



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Scott J. Nally, Director

OHIO E.P.A.

JUN 19 2013

ENTERED DIRECTOR'S JOURNAL

I certify this to be a true and accurate copy of the official documents as filed in the records of the Ohio Environmental Protection Agency.

By: Dmy Lasser Date: 6-19-13

CERTIFIED MAIL

June 19, 2013

Mr. Scott W. Grider
General Dynamics – Global Imaging Technologies, Inc.
Environmental, Health & Safety Manager
7603 Saint Andrew Avenue, Suite H
San Diego, CA 92154

Re: Amended Closure Plan Approval via Removal and Risk Assessment, Former Vernitron Piezoelectric Facility/Morgan Matroc, Inc., OHD 052 324 290

Dear Mr. Grider:

On March 4, 2013, Brown and Caldwell, on behalf of General Dynamics Global Imaging Technologies, Inc. (GD-GIT) for the former Vernitron Piezoelectric Facility/Morgan Matroc, Inc.¹ submitted to the Ohio Environmental Protection Agency (Ohio EPA) an amended closure plan for the former outside hazardous waste storage pad, located at 232 Forbes Road, Bedford, Ohio. Revisions to the amended closure plan, including the response to comments and an exemption request, were received on April 30, 2013; May 13, 2013; May 14, 2013; and May 15, 2013. The amended closure plan was submitted to demonstrate that GD-GIT's proposal for closure complies with the substantive requirements of Ohio Administrative Code (OAC) Rules 3745-55-11 and 3745-55-12.

The amended closure plan includes a proposal for the removal and treatment of soil and weathered rock at the former outside hazardous waste storage pad. As part of the amended closure plan, GD-GIT has requested an exemption, pursuant to Ohio Revised Code (ORC) Section 3734.02(G), from the requirement to obtain a hazardous waste facility installation and operation permit. GD-GIT explains that the exemption is necessary to facilitate the remediation activities, including the treatment of contaminated soils, and without an exemption, it would be necessary for GD-GIT to obtain a hazardous waste facility installation and operation permit. Lastly, the amended closure plan includes a process by which contaminated soil will be treated to concentration levels that the Director of Ohio EPA has deemed protective and adequate for the grant of a contained-in

¹ The facility is currently owned and operated by Morgan Electro Ceramics, doing business as Morgan Matroc, Inc., a company not affiliated with GD-GIT.

determination. Upon the grant of the contained-in determination, the soil will no longer be considered to contain a listed hazardous waste. Once the contained-in determination has been granted, the soil can be disposed at a subtitle D solid waste landfill in Ohio.

The owner or operator and the public were given the opportunity to submit written comments regarding the amended closure plan, in accordance with the hazardous waste rule requirements. No public comments were received by Ohio EPA.

Based upon review of the amended closure plan submittal, subsequent revisions, and response to comments, I conclude that the amended closure plan for the hazardous waste unit at 232 Forbes Road, Bedford, Ohio, as modified herein, meets the performance standard contained in OAC Rule 3745-55-11, and complies with the pertinent parts of OAC Rule 3745-55-12. I also conclude that the amended closure plan, as modified herein, which includes the grant of an exemption, pursuant to ORC Section 3734.02(G), will facilitate the hazardous waste remediation activities and is unlikely to adversely affect the public health or safety or the environment, and is equivalent to the regulations adopted by the United States Environmental Protection Agency under the Resource Conservation and Recovery Act of 1976, 90 Stat. 2806, 42 U.S.C.A. 6921, as amended.

The amended closure plan submitted to Ohio EPA on March 4, 2013, with revisions, response to comments, and exemption request dated April 30, 2013; May 13, 2013; May 14, 2013; and May 15, 2013, submitted by Brown and Caldwell, on behalf of GD-GIT, is hereby approved with the modifications contained in Attachment A.

Compliance with the approved closure plan, including the modifications specified herein, is expected. Ohio EPA will monitor such compliance. Ohio EPA expressly reserves the right to take action, pursuant to Chapters 3734 and 6111 of the ORC, and other applicable law, to enforce such compliance and to seek appropriate remedies in the event of noncompliance with the provisions and modifications of this approved plan. Please be advised that approval of this amended closure plan does not release the facility from any responsibilities regarding corrective action for all releases of hazardous waste or constituents from any waste management unit, regardless of the time at which waste was placed in the unit.

You are hereby notified that this action of the director is final and may be appealed to the Environmental Review Appeals Commission, pursuant to Section 3745.04 of the ORC. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within 30 days after notice of the director's action. The appeal must be accompanied by a filing fee of \$70.00 (made payable to "Treasurer, State of Ohio"), which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with

the director within three days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, Ohio 43215

When closure is completed, OAC Rule 3745-55-15 requires the owner or operator of a facility to submit to the director of Ohio EPA, certification by the owner or operator and a qualified professional engineer, that the facility has been closed in accordance with the approved amended closure plan. The certification by the owner or operator shall include the statement found in OAC Rule 3745-50-42(D). These certifications should be submitted to:

Ohio Environmental Protection Agency
Attn: Edwin Lim, Engineering Section
Division of Environmental Response and Revitalization
P.O. Box 1049
Columbus, Ohio 43216-1049

A copy should also be sent to:

Ohio Environmental Protection Agency
Attn: Shannon Ryan
Division of Environmental Response and Revitalization
Northeast District Office,
2110 East Aurora Road
Twinsburg, Ohio 44087

If you have any questions about implementing this amended closure plan, contact Shannon Ryan at (330) 963-1141.

Sincerely,


Scott J. Nally
Director

cc: Meghan Krishnayya
Brown and Caldwell
16TH Floor – South Tower
201 N. Illinois Street
Indianapolis, IN 46204

Mike Kyer
Morgan Matroc, Inc.
232 Forbes Road
Bedford, OH 44146

Heidi Goldstein
Thompson Hine
3900 Key Center
127 Public Square
Cleveland, OH 44114-1291

ec: Erik Hagen, Ohio EPA, CO, DERR
Connie Livchak, Ohio EPA, CO, DMWM
Jeremy Carroll, Ohio EPA, CO, DMWM
Shannon Ryan, Ohio EPA, NEDO, DERR
Ed Lim, Ohio EPA, CO, DERR
Harry Courtright, Ohio EPA, NEDO, DERR
John Palmer, Ohio EPA, NEDO, DERR
Rodney Beals, Ohio EPA, NEDO, DERR
Diane Kurlich, Ohio EPA, NEDO, DDAGW

Attachment A
Ohio EPA Modifications to Former Vernitron Piezoelectric/Morgan
Matroc, Inc. Facility
Amended Closure Plan (ACP)
OHD 052 324 290

1. Section 1.4. The ACP is modified to revise the second sentence to state, "This will include a post-remediation "baseline-type" health risk assessment that addresses multi-chemical and cumulative risks from all relevant exposure pathways."
2. Section 2.4.3. The ACP states that procedures for measuring air emissions generated by the remedy are described in a SOP in the QAPP. However, there is no such SOP included in the QAPP. This information should be submitted to Ohio EPA for approval within 30 days of the ACP approval or prior to implementation of the soil removal activities at the facility. The ACP is modified accordingly.
3. Section 4.2. The ACP is modified to remove the last sentence of this section. Ohio EPA cannot agree to limit the number of ground water wells installed after the soil removal activities are completed to the number of wells abandoned during the soil removal activities. The number of wells to be installed after soil removal activities will be determined based on defining the horizontal and vertical extent of contamination.
4. Section 4.3. The ACP is modified to state that the length of the closure period is five years from the ACP approval date to allow for soil removal activities, ground water treatment activities (if needed), and a minimum of eight quarters of ground water monitoring.
5. Table 1. The ACP is modified to revise the TCLP Screening Value units from mg/L to mg/kg.
6. Appendix A, Section 2, # 7. The ACP is modified to revise the second sentence to be "Demolition materials, such as building debris, tree root balls, utilities (e.g., storm water pipelines), and manhole rings/structures in contact with areas containing COCs will be cleaned of excess soil materials to conform with the requirements found in Ohio Administrative Code (OAC) rule 3745-270-45. Decontamination of debris will conform with Alternative Universal Treatment Standards for Debris found in OAC rule 3745-270-45, Table 1(A)(1). Physical

extraction such as scraping, and/or high pressure washing will be used to remove media containing listed hazardous waste. The activities for decontamination will take place within the area of contamination and any treatment residues will be contained and managed appropriately. Solid material will be stored within the area of contamination and then placed within a treatment cell for management purposes. Waters will be containerized, evaluated and disposed properly or, under the Clean Water Act exemption, discharged to a POTW for disposal.”

7. Appendix A, Section 4.6. The ACP is modified to revise the second sentence from “...the area delineated by the excavation of Phase 2 will be excavated to 10 feet bgs and is approximately...” to “The area of the Phase 5 excavation will be excavated to 10 feet bgs and is approximately located as shown on Sheet C103.” The unsaturated and saturated soil materials exceeding the TCLP Screening Value do not line up as shown on Sheets C102 and C103.
8. Appendix B, Section 4. The ACP is modified to include the location of the generator hazardous waste storage area that will be used for less 90 days as being located on the south side of the new parking lot by the water treatment area.
9. Appendix B, Table B-2. The ACP is modified to revise the TCLP Screening Value units from mg/L to mg/kg.
10. Appendix B, Flow Charts B-3 and B-4. The ACP is modified to indicate that only soil confirmation samples from the soil treatment cell, which are sent to the fixed-base laboratory, can be used for determining that the soils “No Longer Contain” a listed hazardous waste.
11. Appendix B, No Longer Contains Determination Form. The ACP is modified to include individual criteria for Industrial Soil RSL and 10X UTS for Soil for m-xylene and p-xylene separately as listed in Table 1 of the ACP or to state the criteria for total xylenes as listed in Table 1 of the ACP. A revised No Longer Contains Determination Form should be submitted to Ohio EPA for approval within 30 days of the ACP approval or prior to implementation of the soil removal activities at the facility.
12. Appendix B, No Longer Contains Determination Form. The ACP is modified to revise the last sentence underneath the table from “Ohio EPA’s signature on the form represents a concurrence with the Facility that the soil no longer contains a

hazardous waste” to “Ohio EPA’s signature on the form represents an acknowledgement that the soils data meet the criteria in the form, as well as in the ACP, and through the Ohio EPA’s approval of the ACP, soils meeting the criteria no longer contain a hazardous waste.”

13. Appendix D, Section 1.1. The ACP is modified to add the following sentence, “A revised risk assessment work plan and demonstration will be submitted to Ohio EPA for review and approval after the soil removal action is complete.”
14. Appendix D, Section 2.5.1. The ACP is modified to revise the first sentence of the last paragraph to “The cancer risks are added across all site-specific carcinogenic chemicals and all relevant exposure pathways to calculate cumulative (total) cancer risk.”
15. Appendix D, Section 2.5.2. The ACP is modified to revise the first sentence of the first paragraph to “Noncancer health effects are evaluated based on a Hazard Quotient (HQ) for individual chemicals. The noncancer health effects are then added together for all site-specific chemicals and all relevant exposure pathways to calculate the cumulative (total) noncancer risk.”
16. ACP Quality Assurance Project Plan (QAPP), Section 3.1.8. The QAPP is modified to revise the first sentence to state “Specific SOPs for soil gas sampling, conducting soil gas surveys, and vapor probe installation will be submitted at a future time.” These SOPs were not included in Appendix A as currently stated.
17. ACP QAPP, Sections 4.0 and 5.2. The QAPP is modified to have Ohio EPA and Brown and Caldwell personnel review specific data validation criteria prior to the submittal of the initial data package for data review. Any agreed to changes of criteria will be incorporated as a field modification to the QAPP and data validation procedures.
18. ACP QAPP, Section 5. The QAPP is modified to remove the last two paragraphs that begin “Data validation will be performed for analyses...” and ends with the last bullet of “waste characterization.” The QAPP is modified to state that “Data validation will be performed for analyses associated with closure activities as described in Section 4.”
19. ACP QAPP, Table 2. The QAPP is modified to remove the Sediment Sampling portion of the Table. Sediment sampling is not proposed as part of the closure activities at this time.

20. ACP QAPP, SOP. The Response to ACP Comments states that SOPs for mobile laboratory and fixed-base laboratory are included as applicable, but no specific SOPs are included. In addition, the QAPP was not revised to include any onsite laboratory specific procedures or limitations. The QAPP is hereby modified to state that an initial laboratory assessment of the onsite mobile laboratory will be conducted by Ohio EPA and Brown and Caldwell personnel. This walk-through will examine sampling and subsampling procedures and a review of onsite mobile laboratory SOPs. After this walk-through, any agreed to modifications of onsite mobile laboratory procedures will be recorded as field modifications and incorporated into the QAPP.
21. ACP QAPP, Rock Sampling SOP. There is no Section 7 in the Rock Sampling SOP, as stated in the Response to Comments. Ohio EPA's comment is based on the representativeness of the selected sample and the need to preserve and crush the rock sample without undue volatilization of waste constituents. The QAPP is modified to state that the rock sampling SOP will be reviewed by Ohio EPA and Brown and Caldwell personnel prior to the verification sampling for the initial batch of treated waste. Any necessary and agreed to modifications will be summarized in a correspondence to Ohio EPA and recorded as a field modification to the QAPP.
22. ACP, QAPP, SOP. Ohio EPA requested the laboratory SOP for sample preparation and analysis of rock samples. While a sample login ID SOP has been included, there is not sufficient detail in the Rock Sampling SOP to demonstrate that VOCs will not be lost in the sample preparation and analysis of rock samples. The Response to Comments states that Section 6.6 of the Rock Sampling SOP includes size reduction steps for indurated soil or rock, however, there is no Section 6.6 in that SOP. Section 5 of the ACP does include steps for size reduction, however, there is no criteria for the final size to be achieved. There is also no information on vapor monitoring or liquid entrapment and containment during size reduction. The QAPP is modified to include preliminary review by Ohio EPA and Brown and Caldwell personnel prior to the initial rock sampling event. This review will determine the need for size reduction and the final agreed to clast size range. The agreed to size reduction will be summarized in a correspondence to Ohio EPA and the field modification will be incorporated as part of the SOP in the QAPP.
23. ACP, QAPP, SOP. The QAPP is modified to include a site Air Monitoring plan. This plan will be submitted to Ohio EPA for approval prior to the operation of the

treatment cell. The plan will include monitoring system parameters for remediation and perimeter air monitoring. Sampling methods and numerical air quality parameter criteria will be included in the plan.