Short-term Operations Plan for Collection of Bulk Quantity CBP Liquid in Support of a Pilot-scale Treatability Evaluation with Water Recovery Inc. (WRI)

June 3, 2011

Overview

Honeywell, will be implementing a pilot-scale treatability evaluation with a commercial wastewater treatment facility, Water Recovery Inc. (WRI) located in Jacksonville, Florida. This work scope was presented in the *Work Plan for the Development, Design, and Implementation of Conventional Treatment Measures to Enhance the Existing Caustic Brine Pool (CBP) Remedy at the LCP Chemicals Site* approved by the EPA on May 16, 2011.

Scope of Work

The scope of work involves extraction of approximately 20,000 – 40,000 gallons of CBP liquid per week (1-2 tanker trucks per day; 4 day onsite work week) and delivery of the CBP to WRI for treatment. It is anticipated that early in the treatability study program, extraction will be on the low end of the range (i.e., 4 tanker trucks per week) and will scale up over the course of the 3 -4 month treatability test program duration.

EPA has certified WRI for a 60-day period for the treatment of the CBP. Honeywell will work with the EPA throughout the program for re-certifications as needed.

Operational Plan

There are two large capacity (~17,000 gallons) holding tanks at the site for use in this study. For the purpose of this treatability test, the holding volume in each tank will be limited to 2-3 tanker trucks (approximately 10,000 - 12,000 gallons) to allow for sampling and verification of the CBP profile as non-hazardous liquid (see section below on sampling plan).

Each CBP extraction well is individually controlled and monitored by the programmable logic controller (PLC). Previous experience during the November 2010 single batch WRI treatability test has shown that a non-hazardous characteristic liquid can be achieved through extracting an equal volume from the extraction wells EW-1 through EW-5, and EW-7 through EW-12, while EW-6 (the most concentrated CBP well) is pumped to yield half the volume of any of the other wells. Operationally this 3-4 month treatability test will be different in that extraction will be performed on a more routine basis (not one single batch). Recent re-development and step drawdown testing in the 12 extraction wells shows that some of the wells, including EW-6, are capable of yielding only a modest amount of water before drawdown becomes excessive to the point of reaching the well screen (prolonged exposure of the sand pack outside the screen likely would result in

mineralization and reduced well efficiency). The pumping schedule shown in the table below was developed on the basis of maintaining a drawdown above the top of well screen, and also to take advantage of higher yield wells in order to set extraction rates where the desired tank volume can be attained in one working day. It is understood that modifications to this pumping schedule may be made in the course of the 3-4 month test period as more data is collected.

Treatability Study Pumping Schedule

Well	Extraction Rate	Hrs	Vol. (gal)
EW-1	0.5	7.5	225
EW-2	3.0	7.5	1350
EW-3	3.0	7.5	1350
EW-4	3.0	7.5	1350
EW-5	3.0	7.5	1350
EW-6	0.5	7.5	225
EW-7	3.0	7.5	1350
EW-8	3.0	7.5	1350
EW-9	1.0	7.5	450
EW-10	3.0	7.5	1350
EW-11	3.0	7.5	1350
EW-12	0.5	7.5	225
		Total:	**11,925**

The anticipated weekly operational routine will be as follows:

Day 1 begin filling Tank #1

Day 2 complete filling Tank #1 (as needed); obtain sample and send to lab; begin filling Tank #2

Day 3 complete filling Tank #2; obtain Tank #2 sample

Day 4 complete laboratory testing

Day 5 review laboratory testing results; prepare for shipping Day 1 on the following week.

Sampling Plan

During the early phase of the treatability test program, a sample will be obtained from each tank and submitted for laboratory analysis for mercury (SW 846 Method 7470A) and pH. TestAmerica in Savannah, Georgia will be utilized and a 2-day turn around time will be applied. The laboratory will be required to report test results by Day 5. In the unlikely event a sample result shows the CBP liquid to be over the non-hazardous characteristic condition, more CBP fluid will be added to the affected tank to ensure that the bulk liquid is non-hazardous. A second sample would be collected in such instances and analyzed by the laboratory to ensure that the CBP liquid is non-hazardous.

Data Evaluation and Reporting

Honeywell will include information related to this treatability test as a supplement to the Monthly Status Report for the CBP Removal Action. The supplemental reports will include operational data (extraction volumes for each Extraction Well), laboratory test results of the bulk liquid samples from the tanks, and compliance test results from WRI for their treated effluent.