## **APPENDIX O**

### **POST-CLOSURE CARE PLAN**

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Prepared for

Honeywell 301 Plainfield Road, Suite 330 Syracuse, NY 13212

## DRAFT POST-CLOSURE CARE PLAN ONONDAGA LAKE SEDIMENT CONSOLIDATION AREA (SCA) FINAL DESIGN SUBMITTAL Camillus, New York

Prepared by



301 Plainfield Road, Suite 350 Syracuse, NY 13212



engineers | scientists | innovators 1255 Roberts Boulevard, Suite 200 Kennesaw, Georgia 30144

Project Number GJ4299

January 2010



# Geosyntec >

### TABLE OF CONTENTS

1.	INTRODUCTION 1						
	1.1	Project Background 1					
	1.2	Purpose of Post-Closure Care Plan					
	1.3	Plan Organization					
	1.4	Administrative Requirements					
2.	FIN	AL COVER					
	2.1	Introduction					
	2.2	Inspection Interval and Procedures					
	2.3	Maintenance Interval and Procedures					
3.	SUR	RFACE WATER MANAGEMENT, SOIL EROSION, AND SEDIMENT					
		NTROL					
	3.1	Introduction					
	3.2	Inspection Interval and Procedures					
	3.3	Maintenance Interval and Procedures7					
4.	LIQUID MANAGEMENT SYSTEM (LMS)						
	4.1	Introduction					
	4.2	LMS Operation					
	4.3	Inspection Interval and Procedures9					
	4.4	Maintenance Interval and Procedures 11					
5.	GEO	DTECHNICAL INSTRUMENTATION MONITORING 12					
6.	REC	CORDKEEPING AND REPORTING					
	6.1	Recordkeeping and Record Retention Requirements					
	6.2	Reporting Requirements and Procedures 14					
7.	DOCUMENTATION						
	7.1	Inspection, Operation, and Maintenance Forms					
	7.2	Annual Reports					
	7.3	Five-Year Review Report					

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### TABLE OF CONTENTS (Continued)

8.	OPE	OPERATION, MONITORING, & MAINTENANCE (OM&M) STAFFING						
	REC	REQUIREMENTS						
	8.1	Manpower Requirements	17					
	8.2	Responsibilities and Duties	17					
	8.3	Qualifications and Training	18					
9.	CIT	IZEN PARTICIPATION	19					
	9.1	OM&M Citizen Participation Activities	19					
	9.2	Contact List	20					
	9.3	Freedom of Information Law Packet	21					
10.	HEA	ALTH AND SAFETY	23					
11.	AC	CESS CONTROL	24					
12.	POS	ST-CLOSURE SITE USE	25					
13.	REF	FERENCES	26					

#### LIST OF APPENDICES

Appendix A: Inspection, Operation, and Maintenance Schedule

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#### 1. INTRODUCTION

#### 1.1 Project Background

Onondaga Lake is a 4.6 square mile (3,000 acre) lake located in Central New York State immediately northwest of the City of Syracuse. As specified in the Record of Decision (ROD) (NYSDEC and USEPA, 2005), a major component of the selected lake remedy includes the dredging and onsite consolidation of sediments removed from the lake. Honeywell evaluated potential locations for building and operating a Sediment Consolidation Area (SCA) to contain sediment removed from Onondaga Lake during the remedial action. Based on the evaluation results, and as documented in the Statement of Work (SOW) of the Consent Decree (CD) (United States District Court, 2007), Wastebed 13 was selected for building and operating the SCA.

Wastebed 13 is located in the Town of Camillus and encompasses approximately 163 acres. It is bordered to the north by Ninemile Creek and the CSX Railroad tracks; to the west by an Onondaga County Garage property, a former gravel excavation owned by Honeywell, and a few residential properties; and to the east and south by Wastebeds 12 and 14, respectively. Wastebed 13 was originally designed as a settling basin for the disposal of Solvay waste, but has most recently been used by the State University of New York College of Environmental Science and Forestry (SUNY ESF) for planting willow test plots. These test plots now occupy several acres along the southern border of the wastebed. Wastebed 13, except for the area occupied by the SCA, and other wastebeds in the area will be capped under a separate CD.

The design and construction details of the SCA can be found in the project documents (i.e., SCA Final Design).

#### 1.2 <u>Purpose of Post-Closure Care Plan</u>

This Post-Closure Care Plan (PCCP) was prepared in accordance with: (i) the requirements set forth in the ROD and SOW for "*Implementation of a long-term operation, maintenance, and monitoring program to monitor and maintain the effectiveness of the remedy*"; and (ii) the New York State Department of Environmental Conservation (NYSDEC) Regulation Section 360-2.15 (k) (7) that states "*A comprehensive post-closure monitoring and maintenance operations manual is required.*"

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The overall objective of the PCCP is to maintain and verify the integrity and effectiveness of the SCA facility including final cover system, surface water management system, the liquid management system (LMS), and the SCA perimeter berm. The overall objective will be achieved by regular inspections and maintenance activities. The specific objectives of the PCCP are:

- to provide a routine inspection program that allows for assessment of conditions at the Site;
- to provide a maintenance program for the Site that will facilitate the long-term and continual performance of the SCA facility;
- to provide, if necessary, guidance and protocols for the repair and/or restoration of deficiencies in the SCA facility; and
- to provide a standardized procedure for notice to project parties (Honeywell and NYSDEC) regarding inspections, the conditions of the SCA, and annual reporting.

Per NYSDEC regulations, the minimum post-closure care period is 30 years. Elements of the post-closure care activities may be discontinued sooner, as approved by NYSDEC based on inspection and monitoring results.

#### 1.3 <u>Plan Organization</u>

The remainder of the report is organized as follows:

- Section 2 contains the inspection and maintenance programs for the final cover system;
- Section 3 contains the inspection and maintenance programs for the surface water management, soil erosion, and sediment control;
- Section 4 contains the operation requirements and inspection and maintenance programs for the LMS;
- Section 5 describes the requirements for the geotechnical instrumentation monitoring;



- Section 6 describes the recordkeeping and reporting requirements;
- Section 7 presents the documentation requirements;
- Section 8 contains the operation, monitoring, & maintenance (OM&M) staffing requirements;
- Section 9 describes the citizen participation program;
- Section 10 contains the health and safety requirements;
- Section 11 contains the access control requirements;
- Section 12 presents the post-closure site use; and
- Section 13 contains the references.

The following appendix is also included as part of this PCCP.

• Appendix A: Inspection, Operation, and Maintenance Schedule

#### 1.4 Administrative Requirements

Honeywell will appoint a Facility Supervisor for the SCA. This Facility Supervisor will serve as the contact person for the SCA. Pursuant to the requirements set forth in Paragraph 100 of the CD, Honeywell will provide a written notice and a copy of the CD to each contractor and subcontractor hired to perform any portion of the work required by this PCCP.

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#### 2. FINAL COVER

#### 2.1 <u>Introduction</u>

The final cover system for the SCA facility must be periodically inspected and maintained. The subsequent sections discuss in more detail the requirements, procedures, protocols, and schedules of the inspection and maintenance activities for the final cover system. At the time of writing this PCCP, it has not been decided whether the cover vegetation will include grass or willows. General post-closure care requirements for both types of vegetation are presented herein. Any additional requirements can be added to this PCCP at the time of closure. A detailed inspection and maintenance schedule is presented in Appendix A.

#### 2.2 Inspection Interval and Procedures

Inspection of the final cover system will be completed quarterly throughout the postclosure period. Inspection will be conducted as soon as practical after major storm events (i.e., 5-year storm), possible flooding events, or other events that may result in damage to the final cover system, but only at such time as the safety and health of inspection personnel can be assured. Honeywell may petition NYSDEC to modify the quarterly inspection to annual inspection as a part of the five-year remedy review.

The objective of the final cover system inspection is to detect any observable issues or conditions that would prevent the final cover system from continuing to preclude direct contact with the underlying materials. During the inspections, the final cover system will be visually examined for the following:

- evidence of subsidence or settling that results in low points or depressions;
- evidence of burrowing animals;
- evidence of trespassing or unauthorized use of the final cover area;
- presence of any erosion rills;
- condition of vegetation (grass or willows);
- observable irregularities such as bulges, bumps, slumps, or cracks;

- evidence of ponded water;
- condition of any access roads (i.e., erosion, aggregate washout, exposed geotextile, and debris on the road);
- condition of SCA perimeter berm;
- condition of areas near anchor trenches; and
- any other irregularities.

During inspections, special attention shall be given to evidence of slope movement (i.e., slumps), erosion features (i.e., rills, scarping, or slips), and evidence of burrowing animals, as well as the overall condition of the final cover vegetation.

#### 2.3 <u>Maintenance Interval and Procedures</u>

The following maintenance activities must be performed on the final cover system soil as needed, unless otherwise indicated:

- Erosion rills on the final cover system will be repaired by packing straw mulch into the void areas or by other alternate methods. This will prevent further erosion and allow the cap vegetation to take root in the area, stabilizing the rill. If rills reach 4 to 6 inches in depth, additional soil material will be added and the area will be re-compacted, re-seeded or re-planted, fertilized, and mulched. Materials equivalent to those already in place will be used.
- Significant depressions caused by erosion, settlement, or subsidence that can hold water will be repaired by placing additional soil in the depression and reseeding or re-planting as soon as possible. Materials equivalent to those already in place will be used.
- If an area has less than 25 percent coverage by grass and/or woody plants, the area will be reworked and re-seeded or re-planted. High quality agricultural fertilizer may be applied at the rate suggested by the manufacturer to promote the re-establishment of a self-sustaining vegetative cover.

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- Grass cover will be maintained by mowing on a regular schedule. Initially the grass will be cut quarterly; however, once the grass is established, it will be cut twice a year. The mowing schedule is intended to limit the growth of weeds or rooting of unplanned brush species. Willow cover will be maintained in accordance with a site specific plan developed and added as an attachment to this PCCP at the time of closure. This site specific plan shall address specific items such as harvesting and fertilizing schedules and guidelines for the willows.
- Animal burrows will be filled following inspection and seeded or planted to prevent creation of erosion rills.
- Additional aggregate will be placed on access roads as needed to avoid exposed sub-base or potholes so that the access roads remain in drivable condition.
- Any penetrations through the soil cover will be repaired by locally reconstructing the soil cover similar to the surrounding cover. Penetrations through geosynthetic components will be covered with a tarp or other impervious cover and repaired by a geosynthetics installer using materials equivalent to those used to construct the final cover system. The geosynthetics installer shall meet the project qualification requirements and shall be approved by Honeywell prior to commencing the repair.
- Routine maintenance will take place throughout the year and at such times as necessary based upon the results of the site inspections. Maintenance to repair the final cover system will be conducted on an as-needed basis.

## 3. SURFACE WATER MANAGEMENT, SOIL EROSION, AND SEDIMENT CONTROL

#### 3.1 <u>Introduction</u>

The final cover system for the SCA facility was designed with storm water control berms, perimeter drainage channels, and culverts. Erosion and sediment control measures installed as part of the SCA operations and closure construction are intended to be removed once the final cover vegetation is established, and hence are not addressed herein. These temporary erosion and sediment control structures will be inspected after 5-year storm events while they are in service. Permanent surface water management structures such as stormwater control berms, perimeter drainage channels, and culverts are addressed in this plan.

#### 3.2 Inspection Interval and Procedures

The inspection of the surface water management, soil erosion, and sediment control structures at the SCA facility includes visually examining and evaluating the integrity and proper functioning of the following items, as applicable:

- stormwater control berms;
- drainage channels;
- inlet and outlet protection of the perimeter culverts; and
- perimeter culverts.

The surface water management, soil erosion, and sediment control structures will be inspected quarterly unless otherwise specified. Honeywell may petition NYSDEC to modify the quarterly inspection to annual inspection as a part of the five-year remedy review.

#### 3.3 <u>Maintenance Interval and Procedures</u>

The maintenance activities associated with the surface water management, and soil erosion and sediment control structures at the SCA facility include the following items:



- removal of debris or any other objects obstructing the flow in drainage channels, inlets, and outlets of culvert pipes;
- repair, as needed, of any damaged stormwater, erosion, and sediment control structures; and
- cleaning (by removal and replacement, as needed) of clogged riprap.



#### 4. LIQUID MANAGEMENT SYSTEM (LMS)

#### 4.1 <u>Introduction</u>

This section of the PCCP establishes operating, inspection, and maintenance guidelines to be followed to achieve proper performance of the SCA LMS which includes a liquid transmission system (LTS) and two sumps for collecting and removing liquid from two vertical risers. One additional backup vertical riser is provided at each sump location. The backup riser will be supplied with a pump only on an as-needed basis such as if the primary riser becomes damaged. The dual-contained LTS will transfer the collected liquid along the final cover system to the on-site Wastewater Treatment Plant (WTP).

#### 4.2 <u>LMS Operation</u>

The LMS is designed to function automatically. Liquid will enter the risers via sumps by gravity flow. The riser pumps are designed to turn on and off automatically based on the liquid levels within the risers. Pumps shall include monitoring devices to measure the total amount of liquid pumped from each sump. Total amount of liquid received at the WTP will also be recorded.

#### 4.3 Inspection Interval and Procedures

The LMS contains pumps, discharge hoses, pump retrieval chains, high density polyethylene (HDPE) vertical risers, riser caps, control panels, flow meters, pressure transducers, sampling ports, valves, connections, liquid transmission pipes, and forcemains. When liquid is present in the sump in pumpable quantities, these components must be inspected monthly (unless otherwise specified) for the following:

- ensure that the automatic controls of the LMS pumps are on at all times (except for those periods where the automatic controls need to be switched off for system maintenance and repair or in the event of an operational emergency);
- examine the condition of instrumentation and/or valves (e.g., note sticking or jammed devices, corrosion, leaks, and misalignments) monthly, or if liquid removal processes from the SCA facility are not functioning properly;

- verify that the operating conditions of the LMS are specified so that the liquid head on the liner does not exceed 1 foot (i.e., liquid depth in the sump does not exceed 9 feet);
- verify that liquid is flowing from the sumps to the WTP during pumping daily, either by using a remote monitoring system or direct inspection of the flow gauges;
- record the flow rate and volume of liquids flowing from each sump daily, either by using a remote monitoring system or direct inspection of the flow gauges;
- confirm that the pumps are operating daily and high level alarm conditions are not reached, either by using a remote monitoring system or direct inspection of the flow gauges;
- examine the condition of the aboveground piping and the insulation around the pipes when pumping activities occur. The aboveground pipes include pipes at the top of riser as well as the LTS piping;
- verify appropriate warning signs are clearly visible (e.g., buried live electric line, liquid transmission pipe);
- examine the condition of any mechanical and electrical instrumentation devices in winter when the temperature falls below equipment-specific operating ranges;
- check the presence of liquid in the outer pipe of the dual-contained LTS piping which may indicate a leak in the forcemain piping; and
- examine the condition of the sump riser covers to prevent any potential fall-intoriser accident.

It is recommended that if remote monitoring systems are used that they be equipped with automatic call options for alarm conditions.

When there is no liquid in the sump risers or the liquid is present in an un-pumpable amount for a long time (i.e., several weeks), Honeywell may petition NYSDEC to



modify the various inspections mentioned above for the LMS to quarterly inspection, as a part of the five-year remedy review.

#### 4.4 <u>Maintenance Interval and Procedures</u>

The following maintenance activities must be performed on the LMS in order to ensure proper functioning of the SCA facility:

- if an alarm is activated, the Facility Supervisor or a representative shall respond as soon as practical to assess the reasons for the alarm sounding and to take corrective actions;
- the Facility Supervisor must remedy any problems identified during the inspection as soon as practicable;
- mechanical and electrical equipment including the pump, pressure transducers, and flow meters shall be calibrated, operated, maintained, and serviced in accordance with the manufacturer's instructions;
- any warning signs that are damaged to the point where the sign no longer is legible will be repaired/replaced;
- if an inspection indicates that a LTS pipe or a forcemain is obstructed, the pipe shall be flushed by pumping fresh water from a water truck through a hose inserted in the pipe cleanout. If flushing does not remove the obstruction, other methods shall be used to clean the pipe. Other methods may include blowing the obstruction out with air, vacuuming, rodding, or inserting a snake, fish tape, or other suitable devices. If air or water pressure is used, the working pressure inside the LTS pipe or the forcemain shall not exceed the pressure rating of those pipes; and
- any damage to the sump riser covers that threatens the integrity of this structure will be repaired.

#### 5. GEOTECHNICAL INSTRUMENTATION MONITORING

Details of the geotechnical instrumentation monitoring after closure of the SCA are presented in the Geotechnical Instrumentation and Monitoring Plan. A brief summary is provided herein.

Vibrating wire piezometers will be used to continue to monitor the excess pore pressures for a period of one year or more after closure as determined by the Engineer of Record based on the observed readings. Remote monitoring techniques will be used for this. Two proposed inclinometers (SI-G3 and SI-G4) are to be monitored monthly during the first two months after closure and every two months for the next four months. The Engineer of Record may increase the frequency of monitoring or extend the period of monitoring based on the actual readings as they relate to the stability of the SCA. Settlement monitoring of the liner system will not be performed after closure. The instrument structures and enclosures will be inspected as part of the quarterly final cover inspections.



#### 6. **RECORDKEEPING AND REPORTING**

#### 6.1 <u>Recordkeeping and Record Retention Requirements</u>

Recordkeeping procedures will be followed for post-closure care of the SCA facility including final cover system, surface water management system, LMS, and the SCA perimeter berm at the Site. The records to be maintained include, at a minimum:

- a summary of the findings of inspections;
- a description of maintenance performed;
- a detailed description of any emergencies that occurred and the measures taken to address them;
- a detailed description of the issues encountered and the actions taken to correct them;
- the daily flow rates and volumes of liquids pumped from LMS;
- the overall monthly average of the daily flow rates (gallons per acre per day or gpad) for each LMS sump;
- the geotechnical instrumentation monitoring data; and
- a detailed description (what, when, where, and how much) of the information and/or documents provided to NYSDEC.

Records and files for post-closure care will be kept by Honeywell. Copies of these files will be kept at the site contact office for all the wastebeds. Records will be preserved for documents and information relating to post-closure care inspection and maintenance activities for the most recent six years. At the end of this six-year period, and thirty calendar days before any document or information is destroyed, Honeywell will notify NYSDEC that such documents and information are available to NYSDEC for inspection, and upon request shall provide the originals or copies of such documents and information to NYSDEC.



#### 6.2 <u>Reporting Requirements and Procedures</u>

Honeywell will follow all reporting requirements provided in the CD. A Post-Closure Care Report shall be submitted every five years as part of the closure and post-closure registration renewal for the site.



#### 7. **DOCUMENTATION**

#### 7.1 <u>Inspection, Operation, and Maintenance Forms</u>

The information gathered during each inspection, operation, and maintenance event will be legibly recorded in Inspection, Operation, and Maintenance Forms to be developed at the time of closure. Data to be recorded on the Inspection, Operation, and Maintenance Form include:

- date and time of the inspection or maintenance;
- weather condition during inspection or maintenance;
- the name(s) of the personnel conducting the inspection or maintenance;
- a written description of the observation made;
- nature of any remedial actions to be taken;
- recommendation for corrective measures; and
- documentation of any repair/maintenance activities.

Photographs taken during inspection or maintenance activities will be recorded in Photographic Logs.

#### 7.2 <u>Annual Reports</u>

The Annual Post-Closure Care Report will summarize the quarterly and other significant inspection, maintenance, and monitoring activities. The detailed logs for each inspection, maintenance, and monitoring events will be kept at the site and will be available for review if requested, but are not intended to be a part of the annual report. The Annual Post-Closure Care Report will include:

- a description of the Site, Site location, historical site background, and responsible project parties;
- a narrative summary of inspections conducted at the Site over the past year;

- a narrative summary of maintenance conducted at the Site over the past year;
- a narrative summary detailing resolution of outstanding inspection or maintenance issues from the prior year, or in the event that resolution has not been reached, a descriptive summary of the outstanding issues and "go-forward" strategy; and
- recommendations for modifications to this PCCP, if necessary.

The Annual Post-Closure Care Reports will be submitted to the NYSDEC and used as the basis to develop the Five-Year Post-Closure Care Report, which is also required for submittal to NYSDEC.

#### 7.3 <u>Five-Year Review Report</u>

The inspection and maintenance program will be performed as described above for a minimum of five years. If the final cover system has stabilized, an abbreviated inspection and maintenance program will be presented to NYSDEC for approval. The final cover system shall be considered as stabilized when no significant erosion, settlement, or subsidence areas have been observed within two consecutive calendar years. The abbreviated inspection and maintenance program will consist of semi-annual or annual inspection, operation, and maintenance for the final cover system, surface water management, soil erosion and sediment control, and LMS. The Five-Year Post-Closure Care Report shall be submitted as part of the closure and post-closure registration renewal for the site and will be developed based on the Annual Post-Closure Care Reports.

#### 8. OPERATION, MONITORING, & MAINTENANCE (OM&M) STAFFING REQUIREMENTS

#### 8.1 <u>Manpower Requirements</u>

The OM&M Contractor team will consist of an inspector, an OM&M Manager, and a maintenance crew of one to two people that can operate site equipment. Honeywell will have a representative that can communicate between the OM&M Contractor and NYSDEC in terms of documentation, reviews, and agency inspections.

#### 8.2 <u>Responsibilities and Duties</u>

#### **OM&M** Contractor

The OM&M Contractor will be responsible for conducting site inspections, maintenance of the site, sampling, field documentation of the OM&M activities, and report preparation. The OM&M Contractor is responsible for site health and safety during OM&M activities.

#### Honeywell

Honeywell is ultimately responsible for implementing the OM&M program in accordance with the Consent Decree. Honeywell is financially responsible for the OM&M program and must contract for OM&M services. Honeywell will submit required documentation to NYSDEC and participate in five-year meetings, if requested by NYSDEC.

#### NYSDEC

The NYSDEC is responsible for enforcing the CD. The NYSDEC will review reports including the Five-Year Post-Closure Care Report and will participate in the five-year review meeting, as needed, to make decisions regarding the long-term OM&M program.



#### 8.3 **Qualifications and Training**

The OM&M Contractor must be a Honeywell prequalified contractor with adequate similar experience. In addition, the OM&M Contractor must be approved by NYSDEC prior to contract commitment.

OM&M personnel must have similar OM&M experience and be 40-hour Occupational Safety and Health Administration (OSHA) Hazwoper trained to conduct intrusive work at the site. For non-intrusive work (i.e., surveying, general inspections), 24-hour Hazwoper training is sufficient. Confined space entry training and certification is required for personnel maintaining the LMS.

Visitors are not required to have training or any specific qualifications. However, visitors must be escorted by Honeywell.



#### 9. CITIZEN PARTICIPATION

In cooperation with Honeywell, NYSDEC is committed to informing and involving the public through a public participation program during the OM&M period.

The citizen participation activities are designed to achieve the following objectives:

- help the interested and affected public to understand the nature and extent of impacted media at the site and the nature and progress of the program to clean up the site;
- ensure open communication between the public and project staff throughout the remedial process;
- create opportunities for the public to contribute information, opinions, and perspectives that have the potential to influence decisions about the site's clean-up; and
- document that public input received was considered and how it was factored into the decision-making.

Honeywell will conduct the OM&M with NYSDEC oversight. NYSDEC will implement the citizen participation activities described in this section. Honeywell will assist with some citizen participation activities under NYSDEC oversight, review, and approval.

#### 9.1 OM&M Citizen Participation Activities

Information collected during the OM&M period will be available to the public through periodic Fact Sheets and through the Annual Post-Closure Care Reports. The Fact Sheets will include a description of how the remedial program has mitigated hazardous waste issues, any post construction operation and maintenance activities planned, and staff contacts and other ways for people to obtain further information. The Fact Sheets will be distributed to the public by NYSDEC.

The Annual Post-Closure Care Reports will be made available to the public in both the Administrative Record and document repositories (see Section 9.3). Information to be included in the Annual Report is a summary of the year's monthly inspections,



maintenance, and monitoring activities. Operation log summary, inspection forms, and other pertinent information will be attached to the annual report.

#### 9.2 <u>Contact List</u>

For additional information, the public is encouraged to contact any of the following project staff:

#### **NEW YORK STATE Department of Environmental Conservation**

<u>State Project Manager</u> Mr. Timothy Larson Division of Environmental Remediation 625 Broadway, 12th Floor Albany, New York 12233-7016 Phone: 518/402-9789 Email: tjlarson@gw.dec.state.ny.us

#### NEW YORK STATE DEPARTMENT OF HEALTH

Regional Toxics Coordinator Mr. Mark S. Sergott Public Health Specialist II New York State Department of Health Bureau of Environmental Exposure Investigation 547 River Street Troy, NY 12180-2216 Phone: (518) 402-7860

#### **U.S. ENVIRONMENTAL PROTECTION AGENCY**

<u>Remedial Project Manager</u> Mr. Robert Nunes U.S. Environmental Protection Agency, Region II 290 Broadway, 20th Floor New York, NY 10007-1866 Phone: (212) 637-4254

#### HONEYWELL, INC.

Geosyntec Consultants

Remediation Project Manager John McAuliffe, P.E. Honeywell Inc. 301 Plainfield Road Syracuse, NY 13212 Phone: (315) 431-0936 Fax: (315) 431-4777 Email: john.mcauliffe@honeywell.com

#### 9.3 Freedom of Information Law Packet

Eight document repositories have been established to provide the public with convenient access to important project documents and other information. The site document repositories are:

NYSDEC, Region 7 615 Erie Boulevard West Syracuse, NY 13204 Please call (315) 426-7400 for appointment

Onondaga County Public Library Syracuse Branch at the Galleries 447 South Salina Street Syracuse, NY 13204 (315) 435-1840

Atlantic States Legal Foundation 658 West Onondaga Street Syracuse, New York 13204 Please call (315) 475-1170 for appointment

Liverpool Public Library 310 Tulip Street Liverpool, NY 13088 (315) 457-0310

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Camillus Town Hall 4600 West Genesee Street, Room 100 Syracuse, NY 13219 (315) 488-1234

Moon Library SUNY ESF 1 Forestry Drive Syracuse, NY 13210 (315) 470-6712

Solvay Public Library 615 Woods Road Solvay, NY 13209 (315) 468-2441

Joseph Heath, Esq. 716 E. Washington Street Suite 104 Syracuse, NY 13210 (315) 475-2559

Freedom of information law requests must be submitted in writing to the NYSDEC Records Access Officer. Requests can be mailed, faxed, or emailed to the appropriate address listed below.

Mailing Address: Lauren Rivera Records Access Officer New York State Department of State 41 State Street Albany, NY 12231 Phone: (518) 474-4752 Fax: (518) 474-4597

Freedom of Information Law regulations for guidance regarding the processing of requests of records maintained by the agency for public inspection and copying are available at <a href="http://www.dec.ny.gov/pubs/373.html">http://www.dec.ny.gov/pubs/373.html</a>.



#### 10. HEALTH AND SAFETY

Upon completion of the Remedial Action, impacted materials will have been contained in compliance with the approved plans and specifications. The OM&M Contractor will be responsible for preparing and submitting an OM&M Health and Safety Plan.



### 11. ACCESS CONTROL

Control of site access will be provided as part of the Wastebeds 9 through 15 Closure; therefore, it is not addressed herein.



## 12. POST-CLOSURE SITE USE

Post-closure site use will be established during development of the Wastebeds 9 through 15 Closure; therefore, it is not addressed herein.



#### 13. **REFERENCES**

- New York State Department of Environmental Conservation and United States Environmental Protection Agency Region 2. 2005. Record of Decision. Onondaga Lake Bottom Subsite of the Onondaga Lake Superfund Site. July 2005.
- United States District Court, Northern District of New York. 2007. State of New York and Denise M. Sheehan against Honeywell International, Inc. Consent Decree Between the State of New York and Honeywell International, Inc. Senior Judge Scullin. Dated October 11, 2006. File January 4, 2007.

## APPENDIX A

Inspection, Operation, and Maintenance Schedule

#### Inspection, Operation, and Maintenance Schedule

		Minimum Frequency								
SCA Component/ Activity	Items to Inspect/Monitor/Maintain	Daily	Weekly	Monthly	Quarterly	Semi-annually	Annually	Every Five Years	Other	
Final Cover	Physical Inspection:									
	<ul> <li>evidence of trespassing or unauthorized use of the final cover area</li> </ul>			X <sup>4</sup>	х					
	<ul> <li>evidence of subsidence or settling that results in low spots</li> </ul>				х					
	evidence of burrowing animals				х					
	presence of any erosion rills				х					
	<ul> <li>condition of vegetation (grass or willows)</li> </ul>				х					
	<ul> <li>observable irregularities such as bulges, bumps, slumps, or crack</li> </ul>				х					
	evidence of ponded water				х					
	<ul> <li>condition of any access roads (i.e, erosion, aggregate washout, exposed</li> </ul>				х					
	geotextile, and debris on the road)				×					
	condition of areas near anchor trenches				×					
	any other irregularities				~ v					
	any other meguanties.				^					
									bebeen ac	
	If grass cover mowing				v <sup>5</sup>	×			usneeded	
	<ul> <li>If grass cover, moving</li> <li>If grass cover, re-seeding of damaged areas</li> </ul>				^	~			bebeen ac	
	If willows harvesting								ner a site specific plan	
									to be developed, if needed	
Surface Water	Physical Inspection:									
Management, Soil	stormwater control berms				х		I			
Erosion, and Sediment	drainage channels				х					
Control	<ul> <li>inlet and outlet protection of the perimeter culverts</li> </ul>				х					
	perimeter culverts.				х					
	Routine Maintenance:									
	Removal of debris or any other objects obstructing the flow in drainage								as needed	
	channels, inlets, and outlets of culvert pipes								ac pooded	
	Cleaning of clogged rioran by removal and replacement								as needed	
	Cleaning of clogged hprap by removal and repracement	-							asneeded	
Liquid Management	Monitoring/ Recording:	P							maintain chreadcheat	
System		ĸ							maintain spreadsheet	
	Total amount of liquid reaching WTP from the SCA	R							maintain spreadsheet	
	High level liquid alarm for each sump	R								
	Physical Inspection:									
	<ul> <li>verify that the automatic controls of the LMS pumps are on</li> </ul>			×					as needed	
	<ul> <li>examine the condition of instrumentation and/or valves</li> </ul>			x					as needed	
	<ul> <li>verify that the operating conditions of the LMS are specified so that the liquid denth over the liner does not exceed 1 foot</li> </ul>			х					as needed	
	<ul> <li>examine the condition of the aboveground piping and the insulation</li> </ul>			х					as needed	
	around the pipes when pumping activities occur.									
	<ul> <li>check the presence of inquid in the outer pipe of the <u>aboveground</u> dual- contained LTS piping which may indicate a leak in the forcemain piping</li> </ul>			x					as needed	
	verify appropriate warning signs are clearly visible			х					as needed	
	<ul> <li>examine the condition of any mechanical and electrical instrumentation devices in winter when the temperature fall below equipment-specific</li> </ul>								as needed	
	<ul> <li>examine the condition of the sump riser covers to prevent any potential fall-into-riser accident</li> </ul>			x						
	Routine Maintenance:		Τ	I	l	Ι	I	Ī	as needed	
	calibration, operation, maintenance, and servicing of mechanical and		1	I	1		I	I	per manufacturer	
	electrical equipments including the pump and flow meters		<b>.</b>				<b> </b>		recommendations	
	cleaning of LTS and forcemain pines						<b> </b>		as needed	
	other repairs		<b>.</b>				<b>.</b>		as needed	
Castark i l			<u> </u>	<b>I</b>					as needed	
Geotechnical	ivionitoring/kecording as applicable):		<b>.</b>				<b> </b>		To be determined to	
instrumentation	Involutoring of pore pressures from vibrating wire pizeometers								ro be determined by engineer based on readings just after closure	
	Physical Inspection:		1	1	<b> </b>	<b> </b>	<b>I</b>	<b>[</b>	<b>I</b>	
	Inspect instrument casings and cables, if accessible				Х				as needed	

#### Inspection, Operation, and Maintenance Schedule

		Minimum Frequency							
SCA Component/ Activity	Items to Inspect/Monitor/Maintain	Daily	Weekly	Monthly	Quarterly	Semi-annually	Annually	Every Five Years	Other
Reports	Inspection logs - Internal								For each event
	Annual report – Internal						х		
	<ul> <li>5-year Report – Regulatory submittal</li> </ul>							х	
	incident Report for any action or occurrence which causes or threatens to cause an additional release of hazardous substances, pollutants, or contaminants on, at, or from the SCA, or which may create a danger to public health, welfare, or the environment.								Immediately after each occurrence

Notes:

1. "X" indicates onsite physical inspection, monitoring, or repair work.

2. "R" indicates remote monitoring can be used in lieu of site visit and direct inspection or monitoring.

3. Based on the monitoring and inspection results obtained, Honeywell can petition NYSDEC for a reduced monitoring frequency for different items.

4. Inspection for the evidence of trespassing or unauthorized use of the final cover area will be performed monthly for the first year and quarterly thereafter.

5. Initially the grass will be cut quarterly; however, once the grass is established, it will be cut twice a year.