EXHIBIT A
STATE OF MICHIGAN,

Plaintiff,

v.

UNITED STATES;

TDY INDUSTRIES, LLC;

L3 TECHNOLOGIES, INC.

Defendants.

/_______________________________/

CONSENT DECREE

I. BACKGROUND.

measures to address releases of hazardous waste, hazardous waste constituents, or hazardous substances at a Site in Muskegon, Michigan.

B. On October 30, 1986, the State of Michigan was granted final authorization by the Administrator of the United States Environmental Protection Agency (“U.S. EPA”), pursuant to section 3006(b) of RCRA, 42 U.S.C. § 6926(b), to administer a hazardous waste management program in Michigan in lieu of the federal RCRA program. 40 C.F.R. §§ 272.1150-1151. This authorization is periodically updated to maintain authorization. The MDEQ administers the Michigan hazardous waste program, as currently set forth in Part 111, including the requirement to conduct corrective action at Part 111 interim status and licensed facilities. In November of 2000, U.S. EPA and MDEQ entered into a Memorandum of Understanding agreeing that the MDEQ could use Part 201 cleanup criteria and processes to implement RCRA / Part 111 corrective action, so long as they were not less stringent than RCRA. Certain wastes and waste constituents found at the Site may be contaminants within the meaning of M.C.L. § 324.11102(1). The Site is currently being addressed through the Michigan Part 111 corrective action program. The Site is not listed on the CERCLA National Priorities List nor is it currently proposed for listing.

C. The Plaintiff has met the notice requirements of the following statutory sections, which require that the U.S. EPA and the Defendants be notified before filing an action: 42 U.S.C. § 6972; M.C.L. § 324.20135.

D. The Settling Defendants are the United States on behalf of the Department of Defense (“DOD”), TDY Industries, LLC (“TDY”), as former owner/operators of the Site, and the current owner of the Site, L3 Technologies, Inc. (“L3”).
E. The Site covers approximately 170 acres and is located at 76 Getty Street, Muskegon, Muskegon County, Michigan.

F. In the early 1940s, the U.S. government built a manufacturing plant at the Site for the manufacture of military aircraft and tank engines. In or around 1944, the U.S. government entered into a government owned contractor operated arrangement with Continental Motors Corporation (“CMC”) for operations at the Site, and later leased a portion of the Site to CMC. In 1971 and 1972, Teledyne, Inc. purchased the Site and CMC. Eventually, Teledyne Industries, Inc. operated the Site through its Vehicle Systems division and is now known as TDY Industries, LLC. On or around February 12, 1996, General Dynamics Land Systems, Inc. purchased the Site from Teledyne Industries, Inc. On or around November 29, 2004, L3 acquired ownership of the Site from General Dynamics.

G. On or around December 22, 1988, Teledyne Continental Motors, General Products, a division of Teledyne Industries, Inc., and the United States, acting through DOD, entered into an *Agreement for Investigative and Remedial Action* for the Site (“1988 Agreement”). In or around October 1997, Teledyne and the United States entered into a final agreement with regard to the removal of PCB-contaminated flooring at certain buildings at the Site (“PCB Agreement”). This Consent Decree does not involve or address PCB-contaminated flooring and should not be construed to alter or create any obligation to address areas or actions that are covered by the PCB Agreement. The MDEQ and TDY entered into a *Voluntary Corrective Action Agreement between the Department of Environmental Quality and TDY Industries, Inc. for 76 Getty Street, Muskegon Township (MID 006 407 597)* in May of 2004. This Consent Decree supersedes and replaces the *Voluntary Corrective Action Agreement.*
H. A number of environmental investigations have been completed at the Site in order to identify the nature and extent of contamination. The U.S. EPA conducted a Preliminary Assessment/Visual Site Inspection in 1993. TDY and the U.S. Army Corps of Engineers (“USACE”) have undertaken a remedial investigation and a RCRA facility investigation (“RFI”) in accordance with work plans that were approved by MDEQ on August 21, 2002 and August 19 and 24, 2004. TDY and USACE have also undertaken other supplementary investigatory activities at the Site, including the investigation of potential vapor intrusion risks and investigations associated with corrective measures that have been implemented at the Site. The MDEQ approved a RFI Report and a Remedial Investigation Summary Report on August 24, 2007, and August 13, 2009, respectively. Quarterly groundwater monitoring is also currently being conducted.

I. In order to prevent impacted groundwater from affecting human health and the environment, TDY and USACE installed a system of groundwater hydraulic control wells that capture and treat groundwater flowing to the north, west, and south at the Site. This system has been operating since 1988. TDY and USACE have also conducted in the past groundwater enhanced reductive dechlorination and other corrective measures pursuant to plans approved by MDEQ. On February 14, 2006, MDEQ approved site-specific mixing zone based groundwater cleanup criteria for groundwater that vents to the Muskegon River.

J. On July 7, 2005, after submission of Environmental Indicator information by L3, it was determined by the State that all current human exposures to contamination at or from the Site were under control for all media known or reasonably suspected to be contaminated, and that significant or unacceptable exposures did not exist under then-effective criteria. It was also determined by the State that migration of contaminated groundwater at or from the Site was
controlled, including any groundwater known or reasonably suspected to be contaminated above acceptable levels, and that such groundwater was controlled within the existing areas of contamination as defined by monitoring locations designated at the time of the demonstration. MDEQ subsequently determined that the currently effective Part 201 cleanup criteria re-promulgated in 2013, specific to the volatilization to indoor air pathway, are less stringent than RCRA, and are not adequately protective of human health. MDEQ directed additional investigation of volatile chemicals in groundwater under and emanating from the Site in a letter dated June 1, 2017. The additional investigation, and if necessary, mitigation work, is incorporated into the Statement of Work and is referenced in Section VII, Performance of the Work, of this Consent Decree, at Task 14.

K. The purpose of this Consent Decree is to provide for the funding and performance of certain additional corrective measures at the Site that are related to activities that occurred while either DOD or TDY owned or operated the Site and to achieve final settlement for all releases or suspected releases of contaminants or hazardous substances or wastes addressed in this Consent Decree, activities taken pursuant to this Consent Decree, and all Matters Addressed by this Consent Decree. The Parties intend that TDY will fund a portion of the Work and perform the Work that is required by this Consent Decree, that the United States will fund a portion of the Work, and that L3 will provide access to the Site and will cooperate to implement Institutional Controls at the Site. In order to facilitate settlement between the Parties, the scope and duration of the Work has been limited as described in the attached SOW.

L. The Defendants do not admit any liability to Plaintiff arising out of the transactions or occurrences alleged in the complaint, nor do they acknowledge that the release or threatened release of hazardous substances or wastes at or from the Site constitutes an imminent
and substantial endangerment to the public health or welfare or the environment. The Parties agree that the signing of this Consent Decree is for settlement purposes only and does not constitute an admission by any Defendant that any law has been violated or an admission of any factual allegation or legal conclusion stated or implied in the complaint or in this Decree. The Defendants expressly reserve all rights they may have in law or in equity to maintain or defend against any claim brought by or against any person.

M. The Parties recognize, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith; implementation of this Consent Decree will expedite the cleanup of the Site and avoid prolonged and complicated litigation between the Parties; and this Consent Decree is fair, reasonable, and in the public interest. This Consent Decree constitutes the final agreement and understanding among the Parties regarding the settlement embodied herein, and, upon entry, shall constitute a final judgment. Nothing in this Consent Decree shall affect or abrogate the contractual rights or obligations of any Party or non-Party related to the Site including site investigation and remediation, except as otherwise expressly stated herein.

N. Contemporaneously with the execution of this Consent Decree, TDY and the United States intend to enter into a separate agreement to amend the 1988 Agreement, and TDY, the United States and L3 intend to enter into a Settlement Agreement releasing and discharging certain claims and liabilities between TDY, DOD and L3 (as specified therein). The Parties acknowledge that Plaintiff is not a party to either agreement, and nothing stated in those agreements or in this Consent Decree shall be construed as an admission, adoption or agreement by Plaintiff in regard to those agreements or any factual allegation or legal conclusion therein.

NOW, THEREFORE, it is hereby Ordered, Adjudged, and Decreed:
II. JURISDICTION.

1. This Court has jurisdiction over the subject matter of this action pursuant to 28 U.S.C. § 1331 and 42 U.S.C. §§ 9607, 7002. In accordance with 28 U.S.C. § 1365, this Court has supplemental jurisdiction over the claims brought pursuant to M.C.L. § 324.11151 and M.C.L. § 324.20135 as to each non-federal party to which such claims are applicable. This Court also has personal jurisdiction over the Parties. Solely for purposes of this Consent Decree, the Parties waive all objections and defenses that they may have to jurisdiction of the Court or to venue in this District. This waiver does not apply with regard to any subsequent actions that may be filed, notwithstanding the fact that such actions may address the Site and/or the actions of any of the Defendants. The Parties shall not challenge the terms of this Consent Decree or this Court’s jurisdiction to enter and enforce this Consent Decree.

III. DEFINITIONS.

2. Whenever terms listed below are used in this Consent Decree or its appendices, the following definitions shall apply:


   “Consent Decree” shall mean this Consent Decree and all appendices attached hereto.

   “Day” or “day” shall mean a calendar day unless expressly stated to be a working day. The term “working day” shall mean a day other than a Saturday, Sunday, or federal or state holiday. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, or federal or state holiday, the period shall run until the close of business of the next working day.
“DOD” shall mean the United States Department of Defense, including all of its components, predecessors and successors. The United States, acting on behalf of DOD, is the Non-Performing Settling Defendant.

“Effective Date” shall mean the date upon which this Consent Decree is entered by the Court as recorded on the Court docket, or, if the Court instead issues an order approving the Consent Decree, the date such order is recorded on the Court docket.

“Institutional Controls” shall mean easements or covenants running with the land that (a) limit land, water, or resource use and/or provide access rights and (b) are created pursuant to common law or statutory law by an instrument that is recorded by the owner in the appropriate land records office.

“Matters Addressed” shall mean all claims or causes of action regarding all releases or suspected releases of contaminants or hazardous substances or wastes addressed in Section VII (Performance of Work), all Work and other requirements and actions described in this Consent Decree, and the activities undertaken pursuant to Section XII (Access and Restrictive Covenants) of this Consent Decree, but specifically excludes: (a) claims for natural resource damages; (b) claims for personal injury; (c) response actions or corrective actions that are not described in this Consent Decree or the SOW; and (d) New Releases (as defined in Paragraph 16).

“MDEQ” shall mean the Michigan Department of Environmental Quality and any successor departments or agencies of the State. The State of Michigan, acting on behalf of MDEQ, is the Plaintiff.

“Non-Performing Settling Defendant” shall mean the United States, acting on behalf of DOD.

“Owner Settling Defendant” shall mean L3 Technologies, Inc..
“Paragraph” shall mean a portion of this Consent Decree identified by an Arabic numeral or an upper or lower case letter.

“Part 111” shall mean Part 111 of NREPA, M.C.L. § 324.11101 et seq., as amended, and the Part 111 administrative rules.

“Part 201” shall mean Part 201 of NREPA, M.C.L. § 324.20101 et seq., as amended, and the Part 201 administrative rules.

“Parties,” or, individually, “Party,” shall mean the Plaintiff State of Michigan, on behalf of the Michigan Department of Environmental Quality, and each of the Settling Defendants.

“Performing Defendant” shall mean TDY Industries, LLC.

“Plaintiff” shall mean the State of Michigan, on behalf of the Michigan Department of Environmental Quality.


“Section” shall mean a portion of this Consent Decree identified by a Roman numeral.

“Settling Defendant” or “Settling Defendants” shall mean the United States, TDY Industries, LLC, and L3 Technologies, Inc.. The Settling Defendants are also individually referred to as the Performing Defendant (TDY), the Non-Performing Settling Defendant (United States) and the Owner Settling Defendant (L3).

“Site” shall mean the property located at 76 Getty Street, Muskegon, Muskegon County, Michigan. The boundaries of the Site are delineated on the drawing included as Appendix A.

“Statement of Work” or “SOW” shall mean the statement of work attached as Appendix B, and any modifications to the SOW made in accordance with this Consent Decree. The
Statement of Work describes the Work to be implemented in accordance with this Consent Decree.

“Work” shall mean all activities and corrective measures to be implemented at and near the Site by Performing Defendant as required under this Consent Decree and as described in the Statement of Work.

IV. PARTIES BOUND.

3. This Consent Decree applies to and is binding upon the Plaintiff, the Settling Defendants, and their successors and assigns. No change in ownership or corporate status of a Settling Defendant will alter the responsibility of the Settling Defendants under this Consent Decree. Any conveyance of title, easement, or other interest in the Site, or a portion of the Site, shall not affect the rights or obligations of the Settling Defendants under this Decree; provided, however, that if the Owner Settling Defendant conveys title to any portion of the Site to an unaffiliated party, then Owner Settling Defendant shall be relieved of all obligations under the Decree with respect to the divested portion of the Site on the condition that the Owner Settling Defendant: (a) gives a copy of this Consent Decree and all of its appendices and attachments to any successor in interest prior to the transfer of title; (b) obtains a written certification from the successor in interest at least ten (10) calendar days prior to the transfer of title that it has reviewed the Consent Decree and agrees to abide by the terms and the obligations of the “Owner Settling Defendant” with respect to the portion of the Site it owns after acquiring title to the property; (c) provides notice to the Settling Defendants and MDEQ of its intent to convey title to any portion of the Site at least twenty-one (21) calendar days prior to the transfer of title including the identity of the intended transferee; and (d) provides the Settling Defendants and
MDEQ with a copy of the signed certification described in subpart (b) of this Paragraph at least five (5) calendar days prior to the transfer of title.

4. Performing Defendant shall provide a copy of this Consent Decree to each contractor, subcontractor or consultant retained to perform the Work required by this Consent Decree. Notwithstanding the terms of any such arrangement, the Performing Defendant is responsible for compliance with the applicable terms of this Consent Decree.

5. In addition to the requirements set forth in Paragraph 3, Owner Settling Defendant shall give notice of this Consent Decree to any lessee, tenant or operator of the Site or any portion of the Site and shall ensure that any Institutional Controls required by this Consent Decree are implemented and maintained by such lessee, tenant or operator and that access to the Site, as required by this Consent Decree, is allowed.

V. COMPLIANCE WITH LAW.

6. All Work and other actions required to be taken pursuant to this Consent Decree shall be undertaken in accordance with the requirements of all applicable state and federal laws, rules, and regulations, including, but not limited to, Part 111 and Part 201, and laws related to occupational safety and health. Performing Defendant shall be solely responsible for obtaining, and complying with, any and all required permits and authorizations for all Work. The Owner Settling Defendant agrees to cooperate with Performing Defendant in obtaining those permits and authorizations.

VI. PROJECT COORDINATORS AND CONTACTS.

7. Performing Defendant. Unless the MDEQ and other Settling Defendants are otherwise notified by Performing Defendant, in writing, the Project Coordinator for Performing Defendant is Mark Thomasen. The Performing Defendant’s Project Coordinator shall
administer and oversee all Work by Performing Defendant under this Consent Decree. All
verbal notices and written communication required to be made to Performing Defendant under
this Consent Decree shall be directed to:

Mark Thomasen
Allegheny Technologies Incorporated
48 Prestbury Square Building
Third Floor, Suite 18
Newark, Delaware 19713

With a copy to:

Lauren McAndrews
Vice President Environmental Affairs & Sustainability
and Assistant General Counsel
Allegheny Technologies Incorporated
1000 Six PPG Place
Pittsburgh, PA 15222

8. **MDEQ.** The Project Coordinator for MDEQ shall be Mr. Dan Dailey unless the Settling Defendants are notified otherwise by MDEQ, in writing. All verbal notices and written communication required to be made to MDEQ under this Consent Decree shall be directed to:

Daniel P. Dailey, P.E.
Environmental Engineer Specialist
MDEQ Waste Management and Radiological Protection Division
Constitution Hall, 4th Floor South
P.O. Box 30241, Lansing, Michigan 48909-7741

9. **DOD.** Unless the MDEQ and other Settling Defendants are otherwise notified by DOD, in writing, the Project Contact for DOD is Andrew Dettmer. All verbal notices and written communication required to be made to DOD under this Consent Decree shall be directed to:

Andrew Dettmer
U.S. Army Corps of Engineers, Louisville District
600 Martin Luther King Jr. Place
Louisville, Kentucky 40202-0059
With a copy to:

Janice Lengel  
U.S. Army Corps of Engineers, Louisville District  
Office of Counsel  
600 Martin Luther King Jr. Place  
Louisville, Kentucky 40202-0059

10. **Owner Settling Defendant.** Unless the MDEQ and other Settling Defendants are otherwise notified by Owner Settling Defendant, in writing, the Project Contact for Owner Settling Defendant is Dan Olds. All verbal notices, access requests, and written communication required to be made to Owner Settling Defendant under this Consent Decree shall be directed to:

   Dan Olds  
   Facility/EHS Section Manager  
   L-3 Combat Propulsion Systems  
   76 Getty Street  
   Muskegon, MI  
   (231) 724-2899  
   cell (231) 215-7624  
   fax (231) 724-2396

With copies to:

Doug Smith  
Director EHS Programs  
L-3 Technologies, Inc.  
600 Third Ave  
New York, NY 10016  
Ph/fax (239) 433-9321  
cell (239) 851-1898

Charles M. Denton  
BARNES & THORNBURG LLP  
171 Monroe Avenue N.W.  
Suite 1000  
Grand Rapids, MI 49503-2694  
Tel: (616) 742-3974  
cdenton@BTLaw.com
11. To the maximum extent practicable, all communications between the MDEQ and the Settling Defendants, and all documents, reports, approvals, and other correspondence concerning activities performed pursuant to this Consent Decree, shall be directed through the Project Coordinators and Contacts.

VII. PERFORMANCE OF THE WORK.

12. The Performing Defendant agrees to perform or cause to be performed the tasks set forth below in the manner specified and by the dates established per the SOW. The Parties contemplate that additional investigation and remedial activities may be required in the future (aka “Phase 2”) in order to achieve all remedial goals and objectives, and that those activities will be addressed in a subsequent enforceable agreement or agreements to be negotiated between the Parties. To the extent there is any discrepancy or inconsistency between the descriptions of the Tasks set forth below and the SOW, the language of the SOW shall govern:

Task 1 – Groundwater at Former Solvent/Oil and Containerized Hazardous Waste Storage Area and Chip House. Design, construct, and install an enhanced reductive dechlorination (“ERD”) system consisting of up to forty-four (44) injection/recirculation wells in the area of volatile organic compound (“VOC”) groundwater contamination generally shown on SOW Figure 1. Conduct up to three ERD injection events and monitor and assess ERD progress for a period of six years after the first injection event or shorter period approved by the MDEQ.

Task 2 – Soil at Former Solvent/Oil and Containerized Waste Storage Area and Chip House. Design, construct, and install a soil vapor extraction (“SVE”) system consisting of up to thirty-three (33) SVE wells in the area of VOC soil contamination generally shown on SOW Figure 2. Operate and maintain the system for two years after the date of the initial SVE system startup or shorter period approved by MDEQ.
**Task 3 – Soil at Former South Lagoon.** Excavate visually impacted soils and replace with clean fill. The estimated area of the excavation is generally shown on SOW Figure 3.

**Task 4 – Area South of Main Building.** Conduct an investigation to: (a) determine if contamination extends up-gradient of monitoring well 64 and (b) evaluate locations for potential ERD implementation. This investigation shall include the creation of up to twenty (20) vertical aquifer profiles to assess the extent of contamination in the area generally shown on SOW Figure 4.

**Task 5 – Cyanide at Former Northwest Lagoons.** In the area generally shown on Figure 5, conduct an investigation to determine whether there are contaminants leaching to groundwater at concentrations that could cause exceedances of applicable standards at compliance points, and, if so, determine the extent of vadose zone soil that needs to be excavated and/or capped.

**Task 6 – PCBs at Former Northwest Lagoons.** Install a permeable exposure barrier over the area shown on SOW Figure 5 (approximately 109,000 square feet) in order to restrict exposure to PCBs and other contaminants at concentrations above Part 201 non-residential soil direct contact cleanup criteria.

**Task 7 – Four Mile Creek.** In order to further assess the groundwater surface water interface to Four Mile Creek and the possible applicability of a mixing zone for the Creek: (a) conduct a hydrogeologic study of the Creek at the Site, including the installation of up to twenty five (25) groundwater well clusters adjacent to the Creek, (b) assess groundwater contamination to the southwest of the plant (see SOW Figure 4), including the performance of up to ten (10) vertical aquifer profiles, and (c) develop site specific chemical attenuation curves for soil and groundwater contamination in the assessed area. As appropriate, propose a site model, soil
and/or groundwater Part 201 site specific cleanup criteria and/or request a mixing zone
determination from MDEQ.

**Task 8 – PCBs at Former Sludge Drying Beds.** Install a permeable exposure barrier
over the two easternmost sludge drying beds shown on SOW Figure 6 in order to restrict
exposure to PCBs and other contaminants at concentrations above Part 201 non-residential soil
direct contact cleanup criteria.

**Task 9 – Additional Source Identification in Vicinity of Former Coal Storage Area
and Sludge Drying Beds.** In order to further assess the potential for additional contamination in
and around the former coal storage area, sludge drying beds and surrounding area on the north
side of the plant: (a) complete up to thirty (30) vertical aquifer profiles in the area shown on
SOW Figure 7, (b) install up to five (5) monitoring wells and between seven (7) and ten (10)
piezometers to allow detailed mapping of dissolved phase contaminants and the groundwater
divide, (c) integrate this data with the data from Task 4 (Area South of Main Building) and other
investigations and (d) report the findings to the MDEQ.

**Task 10 – Operation and Maintenance of Groundwater Hydraulic Control System.**
Continue operation and maintenance of the existing groundwater hydraulic control system,
including replacing wells, pumps or other equipment as necessary, for a period of six years after
the Effective Date or shorter period approved by the MDEQ. A purge well or wells may be
periodically turned off as necessary to accommodate ERD or other remedial processes, or
permanently shut down and abandoned, with MDEQ approval, if the well or wells no longer
contribute to hydraulic capture in areas of the Site that exceed applicable cleanup criteria, or the
MDEQ agrees that operation of a well or the system is no longer necessary to protect public
health and the environment.
Task 11 – Site Wide Groundwater and GSI Monitoring. Conduct groundwater monitoring and reporting in accordance with the Comprehensive Groundwater Monitoring Plan, 76 Getty Street Site, Muskegon, Michigan (Sept. 2007), as approved with modifications by the MDEQ by letter dated June 23, 2008, until six years after the Effective Date, or shorter period approved by the MDEQ.

Task 12 – South Area LNAPL Investigation and Recovery. Investigate the extent of light non-aqueous phase liquid (“LNAPL”) contamination in the vicinity of purge wells 17 and 18 and design, install and operate an LNAPL recovery system consisting of up to eight LNAPL recovery wells (including purge wells 17 and 18), piping, pumps and storage tanks. Operate and maintain the system for a period of five years following completion of construction and installation, unless a shorter period of time is approved by MDEQ. The Performing Defendant shall be responsible for loading, transporting and disposing of LNAPL recovered by the system during the operational period.

Task 13 – Ecological Risk Assessment. Conduct a screening level ecological risk evaluation for surface water and natural/wetland environments along Four Mile Creek and the South Branch of the Muskegon River.

Task 14 – Vapor Intrusion Pathway Assessment. Conduct an initial expedited investigation of vapor intrusion pathways for volatile contaminants of concern at the Site and certain identified off-site properties to determine whether additional monitoring and/or mitigation action is required, and to implement such actions as necessary and appropriate according to a schedule approved by MDEQ.

13. All Work undertaken pursuant to this Consent Decree shall be performed in a manner consistent with Parts 111 and 201, RCRA, and other applicable state and federal laws.
and their implementing regulations, and shall be generally consistent with CERCLA. All Work shall be consistent with all MDEQ-approved work plans, proposals or other documents, and, unless waived in writing by MDEQ, relevant, published and final MDEQ and U.S. EPA guidance documents that are in effect at the time of the Work, including, but not limited to, Federal Register Volume 68, Number 37, Tuesday, February 25, 2003, pp. 8757-8764, Final Guidance on Completion of Corrective Action Activities at RCRA Facilities; EPA530-R-04-030 Handbook of Groundwater Protection and Cleanup Policies for RCRA Corrective Action; MDEQ Operational Memorandum No. 2, Sampling and Analysis; and MDEQ Operational Memorandum No. 4, Site Characterization and Remedial Verification; where not less stringent than RCRA.

14. All sampling and analysis conducted pursuant to this Consent Decree will be performed in accordance with the EPA Region 5 RCRA Quality Assurance Project Plan (“QAPP”) Policy (May 1998) unless MDEQ waives a QAPP requirement in writing. Performing Defendant may meet this requirement by following the procedures set forth in sections 2 – 14 of the QAPP (Earth Tech, Inc., August 2004) previously prepared for the Site and submitted to MDEQ, or by following a new or revised QAPP approved by MDEQ for a portion or all of the Work.

15. The Performing Defendant will notify the MDEQ in writing at least fourteen (14) days prior to beginning field work performed under this Consent Decree. At the request of the MDEQ, the Performing Defendant or its agents will provide or allow the MDEQ or its authorized representatives to take split or duplicate samples of all samples collected.

16. The objective of the Work is to address contamination that is associated with the prior ownership or operation of the Site by DOD or TDY, specifically, the time period between
November of 1942 and March of 1996. The Work is not intended, nor does it include, investigating, remediating, removing, or taking other corrective measures to address releases to the environment occurring at any time after March 29, 1996 (a “New Release”) and the Performing Defendant shall not perform Work under this Agreement to address New Releases.

As of the Effective Date, the Parties are not aware of any New Releases that would materially alter the cost, scope, or effectiveness of the Work.

17. If new information of a potential New Release that could alter the cost, scope, or effectiveness of the Work is discovered after the Effective Date of this Consent Decree, then the Party that discovered the information shall share it with the other Parties. If there is a dispute regarding the existence or timing of the New Release, then any Party may invoke the dispute resolution process set forth in Section XIV (Dispute Resolution). To the extent practicable, the Performing Defendant shall continue performing the Work during the pendency of the dispute resolution process.

VIII. REPORTING, COMPLETION CERTIFICATION, NO FURTHER ACTION.

18. The Performing Defendant will provide quarterly progress reports to the MDEQ, with copies to the other Settling Defendants, detailing Work performed to date, data collected, problems encountered, project schedule, and percent of the project completed. Quarterly reports must be received by the MDEQ by the 30th day of each month following a quarter (i.e., January 30, April 30, July 30 and October 30).

19. The Performing Defendant and the MDEQ will cooperate in good faith to timely respond to submittals and to ensure successful completion of the Work and, when requested by MDEQ, will meet on at least an annual basis to discuss the Work proposed and performed under
this Consent Decree. Other Settling Defendants, including the Owner Settling Defendant, shall be granted the right to participate in such meetings with MDEQ.

20. The Performing Defendant will provide to MDEQ completion reports as described and by the dates set forth in the SOW documenting the Work performed pursuant to this Consent Decree and the SOW. The completion report shall contain the following statement signed by the Performing Defendant’s project coordinator or by a Responsible Official:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations.

Signature: __________________________

Name: __________________________

Title: __________________________

Date: __________________________

A “Responsible Official” means a president, secretary, treasurer, or vice-president of a business entity in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the business entity.

21. After completion of any portion of the Work, the Performing Defendant may, after consulting with the DOD, submit a written request to the MDEQ if Performing Defendant wishes to terminate corrective action or otherwise seek a certificate of completion or determination that no further action is required for any waste management unit (“WMU”) or area of concern (“AOC”) at the Site.
(a) The Performing Defendant must demonstrate that there have been no releases of hazardous waste, hazardous waste constituents, or hazardous substances from the WMU or AOC above applicable generic or site specific cleanup criteria, or that the WMU or AOC has been remediated to applicable site specific or generic cleanup criteria or standards or has otherwise been controlled and, therefore, poses no threat to public health, safety, welfare, or the environment.

(b) If, based upon a review of the Performing Defendant’s request, the MDEQ determines that the releases or suspected releases of contaminants or hazardous substances do not exist or that the WMU or AOC has been remediated to applicable cleanup criteria or standards or has otherwise been controlled, the MDEQ will issue a corrective action complete or corrective action complete with controls determination, as appropriate for that release, WMU or AOC.

IX. APPROVAL OF SUBMITTALS BY MDEQ.

22. For any work plan, proposal, or other document, excluding applications for permits or licenses, that are required by this Consent Decree to be submitted by the Performing Defendant to the MDEQ for approval, the following process and terms of approval shall apply, subject to Performing Defendant’s right to invoke Section XV (Force Majeure) and Section XIV (Dispute Resolution).

(a) Any work plan, proposal, or other document required to be submitted by this Consent Decree shall include all of the information required by any applicable statute and/or rule and all of the information required by the applicable Paragraph(s) of this Consent Decree.

(b) The MDEQ may approve, disapprove, or approve with specific modifications, the required work plan, proposal, or other document. Upon MDEQ approval, or approval with
modifications, of a work plan, proposal or other document, such work plan, proposal, or other
document shall be incorporated by reference into this Consent Decree and shall be enforceable in
accordance with the provisions of this Consent Decree. Any noncompliance with the compliance
dates and performance standards of a MDEQ-approved work plan, proposal, or other document
shall be considered a violation of this Consent Decree and shall subject the Performing
Defendant to the stipulated penalty provisions included in Section XIII.

(c) In the event the MDEQ disapproves a work plan, proposal, or other document, it
shall notify the Performing Defendant, in writing, of the specific reasons for such disapproval.
The Performing Defendant shall submit, within thirty (30) days of receipt of such disapproval, a
revised work plan, proposal, or other document that adequately addresses the reasons for the
MDEQ’s disapproval.

(d) In the event the MDEQ approves with specific modifications, a work plan,
proposal, or other document, it shall notify the Performing Defendant, in writing, of the specific
modifications required to be made to such work plan, proposal, or other document prior to its
implementation and the specific reasons for such modifications. Any such modification shall be
consistent with the terms of this Consent Decree and shall not expand or add to the scope of
Work set forth in this Decree and the SOW. The MDEQ may require the Performing Defendant
to submit, prior to implementation and within thirty (30) days of receipt of such approval with
specific modifications, a revised work plan, proposal, or other document that adequately
addresses such modifications; however, if necessary, the Performing Defendant may request an
extension of time. Such request shall not be unreasonably denied.

(e) Failure by the Performing Defendant to submit any work plan, proposal, or other
plan on the date it was first due or due to be revised shall subject the Performing Defendant to
stipulated penalties commencing on the date the work plan, proposal, or other document was due.

(f) Any delays caused by the Performing Defendant’s failure to submit a work plan, proposal, or other document when due shall in no way affect or alter the Performing Defendant’s responsibility to comply with any other deadline(s) specified in this Consent Decree.

(g) No informal advice, guidance, suggestions, or comments by the MDEQ regarding reports, plans, specifications, schedules, or any other writing submitted by the Performing Defendant will be construed as relieving the Performing Defendant of the obligation to obtain written approval, if and when required by this Consent Decree.

X. RECORD PRESERVATION.

23. The Performing Defendant agrees to preserve, during the term of this Consent Decree and for five (5) years after termination, unless a longer period is required by Part 111: all records or documents in its possession or in the possession of its divisions, officers, employees, agents, contractors, successors, and assigns that relate in any way to this Consent Decree. Upon request from the MDEQ, the Performing Defendant shall make such records available to the MDEQ for inspection or shall provide copies of any such records to the MDEQ, although the Performing Defendant shall not be required to make available or provide copies of documents that are subject to the attorney-client privilege or attorney work product doctrine. If the Performing Defendant desires to discard or destruct any such records before five (5) years have elapsed after termination of this Consent Decree, the Performing Defendant shall obtain permission from the MDEQ, in writing, prior to the discard or destruction of any such records by the Performing Defendant and shall provide the MDEQ an opportunity to take possession of any such records. All Settling Defendants shall, upon reasonable request, have access to the
documents described in this Paragraph for as long as they are maintained by the Performing Defendant, although the Performing Defendant shall not be required to make available or provide copies of documents that are subject to the attorney-client privilege or attorney work product doctrine.

XI. PAYMENT ON BEHALF OF DOD.

24. The projected total cost for conducting the Work is $8,132,012 ("Projected Cost").

25. As soon as reasonably practical after the Effective Date, the United States, on behalf of the DOD, shall cause to be paid to Performing Defendant 76% of the Projected Cost, which is $6,180,329, by electronic funds transfer pursuant to instructions to be provided by Performing Defendant. If this payment has not been made within one hundred and twenty (120) days after the Effective Date, interest on the unpaid balance shall be paid at the rate established pursuant to Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), commencing on the 121st day after the Effective Date. Subject to Section XVII (Covenants Not to Sue, Contribution Protection, and Reservation of Rights), the payment made by the United States pursuant to this Section constitutes DOD’s final allocable share for the cost of the Work and for all Matters Addressed in this Consent Decree as between DOD, the Plaintiff, and the other Settling Defendants, and represents the full consideration by DOD and the United States for all Matters Addressed in this Consent Decree.

26. If the actual costs for conducting the Work exceeds the Projected Cost, the United States, on behalf of DOD, shall pay 76% of the costs that exceed the Projected Costs ("Additional Costs"), but only so long as the conditions of Paragraph 27 are fully satisfied.
27. If, upon exceeding the total Projected Costs, the Performing Defendant seeks payment for 76% of the Additional Costs from the DOD, the Respondent shall make a written demand to the DOD for payment by the United States on behalf of the DOD (“Federal Payment Demand”). The Federal Payment Demand shall include: (1) the amount of the payment request, (2) an explanation of why both the Projected Costs and Additional Costs were incurred in accordance with this Consent Decree and the attached SOW, and (3) supporting documentation and information sufficient to show for each contractor, vendor, or other person to whom money was paid by Performing Defendant, the amount paid and the services or goods provided. Demands for payment pursuant to this Paragraph shall be made no more than once per calendar year.

28. If the United States on behalf of DOD in good faith questions or contests any invoiced fees or expense that purport to comprise Additional Costs, in whole or in part, it shall have the right to withhold payment of such disputed amount; provided, however, that the United States shall notify the Performing Defendant in writing of any disputed amount within thirty (30) days of the date of such Federal Payment Demand and shall promptly make a good faith effort to resolve such dispute. In the event that the United States and the Performing Defendant cannot informally resolve the dispute, either Party may seek formal dispute resolution, in accordance with 5 U.S.C. § 571 et seq., not less than ninety (90) days after the date of the Federal Payment Demand.

29. Within six-months after completion of the Work, the Performing Defendant shall provide to the DOD a complete set of invoices for all of the costs for the Work. If the payment set forth in Paragraph 25 exceeds 76% of the cost of the Work, such excess payments made by the United States shall be applied as credits to any other alleged liability of the United States at
the Site, including costs or liability that are beyond the scope of the Work to be performed under
the terms of this Consent Decree and liability or costs for future work not yet identified. Unless
otherwise agreed, in no case shall the Performing Defendant be entitled to retain from payments
made by the United States monies representing more than 76% of the cost of the Work.

30. The Parties recognize and acknowledge that the payment obligation of the DOD
under this Consent Decree can only be paid from appropriated funds that are actually and legally
available for such purpose. Nothing in this Consent Decree shall be interpreted or construed as a
commitment or requirement that the DOD obligate or pay funds in contravention of the Anti-
Deficiency Act, 31, U.S.C. § 1341, or any other applicable provision of law. The Parties
acknowledge that Performing Defendant’s obligation to perform the Work is conditioned upon
the payment set forth in Paragraph 25. If DOD only pays a portion of the full payment required,
then the Performing Defendant and MDEQ shall consult with each other to determine how to
allocate the payments so that portions of the Work can be implemented. Performing Defendant
shall not be required to perform any portion of the Work until the payment in Paragraph 25 has
been made.

XII. ACCESS AND RESTRICTIVE COVENANTS.

31. To enforce and evaluate compliance with this Consent Decree, the MDEQ and its
agents, employees, and representatives are authorized by Owner Settling Defendant upon 24
hours’ notice and subject to the Owner Settling Defendant’s reasonable site security,
confidentiality, and health and safety requirements, to enter and freely move about all property at
the Site for the purpose of, but not limited to, interviewing Owner Settling Defendant’s and
Performing Defendant’s personnel and contractors; reviewing the progress of the Performing
Defendant in carrying out the terms of this Consent Decree, conducting such tests, sampling or
monitoring as the MDEQ or its Project Coordinator deem necessary, using a camera, sound recording, or other documentary type equipment; and verifying the reports and data submitted to the MDEQ by the Performing Defendant in accordance with the terms of the Consent Decree. The Owner Settling Defendant and Performing Defendant shall permit the above authorized persons to inspect all records, files, photographs, documents, and other writings, including all sampling and monitoring data that pertain to Work undertaken pursuant to this Consent Decree, and provide copies thereof if requested.

32. Owner Settling Defendant shall cooperate with Performing Defendant as it performs the Work required by this Consent Decree and shall provide to Performing Defendant and its agents, representatives, consultants and contractors, access at all reasonable times to the Site for the purpose of conducting the Work subject to the Owner Settling Defendant’s reasonable site security, confidentiality, and health and safety requirements. Performing Defendant and its agents, representatives, consultants and contractors shall not unreasonably interfere with the Owner Settling Defendant’s operations or otherwise cause a health or safety hazard or nuisance while performing Work at the Site.

33. To the extent that Work being performed pursuant to the Consent Decree must be done on Property not owned or controlled by Owner Settling Defendant or by Performing Defendant as of the Effective Date, the Performing Defendant will use its best efforts to obtain access agreements necessary to complete the Work from the present owner(s) or operator(s) of such property at least thirty (30) days before the date that access is needed to timely complete the Work. “Best efforts” shall include, but not be limited to, seeking a judicial order for access under Section 20135a of Part 201. Any such access agreement will provide access for the MDEQ and its representatives. The Performing Defendant will ensure that the MDEQ’s Project
Coordinator has a copy of any access agreements. In the event that agreements for access are not obtained by the time set forth above, the Performing Defendant will notify the MDEQ, in writing, within fourteen (14) days thereafter, of both the efforts undertaken to obtain access and the failure to obtain access agreements. The MDEQ may, at its discretion, assist the Performing Defendant in obtaining access.

34. Nothing in this Section limits or otherwise affects the MDEQ’s right of access and entry pursuant to applicable law, including NREPA, CERCLA or RCRA.

35. The Parties acknowledge that the Site is currently zoned for industrial use. By the dates set forth below, Owner Settling Defendant agrees to execute and record with the Muskegon County Register of Deeds the following Institutional Controls:

(a) Within thirty (30) days of the Effective Date, execute and record a Declaration of Restrictive Covenant in the form attached as Appendix C restricting the installation and use of drinking water wells at the Site, prohibiting residential use of the Site, regulating the excavation and movement of soils at the Site, allowing access to the Site for response activities / corrective measures, and requiring the presence of structural barriers over impacted soils in the area known as the Former Basement Chip Trench.

(b) Within sixty (60) days after being notified that MDEQ has approved completion of Work task 6 (PCBs at Former Northwest Lagoons), execute and record a Declaration of Restrictive Covenant in the form attached as Appendix D restricting activities that could interfere with the effectiveness or integrity of exposure barriers at the Former Northwest Lagoons, providing for maintenance of the barriers, and describing precautions to be taken if buildings are constructed in the area.
(c) Within sixty (60) days after being notified that MDEQ has approved completion of Work task 8 (PCBs at Former Sludge Drying Beds), execute and record a Declaration of Restrictive Covenant in the form attached as Appendix E restricting activities that could interfere with the effectiveness or integrity of exposure barriers at the Former Sludge Drying Beds, providing for maintenance of the barriers, and describing precautions to be taken if buildings are constructed in the area.

XIII. FINES, COSTS AND STIPULATED PENALTIES.

36. Except as provided in Sections XIV (Dispute Resolution) and XV (Force Majeure), or unless there has been a written modification of a compliance date by the MDEQ pursuant to Section XVI (Modification), in the event the Performing Defendant fails to meet any requirement set forth in this Consent Decree, the MDEQ may demand and the Performing Defendant shall pay stipulated penalties as set forth below:

(a) For failure to submit quarterly progress reports by the dates scheduled in Paragraph 18: $300 per day for the first fourteen (14) days and $600 per day thereafter.

(b) For failure to timely submit a completion report as required by Paragraph 20, or reports, work plans, or other documents required by the SOW by the dates set forth in the SOW: $300 per day for the first fourteen (14) days, $600 per day for the fifteenth (15th) through thirtieth (30th) days, and $1200 per day thereafter.

(c) For failure to implement Work in accordance with the approved schedule in the SOW: $500 per day for the first fourteen (14) days, $1000 per day for the fifteenth (15th) through thirtieth (30th) days, and $1500 for each day thereafter.

37. In the event Owner Settling Defendant fails to provide access as required by this Consent Decree, Owner Settling Defendant shall pay stipulated penalties of $600 per day for the
first fourteen (14) days, $1200 per day for the fifteenth (15th) through thirtieth (30th) days, and $1500 per day thereafter.

38. All stipulated penalties identified in this Section shall begin to accrue on the date that complete performance is due or a violation occurs and shall continue to accrue through the final day of correction of the noncompliance, except:

   (a) In regard to MDEQ approval of work plans, proposals, or other documents pursuant to Section IX (Approval of Submittals by MDEQ), stipulated penalties shall not accrue until MDEQ has finished its review and the time period for Performing Defendant to revise or modify the work plan, proposal, or other document has elapsed.

   (b) Payment shall be stayed pending final resolution of a dispute under Section XIV (Dispute Resolution) and Defendants shall not be assessed penalties for disputes decided in their favor.

39. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Consent Decree. All stipulated penalties owed to the MDEQ under this Section shall be due within forty-five (45) days after receipt of a written demand from the MDEQ unless the dispute resolution procedures of Section XIV are invoked within the forty-five (45) day period. Such demands shall describe the noncompliance and shall indicate the amount of penalties due.

40. To ensure timely payment of the above stipulated penalties, the Performing Defendant/Owner Settling Defendant shall pay an interest penalty each time it fails to make a complete or timely payment within forty-five days of an MDEQ demand. Interest shall begin to accrue on the unpaid balance at the rate specified in Section 20126a(3) of NREPA on the day
after payment was due until the date upon which the principal payment and the accrued interest payment is made to the MDEQ.

41. The Performing Defendant/Owner Settling Defendant shall pay the above stipulated penalties and any interest accrued due to late payment of these amounts by check made payable to the “State of Michigan” and mailed to the Accounting Services Division, Cashier’s Office for MDEQ, P.O. Box 30657, Lansing, Michigan 48909–8157, or hand delivered to the Accounting Services Division, Cashier’s Office for MDEQ, 1st Floor, Van Wagoner Building, 425 West Ottawa Street, Lansing, Michigan 48933. To ensure proper credit, all payments made pursuant to this Consent Decree must include the Payment Identification Number RMD 40041. All payments shall reference the Site, the Performing or Owner Settling Defendant’s name and address, and this Consent Decree by civil action number. A copy of the transmittal letter and the check shall be provided simultaneously to the Manager, Enforcement Section, Waste Management and Radiological Protection Division, MDEQ, P.O. Box 30241, Lansing, Michigan 48909-7741, and to the Assistant Attorney General and address listed in the signatory section at the end of this Consent Decree.

42. The payment of stipulated penalties shall not alter in any way the obligation to complete the performance required under this Consent Decree. The Performing Defendant/Owner Settling Defendant agrees not to contest the legality of any stipulated penalties assessed pursuant to this Section or the MDEQ’s legal authority to impose such penalties, except as provided in section XIV (Dispute Resolution), but reserves the right to dispute the factual basis upon which a demand by the MDEQ for stipulated penalties is made.

43. The stipulated penalties set forth in this Section do not preclude the MDEQ from pursuing any other remedies or sanctions that may be available to the MDEQ by reason of the
failure of the Performing Defendant or Owner Settling Defendant to comply with any of the requirements of this Consent Decree, provided, however, that MDEQ shall not seek any punitive damages authorized by law for any violation for which a stipulated penalty is provided for in this Section except in the case of a willful violation of this Consent Decree. The MDEQ agrees that any monetary penalties, including stipulated penalties that the MDEQ seeks for any single and discrete violation of this Consent Decree, shall not exceed the statutory maximum penalty for such violation as provided in applicable Michigan or federal law. Nothing herein shall prevent the MDEQ from seeking separate penalties for separate violations. The Performing Defendant and Owner Settling Defendant reserve the right to contest and defend against the MDEQ’s pursuit of any such remedies.

XIV. DISPUTE RESOLUTION.

44. Unless otherwise provided in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes between any Party and MDEQ arising under or with respect to the enforcement or application of the terms of this Consent Decree and shall apply to all provisions of this Consent Decree. However, the procedures set forth in this Section shall not apply to actions by the State to enforce obligations of the Settling Defendants under this Consent Decree that have not been disputed in accordance with this Section. This dispute resolution process shall not apply to any matters that are outside the scope of the express requirements of this Consent Decree. Dispute resolution between the Parties shall not be cause for the Settling Defendants to delay the performance of any required activity.

45. Any dispute between a Party and MDEQ that arises under this Consent Decree shall in the first instance be the subject of informal negotiations between those Parties. The
period of negotiation shall not exceed thirty (30) days from the date of written notice by any Party that a dispute has arisen, unless the time period for negotiations is modified by written agreement between the Parties involved in the dispute. The dispute shall be considered to have arisen when one Party sends the other Party a written notice of dispute. If agreement cannot be reached on any issue within this thirty (30) day period, the MDEQ shall provide a written statement of its decision to the disputing Party, and, in the absence of initiation of formal dispute resolution by the Party as set forth below, the MDEQ position, as outlined in its written statement of decision, shall be binding.

46. If the disputing Party and the MDEQ cannot informally resolve a dispute as set forth above, the disputing Party may initiate formal dispute resolution by requesting review of the disputed issues by the MDEQ, Waste Management and Radiological Protection Division (or successor) Director (“Division Director”). This written request must be filed with the Division Director within fifteen (15) days of the disputing Party’s receipt of the MDEQ’s statement of decision that was issued at the conclusion of the informal dispute resolution procedure set forth in Paragraph 45. The disputing Party’s request shall state the issues in dispute; the relevant facts upon which the dispute is based; any factual data, analysis, or opinion supporting its position; and all supporting documentation upon which the Party bases its position. Within fourteen (14) days of the Division Director’s receipt of the Party’s request for a review of disputed issues, the Division Director will provide a written statement of decision to the Party, which will include a statement of his/her understanding of the issues in dispute; the relevant facts upon which the dispute is based; any factual data, analysis, or opinion supporting her/his position; and all supporting documentation relied upon by the Division Director during review of the disputed
issues. The Division Director’s review of the disputed issues may be extended by written agreement of the Parties involved in the dispute.

47. The written statement of the Division Director issued under Paragraph 46 shall be binding on the disputing Party unless, within fifteen (15) days after receipt of the written statement of decision, the disputing Party files and serves on all Parties a motion for judicial review with this Court. The motion shall set forth a description of the matter in dispute, the efforts made by the Parties in dispute to resolve it, the relief requested, and the schedule, if any, within which the dispute must be resolved to ensure orderly implementation of this Consent Decree.

48. An administrative record of the dispute shall be maintained by the MDEQ. The administrative record shall include all of the information provided by the disputing Party pursuant to Paragraphs 46, as well as any other documents relied upon by the MDEQ in making its final decision. Where appropriate, the MDEQ shall allow submission of supplemental statements of position.

49. Any judicial review of a MDEQ decision shall be limited to the administrative record. In a proceeding on any dispute regarding the selection, extent, or adequacy of any response activity, the disputing Party shall have the burden of demonstrating on the administrative record that the position of the MDEQ is arbitrary and capricious or otherwise not in accordance with law. The Party challenging MDEQ’s decision shall bear the burden of persuasion on factual issues. Nothing herein shall prevent the MDEQ from arguing that a court should apply the arbitrary and capricious standard of review to any dispute under this Consent Decree.

XV. FORCE MAJEURE.
50. The Performing Defendant shall perform the requirements of this Consent Decree within the time limits established herein unless performance is prevented or delayed by events that constitute a “Force Majeure.” Any delay in the performance attributable to a “Force Majeure” shall not be deemed a violation of obligations of the Settling Defendants under this Consent Decree in accordance with this Section.

51. For the purpose of this Consent Decree, “Force Majeure” means an occurrence or nonoccurrence arising from causes beyond the reasonable control of and without the fault of the Performing Defendant, such as an Act of God, untimely review of permit applications or submissions by the MDEQ or other applicable authority, failure to obtain access after using best efforts to obtain access, and acts or omissions of third parties that could not have been avoided or overcome by the diligence of the Performing Defendant and that delay the performance of an obligation under this Consent Decree. Force Majeure does not include, among other things, unanticipated or increased costs, changed financial circumstances, or failure to obtain a permit or license as a result of actions or omissions of the Performing Defendant.

52. The Performing Defendant shall notify the MDEQ by telephone within three (3) work days of discovering any event that potentially qualifies as a “Force Majeure” under this Consent Decree. Verbal notice shall be followed by written notice within ten (10) days and shall describe, in detail, the anticipated length of delay, the cause or causes of delay, the measures taken by the Performing Defendant to prevent or minimize the delay, and the timetable by which those measures shall be implemented. The Performing Defendant shall adopt all reasonable measures to avoid or minimize any such delay.

53. Failure of the Settling Defendant to comply with the notice requirements of Paragraph 52, above, shall render this Section XV void and of no force and effect as to the
particular incident involved. The MDEQ may, at its sole discretion and in appropriate circumstances, waive the notice requirements of Paragraph 52 either before or after notice was due.

54. If the MDEQ agrees that the delay or anticipated delay was beyond the control of the Performing Defendant, this may be so stipulated and the MDEQ and Performing Defendant may agree upon an appropriate modification of the relevant timetable or schedule. If the Performing Defendant and MDEQ are unable to reach such agreement, the dispute shall be resolved in accordance with Section XIV (Dispute Resolution) of this Consent Decree. The burden of proving that any delay was beyond the reasonable control of the Performing Defendant, and that all the requirements of this Section have been met by the Performing Defendant, is on the Performing Defendant.

55. An extension of one compliance date based upon a particular incident does not necessarily mean that the Performing Defendant qualifies for an extension of a subsequent compliance date without providing proof regarding each incremental step or other requirement for which an extension is sought.

XVI. MODIFICATION.

56. Except as set forth in subparagraphs (a) and (b), material modifications to this Consent Decree, including the SOW, shall be in writing, signed by the MDEQ and all Settling Defendants, and shall be effective upon approval by the Court, and non-material modifications to this Consent Decree, including the SOW, shall be in writing and shall be effective when signed by duly authorized representatives of the MDEQ and Settling Defendants. A modification to the SOW shall be considered material if it fundamentally alters the basic features of the Work.
(a) The MDEQ and Performing Defendant may modify any work plan, report, or other document required by the SOW that has been previously approved and incorporated into this Consent Decree. Such a modification shall be in writing, signed by the MDEQ and Performing Defendant, and shall not require the approval of the Court or other Parties.

(b) Modifications (non-material or material) that do not affect the obligations of, or protections afforded to, Owner Settling Defendant or the Non-Performing Settling Defendant may be executed without the approval and signature of the Owner Settling Defendant and Non-Performing Settling Defendant. Modifications that may be executed without Owner Settling Defendants’ approval and signature must not affect Owner Settling Defendants’ due care obligations under Part 201 of NREPA.

57. Nothing in this Consent Decree shall be deemed to alter the Court’s power to enforce, supervise, or approve modifications to this Consent Decree.

XVII. COVENANTS, CONTRIBUTION PROTECTION, AND RESERVATION OF RIGHTS.

58. In consideration of the access granted, actions that will be performed, and the payments that will be made by the Settling Defendants under this Consent Decree, and except as specifically provided for in this Section and Paragraph 59, Plaintiff hereby covenants not to sue or to take administrative actions against Settling Defendants and their successors and assigns for the releases or suspected releases of contaminants or hazardous substances or wastes addressed in Section VII (Performance of the Work) or for the activities undertaken pursuant to Section XII (Access and Restrictive Covenants) of this Consent Decree, including, but not limited to, claims or actions pursuant to Sections 106, 107(a) or 113 of CERCLA, Section 7002 of RCRA, or Parts 111 or 201 of NREPA.
59. The covenants in Paragraph 58 shall not take effect until:

   (a) With respect to Performing Defendant’s Work, upon approval by MDEQ of the “IRDC Completion Report” for that Work as set forth in the SOW.

   (b) With respect to releases or suspected releases of contaminants or hazardous substances or wastes, upon issuance by MDEQ of a corrective action complete or corrective action complete with controls determination pursuant to Paragraph 21.

   (c) With respect to Owner Settling Defendant’s obligations in Paragraphs 35 (a), (b) and (c), upon complete and full performance by Owner Settling Defendant of those obligations.

   (d) With respect to the United States, upon its payment under Paragraph 25.

60. The covenants apply only to those matters specified in Paragraph 58. The covenants not to sue do not apply to, and the Plaintiff reserves its rights on, the matters specified in Paragraph 58 until such time as these covenants become effective as set forth in Paragraph 59. The Plaintiff reserves the right to pursue an action against Settling Defendants under federal and state laws for any matters for which Settling Defendants have not received a covenant not to sue as set forth in Paragraph 58. Plaintiff reserves, and this Consent Decree is without prejudice to, all rights to take administrative action or to file a new action pursuant to any applicable authority against Settling Defendants with respect to all other matters, including, but not limited to, the following:

   (a) Performing Settling Defendants’ failure to perform the Work in this Consent Decree;

   (b) the past, present or future treatment, handling, disposal, release or threat of release of hazardous substances that occur outside of the Site and that are not attributable to the Site;
(c) the past, present or future treatment, handling, disposal, release or threat of release of hazardous substances taken from the Site;

(d) damages for injury to, destruction of, or loss of natural resources and the costs for any natural resource damage assessment;

(e) criminal acts;

(f) liability that arises out of conditions that are unknown at the time the covenants take effect;

(g) the release or threatened release of hazardous substances or for violations of federal or state law that occur during or after the performance of Work required by this Consent Decree;

(h) liability for any other response activities or corrective action, other than those described in Section VII (Performance of the Work) of this Consent Decree, that are required to address environmental contamination at the Site, including but not limited to, any releases taking place after March 29, 1996.

Settling Defendants reserve whatever rights and defenses that they may have in regard to the reserved claims and matters by Plaintiff.

61. Plaintiff reserves the right to take action against any Settling Defendant that the Plaintiff discovers has provided, prior to or after entry of this Consent Decree, any material information that the Settling Defendant knew was false or misleading.

62. Nothing herein shall be construed to limit the Plaintiff’s right to take action to the extent allowed by law in the case of an emergency or in any situation where the storage, transportation, treatment, or disposal of hazardous waste may present an imminent and substantial hazard to the health of persons or to the natural resources or is endangering or causing
damage to public health or the environment, where the Settling Defendants have failed to address such emergency or imminent and substantial hazard upon notice and before a deadline set by the State. The Plaintiff reserves its right to seek reimbursement from the Settling Defendants for such additional costs incurred by the State as may be provided under applicable law, and Settling Defendants reserve all defenses in response to any such claim, including that Plaintiff’s actions were not authorized by law.

63. Except as provided in Paragraph 58, the Plaintiff expressly reserves all rights and defenses pursuant to any available legal authority that it may have to pursue enforcement of this Consent Decree or to seek to compel Settling Defendants to comply with NREPA, CERCLA, or RCRA, and Settling Defendants reserve all rights and defenses that they may have in regard thereto.

64. Except as provided in Paragraph 58, and in addition to, and not as a limitation of, any other provision of this Consent Decree, the Plaintiff:

   (a) retains all authority and reserves all rights to perform, or contract to have performed, any response activities or corrective actions that the MDEQ determines are necessary,

   (b) retains all of its information gathering, inspection, access, and enforcement authorities and rights under NREPA and any other applicable statute or regulation, and

   (c) retains whatever authority it may have to direct or order all appropriate action to protect the public health, safety, or welfare, or the environment; or to prevent, abate or minimize a release or threatened release of hazardous substances, pollutants or contaminants on, at or from the Site.
Settling Defendants reserve whatever rights and defenses that they may have in regard to the
exercise of these rights, powers and authorities by Plaintiff set forth in this Paragraph.

65. Nothing in this Consent Decree shall be construed to create any rights in, or grant
any cause of action to, any person not a party to this Decree. Each of the Parties expressly
reserves any and all rights, defenses, claims, demands, and causes of action that each Party may
have with respect to any matter, transaction, or occurrence relating in any way to the Site against
a person not a party hereto.

66. The Parties agree that this Consent Decree constitutes a judicially approved
settlement for purposes of Section 113(f)(2) and 113(f)(3)(B) of CERCLA, 42 U.S.C. §
9613(f)(2) and (f)(3)(B), and Section 20129(5) of NREPA Part 201, and that each Settling
Defendant is entitled, as of the Effective Date of this Consent Decree, to protection from
contribution actions or claims as provided by Sections 113(f)(2) of CERCLA and 20129 of
NREPA, or as may be otherwise provided by law, for Matters Addressed in this Consent Decree.

67. Failure by the Plaintiff to enforce any term, condition or requirement of this
Consent Decree in a timely manner shall not:

(a) provide or be construed to provide a defense for Settling Defendants’
noncompliance with any such term, condition or requirement of this Consent Decree; or

(b) estop or limit the authority of the State to later enforce any such term, condition or
requirement of this Consent Decree or to seek any other remedy provided by law.

68. This Consent Decree does not constitute a warranty or representation of any kind
by the MDEQ that the Work performed by Performing Defendant in accordance with the
MDEQ-approved work plans required by this Consent Decree will result in the achievement of
performance objectives or the remedial criteria established by law, or that those response
activities will assure protection of public health, safety, or welfare, or the environment.

69. This Consent Decree in no way affects the responsibility of Settling Defendants to
comply with any other applicable local, state, or federal laws, regulations, or permits.

XIX. RETENTION OF JURISDICTION.

70. This Court retains jurisdiction over both the subject matter of this Consent Decree
and Settling Defendants for the duration of the performance of the terms and provisions of this
Consent Decree for the purpose of enabling any of the Parties to apply to the Court at any time
for such further order, direction, and relief as may be necessary or appropriate for the
construction or modification of this Consent Decree, or to effectuate or enforce compliance with
its terms, or to resolve disputes in accordance with Section XIV (Dispute Resolution).

XX. APPENDICES.

71. The following appendices are attached to and incorporated into this Consent
Decree:

“Appendix A” is the Site Boundary Drawing.

“Appendix B” is the Statement of Work.

“Appendix C” is the Site Wide Declaration of Restrictive Covenant.

“Appendix D” is the Former Northwest Lagoons Declaration of Restrictive Covenant.

“Appendix E” is the Former Sludge Drying Beds Declaration of Restrictive Covenant.

XXI. SIGNATORIES / SERVICE.

72. Each undersigned representative of a Settling Defendant, the signatory for the
MDEQ, and the Assistant Attorney General certifies that he or she is fully authorized to enter
into the terms and conditions of this Consent Decree and to execute and legally bind such Party
to this document.

73. Each Settling Defendant agrees not to oppose entry of this Consent Decree by this Court or to challenge any provision of this Consent Decree unless the State of Michigan has notified Settling Defendants in writing that it no longer supports entry of this Consent Decree. Settling Defendants need not file an answer to the complaint in this action unless and until the Court expressly declines to enter this Consent Decree.

XXII. FINAL JUDGMENT.

74. This Consent Decree and its appendices constitute the final, complete, and exclusive agreement and understanding among the Parties regarding the settlement embodied herein. The Parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Consent Decree or as described in Section I (Background) Paragraph N.

75. Upon entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment between and among the MDEQ and Settling Defendants. The Court finds that there is no just reason for delay and therefore enters this Consent Decree as a final judgment under Fed. R. Civ. P. 54 and 58.

SO ORDERED, ADJUDGED AND DECREED THIS ___ DAY OF ____________, 201__.

_______________________________
United States District Judge
Signature Page for MDEQ v. U.S. DOD et al. Consent Decree

Department of Environmental Quality

C. Heidi Grether
Director

By: [Signature]
Jack Schinderle, Director
Waste Management and Radiological Protection Division

Date: 11/4/17

Approved as to form:

Bill Schuette
Attorney General

By: [Signature]
Polly A. Sypk (P63473)
Assistant Attorney General
Environment, Natural Resources and Agriculture Division
Department of Attorney General
P.O. Box 30755
Lansing, Michigan 48933

Date: 11/4/17
Signature

Page

for

MDEQ

v.

U.S.

DOD

et

al.

Consent

Decree

On behalf of the U.S. Department of Defense

By: Perry M. Rosen

U.S. Department of Justice

Environmental & Natural Resources Division

Environmental Defense Section

P.O. Box 7611

Washington, DC 20044

Date: ~fP~ ~'

~ ~

U~

cr
Signature Page for MDEQ v. U.S. DOD et al. Consent Decree

TDY Industries, LLC

By: Elliot S. Davis

Senior Vice President

Date: 11/3/19
Signature Page for MDEQ v. U.S. DOD et al. Consent Decree

L3 Technologies, Inc.

By: [Signature]

Vice President +
Deputy General Counsel

Date: 10/16/19
Appendix A – Site Boundary Drawing
Appendix B – Statement of Work
Appendix B

Statement of Work

76 Getty Street, Muskegon, Michigan

1. **Purpose**

This Statement of Work ("SOW") describes the requirements for implementing the Work as set forth in the Consent Decree ("Consent Decree") to which this SOW is attached.

2. **General Requirements**

**Performance.** The Performing Defendant, as defined in the Consent Decree, will furnish all personnel, materials, and services necessary for the implementation of the Work, except as expressly set forth in the Consent Decree or in this SOW. The Work will be completed in accordance with the Schedule included in Section 6 (the "Schedule") or pursuant to schedules included in work plans approved by the Michigan Department of Environmental Quality ("MDEQ").

**Permits and Permissions.** Performing Defendant will be responsible for obtaining, at its sole cost, any permits, licenses, or local governmental approvals needed to implement the Work. The Owner Settling Defendant agrees to cooperate with Performing Defendant in obtaining those permits, licenses and approvals.

**Phases of Remediation.** In order to facilitate settlement between the Parties to the Consent Decree, the Work is intentionally limited in scope and duration, and is similar to “interim response activities designed to meet criteria” ("IRDC") or “removal” activities in nature. Nothing in this SOW is to be interpreted to require additional activities to achieve cleanup criteria or other environmental standards, or to further investigate any environmental condition, beyond the express requirements of this SOW. The Parties contemplate that additional investigation and remedial activities may be required in the future (aka "Phase 2") in order to achieve all remedial goals and objectives, and that those activities will be addressed in a subsequent enforceable agreement or agreements to be negotiated between the Parties.

**Reports.** Performing Defendant will be responsible for submitting reports to MDEQ as described below and elsewhere in this SOW.

**Quarterly Progress Reports.** The Performing Defendant will provide quarterly progress reports ("QP Reports") to the MDEQ, with a copy to the other Settling Defendants, detailing Work performed to date, data collected, problems encountered, project schedule, and percent of the project(s) completed. The QP Reports must be received by the MDEQ by the 30th day of each month following a quarter (i.e., January 30, April 30, July 30 and October 30). These quarterly reports are in addition to the other
reports required by this SOW; however, Performing Defendant may incorporate its other reporting obligations into, and submit them with, the QP Reports.

**Construction Reports.** Within ninety (90) days of completion of the construction-related Work required for tasks 1, 2, 3, 6, 8 and 12, the Performing Defendant will provide “Construction Reports” to MDEQ, with a copy to the other Settling Defendants, documenting the completion of construction activities. Separate Construction Reports will be provided for each task, or may be combined as practical and appropriate. The Construction Reports are subject to MDEQ review and approval pursuant to Section IX of the Consent Decree.

**Investigation Data Reports.** Within ninety (90) days of completion of investigative work associated with tasks 4, 5, 7 and 9, the Performing Defendant will submit “Investigation Data Reports” to MDEQ. These reports will provide and summarize all investigation activities performed for the work task, including boring logs, laboratory data, field measurements, and a figure showing sampling locations.

**IRDC Completion Reports.** Within ninety (90) days after the completion of all of the Work required for the tasks listed below, the Performing Defendant will provide the following “IRDC Completion Reports” to the MDEQ with a copy to the other Settling Defendants:

- IRDC Completion Report Task 1.
- IRDC Completion Report Task 2.
- IRDC Completion Report Task 12.

The IRDC Completion Reports shall document the completion of all Work required by the tasks, and are subject to MDEQ review and approval pursuant to Section IX of the Consent Decree.

**Phase II Scoping Report.** Within ninety (90) days after completion of all Work required by this SOW, or, at Performing Defendant’s option, at an earlier time if Performing Defendant believes it has sufficient information, the Performing Defendant will provide to MDEQ, with a copy to the other Settling Defendants, an overall evaluation of the IRDC activities completed, institutional controls implemented, and data collected, and provide an assessment of remaining exposure pathways and any potential future work that may be needed. This Report is for discussion purposes only and is intended to facilitate a dialog about further corrective measures, and is not subject to review and approval pursuant to Section IX of the Consent Decree.

**Corrective Action Complete Requests.** In accordance with Paragraph 21 of the Consent Decree, Performing Defendant may, at any time after completion of any portion of the Work, submit reports and requests to MDEQ, with a copy to the other Settling Defendants, demonstrating that releases of contaminants or hazardous substances at any
waste management unit or area of concern have been remediated to applicable cleanup
criteria or standards or have otherwise been controlled.

Additional reports are described under the various Work tasks below.

Public Participation. The Performing Defendant will conduct public outreach and involvement
activities regarding Site response decisions and activities in accordance with a public information
plan (PIP) consistent with the U.S. EPA Superfund Community Involvement Handbook and the
federal Resource Conservation and Recovery Act (“RCRA”).

Human Health Risk Assessment. Potential relevant exposure pathways and risk were
previously assessed in Section 4 of the Remedial Investigation Summary Report for Soil and
Groundwater (Earth Tech, Updated June 2008)(“RI Report”). As noted in that Report, not all
relevant exposure pathways are complete; in particular, groundwater within the impacted area is
not used for potable purposes. A screening level Ecological Assessment is included as Task 13,
below.

Additional Notices / Submittals to Owner Settling Defendant.

Work Plans and Design Reports. In addition to the requirements set forth elsewhere in this
SOW, the Performing Defendant shall provide the following submittals to the Owner Settling
Defendant and provide a reasonable time (not required to exceed 10 days) for the Owner Settling
Defendant to provide comments to Performing Defendant before submittal to MDEQ: the Work
Plan, Task 1 Pre-Design and Design Report, Task 2 Pre-Design and Design Report, Task 12
LNAPL Investigation Plan, Task 12 LNAPL Conceptual Site Model.

NAPL. So that Owner Settling Defendant may meet any due care obligations that it might have,
the Performing Defendant shall promptly notify the Owner Settling Defendant of any non-
aqueous phase liquid (“NAPL”) that is discovered during the Work that is materially different in
area, nature, or extent than that described in this SOW.

The Work consists of the submission of a work plan and fourteen (14) work tasks. The work
plan and tasks are described in detail in Section 3.

Work Plan – Prepare and submit a work plan describing the work to be implemented as tasks 1
through 9 and 13 (the “Work Plan”).

Task 1 – Groundwater at Former Solvent/Oil and Containerized Hazardous Waste Storage Area
and Chip House.

Task 2 – Soil at Former Solvent/Oil and Containerized Hazardous Waste Storage Area and Chip
House.

Task 3 – Soil at Former South Lagoon.

Task 4 – Area South of Main Building.
Task 5 – Cyanide at Former Northwest Lagoons.

Task 6 – PCBs at Former Northwest Lagoons.

Task 7 – Four Mile Creek.

Task 8 – PCBs at Former Sludge Drying Beds.

Task 9 – Additional Source Identification in Vicinity of Former Coal Storage Area and Sludge Drying Beds.

Task 10 – Operation and Maintenance of Groundwater Hydraulic Control System.

Task 11 – Site Wide Groundwater and GSI Monitoring.

Task 12 – South Area LNAPL Investigation and Recovery.

Task 13 – Ecological Assessment.

Task 14 – Vapor Intrusion Pathway Assessment.

In completing the Work, the Performing Defendant, in order to streamline activities and avoid redundancies, will build off of investigations and activities previously completed as described in the RI Report and AECOM letter entitled “Approval; Remedial Investigation (RI) Summary Report,” received by MDEQ on January 29, 2009 (AECOM January 2009), and as approved by MDEQ letter dated August 13, 2009. All Work will be performed in compliance with the Consent Decree and in a manner consistent with Part 111, of Michigan’s Natural Resources and Environmental Protection Act; the environmental protection standards of Part 201 as currently adopted by Part 111, where not less stringent than RCRA; RCRA; and other applicable state and federal laws and their implementing regulations.

3. Work Description

Work Plan  Work Plan for Tasks 1 through 9 and Task 13

Within one hundred and twenty (120) days from the date that the Consent Decree is entered by the United States District Court, the Performing Defendant will submit to MDEQ, with a copy to the Settling Defendants, a proposed Work Plan describing the Work to be performed for Tasks 1 through 9 and 13.¹ The Work Plan shall be subject to review by MDEQ pursuant to Section IX of the Consent Decree (Approval of Submittals by MDEQ).

¹ Tasks 10 and 11 are ongoing and do not require work plans. Task 12 will be covered in a separate investigation plan and conceptual site model (see Task 12 description in text). Tasks 7 and 14 also utilize separate work plans.
The Work Plan will be a concise statement of the Work to be performed. It is intended to be the only and final planning document that is needed before the task 1 through 9 and 13 Work commences (i.e., no other plans or specifications should be required). The Work Plan will include, as appropriate to the task, a concise statement of the Work, figures showing where the Work will be performed, field sampling and analysis, access requirements, field mobilization and demobilization, and a schedule for key milestones. Quality assurance project planning shall be managed in accordance with section 5, below.

**Task 1** Groundwater at Former Solvent/Oil and Containerized Hazardous Waste Storage Area and Chip House.

3.1.1 Summary. Design, construct, and install an enhanced reductive dechlorination (\textquotedblleft ERD\textquotedblright) system consisting of up to forty-four (44) injection/recirculation wells in the area of chlorinated volatile organic compound (\textquotedblleft VOC\textquotedblright) groundwater contamination generally shown on SOW Figure 1 (the \textquotedblleft ERD Remediation Area\textquotedblright). The ERD Remediation Area is approximately 22,000 square feet in area. Conduct up to three ERD injection events and monitor and assess ERD progress over a six (6) year period. Tasks 1 and 2 are intended to address source area soils (SVE, Task 2) and the dissolved groundwater plume (ERD, Task 1) in this area of the Site.

3.1.2 Pre-Design. Building from RI Report Section 3.4.3, and in order to locate the general vertical and horizontal axis of the VOC plume, the Performing Defendant will complete up to 25 vertical aquifer profiles within and hydraulically down-gradient of the ERD Remediation Area. The area to be assessed is shown as the \textquotedblleft Pre-Design Vertical Profile Area\textquotedblright on Figure 1. The purpose of the vertical aquifer profiling is to locate the axis of the plume so that the ERD wells can be placed to target the zones of highest impact, both vertically and horizontally.

3.1.3 Design and Construction. The ERD system will be designed to treat VOCs in groundwater and will be located within the ERD Remediation Area. The precise location and depth of the ERD wells will be determined by the results of the pre-design Work. The ERD system will include select existing \textquotedblleft Barrier 1\textquotedblright and \textquotedblleft Barrier 2\textquotedblright ERD injection wells (see Figure 1) and the installation of up to 44 additional injection wells. The new wells will be constructed with 4-inch-diameter PVC screens and risers. The Performing Defendant will install up to four additional groundwater monitoring wells in order to monitor system performance (\textquotedblleft ERD MWs\textquotedblright).

3.1.4 Operation. The Performing Defendant will undertake up to three ERD injection events over a 6 year period: the first event will occur by the date set forth on the Schedule; the second event would occur no later than two (2) to three (3) years after the first event; and the third injection would take place between five (5) to six (6) years following the first injection event. Each injection event will use emulsified soybean oil as the carbon source.

---

2 The Parties agree that the Work Plan is not intended to be, and need not include, a current conditions / facility investigation report, feasibility study, conceptual site model, site management plan, or community relations plan.

3 The currently estimated depth of the wells is likely to be between 45 and 65 feet below ground surface (\textquotedblleft bgs\textquotedblright). This target depth may be adjusted depending on the findings of the vertical profiles.
• Prior to each injection event, and in order to assess ERD activity within the ERD Remediation Area, the Performing Defendant will sample up to 25 injection wells for the Task 1 and 2 Contaminants of Concern (“COCs”), and other performance and indicator parameters as identified in Table 1. This information will be used to guide the design of the pending injection events and measure the performance of the system to help determine if and where an additional injection is necessary.

• The injection dose for the first event will total approximately 76,000 pounds of organic matter injected into the new ERD injection wells and approximately one quarter of the existing Barrier 1 and Barrier 2 wells (in order to maintain ongoing ERD).

• A microbial inoculation of the treatment zone will occur within one month of completing the first injection event. One liter of commercially-engineered inoculum will be released within the screened interval of each well where injection occurred during the first event.

• The amount of emulsified soybean oil injected during the second event would be approximately 60% (45,600 pounds of organic matter) of the first injection.

• The amount of emulsified soybean oil injected during the third event would be approximately 40% (30,400 pounds of organic matter) of the first injection.

3.1.5. Monitoring. In order to assess ERD progress, Performing Defendant will conduct monitoring for a period of six (6) years following the first injection event. This monitoring will consist of a pre-injection (baseline) event, quarterly monitoring during the first two years after the first injection (8 events), and semiannual monitoring during the next four years (8 events), for a total of 17 performance monitoring events. Each monitoring event will sample the COCs and other parameters set forth in Table 1. Monitoring will include an assessment of whether additional measures, such as restarting or continuing to operate the SVE system described in Task 2, are necessary to address off-gases (i.e., methane) that could pose a health or safety hazard at the Site.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Task 1 and 2 Contaminants of Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chloroethane</td>
<td></td>
</tr>
<tr>
<td>1,1-Dichloroethane</td>
<td></td>
</tr>
<tr>
<td>cis-1,2-Dichloroethene</td>
<td></td>
</tr>
<tr>
<td>trans-1,2-Dichloroethene</td>
<td></td>
</tr>
<tr>
<td>1,1-Dichloroethylene</td>
<td></td>
</tr>
<tr>
<td>Tetrachloroethene</td>
<td></td>
</tr>
<tr>
<td>1,1,1-Trichloroethane</td>
<td></td>
</tr>
<tr>
<td>1,1,2-Trichloroethane</td>
<td></td>
</tr>
<tr>
<td>Trichloroethene</td>
<td></td>
</tr>
<tr>
<td>Vinyl Chloride</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water Quality Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfate</td>
</tr>
<tr>
<td>Sulfide</td>
</tr>
</tbody>
</table>

4 A description of how ERD progress will be assessed will be included in the Work Plan.

5 Other potential COCs will be discussed in the Work Plan. Light non-aqueous phase liquid (“LNAPL”) has been detected in the past in the ERD Remediation Area. It is anticipated that any LNAPL encountered will be minor, and will be addressed as set forth in the Work Plan. Monitoring for re-occurrence of LNAPL will also be conducted as part of the ERD performance monitoring. Further investigation and remediation of any significant LNAPL detected is outside the scope of this SOW.
3.1.6 Reports.

Pre-Design and Design Report. Within ninety (90) days of completion of the Pre-design work, Performing Defendant will submit a summary of all pre-design activities and data and an ERD design to the MDEQ for review and approval. The system design will include a plan and schedule for construction, injection, operation, maintenance and performance monitoring. All quality control measures will be identified in the report. A copy of this report will also be provided to Owner Settling Defendant.

Annual Report. Performing Defendant will prepare an annual progress and monitoring report in order to communicate system performance results, including the results of all performance monitoring for that year. Each report will be submitted to the MDEQ, with a copy to Owner Settling Defendant, by April 30 of the following year, and may be incorporated into the QP Report due at that time.

3.1.7 Abandonment. At the conclusion of the six (6) year operational period, Performing Defendant will abandon all ERD wells by a) pressure grouting each well, screen, and casing to an approximate level of one (1) foot below ground surface, b) removing the steel protective covers and associated concrete at each well, and c) restoring the borehole to match the surrounding ground surface. Well abandonment is subject to MDEQ review and approval.

Task 2 Soil at Former Solvent/Oil and Containerized Hazardous Waste Storage Area and Chip House.

3.2.1 Summary. Design, construct, and install a soil vapor extraction (“SVE”) system consisting of up to thirty-three (33) SVE wells in the area of VOC soil contamination generally

---

6 It is possible that additional ERD activities may be needed beyond the operational period. In such a case, abandonment may be delayed.
shown on SOW Figure 2. Operate and maintain the system for two (2) years, unless a lesser time is agreed to by MDEQ.7

3.2.2 Pre-Design. Performing Defendant will perform a pre-design SVE pilot test to establish the radius of vacuum influence and determine optimal extraction well spacing.

3.2.3 Design and Construction. The SVE system will be designed and installed to treat unsaturated soils in the “SVE Remediation Area” shown on attached Figure 2. The SVE Remediation Area is approximately 30,200 square feet in area. The SVE system will consist of up to thirty-three (33) SVE wells, a shelter, interconnecting piping, blower, carbon canisters, and a control panel. The wells will be 2 inches in diameter and have total depths of up to 40 feet below ground surface (the total depths may vary depending on the final design). Performing Defendant will arrange for and obtain any air permits that are required for operation of the SVE system in accordance with Section 2 (General Requirements -- Permits and Permissions), above.

3.2.4 Operation. The SVE system will be operated for two (2) years from the date of initial startup, unless a lesser time is agreed to by MDEQ. Performing Defendant will perform operation and maintenance (“O&M”) activities during this operational period as necessary to maintain the SVE system’s functionality. O&M is expected to consist of: a five-day system startup period, during which time visits to inspect the system will be made every day; thereafter, two system inspections per week will be made during the first month of operation; two inspections per month during months two through six, and one inspection per month during months seven through twenty four. Additional O&M and system inspections will be conducted as needed to maintain system operations.

The Performing Defendant will change-out and dispose of the SVE system carbon canisters as necessary to maintain compliance with air discharge limitations (each change-out is expected to replace approximately 1,600 pounds of carbon, although this amount may change based on the final system design). The Performing Defendant will determine the hazardous waste status of the carbon and dispose of the carbon in accordance with all federal, state and local laws.

The Performing Defendant will be responsible for the cost of electricity to operate the system and will secure a separate electric service for that purpose.

3.2.5 Reports.

Pre-design and Design Report. Within ninety (90) days of completion of the Pre-design work, Performing Defendant will submit a summary of all pre-design activities and data and a SVE system design to the MDEQ for review and approval. The system design will include a plan and schedule for construction and startup, operations, maintenance and performance monitoring. All quality control measures will be identified in the report. A copy of this report will also be provided to Owner Settling Defendant.

---

7 It is acknowledged that further operation may be required, but for purposes of this Phase I SOW, a two year period was assumed given soil types and conditions.
Monitoring Reports. During operation, the Performing Defendant will conduct periodic performance monitoring of the SVE system performance over the duration of system operation and calculate the amount of VOC mass being captured by a) conducting field screening (photoionization detector readings) and b) collecting samples of extracted vapor for laboratory analysis for the COCs. It is anticipated that up to 18 samples of extracted vapor for laboratory analysis will be collected over the duration of the SVE System operation. At the end of the operational period, the Performing Defendant will complete eight post-SVE remediation soil borings (consistent with the Sampling Strategies and Statistics Training Materials for Part 201 Cleanup Criteria (MDEQ 2002) guidance document) and communicate the results to the MDEQ in a QP Report.

3.2.6 Abandonment. Performing Defendant will abandon the SVE wells at the conclusion of the operational period. Performing Defendant will abandon all SVE wells by a) pressure grouting each well, screen, and casing to an approximate level of one (1) foot below ground surface, b) removing the steel protective covers and associated concrete at each well, and c) restoring the borehole to match the surrounding ground surface. Performing Defendant will remove all SVE associated piping, canisters, blowers, shelters and other related equipment from the Site. Well abandonment is subject to prior MDEQ review and approval.

Task 3 Soil at Former South Lagoon

3.3.1 Summary. Excavate visually impacted soils and replace with clean fill. The estimated area of the excavation is generally shown on SOW Figure 3 (“Excavation Area”). This area is outside the secured property in a wooded area. The area contains a depression (defining the area of a former lagoon) in generally flat surroundings adjacent to a steep, wooded bank that bounds Four Mile Creek. Stained soil, indicative of metals contamination, is present along the east, south and west sidewalls of the depression. Some of the stained shallow soils contain metals at concentrations above groundwater surface water interface (“GSI”) protection criteria.

3.3.2 Work. The Performing Defendant will excavate up to 100 cubic yards of visually-impacted soil in the Excavation Area, and then fill the area of the topographic depression with imported clean sand. The Performing Defendant will recomplete any monitoring wells in the affected area relative to the new ground surface elevation.

3.3.3 Confirmation Sampling. Post excavation samples will be collected after the visually impacted soils have been removed from the Excavation Area and prior to the placement of clean backfill. It is anticipated that four (4) post excavation samples will be collected, one (1) from each direction, and analyzed for total RCRA metals. Speciation of chromium will be performed on the chromium samples.

---

8 It is possible that additional SVE activities may be needed beyond the operational period. In such a case, abandonment may be delayed.

9 If 100 cubic yards of soil has been excavated but visually impacted soils remain, the remaining visually impacted soils will either be addressed or the location recorded so that they can be addressed during Phase 2 activities.
Task 4   Area South of Main Building

3.4.1 Summary. Conduct an investigation to: a) determine if contamination extends up-gradient of MW-64 and b) evaluate locations for potential future (i.e., Phase 2) ERD implementation. This investigation will include the completion of up to twenty (20) vertical aquifer profiles to assess the extent of contamination in the Vertical Profile Area generally shown on SOW Figure 4.

The groundwater in the Vertical Profile Area is impacted with trichloroethene (“TCE”) and its breakdown compounds, and potential VOCs and SVOCs associated with the LNAPL being addressed under Task 12. Elevated concentrations of TCE have been detected at MW-64, suggesting that the source of the TCE may be further up-gradient. An objective of this Task is to investigate whether a source area exists upgradient of MW-64, and evaluate locations for potential further remediation. This area is south of the groundwater divide and separate from the Sludge Drying Beds (Task 9), which are believed to be north of the divide.

3.4.2 Investigation Work. Complete up to 20 vertical aquifer profiles to a) determine if the contaminant plume extends up-gradient of MW-64, MW-4 and MW-47R, and b) evaluate potential optimal location(s) for future ERD implementation. The objective is to generally determine whether a source area exists along the south side of the plant or whether a source is located further up-gradient, possibly beneath the plant floor or on the north side of the plant.\(^{10}\)

3.4.3 Reports.

IRDC Completion Report. The results for this Task will be integrated with the results from Task 9 (“Additional Source Identification”) and will be included in the IRDC Completion Report Task 3 – 9 and 13.

Task 5   Cyanide at Former Northwest Lagoons

3.5.1 Summary. The soils in this area are impacted primarily with PCBs and cyanide, but potentially also by other contaminants (see figure 5). To address direct contact exposure pathways, response actions for this area will include an exposure barrier (see Task 6) coupled with a Declaration of Restrictive Covenant (see Section 4). This Task will investigate whether there are contaminants leaching to groundwater at concentrations that could cause exceedances of applicable standards at compliance points, and, if so, determine the extent of vadose zone soil that needs to be excavated and/or capped. This investigation will build from prior investigations.\(^{11}\)

\(^{10}\) In regard to the north side of the plant, see Task 9. If it appears that a source area is located beneath the plant, then investigation activities may be necessary beneath the plant floor. Such activities are beyond the scope of this SOW.

\(^{11}\) E.g., the RI Report and AECOM letter entitled “Approval; Remedial Investigation (RI) Summary Report,” received by MDEQ on January 29, 2009 (AECOM January 2009), and as approved by MDEQ letter dated August 13, 2009.
3.5.2 **Investigation Work.** Initially, up to five (5) monitoring wells will be installed up-gradient and down-gradient of the lagoon and sampled. Depending on groundwater sampling results, up to forty (40) soil borings will be completed to further characterize and delineate cyanide, and if necessary, other contaminants in soil in the northwest lagoons area. Soil samples analyzed for cyanide will be subject to the SPLP leaching method for laboratory analysis of available cyanide. The soil boring program will be completed in conjunction with sampling of nearby monitoring wells to determine the amenable versus available cyanide concentrations in groundwater.\(^{12}\)

3.5.3 **Reports.**

**IRDC Completion Report.** The results for this Task will be integrated with the results from Task 6 (PCBs at Former Northwest Lagoons) and will be included in the IRDC Completion Report Tasks 3 – 9 and 13.

**Task 6 PCBs at Former Northwest Lagoons**

3.6.1 **Summary.** Install a permeable exposure barrier over the area shown on SOW Figure 5 ("Exposure Barrier Limit"). The purpose of this Task is to restrict exposure to PCBs and other contaminants in soil in this area.

The northwest lagoons were abandoned in 1958 and part of the west lagoon was covered during construction of Seaway Drive (Highway 31) in the early 1960s. Because all releases of PCBs at the lagoons occurred prior to 1978, the MDEQ has recognized that the northwest lagoons are presumed not to present an unreasonable risk to human health or the environment under the Toxic Substances Control Act.\(^{13}\) Accordingly, the area is being addressed using Part 201 criteria and risk-based processes. No PCB-impacted soils will be excavated and/or removed from the Site to address direct contact concerns,\(^{14}\) but instead will be capped in place.

3.6.2 **Design.** This Task will build off of prior investigations in this area and the investigation conducted pursuant to Task 5. Performing Defendant will describe in the Work Plan:

- Land preparation activities, including clearing and de-brushing.
- Grading activities that are necessary before, during or after the exposure barrier is installed.
- The installation of a uniform permeable exposure barrier covering an area of approximately 109,000 square feet, as shown generally on Figure 5. The exposure barrier

\(^{12}\) MDEQ guidance authorizes the use of amenable or available cyanide test methods to demonstrate compliance with groundwater criteria.

\(^{13}\) MDEQ Interoffice Communication to Mr. Dan Dailey from Ms. Amy Brumm (August 10, 2001). Both the Former Northwest Lagoons and the Former Sludge Drying Beds (see Task 8) were addressed in this communication.

\(^{14}\) Depending on the results of Task 5, some soil, including PCB impacted soil, may be excavated to address groundwater pathways.
will consist of a minimum one (1) foot of imported non-contaminated granular fill topped with four (4) to six (6) inches of vegetative material/soil that can support re-vegetation. The barrier and vegetative cover will be designed to require minimal maintenance.

- Drainage and erosion control measures to be undertaken.
- Restoration and re-vegetation of the capped area and other areas disturbed by equipment.
- Means of access to the Work area and procedures to avoid track-out of PCBs. Any staging areas that are needed for the Work will be described.
- Field mobilization and demobilization activities.
- A schedule for implementing the Task 6 Work.

3.6.3 Work. Upon approval of the Work Plan by MDEQ, the Performing Defendant will perform the Task 6 Work in accordance with the schedule in the approved Plan.

3.6.4 Reports.

IRDC Completion Report. The results for this Task will be integrated with the results from Task 5 (Cyanide at Former Northwest Lagoons) and be included in the IRDC Completion Report Tasks 3 – 9 and 13.

Task 7 Four Mile Creek

3.7.1 Summary. Groundwater along the south side of the plant (see Figure 4) is known to be impacted with VOCs in excess of generic GSI criteria. Groundwater in this area flows toward Four Mile Creek, but is currently captured by the groundwater extraction system. Reconnaissance of the Site along Four Mile Creek indicates that (1) the surface water flow beneath Getty Street is controlled by a single culvert which will allow quantitative analysis of the surface water flow through the wetland that borders the south side of the Site; and (2) a readily discernible current is visible through the culvert despite the presence of cattails in the basin.

Part 201 authorizes the use of mixing zones, site-specific cleanup criteria, and/or modeling to define and demonstrate protection of surface water through the GSI. In order to further assess the GSI at Four Mile Creek, the Performing Defendant will conduct an investigation of the Creek and the surface water interface. Based on that investigation, as appropriate, the Performing Defendant will propose a site model, site-specific cleanup criteria and/or request a mixing zone determination from MDEQ for relevant contaminants.

The end objective is to shut down the groundwater extraction system in the future. This Task will help determine when the system can be shut down and what level of additional remediation, if any, is needed.

3.7.2 Investigation Design. The Work Plan will describe the following activities:

---

15 I.e., Task 1 and 2 COCs (see Table 1) that materially exceed generic GSI criteria.
• Perform a hydrologic evaluation to assess whether a mixing zone for Four Mile Creek is appropriate, including an evaluation of the mass flux to the Creek based on aquifer characteristics adjacent to the Creek.
• To inform this analysis, install up to twenty-five (25) well clusters at the base of the slope immediately adjacent to the Creek.
• Complete up to ten (10) vertical aquifer profiles in the area of known VOC contamination to the southwest of the plant/west side of Getty Street.
• Calculate site-specific distance/concentration/attenuation curves and source area cleanup criteria. The attenuation curves will be designed to determine acceptable VOC concentrations in source area groundwater that will be protective at the GSI points of compliance.

The Work Plan will also include a proposed schedule for completing the investigation Work.

• Within 45 days of entry of the Consent Decree, Performing Defendant shall provide a work plan, as identified in MDEQ’s June 1, 2017, letter, which purpose is to perform additional hydrogeological investigations in support of the vapor intrusion assessment work, identified in Task 14 of this Statement of Work, utilizing currently installed groundwater monitoring wells and two new, additional groundwater monitoring well clusters (consisting of two monitoring wells for each cluster) to be installed south of Four Mile Creek for the purpose of verifying that impacted groundwater from the Site discharges to Four Mile Creek and does not underflow Four Mile Creek. This determination will be made through vertical gradient assessments and water quality data review.

3.7.3 Work. Upon approval of the Work Plan by MDEQ, the Performing Defendant will perform the Task 7 Work in accordance with the schedule in the approved Plan.

Task 8 PCBs at Former Sludge Drying Beds

3.8.1 Summary. Install a permeable exposure barrier over the area shown on SOW Figure 6 (“Exposure Barrier Cap”). The purpose of this Task is to restrict exposure to PCBs and other contaminants in soil at the two eastern-most former sludge drying beds.

Use of the former sludge drying beds ceased in 1976 when wastewater flow was diverted to the Muskegon County wastewater treatment system and alternative means were adopted to manage sludge. Because all releases of PCBs at the lagoons occurred prior to 1978, the MDEQ has recognized that the northwest lagoons are presumed not to present an unreasonable risk to human health or the environment under the Toxic Substances Control Act. Accordingly, the area is being addressed using Part 201 criteria and risk-based processes. No PCB-impacted soils will be excavated and/or removed from the area to address direct contact concerns, but instead will be capped in place.

---

16 MDEQ Interoffice Communication to Mr. Dan Dailey from Ms. Amy Brumm (August 10, 2001).
3.8.2 Design. This Task will build off of prior investigations in this area; no additional sampling is required. Performing Defendant will describe in the Work Plan:

- Land preparation activities, including clearing and de-brushing.
- Grading activities that are necessary before, during or after the exposure barrier is installed.
- The installation of a uniform permeable exposure barrier covering an area of approximately 69,000 square feet, as shown generally on Figure 6. The exposure barrier will consist of a minimum one (1) foot of imported non-contaminated granular fill topped with four (4) to six (6) inches of vegetative material/soil that can support re-vegetation.
- The barrier and vegetative cover will be designed to require minimal maintenance.
- Drainage and erosion control measures to be undertaken.
- Restoration and re-vegetation of the capped area and other areas disturbed by equipment.
- Means of access to the Work area and procedures to avoid track-out of PCBs. Any staging areas that are needed for the Work will be described.
- Field mobilization and demobilization activities.
- A schedule for implementing the Task 8 Work.

3.8.3 Work. Upon approval of the Work Plan by MDEQ, the Performing Defendant will perform the Task 8 Work in accordance with the schedule in the approved Plan.

Task 9 Additional Source Identification in Vicinity of Former Coal Storage Area and Sludge Drying Beds

3.9.1 Summary. Further assess the potential for additional contamination in and around the coal storage area, sludge drying beds and surrounding area on the north side of the plant, depicted as the Vertical Profile Area on Figure 7.

Interpretation of the existing analytical and hydrogeological data indicates that the potential exists for other contaminant sources to be present in the proximity of the former coal storage area, sludge drying beds and north side of the plant. This area is transected by the groundwater divide between the Muskegon River and Four Mile Creek, and is believed to be mainly north of that divide. There is potential for multiple flow directions of impacted groundwater depending on the location of the groundwater divide and location of source areas. This investigation task is designed to map that divide and characterize, both laterally and vertically, groundwater impacts in this area.

3.9.2 Investigation Work. Complete up to thirty (30) vertical aquifer profiles in the Vertical Profile Area, install up to five (5) monitoring wells, and install between seven (7) and ten (10) piezometers to allow detailed mapping of dissolved phase contaminants and the groundwater divide in this area. The piezometers will provide groundwater flow information to guide the placement of the monitoring wells and vertical aquifer profiles. The monitoring wells will be located both up-gradient and down-gradient from potential localized areas of contaminants identified in soil source areas. The monitoring wells will be sampled for potential contaminants as determined from data presented in the Remedial Investigation. The results of the monitoring
well sampling will be the basis to determine the contaminants in soils that are a potential concern for the applicable and relevant groundwater pathways. The vertical profiles will be located to help determine the nature and extent of groundwater contamination and the attenuation of these compounds.

3.9.3 Reports.

**IRDC Completion Report.** The results for Task 9 will be included in the IRDC Completion Report Tasks 3 – 9 and 13. The evaluation of this data will be integrated with data from all other groundwater investigation tasks and source area tasks including the investigation data from Task 4 (Area South of Main Building). The IRDC Completion Report will contain all of the data gathered, will discuss the possibility of contaminant sources in the investigation areas, and will map the groundwater divide based on the available data.

**Task 10 Operation and Maintenance of Groundwater Hydraulic Control System**

3.10.1 Summary. Remediation activities currently include the operation of a series of purge wells that capture COC impacted groundwater flowing north, west and south at the Site. The purged water is discharged to the Muskegon County Wastewater Management System pursuant to an industrial user permit.

Continue operation and maintenance of the existing groundwater hydraulic control system (“GW Control System”), including replacing wells, pumps or other equipment, as necessary, for a period of six years from the Effective Date of the Consent Decree, or lesser period approved by the MDEQ. A purge well or wells may be periodically turned off as necessary to accommodate ERD or other remedial processes, or permanently shut down and abandoned, with MDEQ approval, if the well or wells no longer contribute to hydraulic capture in areas of the Site that exceed applicable cleanup criteria, or the MDEQ agrees that operation of a well or the GW Control System is no longer necessary to protect public health and the environment.

3.10.2 Work. Operate, maintain and monitor the GW Control System for a period of six (6) years from the Effective Date of the Consent Decree. The Performing Defendant will be responsible for maintaining the current GW Control System in good working order so that it continues to maintain hydraulic control of COC impacted groundwater to the north, west and south of the plant. As needed, the Performing Defendant will:

- Respond to system shutdowns.
- Replace pressure gauges, clean fouled flow meters and repair above ground pipe leaks.
- Operate the air stripper once per quarter for a twenty-four (24) hour period to maintain the air discharge permit.

---

17 The GW Control System consists of purge well (“PW”) -3, PW-4, PW-6 through PW-10, PW-14, PW-17 and PW-18 and any replacement or future wells, equipment, or actions needed to complete the work. PW-1 and PW-2 are no longer used because they do not contribute to hydraulic capture in impacted areas. PW-5 was replaced by PW-14. PW-11 and PW-12 were replaced by PW-17 and PW-18. See Figure 7.
• As required for the Owner Settling Defendant to meet their legal water discharge monitoring requirements, divert the groundwater treatment effluent flow from the gravity line drainpipe so that the Owner Settling Defendant can conduct sampling of their effluent.
• Conduct routine maintenance of wells, well screens, pumps, motors and transmission piping, including, but not limited to:
  o Redevelop purge well screens.
  o Clean pumps and motors.
  o Conduct compressed air and/or jet rod cleanings of transmission lines.
  o Replace any wells,\(^{18}\) well screens, pumps, motors or transmission lines that fail.

3.10.3 Monitoring. Performing Defendant will measure the following parameters for each purge well on a monthly basis:

- Flow.
- Depth to groundwater and purge well drawdown as measured with a water-indicator probe.
- Operating Pressure.
- Valve throttle percentage.
- Specific well capacity (gpm/feet).
- Percent run time.

Purge well sampling is included as part of Task 11. Performing Defendant will also perform any monitoring required by its Muskegon County Wastewater Management System industrial user permit.

3.10.4 Reports. Performing Defendant will include in the Task 11 quarterly reports the monitoring data required above and will summarize:

- GW Control System performance, including observed flow rate versus target flow rate. The performance summary will include groundwater contour and capture maps, which will be updated semi-annually.
- GW Control System activities and maintenance performed during the quarter, and the resultant effect on well performance.

This report may be combined with the Task 11 quarterly reports described below.

Task 11 Site Wide Groundwater and GSI Monitoring

3.11.1 Summary. Conduct groundwater monitoring and reporting in accordance with the Comprehensive Groundwater Monitoring Plan, 76 Getty Street Site, Muskegon, Michigan (Sept. 2007), as approved with modifications by the MDEQ by letter dated June 23, 2008.

---

\(^{18}\) All new purge wells will be constructed of a 10 inch screen and riser with a sump, similar to the construction of PW-16 in 2011.
3.11.2 Investigation Work. For a period of six (6) years following the Effective Date of the Consent Decree, conduct groundwater monitoring and reporting in accordance with the Comprehensive Groundwater Monitoring Plan, 76 Getty Street Site, Muskegon, Michigan (Sept. 2007), as approved with modifications by the MDEQ by letter dated June 23, 2008.

3.11.3 Reports. Performing Defendant will submit to MDEQ quarterly reports as described in the Comprehensive Groundwater Monitoring Plan. These quarterly reports are separate from and in addition to the QP Reports; however, the two quarterly reports may be combined if convenient and appropriate.

Task 12 LNAPL Investigation and Recovery

3.12.1 Summary. Investigate the extent of light non-aqueous phase liquid contamination in the vicinity of PW-17 and PW-18 and design, install and operate an LNAPL recovery system consisting of LNAPL recovery wells, piping, pumps and storage tanks. It is intended that the LNAPL pre-design investigation, investigation, construction, and initial recovery effort will all be performed during the first full Spring/Summer that follows the Effective Date of the Consent Decree.

LNAPL has been detected in the southern portion of the site in the vicinity of PW-17 and PW-18. Specifically, Stoddard Solvent (mineral spirits) was identified in PW-17, and what appears to be weathered gasoline in PW-18. The origin and subsurface extent of these products is not currently known. PW-17 and PW-18 are located at the top of a steep bank that slopes toward Four Mile Creek to the south.

3.12.2 Pre-Design Investigation. Use optical screening, Laser-Induced Fluorescence Ultra-Violet Optical Screening Technology (“LIF-UVOST”) or other methods to assess the nature and extent of the LNAPL in the vicinity of PW-17 and PW-18.

Fluid Property Testing. Collect two (2) LNAPL samples for fluid properties testing (dynamic viscosity, fluid density, and surface and interfacial tension). The Performing Defendant will evaluate LNAPL recoverability using the American Petroleum Institute’s LNAPL Transmissivity spreadsheet model.

Creek Reconnaissance. As part of the pre-design investigation, the Performing Defendant will conduct two site reconnaissance visits along the north bank of Four Mile Creek within the wetland area to the south of PW-17 and PW-18. This reconnaissance will include visual screening for staining or other evidence of LNAPL seepage to Four Mile Creek, in-field testing and photo documentation of any suspect areas.

---

19 LIF-UVOST has been successfully used to delineate gasoline LNAPL. The Performing Defendant will assess whether LIF-UVOST is also appropriate for investigating mineral spirits.
LNAPL Investigation Plan. The Performing Defendant shall submit an investigation plan to MDEQ, with a copy to Owner Settling Defendant, describing additional investigation activities to be undertaken (e.g., soil borings and well installation, described generally below). This plan is subject to MDEQ approval processes under the Consent Decree.

Soil Borings. Within thirty (30) days of submittal of the LNAPL investigation plan, the Performing Defendant will perform investigation soil borings as follows:

- Complete up to twenty-four (24) soil borings using LIF-UVOST, electrical conductivity ("EC") and/or other appropriate methods in order to delineate the area of LNAPL impact ("Assessment Borings"). The Assessment Borings will profile to a depth of approximately sixty-five (65) feet below ground surface. The initial Assessment Borings will be located at and around PW-17 and PW-18. Additional locations will step out from the initial locations or will be placed near Four Mile Creek in or near suspect areas discovered during reconnaissance activities (if any).
- In order to confirm results from the Assessment Borings, complete eight (8) borings using direct-push technology and dual-core or macrocore sampling tubes adjacent to select Assessment Borings. Collect soil cores from discrete vertical depths based on the Assessment Borings and log soil classification, visual indications of staining, and field screening results (Sudan IV OilScreenSoil NAPL field screening test and PID headspace screening). If possible, recover five (5) cores and submit to a lab for LNAPL mobility testing.

Upon completion of all borings, the bore holes will be properly abandoned using bentonite chips and will be sealed at the surface using concrete or asphalt patch.

Well Installation. Based on the results of the above-described investigation activities, the Performing Defendant will install up to six (6) 4-inch diameter LNAPL observation wells using sonic drilling methods. The Performing Defendant will conduct two LNAPL bail down tests at each well in order to evaluate LNAPL transmissivity and recoverability.

3.12.3 Design and Construction. Within thirty (30) days of receiving all analytical data from the LNAPL pre-design investigation, the Performing Defendant will submit to MDEQ, with a copy to the Owner Settling Defendant, an LNAPL Conceptual Site Model. The LNAPL conceptual site model will contain the following:

- A summary of field methodology, LNAPL transmissivity and recoverability evaluation, LNAPL mobility and saturation results, a discussion of extent and nature of LNAPL, two cross section drawings showing vertical occurrence of LNAPL, and a risk screening evaluation.
- The proposed design of the LNAPL recovery system. The LNAPL recovery system will consist of PW-17 and PW-18, which will be modified to recover LNAPL, and up to six

---

20 Retrieval of macro-cores may not be possible if the soil is too silty or fine.
(6) additional recovery wells. Each well will be a dual pumping well (groundwater and mobile LNAPL) and use a Clean Earth Spill Buster Magnum or similar recovery system. Groundwater will be discharged via the Muskegon County Wastewater Management System, and LNAPL will be discharged into dedicated storage tanks located near the wells. LNAPL storage tanks will include secondary containment and high level shutdown switches that will shut down LNAPL recovery pumps if the tanks become too full. The conceptual site model will describe all LNAPL recovery and control equipment, storage tanks and transmission piping.

- Field mobilization and demobilization activities.

The Performing Defendant will commence construction of the LNAPL recovery system no later than thirty (30) days from the date the conceptual site model is submitted and approved by MDEQ.

3.12.4 Operation. The Performing Defendant will operate and maintain the LNAPL recovery system for a period of up to five (5) years following completion of construction, unless a shorter period of time is warranted and agreed to by MDEQ. The Performing Defendant will conduct the following maintenance activities in order to keep the LNAPL recovery system functioning:

- Respond to system shutdowns.
- Redevelop well screens as needed.
- Clean and maintain all groundwater pumps and LNAPL skimming pumps at least once per year.
- Clean groundwater and LNAPL transmission lines with compressed air.
- Replace pumps as needed.

As needed, the Performing Defendant will load, transport and dispose of the recovered LNAPL from the on-site storage tanks.

Electricity costs will be the responsibility of the Performing Defendant. The LNAPL system pumps will be connected to the existing hydraulic control system electrical service.

3.12.5 Monitoring. The Performing Defendant will check and record data from the system’s control panels, gauges, meters or other instruments, as well as collect water level data, LNAPL thickness data, and storage tank level data at least every month. The Performing Defendant will also measure and record:

- Pumping flow rates from groundwater and LNAPL pumps.
- Depth to groundwater and LNAPL in order to assess drawdown.
- Operating pressures to evaluate flow status and fluid impedance.

---

21 The LNAPL observation wells installed as part of the pre-design investigation may be used as recovery wells if evaluation results support that use. The LNAPL observation wells will be located with their potential use as recovery wells in mind.

22 It is acknowledged that additional operation may be required as part of Phase II.
• Valve throttle percentage.
• Specific well capacity (gpm/feet).
• Percent run time for each motor.

3.12.6 Reports. Within ninety (90) days from the initiation of operation, Performing Defendant shall submit a construction completion report to MDEQ, with a copy to Owner Settling Defendant. Performing Defendant will also provide quarterly reports providing the monitoring data required above and summarizing:

• LNAPL recovery system performance.
• LNAPL recovery system activities and maintenance performed during the quarter.

This report may be combined with the Task 11 quarterly reports described above.

3.12.7 Abandonment. When operation of the LNAPL recovery system is ceased, the Performing Defendant will abandon the recovery wells, except for any well that will continue to be used to recover and purge groundwater. Performing Defendant will abandon the LNAPL recovery system wells by a) pressure grouting each well, screen, and casing to an approximate level of one (1) foot below ground surface, b) removing associated transmission lines, storage tanks, secondary containment, and equipment, and c) restoring boreholes and disturbed areas to match the surrounding ground surface.23 Well abandonment is subject to MDEQ review and approval.

Task 13 Ecological Assessment

3.13.1 Summary


3.13.2 Work

A screening level ecological risk evaluation will be conducted consistent with applicable elements from U.S. EPA’s ERA Guidance for the surface water and natural/wetland environments along Four Mile Creek and the South Branch of the Muskegon River.24 This task will build off of previous investigations as well as investigations conducted as part of this SOW. The Work Plan will include further background and detail regarding the scope of this Work.

3.13.3 Reports

---

23 Additional LNAPL recovery activities may be needed beyond the operational period and so abandonment may occur during Phase 2. The cost of abandoning the LNAPL recovery system was not included in the Consent Decree Projected Costs.

24 Much of the Site is covered in buildings and/or is heavily industrialized and does not provide viable habitat.
Screening Level Ecological Risk Assessment Report. Within ninety (90) days after completion of all investigation work performed under this task, the Performing Defendant will submit a screening level ecological evaluation report to MDEQ, with a copy to the Settling Defendants. This screening level report is subject to review and approval by MDEQ. The Performing Defendant will include in the Phase II Scoping Report an assessment of whether additional ecological assessment activities are necessary and appropriate.

Task 14 Vapor Intrusion Pathway Assessment

3.14.1 Summary. Conduct an initial expedited investigation of vapor intrusion (VI) pathways for volatile contaminants of concern at the Site and certain identified off-site properties to determine whether mitigation action is required.

3.14.2 Work Plan. The work plan for Task 14 will be prepared by the Performing Defendant in consultation with the Settling Defendants and approved by the MDEQ prior to commencement of VI sampling activities.

3.14.3 Off-Site Properties. The following tasks are to be completed at 1130 Brusse Avenue (residence) and the five commercial properties identified in MDEQ’s June 1, 2017, letter, along the west side of South Getty Street, north of Four Mile Creek (sign shop, auto salvage yard, restaurant, industrial building, and VFW Hall), collectively referred to as the “off-site properties”:

- On August 2, 2017, AECOM obtained/received approval of its proposal for VI work from Performing Defendant, with concurrence from USACE, and immediately commenced work to secure access to the off-site properties.

- Performing Defendant will use best efforts to obtain prompt access to the off-site properties. If Performing Defendant is unable to obtain a written access agreement from a property owner/representative as required by Consent Decree paragraph 33, then MDEQ agrees that verbal permission will be sufficient.

- Once access is obtained, the site reconnaissance/building surveys for off-site properties will proceed. If, by the date of the execution of the Consent Decree by MDEQ and Settling Defendants, access has not been secured at all off-site properties, then site reconnaissance/building surveys will immediately commence at off-site properties where access has been obtained. The obligations of Settling Defendants pertaining to securing access to off-site properties are governed by applicable state and federal law and rules, and are further described in paragraph 33 of the Consent Decree executed by MDEQ and the Settling Defendants.

- The site reconnaissance/building surveys for off-site properties will include a physical inspection including use, building construction and general condition, occupancy and floor plan layout, potential vapor entry locations, alternate sources of volatile compounds, and other building features. Indoor and co-located sub-slab sampling locations will be
selected for off-site properties using the May 2013 MDEQ *Guidance Document for the Vapor Intrusion Pathways* as a guide.

- Performing Defendant will keep MDEQ informed of the work schedule for MDEQ oversight and possible audit sampling. MDEQ will accompany Performing Defendant during the initial visual site inspections of off-site properties so that sampling locations may be discussed with, and may be immediately approved by, the MDEQ.

- Within seven (7) days of the Consent Decree being signed by all parties, MDEQ final approval of the work plan, or completion of the off-site properties reconnaissance/building surveys, whichever is latest, Performing Defendant shall commence VI sampling per the approved work plan and pursuant to the schedule contained therein.

- The co-located indoor air samples will be collected at off-site properties in Summa canisters using a time weighted scenario, 12-hour sample collection period for commercial property and 24-hour sample collection period for residential property (indoor air). The Summa canisters shall be submitted to the laboratory for analysis using U.S. EPA Method TO-15.

- For each day of sampling, one outdoor air Summa canister sample will be collected up-wind of and in the general proximity of the off-site properties for that day’s sampling activities. The outdoor air Summa canister sample will be delivered to the laboratory for analysis at the same time that samples from the corresponding off-site properties are delivered to the laboratory for analysis of the TO-15 compounds.

- All air samples will be analyzed by Pace Analytical Laboratories for the U.S. EPA Method TO-15 compounds and associated laboratory detection limits set forth in the approved work plan.

### 3.14.4 On-Site.

- Performing Defendant, with assistance from the Owner Settling Defendant, will perform a visual inspection of the on-site buildings and identify target locations in non-manufacturing areas, including the Owner Settling Defendant’s office area (west end of the production building), for indoor and co-located sub-slab soil vapor sampling. A building drawing with proposed sampling locations will be provided to MDEQ for review and approval. MDEQ will accompany Performing Defendant and Owner Settling Defendant during the initial visual site inspections of the on-site property so that sampling locations may be discussed with, and may be immediately approved by, the MDEQ. The parties agree that the visual inspections and sampling is intended for initial reconnaissance purposes, and, accordingly, sampling density may be modified from that which is suggested by the MDEQ May 2013 *Guidance Document for the Vapor Intrusion Pathways.*
• Within seven (7) days of the Consent Decree being signed by all parties, MDEQ final approval of the work plan, or completion of the on-site reconnaissance/building surveys, whichever is latest, Performing Defendant shall commence VI sampling per the approved work plan and pursuant to the schedule contained therein.

• Performing Defendant will collect sub-slab soil vapor and indoor air samples from the MDEQ approved locations. Sub-slab soil vapor sampling penetrations through flooring will be completed in accordance with the approved work plan. The indoor air samples will be collected in Summa canisters for the periods of time set forth in the approved work plan.

• All air samples will be analyzed by Pace Analytical Laboratories for the U.S. EPA Method TO-15 compounds and associated laboratory detection limits set forth in the approved work plan.

3.14.5 Reports. Performing Defendant will request expedited sample analysis (3-day turn-around) from Pace Analytical Laboratories and will report the laboratory data to the MDEQ upon receipt of sample analytical results from the lab. Performing Defendant, after consultation with Settling Defendants, will provide a written report to the MDEQ within 10 days of receipt of the sample analytical data summarizing the results of the investigations required by the approved work plan, and providing recommendations for additional monitoring and/or mitigation, as appropriate.

3.14.6 Additional Monitoring and Mitigation Actions.

• If laboratory analytical results exceed the applicable MDEQ Screening Levels, attached to the work plan, due to impacts from the Site to on-site buildings and/or off-site properties, Performing Defendant shall promptly implement additional monitoring and, as necessary and appropriate, mitigation measures after consultation with the other Settling Defendants and concurrent consultation with and approval from the MDEQ, conditioned upon obtaining further access and permission from the impacted property’s owner/representative. Performing Defendant will use best efforts to obtain prompt access to the impacted properties.

• For the off-site properties, the applicable Screening Levels will be set forth in the approved work plan. For on-site buildings, inhalation risk for occupants will be assessed and a site-specific risk management plan will be developed based on site-specific conditions by Settling Defendants for approval by MDEQ in accordance with applicable law.

4. Institutional Controls

In addition to the Work described in this SOW, institutional controls (“ICs”) in the form of Declarations of Restrictive Covenant will be implemented in order to eliminate certain pathways of exposure, including:
- “Residential” use exposures.
- Drinking water and other well water use exposure pathways.
- Direct contact exposures at the Former Northwest Lagoons, Former Sludge Drying Beds, and the Former Basement Chip Trench.
- New potential pathways of exposure due to construction or changes in land use (e.g., soil excavation, construction, or use activities related to new buildings, etc.).

The Declarations of Restrictive Covenant are included as Appendices C, D and E of the Consent Decree.

The Performing Defendant will include in the Phase II Scoping Report an assessment of any exposure pathways that potentially remain unaddressed by the Work and ICs.

Contemporaneously with the Phase II Scoping Report, the Performing Defendant will submit to MDEQ, with a copy to the other Settling Defendants, an Institutional Control Implementation and Assurance Plan describing the existing ICs, proposing additional ICs (if appropriate), and discussing implementation and monitoring.

5. Quality Assurance Project Plan

All sampling and analysis conducted pursuant to this SOW will be performed in accordance with the EPA Region 5 RCRA Quality Assurance Project Plan (“QAPP”) Policy (May 1998) unless MDEQ waives a QAPP requirement in writing. Performing Defendant may meet this requirement for Tasks 10 and 11 by following the procedures set forth in sections 2 – 14 of the QAPP (Earth Tech, Inc., August 2004) previously prepared for the Site and submitted to MDEQ, and for the other Tasks by submitting a new QAPP for MDEQ review. Subcontractors that generate data reports for the project will be given a copy of the applicable QAPP and will be instructed to follow applicable requirements.

6. Schedule

The following schedule shall apply to the Work, plans, reports, and documents required by this SOW. The schedule may be modified when: 1) a different schedule is approved by MDEQ in a work plan or other MDEQ-approved document, 2) the Performing Defendant submits in writing a request for a specific extension or schedule modification, including justification for the extension or modification, and MDEQ approves the request.

<table>
<thead>
<tr>
<th>Deliverable</th>
<th>Quantity</th>
<th>Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quarterly Progress Reports (“QP Reports”)</td>
<td>24</td>
<td>Submit by the 30th Day of each month following a quarter (January 30, April 30, July 30, and October 30).</td>
</tr>
</tbody>
</table>

25 Quantities assume that deliverables may be combined as shown (although this is not required), and is based upon six years total duration for this Scope of Work. The Quantity of deliverables may change if the Work or schedule is modified with MDEQ approval.
<table>
<thead>
<tr>
<th>Work Plan for Tasks 1 through 9, and Task 13 (“Work Plan”)</th>
<th>1</th>
<th>Submit within one hundred twenty (120) days from the date the Consent Decree is entered by the United States District Court.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task 1 Pre-Design and Design Report</td>
<td>1</td>
<td>Submit within ninety (90) days of completion of Pre-Design Work.</td>
</tr>
<tr>
<td>Task 1 Construction Report</td>
<td>1</td>
<td>Submit within ninety (90) days of completion of construction required under Task 1.</td>
</tr>
<tr>
<td>Task 1 Annual Report</td>
<td>6 - Included in QP Reports</td>
<td>Submit annually in accordance with Work Plan. Ongoing data to be submitted in QP Report.</td>
</tr>
<tr>
<td>Task 1 IRDC Completion Report</td>
<td>1</td>
<td>Submit within ninety (90) days of completion of all Task 1 Work.</td>
</tr>
<tr>
<td>Task 2 Pre-Design and Design Report</td>
<td>1</td>
<td>Submit within ninety (90) days of completion of Pre-Design Work.</td>
</tr>
<tr>
<td>Task 2 Construction Report</td>
<td>1</td>
<td>Submit within ninety (90) days of completion of construction required under Task 2.</td>
</tr>
<tr>
<td>Task 2 Post SVE Soil Sampling Report</td>
<td>Included in QP Reports</td>
<td>Submit results in the next QP Report that is due thirty days or more after analytical results are received.</td>
</tr>
<tr>
<td>Task 2 IRDC Completion Report</td>
<td>1</td>
<td>Submit within ninety (90) days of completion of all Task 2 Work.</td>
</tr>
<tr>
<td>Task 3 Construction Report</td>
<td>1</td>
<td>Submit within ninety (90) days of completion of construction required under Task 3.</td>
</tr>
<tr>
<td>Task 4 Investigation Data Report</td>
<td>1</td>
<td>Submit within ninety (90) days of completion of all investigation work associated with Task 4.</td>
</tr>
<tr>
<td>Task 5 Investigation Data Report</td>
<td>1</td>
<td>Submit within ninety (90) days of completion of all investigation work associated with Task 5.</td>
</tr>
<tr>
<td>Task 6 Construction Report</td>
<td>1</td>
<td>Submit within ninety (90) days of completion of construction required under Task 6.</td>
</tr>
<tr>
<td>Task 7 Four Mile Creek Investigation Data Report</td>
<td>1</td>
<td>Submit within ninety (90) days of completion of all investigation work associated with Task 7.</td>
</tr>
<tr>
<td>Task 7 Vapor Intrusion Support Work Plan</td>
<td>1</td>
<td>Submit within forty-five (45) days of entry of Consent Decree.</td>
</tr>
<tr>
<td>Task 8 Construction Report</td>
<td>1</td>
<td>Submit within ninety (90) days of completion of construction required under Task 8.</td>
</tr>
<tr>
<td>Task 9 Additional Source Identification Investigation Data Report</td>
<td>1</td>
<td>Submit within ninety (90) days of completion of all investigation work associated with Task 9.</td>
</tr>
<tr>
<td>IRDC Completion Report for Tasks 3 through 9 and Task 13</td>
<td>1</td>
<td>Submit within ninety (90) days after the completion of all the Work required for Tasks 3 through 9 and Task 13.</td>
</tr>
<tr>
<td>Task 10 Monitoring and O&amp;M Reports</td>
<td>Included in QP Reports</td>
<td>Included as part of Task 11 Quarterly Reports.</td>
</tr>
<tr>
<td>Task 11 Quarterly</td>
<td>Included in</td>
<td>Quarterly Reports submitted to MDEQ per schedule set forth</td>
</tr>
<tr>
<td>Reports</td>
<td>QP Reports</td>
<td>in the Comprehensive Groundwater Monitoring Plan (or may be combined with the Quarterly Progress Reports).</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Task 12 LNAPL Investigation Plan</td>
<td>1</td>
<td>Submit by June 20 of the same year as the effective date if the effective date is on or before May 15, otherwise June 20 of the year following the effective date.</td>
</tr>
<tr>
<td>Task 12 LNAPL Conceptual Site Model</td>
<td>1</td>
<td>Submit within 30 days of receipt of all analytical data from LNAPL Investigation.</td>
</tr>
<tr>
<td>Task 12 Construction Summary Report</td>
<td>1</td>
<td>Submit within 90 days after the LNAPL recovery system is put into full scale operation.</td>
</tr>
<tr>
<td>Task 12 Quarterly Reports</td>
<td>Included in QP Reports</td>
<td>May be combined with Task 11 Quarterly Reports.</td>
</tr>
<tr>
<td>Task 12 IRDC Completion Report</td>
<td>1</td>
<td>Submit within ninety (90) days after the completion of all Task 12 related work.</td>
</tr>
<tr>
<td>Task 13 Screening Level Ecological Risk Assessment Report</td>
<td>1</td>
<td>Submit within ninety (90) days after completion of Screening Level Ecological Risk Assessment.</td>
</tr>
<tr>
<td>Task 14 work plan</td>
<td>1</td>
<td>Prepared and approved by MDEQ prior to commencing VI sampling activities.</td>
</tr>
<tr>
<td>Task 14 Written Report</td>
<td>1</td>
<td>Submit within ten (10) days of receipt of sample analytical data.</td>
</tr>
<tr>
<td>Phase II Scoping Report</td>
<td>1</td>
<td>Submit no later than ninety (90) days after completion of all Work required by the SOW.</td>
</tr>
<tr>
<td>Institutional Control Implementation and Assurance Plan</td>
<td>1</td>
<td>Submit contemporaneously with Phase II Scoping Report.</td>
</tr>
</tbody>
</table>
Figures
Case 1:18-cv-00582-GJQ-RSK   ECF No. 1-1 filed 05/23/18   PageID.101   Page 86 of 116
Appendix C – Site Wide Declaration of Restrictive Covenant
DECLARATION OF RESTRICTIVE COVENANT

MDEQ Reference No.: RC-OWMRP-111-__-__
Facility MID Number MID 006 407 597
MDEQ Approval Date_____________________

This Declaration of Restrictive Covenant ("Restricted Covenant") is made to protect public health, safety, or welfare or the environment pursuant to the applicable provisions of Part 111, Hazardous Waste Management, MCL 324.11101 et seq. (Part 111), and Part 201, Environmental Remediation, MCL 324.20101 et seq. (Part 201) of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended, MCL 324.101 et seq., and the administrative rules promulgated pursuant to those Parts, and the Solid Waste Disposal Act, commonly referred to as the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C 6901 et seq. (RCRA).

This Declaration of Restrictive Covenant is made on ___________, 20__, by L3 Technologies, Inc., the Grantor, having an address of 76 South Getty Street, Muskegon, Michigan 49442-1242, for the benefit of the Grantee, Michigan Department of Environmental Quality (MDEQ), whose address is 525 West Allegan Street, PO Box 30473, Lansing, Michigan 48909-7973.

This Restricted Covenant has been made to prohibit or restrict activities that could result in unacceptable exposure to environmental contamination present at the property located at 76 South Getty Street, in the City of Muskegon, County of Muskegon, Michigan, and legally described in Exhibit 1 ("Property"). A drawing of the Property (showing parcels and parcel ID numbers) is attached as Exhibit 2.

The land and resource use restrictions contained in this Restricted Covenant are based upon information available to, and the corrective action approved by, the MDEQ at the time this Restricted Covenant was recorded. Failure of the corrective measures to achieve and maintain the cleanup criteria, exposure controls, and requirements specified in the approved corrective action; future changes in the environmental condition of the Property or changes in the cleanup criteria; the discovery of environmental conditions at the Property that were not accounted for in the Consent Decree (described below); or use of the Property in a manner inconsistent with the restrictions described herein, may result in this Restricted Covenant not being protective of public health, safety, or welfare, or the environment. Additional restrictions may be necessary in the future. Information pertaining to the environmental conditions at the Property and the corrective actions undertaken at the Property is on file with the MDEQ, Waste Management and Radiological Protection Division.
Summary of Corrective Measures

The Property is associated with manufacturing operations, under various owners and operators, dating back to at least the 1940s. Soil and groundwater at the Property may contain hazardous substances in excess of the concentrations that satisfy cleanup criteria for unrestricted residential use. A Consent Decree requiring environmental response work and corrective measures (the Work) at the Property was entered in the United States District Court, Western District of Michigan, Southern Division, Civil Action No. _______________ on _______ __, 20__. The Consent Decree requires the filing of this Restrictive Covenant and then two additional restrictive covenants after PCB-impacted areas are capped.

Hazardous substances, including volatile organic compounds, metals, and PCBs listed on Exhibit 3, have been found in soils or groundwater in certain areas of the Property in concentrations above the cleanup criteria for unrestricted residential use, although the Property is not residential in character. Accordingly, areas of the Property may contain hazardous substances in excess of the concentrations that satisfy the cleanup criteria for unrestricted residential use for relevant exposure pathways. Corrective measures have been or will be undertaken to minimize the migration of or exposure to hazardous substances, including the operation of hydraulic control wells, enhanced reductive dechlorination, capping, and other Work as described in the Consent Decree. Despite these corrective measures, hazardous substances remain present in soils or groundwater at levels that require controls to prevent unacceptable exposure.

Definitions

“Grantee” shall mean the MDEQ.

“Grantor” shall mean L3, the title holder of the Property at the time this Restrictive Covenant was executed.

“L3” means L3 Technologies, Inc. (formerly known as L-3 Communications Corporation d/b/a L-3 Communications – Combat Propulsion Systems), its successor entities, and those persons or entities acting on its behalf.

“MDEQ” means the Michigan Department of Environmental Quality, its successor entities, and those persons or entities acting on its behalf.

"Owner" means, at any given time, the then current title holder(s) of the Property or any portion thereof, any lessees, and any persons or entities authorized to act on the Owner’s behalf.

“TDY” means TDY Industries LLC, its successor entities, and those persons or entities acting on its behalf.

“USACE” means the United States Army Corps of Engineers, its successor entities, and those persons or entities acting on its behalf.

NOW THEREFORE,

Declaration of Land Use or Resource Use Restrictions
The Grantor hereby declares and covenants that the Property shall be subject to those restrictions on use and covenants described below:

1. **Land Use Prohibitions.** The Owner shall prohibit all residential uses of the Property, including, but not limited to, single family dwellings, multiple family structures, mobile homes, condominiums, and apartment buildings. Without limiting the foregoing, the following uses are also prohibited: any uses which are intended to house, educate, or provide care for children, the elderly, or the infirm, including day care centers, educational facilities, hospitals, elder care facilities, and nursing homes; and the use of any accessory building or portion of an existing building as a full time dwelling unit for living and sleeping for a proprietor, a watchman, or caretaker.

2. **Activities Prohibited.** The Owner shall prohibit the following activities:

   a. The construction or use of wells or other devices anywhere on the Property to extract groundwater for consumption, irrigation, or any other use. This provision does not prohibit installation of wells for environmental study, monitoring, or remediation so long as the installation does not exacerbate contamination or interfere with the effectiveness of any MDEQ approved corrective actions.

   b. Excavating or removing the building foundation and floor in the area described and surveyed as the “Former Basement Chip Trench” on Exhibit 4 unless a functionally equivalent replacement barrier is constructed to prevent direct contact or other relevant exposure to impacted soils in the area.

3. **Property Improvements.** The Owner may install or construct new buildings, parking lots, pavement, or other structures and improvements (collectively, the “Improvements”) at the Property, as long as:

   a. Appropriate precautions are taken by the Owner to ensure that subsurface construction and utility work is conducted in such a way as to prevent unacceptable exposures to impacted soils or groundwater or vapors.

   b. Appropriate precautions are taken by the Owner to ensure that the use of any Improvement does not result in unacceptable exposure to hazardous substances, including, but not limited to, through vapor intrusion into structures.

   c. Any excavated soil is managed and/or disposed in accordance with all applicable laws and regulations, including, but not limited to, Section 20120c of NREPA Part 201.

   d. The Owner undertakes measures as necessary to prevent exacerbation of contamination.

   The Owner shall be solely responsible for all costs related to or resulting from the change in use or the Improvements, including costs associated with complying with subparagraphs 3.a., b., c. and d.

4. **Wells, Treatment Systems.** The Owner shall not remove, disturb or damage any treatment equipment or systems, or monitoring, investigation, or remediation wells,
whether installed before or after the date of this Restrictive Covenant, without MDEQ approval.

5. Contaminated Soil Management. The Owner shall manage contaminated soils, media and/or debris and all other soils located on the Property in accordance with the applicable requirements of Part 111, RCRA Subtitle C, the administrative rules and regulations promulgated pursuant to Part 111 and RCRA, and all other relevant state and federal laws, including but not limited to, MCL 324.20120c. This includes if the Owner elects to remove any contaminated slabs, pavement or other impervious surface on the Property.

6. Access. The Owner shall grant to the MDEQ, TDY Industries LLC, the United States, USACE, L3 and their successors, assigns, and designated representatives, the right to enter the Property at reasonable times, subject to the Owner's reasonable site security, confidentiality, and health and safety requirements, for the purpose of: conducting groundwater, soil and sediment investigations related to the nature and extent of contamination at the Property; implementing the Work, response actions or corrective measures approved by MDEQ; determining and monitoring compliance with the Consent Decree; verifying that no action is being taken on the Property in violation of the terms of this Restrictive Covenant; and to perform any actions necessary to maintain compliance with the MDEQ approved corrective actions. No party, nor its agents, representatives, consultants, or contractors shall unreasonably interfere with the Owner's operations or otherwise cause a health or safety hazard or nuisance while performing the Work at the Property.

7. Transfer of Interest. A conveyance of title, easement, or other interest in the Property shall not be consummated by the Owner without adequate and complete provision for compliance with the terms and conditions of this Restrictive Covenant.

a. Notice to MDEQ. The Owner shall provide notice to the MDEQ at the address provided in this document of the Owner's intent to transfer any interest in the Property, or any portion thereof, prior to closing on the conveyance.

b. Notice to Transferee. The Owner shall either include in any instrument conveying any interest in any portion of the Property, including, but not limited to, deeds, leases, and mortgages, a notice which is in substantially the following form:

NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO A DECLARATION OF RESTRICTIVE COVENANT DATED ________ AND RECORDED WITH THE ________ COUNTY REGISTER OF DEEDS, LIBER______, PAGE_______.

or provide a copy of this Restrictive Covenant to the future owner, lessee, easement holder, assign, or transferee.

8. Notice. Any notice, demand, request, consent, approval, or communication that is required to be made to MDEQ under this Restrictive Covenant shall be made in writing; include a statement that the notice is being made pursuant to the requirements of this Restrictive Covenant; include the Michigan facility identification number, MID 006 407
597, and the MDEQ Reference No. RC-OWMRP-111 __ __; and shall be served either personally, or sent via first class mail, postage prepaid, as follows:

Hazardous Waste Section Manager  
Waste Management and Radiological Protection Division  
Michigan Department of Environmental Quality  
P.O. Box 30241  
Lansing, Michigan 48909-7741

9. **Term.** Unless rescinded with the written approval of the MDEQ, this Restrictive Covenant shall run with the Property and shall be binding in perpetuity on the Owner, and all current and future successors, lessees, easement holders, their assigns, and their authorized agents, employees, or persons acting under their direction and control.

10. **Enforcement.** Grantor is entitled to enforce the restrictions and covenants of this Restrictive Covenant by specific performance or other legal action in a court of competent jurisdiction against subsequent Owners of all or part of the Property. The Grantor, on behalf of itself, and its successors in title, intends and agrees that MDEQ, TDY, and the United States are each entitled to enforce the restrictions and covenants in this Restrictive Covenant by specific performance or other legal action in a court of competent jurisdiction against the Grantor, as Owner, and thereafter against subsequent Owners of all or part of the Property. All remedies available hereunder shall be in addition to any and all other remedies at law or equity.

11. **Modification/Release/Rescission.** The Grantor, Owner, TDY, USACE or the United States may request in writing to the MDEQ, at the address provided herein, modifications to, or release or rescission of, this Restrictive Covenant. This Restrictive Covenant may be modified, released or rescinded only with the written approval of the MDEQ. Any approved modification to, or release or rescission of, this Restrictive Covenant shall be filed with the appropriate Registrar of Deeds and a certified copy shall be returned to the MDEQ at the address provided herein.

12. **Severability.** If any provision of this Restrictive Covenant is held to be invalid by a court of competent jurisdiction, the invalidity of such provision shall not affect the validity of any other provisions of this Restrictive Covenant and all other provisions shall continue to remain in full force and effect.

13. **Authority to Execute Restrictive Covenant.** The undersigned person executing this Restrictive Covenant is the Owner, or has the express written permission of the Owner, and represents and certifies that he or she is duly authorized and has been empowered to execute and deliver this Restrictive Covenant.

IN WITNESS WHEREOF, __________________________ has caused this Restrictive Covenant, RC OWMRP 111- __ __, to be executed on this_______ day of______________, 20__.
L3 Technologies, Inc.

By: __________________________
   Signature

Name: _________________________
   Print

Its: ____________________________
   Title

STATE OF MICHIGAN )
COUNTY OF _________________ )

Date: __________________________

The foregoing instrument was acknowledged before me this _____ day of _____________,
20__, by __________________________________ of L3 Technologies, Inc., a Delaware
corporation, on behalf of the corporation.

________________________________________
Notary Public
State of Michigan, County of ______________
Acting in the County of _________________
My commission expires: ___________________

Prepared by:

[Fill in]

9060429-12
EXHIBIT 1

LEGAL DESCRIPTION OF PROPERTY

[To be completed for review by MDEQ]
EXHIBIT 2

PROPERTY DRAWING

[To be completed for review by MDEQ]
## LIST OF HAZARDOUS SUBSTANCES ABOVE CLEANUP CRITERIA

<table>
<thead>
<tr>
<th>Former Coal Storage Area</th>
<th>Former Sludge Drying Beds</th>
<th>Former Basement Chip Trench</th>
<th>Former Solvent/Oil and Containerized Hazardous Waste Storage Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene</td>
<td>1,2,4-Trimethylbenzene</td>
<td>Tetrachloroethene</td>
<td>1,1,1-Trichloroethane</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>1,2-Dichloroethylene</td>
<td>Trichloroethene</td>
<td>1,1,2-Trichloroethene</td>
</tr>
<tr>
<td>o-Dichlorobenzene</td>
<td>Benzene</td>
<td>1,1,1-Trichloroethene</td>
<td>1,1-Dichloroethylene</td>
</tr>
<tr>
<td>Tetrachloroethylene</td>
<td>Ethylbenzene</td>
<td>Cadmium</td>
<td>1,2,4-Trimethylbenzene</td>
</tr>
<tr>
<td>Trichloroethylene (total)</td>
<td>Tetrachloroethylene</td>
<td>Chromium</td>
<td>1,2-Dichloroethylene</td>
</tr>
<tr>
<td>2-Methylnaphthalene</td>
<td>Toluene</td>
<td>Copper</td>
<td>1,3,5-Trimethylbenzene</td>
</tr>
<tr>
<td>Benzo(a)pyrene</td>
<td>Xylene (Total)</td>
<td></td>
<td>Cis-1,2-Dichloroethylene</td>
</tr>
<tr>
<td>Flouranthene</td>
<td>2-Methylnaphthalene</td>
<td></td>
<td>Ethylbenzene</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>Benzo(a)pyrene</td>
<td></td>
<td>Isopropylbenzene</td>
</tr>
<tr>
<td>Phenanthrene</td>
<td>Flouranthene</td>
<td></td>
<td>Methylene chloride</td>
</tr>
<tr>
<td>Arsenic</td>
<td>Naphthalene</td>
<td></td>
<td>n-Butylbenzene</td>
</tr>
<tr>
<td>Chromium</td>
<td>Phenanthrene</td>
<td></td>
<td>n-Propylbenzene</td>
</tr>
<tr>
<td>Iron</td>
<td>Arsenic</td>
<td></td>
<td>sec-Butylbenzene</td>
</tr>
<tr>
<td>Mercury</td>
<td>Cadmium</td>
<td></td>
<td>Tetrachloroethylene</td>
</tr>
<tr>
<td>Selenium</td>
<td>Chromium</td>
<td></td>
<td>Trichloroethylene</td>
</tr>
<tr>
<td>Cyanide</td>
<td>Copper</td>
<td></td>
<td>Xylene (total)</td>
</tr>
<tr>
<td></td>
<td>Iron</td>
<td></td>
<td>Naphthalene</td>
</tr>
<tr>
<td></td>
<td>Mercury</td>
<td></td>
<td>Chromium (hexavalent)</td>
</tr>
<tr>
<td></td>
<td>Silver</td>
<td></td>
<td>Silver</td>
</tr>
<tr>
<td></td>
<td>Zinc</td>
<td></td>
<td>PCBs</td>
</tr>
<tr>
<td></td>
<td>PCBs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cyanide</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Former South Lagoon</th>
<th>South Side of Main Building</th>
<th>Former Northwest Lagoons</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>1,2,4-Trimethylbenzene</td>
<td>1,2,4-Trimethylbenzene</td>
</tr>
<tr>
<td>1,3,5-Trimethylbenzene</td>
<td>1,3,5-Trimethylbenzene</td>
<td>1,2,4-Trimethylbenzene</td>
</tr>
<tr>
<td>Methylene chloride</td>
<td>Benzene</td>
<td>1,1,2-Trichloroethane</td>
</tr>
<tr>
<td>n-Butylbenzene</td>
<td>Ethylbenzene</td>
<td>1,2-Dichloroethylene</td>
</tr>
<tr>
<td>n-Propylbenzene</td>
<td>Isopropylbenzene</td>
<td>Benzene</td>
</tr>
<tr>
<td>sec-Butylbenzene</td>
<td>n-Butylbenzene</td>
<td>Ethylbenzene</td>
</tr>
<tr>
<td>Trichloroethylene</td>
<td>n-Propylbenzene</td>
<td>Methylene chloride</td>
</tr>
<tr>
<td>Isopropylbenzene</td>
<td>sec-Butylbenzene</td>
<td>o-Dichlorobenzene</td>
</tr>
<tr>
<td>2-Methylnaphthalene</td>
<td>Toluene</td>
<td>Toluene</td>
</tr>
<tr>
<td>Naphthalene</td>
<td>Trichloroethylene</td>
<td>Vinyl Chloride</td>
</tr>
<tr>
<td>Cadmium</td>
<td>Xylene (total)</td>
<td>Xylene (total)</td>
</tr>
<tr>
<td>Chromium (hexavalent)</td>
<td>2-Methylnaphthalene</td>
<td>2-Methylnaphthalene</td>
</tr>
<tr>
<td>Lead</td>
<td>Naphthalene</td>
<td>Phenanthrene</td>
</tr>
<tr>
<td>Mercury</td>
<td>Chromium</td>
<td>Arsenic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cadmium</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chromium (total)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Copper</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mercury</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PCBs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cyanide</td>
</tr>
</tbody>
</table>
EXHIBIT 4

FORMER BASEMENT CHIP TRENCH AREA

[To be completed for review by MDEQ]
Appendix D – Former Northwest Lagoons Declaration of Restrictive Covenant
This Declaration of Restrictive Covenant ("Restricted Covenant") is made to protect public health, safety, or welfare or the environment pursuant to the applicable provisions of Part 111, Hazardous Waste Management, MCL 324.11101 et seq., (Part 111), and Part 201, Environmental Remediation, MCL 324.20101 et seq. (Part 201) of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended, MCL 324.101 et seq., and the administrative rules promulgated pursuant to those Parts, and the Solid Waste Disposal Act, commonly referred to as the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S.C. 6901 et seq. (RCRA).

This Declaration of Restrictive Covenant is made on ___________, 20__, by L3 Technologies, Inc., the Grantor, having an address of 76 South Getty Street, Muskegon, Michigan 49442-1242, for the benefit of the Grantee, Michigan Department of Environmental Quality (MDEQ), whose address is 525 West Allegan Street, PO Box 30473, Lansing, Michigan 48909-7973.

This Restrictive Covenant has been made to prohibit or restrict activities that could result in unacceptable exposure to environmental contamination present at the Property located at 76 Getty Street, in the City of Muskegon, County of Muskegon, Michigan ("Property"). in particular, an area known as the "Former Northwest Lagoons," which are legally described in Exhibit 1 and shown on Exhibit 2 (the "Northwest Lagoons").

The land and resource use restrictions contained in this Restrictive Covenant are based upon information available to, and the corrective action approved by, the MDEQ at the time this Restrictive Covenant was recorded. Failure of the corrective measures to achieve and maintain the cleanup criteria, exposure controls, and requirements specified in the approved corrective action; future changes in the environmental condition of the Property or changes in the cleanup criteria; the discovery of environmental conditions at the Property that were not accounted for in the Consent Decree (described below); or use of the Property in a manner inconsistent with the restrictions described herein, may result in this Restrictive Covenant not being protective of public health, safety, or welfare, or the environment. Additional restrictions may be necessary in the future. Information pertaining to the environmental conditions at the Property and the corrective actions undertaken at the Property is on file with the MDEQ, Waste Management and Radiological Protection Division.
Summary of Corrective Measures

The Northwest Lagoons are associated with historic manufacturing operations and were used until about 1958. Polychlorinated biphenyls ("PCBs") are present in soil in the Northwest Lagoons at levels that exceed Part 201 residential and non-residential direct contact cleanup criteria. A Consent Decree requiring environmental response work and corrective measures at the Northwest Lagoons was entered in the United States District Court, Western District of Michigan, Southern Division, Civil Action No. ____________ on ________, 20__. These required measures included the installation of a permeable exposure barrier ("Exposure Barrier" or "Barrier") over portions of the Northwest Lagoons in order to restrict contact with PCB-impacted soils. The Exposure Barrier consists of a minimum of one foot of granular fill topped with four to six inches of soil and seeding with vegetation to reduce erosion. The areal extent of the Barrier is shown on Exhibit 2.

Definitions

“Grantee” shall mean the MDEQ.

“Grantor” shall mean L3, the title holder of the Property at the time this Restrictive Covenant was executed.

“L3” means L3 Technologies, Inc. (formerly known as L-3 Communications Corporation d/b/a L-3 Communications – Combat Propulsion Systems), its successor entities, and those persons or entities acting on its behalf.

“MDEQ” means the Michigan Department of Environmental Quality, its successor entities, and those persons or entities acting on its behalf.

"Owner" means, at any given time, the then current title holder(s) of the Property or any portion thereof, any lessees, and any persons or entities authorized to act on the Owner’s behalf.

“TDY” means TDY Industries LLC, its successor entities, and those persons or entities acting on its behalf.

“USACE” means the United States Army Corps of Engineers, its successor entities, and those persons or entities acting on its behalf.

NOW THEREFORE,

Declaration of Land Use or Resource Use Restrictions

The Grantor hereby declares and covenants that the Property shall be subject to those restrictions on use and covenants described below:

1. Exposure Barrier.
   a. The Owner, at its own cost, shall cut the vegetation growing on the Exposure Barrier as necessary to prevent the growth of woody vegetation or trees that may damage the exposure barrier and to facilitate annual visual inspection of the barrier.
b. Except as set forth in paragraph 2, the Owner shall prohibit activities that result in breaching or damaging the Exposure Barrier in ways that could lead to direct contact with soils beneath the Barrier, including, but not limited to, excavating or grading soil, or installing ponds or other surface water features. The Owner shall repair any damage to the Exposure Barrier that is caused by Owner’s activities.

c. The Owner shall visually inspect the Exposure Barrier annually. If there is erosion or breaches in the cap that are not the result of the Owner’s activities or neglect and that could result in exposure to underlying soils, the Owner shall notify TDY Industries LLC and/or USACE. In such cases, TDY Industries LLC and USACE shall coordinate to have the repairs to the Exposure Barrier completed at no cost to the Owner.

2. Property Improvements. The Owner may install or construct new buildings, parking lots, pavement, or other structures and improvements (collectively, the “Improvements”) at or on the Northwest Lagoons, as long as:

a. Any alteration to, or replacement of, the Exposure Barrier, and any necessary changes to this Restrictive Covenant (e.g., describing the replacement of the Exposure Barrier with a building or parking lot) are approved in writing by the MDEQ.

b. Appropriate precautions are taken by the Owner to ensure that subsurface construction and utility work is conducted in such a way as to prevent unacceptable exposures to impacted soils or groundwater or vapors.

c. Appropriate precautions are taken by the Owner to ensure that the use of any Improvement does not result in unacceptable exposure to hazardous substances, including, but not limited to, through vapor intrusion into structures.

d. Any excavated soil is managed and/or disposed in accordance with all applicable laws and regulations, including, but not limited to, Section 20120c of NREPA Part 201.

e. The Owner undertakes measures as necessary to prevent exacerbation of contamination.

The Owner shall be solely responsible for all costs related to or resulting from the change in use or the Improvements, including costs associated with complying with subparagraphs 2.a, b., c., d. and e.

3 Access. The Owner shall grant to the MDEQ, TDY Industries LLC, the United States, USACE, L3 and their successors, assigns, and designated representatives, the right to enter the Property at reasonable times, subject to the Owner’s reasonable site security, confidentiality, and health and safety requirements, for the purpose of inspecting the Exposure Barrier, repairing the Exposure Barrier, and verifying that no action is being taken on the Property in violation of the terms of this Restrictive Covenant. No party, nor its agents, representatives, consultants, or contractors shall unreasonably interfere with the Owner’s operations or otherwise cause a health or safety hazard or nuisance while performing the Work at the Property.
4. **Transfer of Interest.** A conveyance of title, easement, or other interest in the Property shall not be consummated by the Owner without adequate and complete provision for compliance with the terms and conditions of this Restrictive Covenant.

   a. **Notice to MDEQ.** The Owner shall provide notice to the MDEQ at the address provided in this document of the Owner’s intent to transfer any interest in the Property, or any portion thereof, prior to closing on the conveyance.

   b. **Notice to Transferee.** The Owner shall either include in any instrument conveying any interest in any portion of the Property, including, but not limited to, deeds, leases, and mortgages, a notice which is in substantially the following form:

   \[
   \text{NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO A DECLARATION OF RESTRICTIVE COVENANT DATED \________ AND RECORDED WITH THE \________ COUNTY REGISTER OF DEEDS, LIBER\______, PAGE\_______.}
   \]

   or provide a copy of this Restrictive Covenant to the future owner, lessee, easement holder, assign, or transferee.

5. **Term.** Unless rescinded with the written approval of the MDEQ, this Restrictive Covenant shall run with the Property and shall be binding in perpetuity on the Owner, and all current and future successors, lessees, easement holders, their assigns, and their authorized agents, employees, or persons acting under their direction and control.

6. **Enforcement.** Grantor is entitled to enforce the restrictions and covenants of this Restrictive Covenant by specific performance or other legal action in a court of competent jurisdiction against subsequent Owners of all or part of the Property. The Grantor, on behalf of itself, and its successors in title, intends and agrees that MDEQ, TDY, and the United States, are each entitled to enforce the restrictions and covenants in this Restrictive Covenant by specific performance or other legal action in a court of competent jurisdiction against the Grantor, as Owner, and thereafter against subsequent Owners of all or part of the Property. All remedies available hereunder shall be in addition to any and all other remedies at law or equity.

7. **Modification/Release/Rescission.** The Grantor, Owner, TDY, USACE or the United States may request in writing to the MDEQ, at the address provided herein, modifications to, or release or rescission of, this Restrictive Covenant. This Restrictive Covenant may be modified, released or rescinded only with the written approval of the MDEQ. Any approved modification to, or release or rescission of, this Restrictive Covenant shall be filed with the appropriate Registrar of Deeds and a certified copy shall be returned to the MDEQ at the address provided herein.

8. **Severability.** If any provision of this Restrictive Covenant is held to be invalid by a court of competent jurisdiction, the invalidity of such provision shall not affect the validity of any other provisions of this Restrictive Covenant and all other provisions shall continue to remain in full force and effect.

9. **Notice.** Any notice, demand, request, consent, approval, or communication that is required to be made to MDEQ under this Restrictive Covenant shall be made in writing;
include a statement that the notice is being made pursuant to the requirements of this Restrictive Covenant; include the Michigan facility identification number, MID 006 407 597, and the MDEQ Reference No. RC-OWMRP-111 ___; and shall be served either personally, or sent via first class mail, postage prepaid, as follows:

Hazardous Waste Section Manager  
Waste Management and Radiological Protection Division  
Michigan Department of Environmental Quality  
P.O. Box 30241  
Lansing, Michigan 48909-7741

10. Authority to Execute Restrictive Covenant. The undersigned person executing this Restrictive Covenant is the Owner, or has the express written permission of the Owner, and represents and certifies that he or she is duly authorized and has been empowered to execute and deliver this Restrictive Covenant.

IN WITNESS WHEREOF, ___________________________ has caused this Restrictive Covenant, RC OWMRP 111-__-___, to be executed on this_______day of_____________, 20__.

L3 Technologies, Inc.

By: ____________________________
   Signature

Name: __________________________
   Print

Its: ____________________________
   Title

STATE OF MICHIGAN  )
   Date: __________________________

COUNTY OF _________________ )

The foregoing instrument was acknowledged before me this______ day of_____________, 20__, by ___________________________ of L3 Technologies, Inc., a Delaware corporation, on behalf of the corporation.

____________________________________
Notary Public
State of Michigan, County of _______________
Acting in the County of ________________

My commission expires: ___________________
EXHIBIT 1

LEGAL DESCRIPTION OF NORTHWEST LAGOONS

[To be completed for review by MDEQ and filing upon completion of Work]
EXHIBIT 2

SURVEY OF NORTHWEST LAGOONS

[To be completed for review by MDEQ and filing upon completion of Work]
Appendix E - Former Sludge Drying Beds Declaration of Restrictive Covenant
DECLARATION OF RESTRICTIVE COVENANT

MDEQ Reference No.: RC-OWMRP-111-__-__
Facility MID Number MID 006 407 597
MDEQ Approval Date_____________________

This Declaration of Restrictive Covenant ("Restricted Covenant") is made to protect public health, safety, or welfare, or the environment pursuant to the applicable provisions of Part 111, Hazardous Waste Management, MCL 324.11101 et seq., (Part 111) and Part 201, Environmental Remediation, MCL 324.20101 et seq. (Part 201) of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended, MCL 324.101 et seq., and the administrative rules promulgated pursuant to those Parts, and the Solid Waste Disposal Act, commonly referred to as the Resource Conservation and Recovery Act of 1976, as amended, 42 U.S. C. 6901 et seq. (RCRA).

This Declaration of Restrictive Covenant is made on ___________, 20__, by L3 Technologies, Inc., the Grantor, having an address of 76 South Getty Street, Muskegon, Michigan 49442-1242, for the benefit of the Grantee, Michigan Department of Environmental Quality (MDEQ), whose address is 525 West Allegan Street, PO Box 30473, Lansing, Michigan 48909-7973

This Restrictive Covenant has been made to prohibit or restrict activities that could result in unacceptable exposure to environmental contamination present at the Property located at 76 Getty Street, in the City of Muskegon, County of Muskegon, Michigan (the “Property”), in particular, an area known as the “Former Sludge Drying Beds,” which are legally described in Exhibit 1 and shown on Exhibit 2 (the “Drying Beds”).

The land and resource use restrictions contained in this Restrictive Covenant are based upon information available to, and the corrective action approved by, the MDEQ at the time this Restrictive Covenant was recorded. Failure of the corrective measures to achieve and maintain the cleanup criteria, exposure controls, and requirements specified in the approved corrective action; future changes in the environmental condition of the Property or changes in the cleanup criteria; the discovery of environmental conditions at the Property that were not accounted for in the Consent Decree (described below); or use of the Property in a manner inconsistent with the restrictions described herein, may result in this Restrictive Covenant not being protective of public health, safety, or welfare, or the environment. Additional restrictions may be necessary in the future. Information pertaining to the environmental conditions at the Property and the corrective actions undertaken at the Property is on file with the MDEQ, Waste Management and Radiological Protection Division.
Summary of Corrective Measures

The Drying Beds are associated with historic manufacturing operations and were used until about 1976. Polychlorinated biphenyls ("PCBs") are present in soil in the Drying Beds at levels that exceed Part 201 residential and non-residential direct contact cleanup criteria. A Consent Decree requiring environmental response work and corrective measures at the Drying Beds was entered in the United States District Court, Western District of Michigan, Southern Division, Civil Action No. _______________ on _______ __, 20__. These required measures included the installation of a permeable exposure barrier ("Exposure Barrier" or "Barrier") over portions of the Drying Beds in order to restrict contact with PCB-impacted soils. The Exposure Barrier consists of a minimum of one foot of granular fill topped with four to six inches of soil and seeding with vegetation to reduce erosion. The areal extent of the Barrier is shown on Exhibit 2.

Definitions

"Grantee" shall mean the MDEQ.

"Grantor" shall mean L3, the title holder of the Property at the time this Restrictive Covenant was executed.

"L3" means L3 Technologies, Inc., (formerly known as L-3 Communications Corporation d/b/a L-3 Communications – Combat Propulsion Systems), its successor entities, and those persons or entities acting on its behalf.

"MDEQ" means the Michigan Department of Environmental Quality, its successor entities, and those persons or entities acting on its behalf.

"Owner" means, at any given time, the then current title holder(s) of the Property or any portion thereof, any lessees, and any persons or entities authorized to act on the Owner's behalf.

"TDY" means TDY Industries LLC, its successor entities, and those persons or entities acting on its behalf.

"USACE" means the United States Army Corps of Engineers, its successor entities, and those persons or entities acting on its behalf.

NOW THEREFORE,

Declaration of Land Use or Resource Use Restrictions

The Grantor hereby declares and covenants that the Property shall be subject to those restrictions on use and covenants described below:

1. Exposure Barrier.
   a. The Owner, at its own cost, shall cut the vegetation growing on the Exposure Barrier as necessary to prevent the growth of woody vegetation or trees that may damage the exposure barrier and to facilitate annual visual inspection of the barrier.
b. Except as set forth in paragraph 2, the Owner shall prohibit activities that result in breaching or damaging the Exposure Barrier in ways that could lead to direct contact with soils beneath the Barrier, including, but not limited to, excavating or grading soil, or installing ponds or other surface water features. The Owner shall repair any damage to the Exposure Barrier that is caused by Owner's activities.

c. The Owner shall visually inspect the Exposure Barrier annually. If there is erosion or breaches in the cap that are not the result of the Owner's activities or neglect and that could result in exposure to underlying soils, the Owner shall notify TDY Industries LLC and/or USACE. In such cases, TDY Industries LLC and USACE shall coordinate to have the repairs to the Exposure Barrier completed at no cost to the Owner.

2. Property Improvements. The Owner may install or construct new buildings, parking lots, pavement, or other structures and improvements (collectively, the “Improvements”) at or on the Drying Beds, as long as:

a. Any alteration to, or replacement of, the Exposure Barrier, and any necessary changes to this Restrictive Covenant (e.g., describing the replacement of the Exposure Barrier with a building or parking lot) are approved in writing by the MDEQ.

b. Appropriate precautions are taken by the Owner to ensure that subsurface construction and utility work is conducted in such a way as to prevent unacceptable exposures to impacted soils or groundwater or vapors.

c. Appropriate precautions are taken by the Owner to ensure that the use of any Improvement does not result in unacceptable exposure to hazardous substances, including, but not limited to, through vapor intrusion into structures.

d. Any excavated soil is managed and/or disposed in accordance with all applicable laws and regulations, including, but not limited to, Section 20120c of NREPA Part 201.

e. The Owner undertakes measures as necessary to prevent exacerbation of contamination.

The Owner shall be solely responsible for all costs related to or resulting from the change in use or the Improvements, including costs associated with complying with subparagraphs 2.a, b., c. d. and e.

3 Access. The Owner shall grant to the MDEQ, TDY Industries LLC, the United States, USACE, L3 and their successors, assigns, and designated representatives, the right to enter the Property at reasonable times, subject to the Owner's reasonable site security, confidentiality, and health and safety requirements, for the purpose of inspecting the Exposure Barrier, repairing the Exposure Barrier, and verifying that no action is being taken on the Property in violation of the terms of this Restrictive Covenant. No party, nor its agents, representatives, consultants, or contractors shall unreasonably interfere with the Owner’s operations or otherwise cause a health or safety hazard or nuisance while performing the Work at the Property.
4. **Transfer of Interest.** A conveyance of title, easement, or other interest in the Property shall not be consummated by the Owner without adequate and complete provision for compliance with the terms and conditions of this Restrictive Covenant.

   a. **Notice to MDEQ.** The Owner shall provide notice to the MDEQ at the address provided in this document of the Owner's intent to transfer any interest in the Property, or any portion thereof, prior to closing on the conveyance.

   b. **Notice to Transferee.** The Owner shall either include in any instrument conveying any interest in any portion of the Property, including, but not limited to, deeds, leases, and mortgages, a notice which is in substantially the following form:

   NOTICE: THE INTEREST CONVEYED HEREBY IS SUBJECT TO A DECLARATION OF RESTRICTIVE COVENANT DATED ______ AND RECORDED WITH THE ___________ COUNTY REGISTER OF DEEDS, LIBER______, PAGE_____.

   or provide a copy of this Restrictive Covenant to the future owner, lessee, easement holder, assign, or transferee.

5. **Term.** Unless rescinded with the written approval of the MDEQ, this Restrictive Covenant shall run with the Property and shall be binding in perpetuity on the Owner, and all current and future successors, lessees, easement holders, their assigns, and their authorized agents, employees, or persons acting under their direction and control.

6. **Enforcement.** Grantor is entitled to enforce the restrictions and covenants of this Restrictive Covenant by specific performance or other legal action in a court of competent jurisdiction against subsequent Owners of all or part of the Property. The Grantor, on behalf of itself, and its successors in title, intends and agrees that MDEQ, TDY, and the United States, are each entitled to enforce the restrictions and covenants in this Restrictive Covenant by specific performance or other legal action in a court of competent jurisdiction against the Grantor, as Owner, and thereafter against subsequent Owners of all or part of the Property. All remedies available hereunder shall be in addition to any and all other remedies at law or equity.

7. **Modification/Release/Rescission.** The Grantor, Owner, TDY, USACE or the United States may request in writing to the MDEQ, at the address provided herein, modifications to, or release or rescission of, this Restrictive Covenant. This Restrictive Covenant may be modified, released or rescinded only with the written approval of the MDEQ. Any approved modification to, or release or rescission of, this Restrictive Covenant shall be filed with the appropriate Registrar of Deeds and a certified copy shall be returned to the MDEQ at the address provided herein.

8. **Severability.** If any provision of this Restrictive Covenant is held to be invalid by a court of competent jurisdiction, the invalidity of such provision shall not affect the validity of any other provisions of this Restrictive Covenant and all other provisions shall continue to remain in full force and effect.

9. **Notice.** Any notice, demand, request, consent, approval, or communication that is required to be made to MDEQ under this Restrictive Covenant shall be made in writing;
include a statement that the notice is being made pursuant to the requirements of this Restrictive Covenant; include the Michigan facility identification number, MID 006 407 597, and the MDEQ Reference No. RC-OWMRP-111 ____; and shall be served either personally, or sent via first class mail, postage prepaid, as follows:

Hazardous Waste Section Manager  
Waste Management and Radiological Protection Division  
Michigan Department of Environmental Quality  
P.O. Box 30241  
Lansing, Michigan 48909-7741

10. **Authority to Execute Restrictive Covenant.** The undersigned person executing this Restrictive Covenant is the Owner, or has the express written permission of the Owner, and represents and certifies that he or she is duly authorized and has been empowered to execute and deliver this Restrictive Covenant.

IN WITNESS WHEREOF, __________________________________ has caused this Restrictive Covenant, RC OWMRP 111-__-___, to be executed on this_______day of______________, 20__.

L3 Technologies, Inc.

By: ____________________________  
Signature

Name: ___________________________  
Print

Its: ____________________________  
Title

STATE OF MICHIGAN )  
Date: ____________________________

COUNTY OF _______________ )

The foregoing instrument was acknowledged before me this_____ day of _____________, 20__, by ____________________________ of L3 Technologies, Inc., a Delaware corporation, on behalf of the corporation.

____________________________________
Notary Public  
State of Michigan, County of _______________  
Acting in the County of _________________  
My commission expires: __________________
EXHIBIT 1

LEGAL DESCRIPTION OF THE FORMER SLUDGE DRYING BEDS

[To be completed for review by MDEQ and filing upon completion of Work]
EXHIBIT 2

SURVEY OF FORMER SLUDGE DRYING BEDS

[To be completed for review by MDEQ and filing upon completion of Work]