



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

Ref: 4WD-SRB

APR 18 2012

Via Delivery as Email-attachment to (Prashant.gupta@honeywell.com)

Mr. Prashant K. Gupta  
Honeywell, Inc.  
4101 Bermuda Hundred Road  
Chester, Virginia 23836

Re: Review of Preliminary Responses to EPA's Disapproval of the Draft Remedial Investigation Report for OUI (Estuary): LCP Chemicals Superfund Site, Brunswick, Glynn County, Georgia

Dear Mr. Gupta:

The U.S. Environmental Protection Agency has reviewed Honeywell International, Inc.'s (Honeywell's) April 6, 2012 letter, which contains preliminary responses to EPA's February 29, 2012 compilation of the EPA's and Georgia Environmental Protection Division's (GAEPD) comments on the company's December 2011 draft of the Remedial Investigation (RI) Report for the Estuary (OUI). As all the parties anticipated, although many of responses to the EPA's comments confirm the agreed-upon path for resolving the issues identified, the EPA and the GAEPD will need to see the actual wording to ensure all the comments have been sufficiently addressed. In the meantime, I am pointing out some questions about several responses which will have to be addressed or clarified in the revised draft version of the RI Report Honeywell will be submitting within 30 days of receipt of this letter.

#9. The response mentions ENVIRON's conservative calculations for estimating flux of mercury via groundwater transport. This statement is not entirely accurate, since the range of permeabilities used by ENVIRON were from the low range reported in the 1997 draft RI Report. As mentioned by the EPA during the March 29, 2012 meeting, the 1997 draft RI Report discusses seven falling head permeability tests which were conducted on marsh clay. Six of the clay samples had vertical permeabilities ranging from  $1.3 \times 10^{-7}$  to  $1.8 \times 10^{-8}$  centimeters per second (cm/s), the values used in ENVIRON's preliminary estimate. The seventh clay sample measured  $1.3 \times 10^{-4}$  cm/s, due to its higher sand content. A truly conservative approach would have been to somehow incorporate the  $1.3 \times 10^{-4}$  cm/sec value. The preceding pertains only to the marsh clay. Mercury has been detected in the underlying Upper and Lower Satilla monitoring wells completed in the marsh. The 1997 draft RI Report reported an average (geometric mean) hydraulic conductivity in the immediately underlying Upper Satilla sand of  $1.0 \times 10^{-2}$  cm/s. The Lower Satilla sand was reported to have an average hydraulic conductivity of  $9.5 \times 10^{-3}$  cm/s.



In addition, the concentrations used by ENVIRON to estimate the mass of mercury flux into the estuary did not reflect some of the higher mercury concentrations historically detected in the marsh Satilla sand wells. For example, monitoring wells MW-306 A and B have had mercury concentrations of 100 and 91 micrograms per liter, respectively. Note that MW-306A has not been sampled since 1996. Similarly, the most recent sampling of MW-306B was 2010.

#15. The revised RI Report will expand the discussion of solids transport and how such transport is expected to have influenced the current spatial distribution of contaminants of concern (COCs) in the estuary. The response does not specify exactly how the discussion of sediment fate and transport will be reworded. As mentioned above, the revised redline text will have to be reviewed in order to determine if the EPA and GA EPD concur. The EPA agrees with the statement in the response that, "Stability information pertains to remedies and, thus, is an FS topic rather than an issue to be addressed in the RI report." While the agency agrees that the discussion of stability in the context of selecting a remedy belongs in the feasibility study (FS), it does not agree that sediment stability is not an appropriate and important topic to discuss in the RI Report. OU1 is a large area where bioaccumulation of contamination in fish and other biota occurs over a wide area and where ongoing sediment erosion and transport may continually spread the contamination within the marsh, increasing the future risk. Natural recovery has not been observed at this Site. Further, the concentrations in biota or sediment have not attenuated over time.

#16. The EPA will need to review the new section on mercury methylation to determine whether it can concur with the content.

#20. When it comes to biological transport of contaminants in the estuary, the preliminary proposed resolution is to refer the reader to the Baseline Ecological Risk Assessment (BERA) finalized by EPA. The transport of contaminants via migration of fish between the Site and the Sapelo Island National Estuarine Research Reserve is a potential pathway of exposure to humans and wildlife. Fish migrate in and out of the Site. Exposure to site-related contamination can occur over a wide area due to transport via migration of biological organisms. The EPA believes that this process is important enough to be discussed in the RI Report.

#22. The response mentions that the impacts of groundwater migration have "now been quantified." However, the response to comment #9 says that work on impacts to groundwater migration is ongoing. The response to comments #9 is accurate.

#35, #36, #48 & #49. The EPA will have to review these sections of the revised draft RI Report in order to determine if it can concur with the revised language.

#45. It is unclear how the response to # 37 will address this comment, since these two comments, though related, pertain to two different sections of the RI Report.

#53. Honeywell's response to comment #53 is the same as its response to comment #24 even though the two comments have nothing in common. As described in the BERA, the RI needs to acknowledge that there are localized risks to wildlife within areas of the estuary that are largely

based on the spatial distribution of COCs in the sediment. Then, it is expected that the FS will evaluate remedial options that can target those areas contributing to most risks.

If you have any questions regarding the preceding, please contact me at (404) 562-8937.

Sincerely,

A handwritten signature in black ink, appearing to read "Galo Jackson". The signature is written in a cursive style with a large initial "G".

Galo Jackson, P.G.  
Remedial Project Manager  
Superfund Remedial Branch

cc: J. McNamara, EPD