

MARYLAND DEPARTMENT OF THE ENVIRONMENT

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Martin O'Malley Governor Robert M. Summers, Ph.D. Secretary

Anthony G. Brown Lieutenant Governor

July 30, 2012

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Mark Kreafle Deputy Director, Engineering Maryland Port Administration 401 East Pratt Street Suite 1653 Baltimore, MD 21202 Mr. Christopher M. French Manager, Remediation & Evaluation Services Honeywell International, Inc. 101 Columbia Road Morristown, NJ 07962-1139

RE:

MPA/Honeywell - Corrective Measures Alternatives Analysis, Dundalk Marine Terminal, Baltimore,

Maryland

Dear Messrs. Kreafle and French:

The Maryland Department of the Environment ("Department" or "MDE") is writing to advise you of its conclusions regarding two important issues pertaining to the environmental activities being conducted to address the presence of chromium ore processing residue ("COPR") at the Dundalk Marine Terminal ("DMT"). These activities are required under the 2006 Consent Decree between MDE and the Maryland Port Administration ("MPA") and Honeywell International, Inc. ("Honeywell"). This letter sets the conditions for the project's final remedy phase and long-term monitoring.

The Department has completed the review of the January 2011 Corrective Measures Alternatives Analysis ("CMAA") report, submitted on behalf of MPA and Honeywell ("Remediators") by CH2M Hill. The CMAA presents the evaluation of five alternative strategies to address COPR placed at the Site. The purpose of the evaluation is to identify a protective and cost effective remedial strategy. In its CMAA, the Remediators evaluation concluded Alternative 3 is the most effective. In summary, this option proposes the completion of the storm drain relining project and the design and installation of a long-term monitoring and site maintenance plan to assure that discharges of contaminants of concern are positively reduced or eliminated. The Department held a public meeting on February 3, 2011, and received verbal and written comments on the five alternatives proposed in the CMAA. The majority of public comments are in support of Alternative 3. After considering the public comments received on the proposed remedy and after its own review and consideration of the technical documents submitted as part of the Consent Decree, MDE accepts the selection of Alternative 3 as the proposed remedy for the Site with the following specific conditions. The Department held a follow up public meeting on July 19, 2012, to announce its selection of Alternative 3 as the proposed remedy for the Site with specific conditions.

Over the past two years, the Remediators have been involved in a pilot project to reline the storm drains located at DMT. The relining of the storm drains is a key component of the CMAA Alternative 3. Based on the positive pilot project results, the Department approves and directs the Remediators to complete the relining of all storm drains that run through the affected area which have been previously identified.

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As an additional condition to Alternative 3, once the relining project is complete, the Department requires that the Remediators shall submit for approval a comprehensive groundwater monitoring plan. Once the plan is approved, the Remediators shall install new monitoring wells and conduct groundwater quarterly sampling for a minimum of a three—year period. The objective of the multi-year sampling program is to determine whether further review of the groundwater discharging from the site is needed and whether the overall containment is effective. The groundwater monitoring system will consider the horizontal and vertical distribution of the groundwater flux along the downgradient boundary of COPR area. Multilevel groundwater monitoring wells placed with an acceptable spacing shall be installed in high permeability zones along the unprotected bank of the Patapsco River and beyond. The Remediators must also maintain other interim measures that are in place, such as a ground surface cover system, monitoring of drinking water, current groundwater monitoring, and air monitoring around the site perimeter and any excavation on the affected areas.

In its description of this option, as well as the other four remedial alternatives, the Remediators submitted studies indicating that any discharges of hexavalent chromium (Cr+6) are reduced in the environment to trivalent chromium (Cr+3). The natural attenuation within the Patapsco River environment, even if occurring, should not be included to serve as a component of the overall remedial strategy and serve as the de facto treatment system.

The Department has considered all the alternatives described in the CMAA. Although Alternative 3 is protective of public health and the environment, the Department believes that there are some questions related to groundwater flux that will need to be answered after the full long-term groundwater monitoring system is in place. Based on the groundwater monitoring data, the Department may require that Alternative 3 be amended in the future to include additional actions to hydraulically contain COPR, including but not limited to the construction of a hydraulic barrier and/or other effective measures surrounding the COPR impacted area, without excavation and removal of any COPR.

The Department requires that the Remediators submit for review and approval the following items within 90 days of receipt of this letter:

- 1. An implementation schedule for completion of the relining of the storm drains; and
- 2. A conceptual long-term groundwater monitoring plan.

Should you have any questions or comments regarding this matter, please refer them to me at (410) 537-3437 or by e-mail at jearroll@mde.state.md.us.

Sincerely,

James R. Carroll, Program Manager

Land Restoration Program

cc: Horacio Tablada, Director, Land Management Administration Matthew Zimmerman, Esq., Assistant Attorney General