

APPENDIX C

I. INTRODUCTION

This Statement of Work (“SOW”) describes a number of design-related elements for the implementation of the remedial activities required by the Consent Decree.

II. DEVELOPMENT OF DREDGING AREAS AND VOLUME

Honeywell shall dredge as much as an estimated 2,653,000 cubic yards of sediments and/or waste material from the littoral zone of Onondaga Lake (“Dredge Volume”). All dredging required for Onondaga Lake is included in this Dredge Volume.

Honeywell shall submit a remedial design for dredging of sediments and/or waste material in Onondaga Lake. Specific dredging locations and volumes shall be determined using the various criteria set forth in the ROD (“Dredging Design Principles”), including those described below. The Dredging Design Principles shall be evaluated independently and separately for each sediment management unit (“SMU”); for example, additional dredging will not be required in one SMU solely as a result of a dredge volume in any other SMU that is less than estimated in the ROD.

In-Lake Waste Deposit (ILWD) -- Honeywell shall dredge sediments and/or wastes from the ILWD in SMU 1 to an average depth of 2 meters, provided, however that in areas where the ILWD is less than 2 meters thick, dredging depth will be determined by the thickness of the ILWD. This approach will also be used in SMUs 2 & 7 for those areas where ILWD is present. For purposes of added clarity, the Parties agree that nothing in this Paragraph will impact the dredging depths, locations or volumes required pursuant to any of the other Dredging Design Principles.

Geotechnical Stability -- Honeywell shall dredge material from the ILWD if necessary to ensure the geotechnical stability of the Isolation Cap. The determination of geotechnical stability shall consider both static and seismic stability of the ILWD. The determination of seismic stability shall be based on an analysis of cap stability during an operating level event (i.e., a seismic event with a 50 percent chance of exceedance in 50 years) and a contingency level event (i.e., a seismic event with a 10 percent chance of exceedance in 50 years). If the analysis of geotechnical stability demonstrates that the remediated slope would have an operating and/or contingency seismic slope stability factor of less than 1.1, Honeywell shall evaluate the deformation of the cap and the ILWD under the seismic event. If the analysis of the geotechnical stability demonstrates that the remediated slope would have a static slope stability factor of less than 1.5 or if the predicted operating and/or contingency seismic deformation would compromise the performance of the isolation cap, Honeywell shall dredge sufficient material from the ILWD to ensure the geotechnical stability of the Isolation Cap, provided, however, that Honeywell may propose alternative engineering measures to ensure the ILWD is not exposed. If a seismic event occurs that exceeds the operating and/or contingency criteria stated herein, or if there is an event that has the potential to cause damage to the cap, Honeywell shall timely inspect and repair any damaged portions of the Isolation Cap. Should any event result in the migration of wastes and/or contaminated materials beyond the

limits of the Isolation Cap, Honeywell shall remediate those materials in a timely manner as well.

Littoral Zone Habitat Related Dredging -- Honeywell may propose to place the Isolation Cap in areas of the littoral zone without dredging. The DEC will approve the proposal, if appropriate, provided that it is consistent with the findings of the remedial design elements for the habitat restoration plan, the requirements of the ROD, and the 6 NYCRR Part 608.8 standards.

SMU 2 Non-Aqueous-Phase Liquids (NAPLs) -- As part of the Willis/Semet Interim Remedial Measure (IRM) hydraulic containment system, a barrier wall will be installed in the lake offshore from the causeway to isolate any shallow sources of NAPL. The location and alignment of the barrier wall shall be based on data collected during the Spring 2006 NAPL sampling program and will ensure that shallow NAPL can be contained by the wall. The anticipated location of the barrier wall is depicted on Figure 1, attached hereto. Based upon pre-design sampling and analysis, Honeywell shall design, install and operate NAPL recovery wells in the vicinity of the existing shoreline NAPL recovery system and the barrier wall. NAPL recovered from these wells shall be transported off-site for treatment and disposal. Dredging for NAPLs shall not be required in the area of SMU 2 landward of the barrier wall. For purposes of added clarity, the proceeding sentence will not impact the dredging depths, locations or volumes required pursuant to any of the other Dredging Design Principles.

The design document for the Willis/Semet Barrier IRM shall include specifications for construction of a lakeshore area between the causeway and the barrier wall which shall be constructed concurrent with the IRM. The design document for remediation of SMU 2 shall include specifications for construction of a shoreline lakeward of the barrier wall that is consistent with the lakewide habitat restoration plan (“Remedial Design Elements for Habitat Restoration document”). The construction of the shoreline shall be completed as the final step of the SMU 2 remediation.

Honeywell shall replace aquatic habitat lost as a result of the Willis/Semet IRM and/or SMU2 NAPL containment described above (Compensatory Mitigation). The design document for the Willis/Semet IRM shall include conceptual design information for the construction of a Compensatory Mitigation project. The conceptual design shall be consistent with the lakewide habitat restoration plan (i.e., the “Remedial Design Elements for Habitat Restoration” document). Within 6 months of receipt of the DEC’s comments on the conceptual design submittal, Honeywell shall submit a detailed design including a proposed schedule for implementation of the Compensatory Mitigation project. Construction of the Compensatory Mitigation project shall be in accordance with the Department-approved design, which design shall include an implementation schedule.

III. ISOLATION CAP AREAS, MODELS & COMPONENTS

Honeywell shall design and install an Isolation Cap in the littoral zones of Onondaga Lake based upon the areas designated in the ROD for placement of a cap and the pre-design investigation. The Isolation Cap shall consist of a mixing layer, a chemical isolation layer, an

erosion protection layer (to the extent needed), a habitat layer and a safety layer, as set forth in the ROD. The habitat layer shall have a minimum thickness of 12 inches and shall be constructed of suitable habitat material. The appropriate thickness of the habitat layer shall be determined during the development of the comprehensive lakewide habitat restoration plan. Except if necessary to meet the minimum thickness requirement, the habitat layer shall not exceed the thickness needed to provide suitable habitat for plant and animal species typical of central New York State and to allow the viability of the littoral zone as a resource for humans and biota as provided in 6 NYCRR Part 608.7.

As provided in the ROD, a thin layer cap in lieu of the Isolation Cap may be appropriate in some depositional portions of the littoral zones in water depths between 6 to 9 meters. Honeywell may propose the use of a thin layer cap in these areas as part of its remedial design. If so, DEC would perform a technical evaluation of the proposal to determine if the use of a thin layer cap in this area would be effective at isolating the contaminated sediments consistent with the criteria in the ROD.

IV. PROFUNDAL AREA (SMU 8)

Honeywell shall design and install a thin-layer cap (“TLC”) in the profundal area of Onondaga Lake as set forth in the ROD.

Honeywell shall conduct a study (which may include the performance of a nitrification pilot study as determined by DEC) to determine if nitrification would effectively reduce the formation of methyl mercury in the water column while preserving the normal cycle of stratification within the lake. If DEC determines that nitrification is effective and appropriate based upon the results of this study, this will be documented in an ESD, and Honeywell shall be required to implement a nitrification program in lieu of oxygenation. If DEC determines that nitrification is not effective and/or appropriate, Honeywell shall conduct an oxygenation pilot study and implement oxygenation as provided in the ROD.

V. MANAGEMENT OF DREDGED SEDIMENTS

As provided in the ROD, Honeywell shall dispose of the majority of sediments dredged from Onondaga Lake in a Sediment Consolidation Area (“SCA”). The SCA shall be constructed on Solvay Wastebed 13, located south of Ninemile Creek and west of Geddes Brook. Honeywell shall design, operate and maintain the SCA in accordance with the substantive requirements of NYSDEC Regulations Part 360, Section 2.14(a) (industrial monofills). The SCA shall have the following elements:

Impermeable Liner -- Honeywell shall design and install an impermeable liner system. The grading design for the SCA shall utilize the existing surface topography of Wastebed 13 as much as possible so as to limit wastebed cut and fill requirements and the associated need for a large volume of imported soil fill. Preloading and stabilization of the wastebed shall only be required to the extent necessary to ensure the integrity of the SCA components and underlying Solvay waste foundation, based upon the remedial design.

Leachate Collection -- The impermeable liner shall be overlain by a leachate collection system. The type of system will be determined during Remedial Design.

A laterally-transmissive sand or geosynthetic liquid collection layer may be considered by DEC for inclusion in the system. The system shall convey leachate by gravity drainage to collection sumps where the leachate will be pumped via force main to a water treatment plant.

SCA Cover -- The SCA cover shall be designed pursuant to applicable regulations and guidance including the U.S. EPA Alternative Cover Assessment Program (“ACAP”). If appropriate based upon the Remedial Design, the SCA cover may utilize a soil layer and ecological plant community to produce evapotranspiration rates sufficient to reduce precipitation infiltration rates to acceptably low levels.

NAPL Collection and Offsite Treatment and/or Disposal-- Dredged material that may contain NAPLs shall pass through an oil/water separator. NAPLs that collect on the water surface within the oil/water separator, or that are otherwise collected, will be separated and collected for offsite treatment and/or disposal. In addition, the SCA liner and leachate collection system shall be designed and operated to collect for offsite treatment and/or disposal any NAPL present in the SCA leachate.

VI. WATER TREATMENT PLANT (WTP)

Water from the processing of dredged sediments and/or wastes shall be treated and discharged back into the Lake, or other location if proposed by Honeywell and approved by DEC. Honeywell shall submit a remedial design for a WTP to treat this water prior to discharge. The discharge limits shall be determined by the DEC during the Remedial Design in accordance with the Department’s established guidance and regulations, provided, however, that the discharge limit for mercury shall be 0.2 ug/l.

The following constitutes Available Treatment Technologies for the WTP: (i) primary settling, (ii) addition of flocculants, (iii) secondary clarification, (iv) multi-media filtration, (v) granular activated carbon adsorption, (vi) ultrafiltration, (vii) sulfur-impregnated granular activated carbon adsorption, and/or (viii) technologies or processes needed to meet discharge limits for ammonia, phosphorous and BOD (including dechlorination if ammonia is removed by breakpoint chlorination processes). As part of the Remedial Design, Honeywell shall conduct a pilot study of some or all of the Available Treatment Technologies to determine the most cost-effective technology (or combination of technologies) available to achieve the discharge limits. This pilot study shall include dredge water from combined areas to ensure that the treated water is representative of the average anticipated conditions for the WTP.

At the conclusion of the Pilot Study, Honeywell shall submit for DEC approval an engineering report detailing the Available Treatment Technologies it proposes to be implemented for meeting the established discharge limits. The engineering report shall also include proposed methods to optimize performance of the WTP including staging of dredge locations, staging of flow from the SCA to the WTP, staging of water discharge, and water discharge techniques. Honeywell shall have reasonable discretion to determine the appropriate treatment technology or technologies for the WTP, provided that Honeywell is able to demonstrate to DEC that its proposed design (including any applicable optimization methods) will meet the discharge limits on a rolling four-week average. Honeywell may propose alternative water treatment approaches, provided, however, that no technologies or approaches

other than Available Treatment Technologies shall be utilized or required except upon the mutual consent of the Parties.

Prior to startup, Honeywell shall submit for DEC approval an Operation and Maintenance (O&M) Manual for the WTP. Upon startup of the WTP, a DEC approved treatability study shall be performed by Honeywell to evaluate the ability of the WTP to meet the discharge limits (“Treatability Study”). The Treatability Study shall include data from the first dredging season of operation. Should the Treatability Study indicate that the WTP is not capable of meeting the discharge limits (on a rolling four-week average), DEC may require the installation and operation of additional Available Treatment Technologies or the enhancement of such technologies if they are already included, taking into consideration among other factors those set forth in the ROD, *e.g.*, compliance with ARAR’s, remedial action objectives, overall protectiveness of public health and the environment, and cost effectiveness. During the Treatability Study, exceedances of the discharge limits shall not constitute a violation of the Consent Decree provided that Honeywell is maintaining and operating the WTP consistent with the approved WTP O&M Manual including adjustments to the WTP that are intended to eliminate the exceedances. The WTP O&M Manual shall include, among other requirements for the Treatability Study, a requirement that Honeywell shall implement the applicable provisions of the Remedial Program Contingency Plan (“RPCP”) if one of the following triggers occur after the first four months of the Treatability Study: (i) six or more exceedances of a specific pollutant discharge limit or (ii) four consecutive exceedances of a specific discharge limit. If the RPCP is necessary during the Treatability Study, DEC will consider the results of the RPCP in its evaluation of the Treatability Study.

This paragraph shall apply subsequent to the Treatability Study. For purposes of compliance with the Consent Decree, discharge limits shall be met on a rolling four-week average basis to be calculated as the arithmetic mean of the most recent four weeks of discharge data, exclusive of an annual two-week “shake down” period at the start of each dredging season. In the event that the WTP exceeds any discharge limit (on a rolling four-week average basis) during the operation of the plant, Honeywell shall take all applicable measures set forth in the RPCP. Among other things, the RPCP will set forth Honeywell's obligations for confirmatory sampling and corrective actions. If Honeywell is in compliance with the RPCP, an exceedance of a discharge limit shall not constitute a violation of the Consent Decree, provided, however, that if there is an exceedance of a discharge limit after Honeywell has implemented all applicable aspects of the RPCP (*i.e.*, all elements of the RPCP that are designed to achieve compliance with the discharge limits), the exceedance shall constitute a violation.

VII. DESIGN AND CONSTRUCTION SCHEDULE

Honeywell shall make good faith efforts to design and construct the Remedial Program on an accelerated basis utilizing, where appropriate, a Design/Build approach, expedited sampling and analysis, and pre-design and construction of critical path components (*e.g.*, the SCA). The Parties shall make good faith efforts to design the Remedial Program (including actual construction of the SCA and WTP) within five years from entry of the Consent Decree. The NYSDEC will make good faith efforts to review and approve submittals on a priority basis. The dredging obligations required by the Consent Decree and this SOW shall be completed within four years subsequent to the construction of the SCA and WTP. The number of years required for dredging may be modified upon the agreement of the parties.