



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

Ref: 4WD-SRB

MAR 09 2011

Via Delivery as Email-attachment to Prashant.gupta@honeywell.com and Certified Mail

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

Re: Disapproval of December 30, 2010 Draft Work Plan for Sampling in the Former Brunswick-Altamaha Canal, South of the LCP Chemical Site, Brunswick GA

Dear Mr. Gupta:

Below are comments developed on the referenced draft Work Plan for sampling of the former Brunswick-Altamaha Canal. EPA is directing Honeywell International, Inc. (Honeywell), pursuant to Section VIII of the 1995 Administrative Order on Consent (AOC) for Remedial Investigation Feasibility Study, EPA Docket No. 95-17-C (AOC for RI/FS), to submit a revised Work Plan for Sampling in the former Canal within 21 days of receipt of this letter.

### **General Comment**

The portion of the former canal owned by Glynn County is about 5,800 feet (ft) long, based on the Glynn County GIS maps available online. The length of the canal on the Brunswick Cellulose, Inc. property is about 1,000 ft. Please add sampling locations to the area between the northern limit of the Altamaha Canal on Glynn County property, shown on Figure 2 of the draft Work Plan, and the southern boundary LCP Site (parcel I.D. 03004612, ref. 007800000001). Recognizing that this will require sampling on Brunswick Cellulose, Inc. property, note that Section XI(B) of the AOC requires that Honeywell make efforts to obtain access. In the event that access is denied, EPA may then assist Honeywell in obtaining access.

Please specify the number of samples to be analyzed for the parameters listed on page 7. Given the approximate lengths of the canal mentioned above, our estimate of the number of composites to be analyzed is 21.

### **Specific Comments**

#### Section 2.1.1, page 5-6, Canal Sediment Sampling

For samples nearest the LCP Site property boundary (parcel I.D. 03004612 and ref. 007800000001), please change the 1,000 ft canal segment length for each composite sample to every 300 ft.

The figure on page 5 of the draft document shows the four sediment samples from the intertidal mudbank as coming from the each end of the 1,000 ft span. Please change the location of these four intertidal sediment samples so that they are collected away from the end and further towards the center of the span. This prevents the samples from being close to the next 300 ft span.

The Work Plan proposes to composite sediment samples collected from both the intertidal mudbank and from sediment below the low tide water level. Based on the recommendations of EPA Regional risk guidance, humans will have significant contact with, and incidentally ingest, only sediments that are not covered by water (EPA 2000). Following this guidance would exclude the samples from below the low tide water level, and would assess the mudbank sample data based on the times when the water is at low tide levels. In the interest of more fully characterizing the canal sediments, however, EPA concurs with compositing the samples, as proposed. The possible underestimation (could also be overestimated) of the “direct contact” concentration would be countered by the conservative approach of using a residential soil RSLs to screen the data.

Locations where nets or traps will be set up should be shown on the figure shown on page 5.

#### Section 2.2, page 6, Fish Tissue Sampling

Several species of fish are targeted. The plan should focus on either the fish that are popular with local fishers or on species that were shown to accumulate the most contamination in the OUI (Estuary) baseline ecological risk assessment. Striped mullet were shown to accumulate the most PCBs. Silver perch and spotted seatrout were good bioaccumulators of mercury. The question that is being investigated by sampling the particular set of fishes should be clarified.

#### Section 2.3, page 7, Analytical Methods table

Method 1631E is not an SW-846 method. Please use 7471B, “Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)”. In addition to the parameters listed on the Analytical Methods table, please add the analysis dioxin/furans analyses by the methods prescribed in EPA’s Contract Laboratory Program Statement of Work.

Please add analysis of methylmercury, since the mercury in shrimps and crabs may be in its methylated form.

#### Section 3.1.2 p.8, Fish Sampling Procedure

The text should explain how the data will be evaluated to determine whether there is a risk. There should be some explanation as to why three samples of each fish species will be sufficient to address the question, which has not been fully articulated.

The following are taken from the November 2000 Guidance for Assessing Chemical Contaminants Data for Use in Fish Advisories.

- Place fish or crabs from the same station in a clean water proof bag before putting them on ice to prevent cross-contamination. Fish from multiple stations can be put in the same cooler as long as they are in their own bags;
- Make sure coolers, nets, filleting equipment, and bags are clean;
- Fish should be processed or frozen within 24-48 hrs of collection;
- The smallest size fish in a composite should equal 75% of the total length of the largest fish in a composite;
- Instrument should be washed with a detergent solution, rinsed with tap water, rinsed in isopropanol, and finally rinsed with organic free distilled water. Nitric Acid is not used for instrument preparation if stainless steel is being used; and
- Fish or crabs should stay frozen or partially frozen throughout the entire tissue preparation process.

Section 3.3.2 p. 9, Sample Shipping

It is not necessary for field personnel to call the analytical laboratory to see if the samples have arrived. This can be done by tracking the shipments online or the laboratory usually will call the project leader if there are issues.

Section 3.4 p. 11, sample Equipment Decontamination

Nitric acid should not be used in the field to decontaminate field equipment.

Section 4.2, page 12, Field QC Samples table

The Field Duplicate section references “sediment” collection, and goes on to state that, “One duplicate will be collected for each matrix.” Will a duplicate be taken of any tissue sample?

Equipment rinsate blanks: The section reads, “...shall be analyzed for all laboratory analyses requested for water environmental samples collected on that day.” Are sediment samples “water environmental” samples?

Please specify the method of labeling the QA/QC samples.

Section 5.2.2, page 14, “Field Sampling Logs”

Why are examples of field activities that will not be conducted and parameters that will not be measured included? Specifically why are the following included:

- “water level measurement logs”
- “water sampling logs”
- “field parameters (e.g., temperature and dissolved oxygen)”

Section 6.1, page 16, “Data Evaluation”

Given the large area over which the samples are collected for compositing, the investigation appears to be a screening level evaluation. This is the case, even given the reduced area over which samples are recommended for compositing by the Agency for Toxic Substance and Disease Registry (enclosed). In a screening level evaluation, the presence of contaminants at almost any level would require additional investigation to ascertain a more accurate assessment of the nature and extent of contamination. Please expand this section to explicitly state how the data will be disaggregated over the composited areas and how the data will be evaluated (i.e., at what contaminant level will additional investigation be required). Since it is likely that some level of contaminants will be found during this screening level evaluation, also include a brief discussion of the potential next phase of investigation.

Part of the section reads, “...*the fish travel the entire Turtle River estuary and are subject to other industrial sources, and therefore it cannot be assumed that their chemical uptake occurs in the Altamaha Canal.*” This definitive statement is not supported by data, thus please either include the supporting data or revise the text. The text could be revised to read, “...*the fish likely travel other sections of the Turtle River estuary and would thus be subject to other industrial sources; therefore their chemical uptake likely occurs from other portions of the estuary in addition to the Altamaha Canal. If contaminant levels in fish tissue exceed risk-based levels, the origins of the contamination may be further investigated.*”

Section 6.2, page 17, last bullet

Given the issues that have arisen regarding detection limits in other operable units, we recommend using the detection limit as “Result” and “U” as the “Result Modifier”/data qualifier.

Figure 1

Figure 1 is incomplete. The LCP Site and the canal are not identified and there is no legend.

Appendix A

The protocol for fish collection from the canal states that as target species are caught, they are to be transferred into a sample cooler with wet ice. Those specimens not needed for analysis are to be released on site. Please add detail on how appropriately-sized fish will be collected and placed in the cooler, as opposed to being released. For example, if the field staff selected smaller fish for analysis and released larger fish, this could bias the concentrations of contaminants to lower concentrations.

Please add a section to ensure that the field staff is trained in how to recognize various species and what to do if species are captured that are not on the list.

Please specify that photographs of each fish collected will be taken so that the species may be confirmed. This will allow confirmation of the field work in the lab as specimens are combined and will help to avoid mixing more than one species in a composite sample.

If baited traps are used and the fish or crabs will be ingesting the bait, please have a sample of the bait analyzed.

Appendix B

- What is the basis for the Regional Screening Levels (RSL) shown for lead? Since lead is evaluated uniquely by EPA, there is no need to adjust the RSL. EPA's recommended screening level is 400 mg/kg;
- The non-cancer RSL for 2-methylnaphthalene should be adjusted downward by a factor of 10. This results in an RSL of 31,000 µg/kg, rather than 310,000µg/kg;
- The fish tissue RSL for lead was not obtained from the fish ingestion table (Nov. 2010). A reference or basis for the proposed screening level should be provided;
- The adjusted fish tissue RSL for mercury is reported in µg/kg, but the concentration listed is actually mg/kg. Please report the method reporting limits (MRLs), method detection limits (MDLs) and RSLs in the same units. Since all fish tissue RSLs are reported in mg/kg, it is recommended that these units be used;
- What is the basis for the RSL shown for Mercury? (the RSL listed in this table for Mercury is 0.014 ug/kg; the current fish tissue RSL (adjusted to HQ = 0.1) for Methyl Mercury is 13.5 ug/kg [EPA 2010]);
- "NA" is not defined;
- For the Aroclors lacking RSLs, the RSLs for Aroclor 1254 can be used to screen the data; and
- For PAHs lacking RSLs, the RSLs for pyrene can be used to screen the data.

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

Sincerely,



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

enclosure

cc: J. McNamara, Georgia EPD

## References

EPA 2000 Guidance for Assessing Chemical Contaminant Data for use in Fish Advisories: Volume 1 [<http://www.epa.gov/earth1r6/6pd/qa/qadevtools/mod4references/supplemental/volume1.pdf>]

EPA 2000. Supplemental Guidance to RAGS: Region 4 Bulletins, Human Health Risk Assessment Bulletins. EPA Region 4, Website version last updated May 2000. [<http://www.epa.gov/region4/waste/oftecser/healthbul.htm>]

EPA 2010. Regional Screening Levels for Chemical Contaminants at Superfund Sites [[http://www.epa.gov/reg3hwmd/risk/human/rb-concentration\\_table/index.htm](http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/index.htm)], updated November 2010.

ATSDR comments on "Draft Work Plan for Sampling in the Former Brunswick-Altamaha Canal, South of the LCP Chemicals Site, Brunswick, GA, Operable Unit 1.

1. For samples nearest the LCP Site property boundary, change the 1,000 ft length for each composite sample to every 300 ft.
2. Consider adding sampling locations to the area between the northern limit of the Altamaha Canal and the LCP site boundary.
3. The figure on page 5, shows the 4 sediment samples from the intertidal mudbank as coming from the each end of the 1,000 ft span. Change the location of these 4 intertidal sediment samples so that they are collected away from the end and further towards the center of the span. This prevents the samples from being close to the next 300 or 1,000 ft span.
4. The protocol for fish collection from the canal states that as target species are caught, they are transferred into a sample cooler with wet ice and those specimens not needed for analysis are released on site. Consider adding instruction for how to select appropriate sized fish to be placed in the cooler versus being released. For example, if the field staff selected smaller fish for analysis and released larger fish, this could bias the concentrations of contaminants to lower concentrations.
5. Consider adding statements to ensure that field staff are trained in how to recognize various species and what to do if species are captured that are not on the list.
6. Consider taking photos of each fish collected so that the species can be confirmed. This will allow confirmation of the field work in the lab as specimens are combined and will help to avoid mixing more than one species in a composite sample.