system	1	LS	\$29,500	\$29,500	
Startup and Training	1	LS	\$2,700	\$2,700	
Dissolved ozone sensor	1	LS	\$2,850	\$2,850	
Water flow switch	1	LS	\$295	\$295	
Inline oxygen meter	1	LS	\$700	\$700	
ozone gas solenoid valve	1	LS	\$325	\$325	
ozone gas monitor	1	LS	\$1,500	\$1,500	
Electrical and instrumentation	1	LS	\$20,000	\$20,000	
Pressure rated 2,500 gallon ozone mixing tank	1	LS	\$10,000	\$10,000	
Compressor (36CFM @ 90PSI)	1	LS	\$20,000	\$20,000	
Installation	1	LS	\$60,000	\$60,000	
Building	1	LS	\$100,000	\$100,000	
Construction Oversight					
Construction Observation and Documentation	3	Week	\$5,900	\$17,700	
Construction Management Support	3	Week	\$1,540	\$4,620	
Construction Report	1	LS	\$5,000	\$5,000	
CAPITAL AND FIXED COSTS SUBTOTAL				\$505,200	
Minimum	-50%			\$252,600	
Maximum	+100%			\$1,010,400	
CAPITAL AND FIXED PRESENT VALUE COST RANGE			\$252,600	to	\$1,010,400

Table 5 Continued
OPERATION AND MAINTENANCE COSTS

Item	Quantity	Unit	Unit Cost	Total Cost
Annual O&M Estimate				
Compressor Electrical Usage	1	LS	\$4,374	\$4,374
Ozone Generator Electrical Usage	1	LS	\$4,374	\$4,374
Annual Inspection and possible cleaning	1	LS	\$750	\$750
O&M ANNUAL COSTS SUBTOTAL				\$9,498
Annual Minimum	-50%			\$4,749
Annual Maximum	+100%			\$18,996
15 YEARS O&M 15-YEAR PRESENT VALUE COST RANGE			\$43,253.48	to \$173,014
Item	Quantity	Unit	Cost	Cost
3rd, 6th, 9th, and 12th Year - Periodic Additional O&M Estimate				
Equipment Repairs Allowance	1	LS	\$7,500	\$7,500
ANNUAL COSTS SUBTOTAL				\$7,500
Annual Minimum	-50%			\$3,750
Annual Maximum	+100%			\$15,000
3rd YEAR PERIODIC O&M 3-YEAR PRESENT VALUE COST RANGE			\$3,060	to \$12,240
6th YEAR PERIODIC O&M 6-YEAR PRESENT VALUE COST RANGE			\$2,498	to \$9,990
9th YEAR PERIODIC O&M 9-YEAR PRESENT VALUE COST RANGE			\$2,040	to \$8,160
12th YEAR PERIODIC O&M 12-YEAR PRESENT VALUE COST RANGE			\$1,665	to \$6,660
Item	Quantity	Unit	Cost	Cost
15th Year - Periodic Additional O&M Estimate				
Replace compressor	1	LS	\$20,000	\$20,000
Other severe maintenance	1	LS	\$7,500	\$7,500
YEAR 15 - COSTS SUBTOTAL				\$27,500
Year 15 - Minimum	-50%			\$13,750
Year 15 - Maximum	+100%			\$55,000
15th YEAR PERIODIC O&M 15-YEAR PRESENT VALUE COST RANGE			\$9,803.75	to \$39,215.00
TOTAL 15-YEAR PRESENT VALUE COST RANGE			\$314,920	to \$1,259,679

- Notes:
1. This opinion of probable cost was prepared using costs considered appropriate for typical operations. It is intended for use in comparing the relative cost of remedial alternatives. Actual costs may differ.
 2. 7% annual discount rate was applied to all present value costs (A Guide to Developing and Documenting Cost Estimates During the Feasibility Study. July 2000. US EPA 540-R-00-002 OSWER 9355.0-75. www.epa.gov/superfund)
 3. -50 to +100 percent cost estimate accuracy range applied for feasibility study alternative screening (A Guide to Developing and Documenting Cost Estimates During the Feasibility Study. July 2000. US EPA 540-R-00-002 OSWER 9355.0-75. www.epa.gov/superfund)

Prp. By: NBP 10/26/2021
Rev. By: JJH 11/3/2021

EXHIBIT B

Property Legal Description

Property Legal Description

T2N, R7E, SEC 10 PHELP'S ADD LOT 1 TO 4 INCL & PART OF LOTS 5 TO 8 INCL BLK 23, ALSO LOTS 6 TO 9 INCL & PART OF LOTS 5 & LOTS 10 TO 14 INCL BLK 24, ALSO PART OF LOTS 7 TO 12 INCL BLK 27, ALSOPART OF UNNUMBERED BLK LYING ELY OF BLK 24, ALSO PART OF THE MILL POND & VAC OAK, DETROIT& WATER STREETS ALL DESC AS BEG AT INTER OF N LINE OF COMMERCE ST & WLY LINE OF C & O RRR/W, TH S 87-42-12 W 192.73 FT, TH N 02-28-21 W 297 FT, TH S 87-42-12 W 200.09 FT, TH N 02-52-33 W 197.02FT, TH S 87-42-12 W 55.65 FT, TH N 02-46-52 W 557.89 FT, TH N 89-17-21 E 300.01 FT, TH S 05-26-22 E 248.35FT, TH ALG CURVE TO LEFT, RAD 2914.93 FT, CHORD BEARS S 10-39-38 E 530.51 FT, DIST OF 531.25 FT, THS 15-52-54 E 278.52 FT TO BEG 8-09-06 CORR

EXHIBIT C
1997 EGLE Letter



JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET: <http://www.deq.state.mi.us>

RUSSELL J. HARDING, Director

REPLY TO:

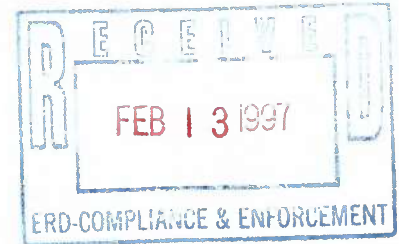
SE MICHIGAN DISTRICT OFFICE
38980 SEVEN MILE RD
LIVONIA MI 48152-1006

*2/20 Per Brad, more questions resolved by District on this site
Larry rec'd orig copy
cc: Brian Brad*

February 4, 1997

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Varity Kelsey-Hayes
Attention: Mr. Luke Contos
101 Oak Street
Milford, Michigan



RE: Kelsey-Hayes Facility, MERA# 630952, 101 Oak Street, Milford, Oakland County, Michigan

Dear Mr. Contos :

This letter is to advise you of conditions that are present at the Kelsey-Hayes facility which are regulated under Part 201 of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended.

Staff of the Michigan Department of Environmental Quality (MDEQ) have reviewed the following reports pertaining to the Varity Kelsey-Hayes facility and chlorinated hydrocarbons impacting the Village of Milford (VOM) municipal wells:

- Site Investigation Report; Village of Milford; dated February 14, 1995; prepared by G.R. Kunkle and Associates, Incorporated.
- Village of Milford Ground Water Quality Database; dated May 23, 1996; prepared by G.R. Kunkle and Associates, Incorporated.
- Letter-reports for groundwater sampling events at VOM Property performed by G.R. Kunkle and Associates, Incorporated, with the following dates: May 12, 1995; June 26, 1995; September 12, 1995; February 7, 1996; May 7, 1996; and May 22, 1996.
- Site Investigation Report, Kelsey-Hayes Milford Plant; dated June 17, 1994; prepared by Techna Corporation.
- Additional Assessment Data; Kelsey-Hayes Milford Facility; dated August 18, 1995; prepared by Techna Corporation.
- Data Release: Gamma Logs; Varity Kelsey-Hayes Milford Plant; dated July 10, 1996; prepared by Techna Corporation.
- Semi-Annual/Quarterly Sampling reports; Varity Kelsey-Hayes Milford Plant; dated July 11, 1996; August 20, 1996; and October 29, 1996.
- A Preliminary Groundwater Modeling Report for the Kelsey Hayes Facility; dated November 5, 1996; prepared by Techna Corporation.

Analytical testing of the soil at the Kelsey Hayes facility indicate the presence of the following hazardous substances:

<u>COMPOUND</u>	<u>DATE</u>	<u>SAMPLE LOCATION</u>	<u>DEPTH (ft.)</u>	<u>ACTUAL (ppb)</u>	<u>20X (ppb)</u>	<u>DIRECT CONTACT (ppb)</u>
Tetrachloroethene	1993	SVE2-2	25-27	2,600	100	50,000
Trichloroethene	1993	OW2D-7	25-27	9,300	100	1.6 E+5
PCBs	1993	HA4-2	10	85,000	2,300	2,300

Analytical testing of the groundwater at the Kelsey-Hayes facility indicate the presence of the following hazardous substances:

<u>COMPOUND</u>	<u>DATE</u>	<u>WELL I.D.</u>	<u>SCREEN INTERVAL (ft.BGL)</u>	<u>ACTUAL (ppb)</u>	<u>DRINKING WATER (ppb)</u>
cis-1,2 dichloroethene	4/20/93	OW2	27-32	1,800	70
1,1 dichloroethene	1/10/92	OW2	27-32	83	7
1,1,1 trichloroethane	4/20/93	OW2	27-32	650	200
1,1,2 trichloroethane	1/10/92	OW2	27-32	6	5
Tetrachloroethene	4/20/93	OW2	27-32	540	5
Trichloroethene	4/20/93	OW7D	42.9-47.9	1100	5

The Kelsey-Hayes plume has migrated off site and is currently impacting the Village of Milford's Municipal Well. Municipal Well-1 has been impacted with chlorinated compounds since May 1989. Chlorinated compounds have been consistently detected in the municipal well below drinking water standards, However, MW-3, located approximately 270 feet upgradient of municipal well-1 is very close to exceeding the current health based drinking water criteria with a concentration of trichloroethene at 4.8 ppb on 9/20/95 and 4.6 ppb on 3/26/96.

The conditions observed indicate that hazardous substances in concentrations which exceed the residential clean-up requirements of Section 20120a(1)(a) or (17) of the NREPA were released, deposited, or became located at the Kelsey Hayes facility. Any area, place or property where hazardous substances exceed this threshold constitutes a "facility" which is regulated under Part 201.

The MDEQ considers the soil and groundwater contamination to be a threat to the Village of Milford's municipal water supply, the public health and the environment. The release or threatened release of hazardous substances at this facility, including the discharge and potential discharge of these substances into the groundwater, may violate Sections 3109(1) and 3112 of Part 31 of the NREPA (formerly the Michigan Water Resources Commission Act, 1929 PA 245, as amended), as well as other state and federal laws.

A person who owns or operates a facility has certain obligations under Part 201 as well as under other state and federal law. "Person" is defined as an individual, partnership, corporation, association, governmental entity or other legal entity.

The MDEQ believes that, as an owner and operator, Kelsey Hayes is responsible for an activity causing a release or threat of release of a hazardous substance and therefore is a person liable under Section 20126 of Part 201. Persons liable under Part 201 are responsible for all costs of response activity lawfully incurred by the state relating to the selection and

implementation of response activity under Part 201. Certain exceptions, exemptions and defenses may apply.

In addition, pursuant to Sections 20107a and 20114 of the NREPA, an owner or operator of property who has knowledge that the property is a facility, and who is liable under Section 20126 of the NREPA, shall:

1. Undertake measures as are necessary to prevent exacerbation of the existing contamination. Exacerbation is defined as the occurrence of either of the following caused by an activity undertaken by the person who owns or operates the property, with respect to existing contamination.

(i) Contamination that has migrated beyond the boundaries of the property which is the source of the release at levels above cleanup criteria specified in Section 20120a(1)(a) unless a criterion is not relevant because exposure is reliably restricted pursuant to Section 20120b.

(ii) A change in facility conditions that increases response activity costs.

2. Exercise due care by undertaking response activity necessary to mitigate unacceptable exposure to hazardous substances and allow for the intended use of the facility in a manner that protects the public health and safety.
3. Take reasonable precautions against the reasonably foreseeable acts or omissions of a third party and the consequences that foreseeably could result from those acts or omissions.
4. Immediately stop or prevent the release at its source. Provide documentation that the release has been stopped or prevented at its source.
5. Immediately implement source control or removal measures for releases that occurred after June 5, 1995. Provide documentation that the source control or removal measures have occurred.
6. Immediately identify and eliminate any direct contact hazards. Provide documentation that the direct contact hazards have been identified and eliminated.
7. Immediately identify and remove any hazardous substances in a liquid phase, not yet dissolved in water. Provide documentation that the hazardous substances in liquid phase, not yet dissolved in water have been identified and removed.
8. Determine the nature and extent of the release at the facility.
9. Take the following actions:
 - i. Provide a plan for and undertake interim response activities.

- ii. Provide a plan for and undertake evaluation activities to determine the vertical and horizontal extent of contamination.
- iii. Take any other response activities determined by the MDEQ to be technically sound and necessary, including, but not limited to the following:
 - a. Define the lateral extent of soil contamination west of soil boring HA4. Define the extent of soil contamination beneath the building in the vicinity of the Dock Apron and Sump #1. Furthermore, the area between the shed soil contamination area and the Dock Apron/Sump #1 may need further delineation of the soil contamination if this area is not included in the proposed SVE soil remediation.
 - b. Collect a sample from Sump #2 and have a laboratory analyze it for volatile organic compounds.
 - c. Vertically profile the aquifer and install monitor wells in the source areas.
 - d. Install an up gradient monitor well along the axis of the plume.
 - e. Delineate (vertically and horizontally) the end of the plume and its discharge point. This includes the eastern extent of Kelsey Hayes contamination along Liberty Street and a monitor well in the plumes center line at its discharge point.
 - f. Conduct a groundwater clean up as an Interim Response in the vicinity of OW7D. High concentrations of contaminants originating from the Kelsey Hayes property have impacted the aquifer in the vicinity of OW-7D. Further investigation is required to define the down gradient plume path. An interim groundwater cleanup in the vicinity of OW-7D will minimize the potential of contaminating drinking water supply wells or adversely impacting the river. Performing an interim groundwater hot spot cleanup may also greatly reduce future remediation cost.
- iv. Submit to the MDEQ a Remedial Action Plan (RAP) that when implemented will achieve the clean-up criteria specified in Part 201.
- v. Implement the approved RAP.

Failure of Kelsey-Hayes to diligently pursue response activities may result in the accrual of fines and penalties after June 5, 1997.

The MDEQ believes that Kelsey-Hayes is responsible for undertaking the necessary response activities at this facility in accordance with the requirements prescribed in, including, but not limited to, Sections 20107a, 20114, 20120a, 20120b, 20120c and 20120d of the NREPA and Part 5 of the Part 201 Administrative Rules, unless an exemption or defense to liability as provided in Sections 20101(1), 20101a, 20101b or 20126 of the NREPA applies. The MDEQ's position is based on our current knowledge of the facts pertaining to this facility and is subject to reconsideration should new information become available.

Please be advised that persons liable under Part 201 of the NREPA are liable for all costs of response activity lawfully incurred by the state relating to the selection and implementation of response activity.

If we do not receive a commitment to undertake the necessary response activities at the facility, the MDEQ may do either/any of the following:

- 1. Perform the necessary response activities utilizing public funds,
or
- 2. Request the Attorney General to take an action against Kelsey-Hayes to seek compliance with Part 201 of the NREPA.

If warranted,

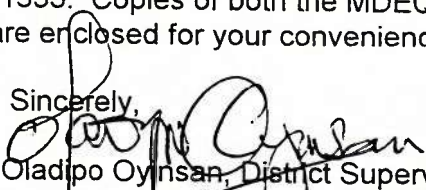
- 3. Issue an administrative order requiring performance of response activities relating to the facility.

Please provide your written commitment, including your position with regard to the performance of the above requested activities at the Kelsey-Hayes facility, to Mr. Richard Berak within 15 days of receipt of this letter. Further, we request that a plan to implement the above work items is submitted to this office no later than March 14, 1997. In addition, please provide this office with the following information within 15 days of receipt of this letter:

- 1. 1991/1992 Site Investigation Report
- 2. SVE System Design Plan
- 3. A schedule with calendar dates for the installation and implementation of the SVE System.

The files used to prepare this notice are located in the MDEQ Southeast Michigan District Office. If you wish to review the files or if you have questions regarding this letter, please direct your inquiries to the project manager, Mr. Richard Berak, Environmental Response Division, MDEQ, Southeast Michigan District Office, 38980 Seven Mile Road, Livonia, Michigan 48152. His telephone number is (313) 953-1533. Copies of both the MDEQ's geologic review and Part 201 of the NREPA, as amended, are enclosed for your convenience.

Sincerely,


 Oladipo Oyinsan, District Supervisor
 Southeast Michigan District Office
 Environmental Response Division

Enclosures

- cc: Mr. Daniel Schultz, MDEQ
- Mr. Larry Elmleaf, MDEQ
- Mr. Gary Finkbeiner, AG
- Mr. Oladipo Oyinsan, MDEQ
- Mr. James Thomas, MDEQ
- Mr. Tom Cok, MDEQ
- Mr. Gary Frick, OCHD

- Ms. Rhonda Cross, MDEQ
- Mr. Joe Lowato, MDEQ-DWRPD
- Ms. Lisa Chadwick, MDEQ-DWRPD
- Mr. Brian Thurston, MDEQ
- Mr. Arthur Shufflebarger, Village of Milford
- Mr. Tom Wilczak, Pepper Hamilton & Scheetz
- Mr. Richard Berak, MDEQ

EXHIBIT D
2006 K-H Letter

March 27, 2006

TRW Automotive

12001 Tech Center Drive
Livonia, MI 48150
Tel 734.855.3195
Fax 734.855.3250



BY E-MAIL AND TELECOPIER

Mr. Oladipo Oyinsan
Michigan Department of Environmental
Remediation and Redevelopment Division
Southeast District Office
27700 Donald Court
Warren, Michigan, 48092-2793

Re: The former Kelsey-Hayes Milford Site, 101 Oak Street, Milford, Michigan
("Milford Site") (DEQ Site ID #63000952)

Dear Mr. Oyinsan:

This letter will serve as an acknowledgement by Kelsey-Hayes Company that it is aware of the Milford Site's status as a "facility" as defined under Part 201 of the Natural Resources and Environmental Protection Act, 1994 PA 451 as amended (NREPA). Kelsey-Hayes further acknowledges its obligations under Sections 20107a and 20114 of NREPA and the Part 201 Administrative Rules (Part 201 Rules) to undertake due care and response activities at the Milford Site.


As you are undoubtedly aware, Kelsey-Hayes has undertaken substantial investigation and remediation activities for a number of years with respect to soils on-site and groundwater off-site and is committed to satisfying its obligations to diligently pursue response activities consistent with the applicable provisions of Part 201, and its corresponding administrative rules.

It is our objective to obtain approval of an IRDC Plan addressing soils on-site as soon as possible and to submit and obtain approval of a Groundwater IRDC Plan immediately thereafter. Time is of the essence because we are working in earnest with the Village of Milford, which intends to purchase and redevelop the Milford Site, provided we secure approval of the Soils IRDC from the Department, which will bring the necessary certainty to enable the development of a site plan consistent with the approved IRDC.

Oladipo Oyinsan
March 27, 2006
Page 2

I understand that Richard Berak, the MDEQ RRD project manager for this site, has been in contact with you about our meeting scheduled for March 29, 2006 at the Southeast Michigan District office. I look forward to meeting you and your staff next week to discuss our plans for moving forward at the site. If you should have any questions, please do not hesitate to contact me at 734-885-3195.

Very truly yours,



Scott Blackhurst
Senior Counsel, Environment
Tel: 734-855-3195
Fax: 734-855-3250

cc: Richard Berak, MDEQ RRD
Robert Bleazard, TRW Automotive
Richard Bell, TRW Automotive
Ann Barnett – Village of Milford
Steven Nadeau – Honigman Miller
Brian O'Mara – ARCADIS