## APPENDIX I

DEC Letter, November 5, 2003

# New York State Department of Environmental Conservation Division of Environmental Remediation, Region 9

'70 Michigan Avenue, Buffalo, New York, 14203-2999

runne: (716) 851-7220 • FAX: (716) 851-7226

Website: www.dec.state.ny.us



November 5, 2003

Mr. John Mojka Honeywell Corp. 101 Columbia Road Morristown, New Jersey 07962

Dear Mr. Mojka:

Buffalo Outer Harbor/Radio Tower Area Site #915026 Buffalo, Erie County

The NYSDEC has reviewed the recently submitted reports for the bench scale testing of various soil stabilization/solidification mixtures. It appears that, of the mixtures tested, the combination of Portland cement and activated carbon performs the best at immobilizing the nitrobenzene found in the site soils.

It is understood that a 10% Type I Portland and 6% activated carbon ratio to soil mixture should be used. Based upon the bench scale test results and the fact that Honeywell is prepared to begin solidification/stabilization of site soils within the next few days, NYSDEC hereby approves Honeywell's proposal.

Please call me at (716) 851-7220 if you feel there is a need for further discussion.

Sincerely,

David P. Locey

Environmental Engineer I

DPL/tml

cc:

Martin Doster, NYSDEC David Flynn, Philips Lytle et al Glen Netushil, Roux

## APPENDIX J

DEC Letter, December 3, 2003

# New York State Department of Environmental Conservation

**Division of Environmental Remediation, Region 9** 270 Michigan Avenue, Buffalo, New York, 14203-2999

Phone: (716) 851-7220 • FAX: (716) 851-7226

Website: www.dec.state.ny.us



December 3, 2003

Mr. John Mojka Honeywell Corp. 101 Columbia Road Morristown, New Jersey 07962

Dear Mr. Mojka:

Buffalo Outer Harbor/Radio Tower Area Site #915026 Buffalo, Erie County

I take this opportunity to reiterate the NYSDEC's concerns with regard to the ongoing soil solidification/stabilization operation.

NYSDEC accepted the proposal to use a mixture of activated carbon and Portland cement as a solidification/stabilization agent, on the basis of bench scale studies by RECON and Kemron. The RECON bench scale report indicated that powdered activated carbon was used in the tests. Further, in a telephone conversation, RECON indicated to NYSDEC that the carbon used in its test was virgin.

In an unsigned December 1, 2003 letter to NYSDEC, RECON asserted that the carbon used in the bench scale test, and now in the field production, was in fact regenerated. The letter also indicated that carbon might be more accurately described as being a fine grain, rather than a powder.

It has been NYSDEC's understanding that virgin carbon, in a powder form offering a larger surface area, would most likely give better results, i.e. better contaminant stabilization, than a regenerated granular carbon. Contrary to the December 1 letter claim, it does not appear that the regenerated granular carbon performed quite as well as the powdered, presumably regenerated, material used in Kemron's parallel bench scale test.

Mr. John Mojka

December 3, 2003 Page 2

NYSDEC requires that the remedial design engineer, Roux Associates, provide its written evaluation and assessment of the bench scale test results and a Professional Engineer's stamped certification that the cement/carbon mixture being employed is expected to satisfy the remedial goals and adequately protect the public health and environment.

Please call me at 716/851-7220 if you feel there is a need for further discussion.

Sincerely,

David P. Locey Environmental Engineer I

### DPL/tml

cc: Mr. Martin Doster, NYSDEC

David Flynn, Esq., Philips Lytle et al

Mr. Glen Netuschil, Roux Mr. Chris McGhee, RECON

## APPENDIX K

Remedial Engineering Letter, December 8, 2003

#### **ROUX ASSOCIATES INC**



209 SHAFTER STREET
ISLANDIA, NEW YORK 11749-5074 TEL: 631-232-2600 FAX: 631-232-9898

December 8, 2003

Mr. David P. Locey New York State Department of Environmental Conservation Environmental Engineer I 270 Michigan Avenue Buffalo, New York 14203-2999

Re: Buffalo OuterHarbor/Radio Tower Area Site

Site Number: 9-15-026

Dear Mr. Locey:

On behalf of Honeywell International, Inc., Roux Associates (Roux Associates) and Remedial Engineering, P.C. (Remedial Engineering) have prepared this letter in response to the New York State Department of Environmental Conservation (NYSDEC) letter dated December 3, 2003 regarding the activated carbon being used for the in-situ stabilization at the Buffalo OuterHarbor/Radio Tower Area in Buffalo, New York (Site). Specifically, the NYSDEC letter expresses concern that the type of activated carbon (e.g., reactivated) being used for the in-situ stabilization activities does not compare to the activated carbon used in the treatability study by Remedial Construction Services, LP (RECON).

Remedial Engineering has reviewed the treatability study results prepared by RECON and Kemron Environmental Services, Inc. (Kemron) and the attached December 5, 2003 letter from RECON and certifies that the Portland cement and activated carbon mixture being used at the Site is expected to satisfy the remedial goals and adequately protect the public health and environment.

The project completion report will document the treatability study report findings and the type and quantity of Portland cement and activated carbon used in the full-scale in-situ stabilization round.

Please call if you have any questions or require additional information.

Sincerely,

ROUX ASSOCIATES, INC.

Glenn Netuschil, P.E. Senior Engineer

REMEDIAL ENGINEERING, P.C.

Charles J. McGuckin, P.E. Principal Engineer

cc: Martin L. Doster, P.E., NYSDEC
John Mojka, Honeywell International, Inc.
Pamela J. Cissick, Esq., Honeywell International, Inc.
David Flynn, Esq., Phillips Lytle, et al.



December 5, 2003

New York State Department of Environmental Protection Division of Environmental Remediation Region 9 270 Michigan Avenue Buffalo, New York 14203-2999

Attention: Mr. David P. Locey

Subject: Comments on Activated Carbon Honeywell Outer Harbor Project

Dear Mr. Locey:

As requested by John Huber with Roux and Associates, we are writing to answer questions regarding the powdered activated carbon that was used in RECON's bench testing and is currently being used on the Honeywell Outer Harbor Project.

Steve Birdwell of RECON has confirmed that "40 X 200 mesh" powdered reactivated carbon, not virgin, supplied by US Filter was used by RECON for bench testing and is being used in the ongoing field production. The "40 X 200 mesh" material will range in size from fine sand to silt (i.e. passes a standard 40 sieve and is retained on a 200 sieve).

If you have any questions, or you require any additional information, please feel free to contact Steve Birdwell at 713-875-9111.

We look forward to the successful completion of this interesting project.

Sincerely, Remedial Construction Services, LP

Mitch Kawcak

Project Supervisor

## APPENDIX L

Stabilization Density Conversion Table

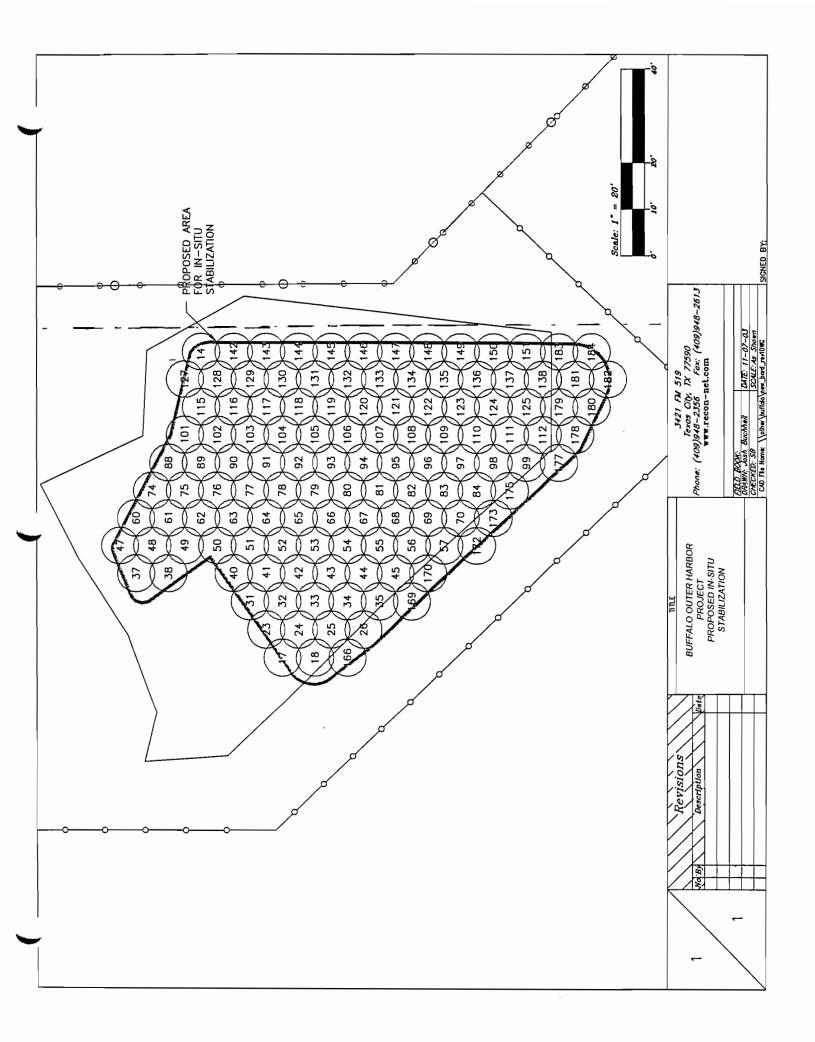
# **DENSITY CONVERSIONS**

Pounds Per Gallon (lb/gal.)	Pounds per Cubic Foot (lb/ft <sup>3</sup> )	Specific Gravity a(sg)	Kilograms per Meter <sup>3</sup> (kg/m <sup>3</sup> )
6.5	48.6	0.78	780
7.0	52.4	0.84	840
7.5	56.1	0.90	900
8.0	59.8	0.96	960
8.3	62.3	1.00	1000
8.5	63.6	1.02	1020
9.0	67.3	1.08	1080
9.5	71.1	1.14	1140
10.0	74.8	1.20	1200
10.5	78.5	1.26	1 <b>260</b>
11.0	82.3	1.32	1320
11.5	<b>86.</b> 0	1.38	1380
12.0	89.8	1.44	1440
12.5	93.5	1.50	1500
13.0	97.2	1.56	1560
13.5	101.0	1.62	1620
14.0	104.7	1.68	1680
14.5	108.5	1.74	1740
15.0	112.5	1.80	1800
_ 15.5	115.9	1.86	1860
16.0	119.7	1.92	1920
16.5	123.4	1.98	1980
17.0	127.2	2.04	2040
17.5	130.9	2.10	2100
18.0	134.6	2.16	2160
18.5	138.4	2.22	2220
19.0	142.1	2.28	2280
19.5	145.9	2.34	2340
20.0	149.6	2.40	2400
20.5	153.3	2.46	2460
21.0	157.1	2.52	2520
21.5	160.8	2.58	2580
22.0	164.6	2.64	2640
22.5	168.3	2.70	2700
-23.0	172.1	2.76	2760
23.5	175.8	2.82	2820
24.0	179.5	2.88	2880

<sup>&</sup>lt;sup>a</sup> Specific gravity same as Grams per Cubic Centimeter (g/cm<sup>3</sup>)

# APPENDIX M

Stabilization Area Layout



## APPENDIX N

Non-Hazardous Waste Manifests



e type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

		NON-HAZARDOUS WASTE MANIFEST	1. Generator's UN Y S T A	IS EPA ID No.	· n	danife	st t No.	2. Pa	ge 1 <b>1</b>						
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he type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.) Manifest Document No. d d d d 1. Generator's US EPA ID No. 2. Page 1 **NON-HAZARDOUS** WASTE MANIFEST 시 引 게 최 게 터 건 티 Generator's Name and Mailing Address A. Non-hazardous Manifest Document Number HONEYWELL INTERNATIONAL 101 COLUMBIA ROAD MEYER 3: (BOB JACKSON) 36279 B. State Generator's ID MARRISTIANNI NJ 07962 901 FURHMAN BLVD. BUFFALO, NY 14203 Transporter 1 Company Name 6. US EPA ID Number C. State Trans. ID PRICE TRUCKING CORP 71000b17 8. US EPA ID Number D. Transporter's Phone ( Transporter 2 Company Name E. State Trans. ID US EPA ID Number 10 Designated Facility Name and Site Address CWM CHEMICAL SERVICES, L.L.C F. Transporter's Phone ( 1550 BALMER ROAD G. State Facility's ID H. Facility's Phone ( MODEL CITY, NY 14107 718 754-8231 12. Containers 11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) Total Unit Waste No. Wt/Vol No. Type Guantity HM a. NON-REGULATED MATERIAL PER 40 & 49 CFR. 0 N (REMEDIATION DEBRIS), NONE, NONE C, C. d. Additional Descriptions for Materials Listed Above K. Handling Codes for Wastes Listed Above S/- 510982;(H132) 15. Special Handling Instructions and Additional Information PACKING SLIPS ATTACHED FOR CLARIFICATION -ONYX EMERGENCY NUMBER-INFOTRAC: 1-800-535-5053 \*\*INVOICE ONYX-TONAWANDA,NY\*\* 16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name. and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. I hereby certify that the above-named material is not hazardous waste as defined by 40 CFR Part 261 or any applicable state law Printed/Typed Name Signature Month Day Year Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Signatus Month Day Year EFFRE CE 12 1211 1810 18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name Signature Year Month Day 19. Discrepancy Indication Space Facility Owner or Operator; Certification of receipt of non-hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name Signature Month Day Year

Please type or print in block letters. (Form designed for use on elite (12-pitch) typewriter.)

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# DISPOSAL DOCUMENTATION FOR EMPTY REACTIVATED CARBON BAGS AND PERMANGANATE DRUMS

Attached is RECON's disposal documentation for empty reactivated carbon bags and permanganate drums used on the Honeywell Outer Harbor Project.

### December 10, 2003



Remedial Construction Service 9720 Derrington Houston, Texas 77064 Attn: Mitchell Kanak

Re:

Outer Harbor Site Cleanup (Honeywell)

Buffalo, New York

Disposal of Empty Carbon Bags and Crushed Steel Drums

Waste Application No. M03-1844

### Dear Mr. Kanak:

Modern Landfill, Inc. is in receipt of your waste application relative to the disposal of empty carbon bags and crushed steel drums from the above referenced waste stream. Based on the information supplied, the emptied carbon bags and crushed steel drums are acceptable for disposal on a one-time only basis providing that the containers are emptied in accordance with 6 NYCRR Part 371.1(h) and contain no free liquids.

In the event that significant changes in the information presented on this application occurs, you shall immediately notify this Office in writing. Such changes shall include, but are not limited to, changes in process, facility name or address, waste composition and/or hauler.

If you should have any questions, please contact me at (716) 754-8226, ext. 216.

Sincerely,

Michael W. Gullo

Waste Approval Coordinator

MODERN LANDFILL, INC.

While (noullo

MG/as

CC:

Tod Davidson

Dispatch

. . v w 2003

47-19-7 (10/88) - Text 12
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
DIVISION OF SOLID AND HAZARDSOU WASTE - BUREAU OF HAZARDOUS WASTE
OPERATIONS
50 WOLF ROAD, ALBANY, NEW YORK 12233-4017

# APPLICATION FOR TREATMENT OR DISPOSAL

		,
	FOR STATE USE ON	LY
SITE NO	APPLICATION NO.	DATE RECEIVED
32N30	1903-1844	12/08/03
DEPARTMENT	ACTION Disapproved	DATE
Approved	Disapproved	12/10/03

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	1. NAME OF PROJECT/FACILITY	2. COUNTY	3. SITE NUMBER
	MODERN LANDFILL, INC.	NIAGARA NIAGARA	32N30
	RICHARD WASHUTA	5. ADDRESS (Street, City, State, Zip Code) 4746 Model City Road, Model City, NY 14107	6. TELEPHONE NO. (716) 754-8226
	6. NAME OF OPERATOR	8. ADDRESS (Street, City, State, Zip Code)	9. TELEPHONE NO.
	RICHARD WASHUTA	Pletcher & Harold Road, Model City, NY 14107	(716) 754-8226
	10. METHOD OF TREATMENT OR DISPOSAL		
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	@ Duter Harbon Site (Honeywell	<u>)                                    </u>	
	11. SOMPANY GENERATING WASTE	12. ADDRESS OF FACILITY GENERATING WASTE (S	Street, City, State, Zip Code)
	REMEDIAL CONSTRUCTION SERI	DICES 901 FUHRMANN BIVD B	417ALONY, 14-203
j.	13. REPRESENTATIVE OF WASTE GENERATOR 14. MAILING	ADDRESS OF REPRESENTATIVE MOZENTOWN, ILL OTHES	15. TELEPHONE NO.
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	1 17 EYECTED AMMUAL MUSTE BECOMETICAL 1 18 M	ASTE HAULED IN	
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	19. WASTE COMPOSITION 19A. Average Percent Solids 100 %   19b. Physical State   19b. Phy	Sludge Solid Contained Gas	5 12.5
	19d. COMPONENTS	CONDENTRATION (Dry Weight) Upper Lower Typical	UNIT (Check Ons) WL % pom
	Boom Dan Blow Condell		WL % ppm
	1) EMPTY REACTIVATED CARBON	24445	ا بنگر
	21 FUNDTY CRUSINES Drums	85	
			2
	3)		
	4)		11 - 11
			J _
	20. IS AN ANALYSIS OF WASTE ATTACHED? 21 WAS A TOL	P TEST CONDUCTED ON THE WASTE?   22. MATERIAL IS:	
		No If "yes", attach results   Hazardous	Non-Hazardous
		TH THE WASTES. List necessary salety, handling, treatment and disposal pr	
	RRCRA REMOTY Crushed E	SYUMS IN ACCORDANCE WIT	THE GNYCKKT
	1,122.2		P / / / - / \
	PART - 3171,1 (H) Waste No	o-N899	
	17	·	
		(	
i	24. WHERE WAS MATERIAL DISPOSED OF PREVIOUSLY?	4	
	25. NAME OF WASTE TRANSPORTER 26. ADDRESS (Su	eel, City State, Zip Cogg) / / 27 NYSDEC PERMIT No	o.   28. TELEPHONE NO>
	1/0/001/2 //a liniti in		
ļ	MODERN Dispose Senses 4746 MO.	hEL Ciry Kd. MODEL City 9A-073	716-754-8226
	29. CERTIFICATION /	NY 141017	
	I hereby affirm under penalty of penjury that information p	provided on this form and attached statements and exhibits is to	rue to the best of my
		e punishable as a Class A misdemeanor pursuant to Section 2	
	a. SIGNATURE AND TITLE OF REPRESENTATIVE OF WASTE GENERA	TOR R. JACKSEN	DATE / / / /
1	To Som you HONN.	/1016A	12/8/05
	6. SIGNATURE AND TITLE OF REPRESENTATIVE OF TREATMENT OR		DATE
	Malle Malle - U	Vaste Agrand Consilintal	12/10/03

## APPENDIX O

Roux Associates, Inc. Letter, July 22, 2004

#### **ROUX ASSOCIATES INC**



209 SHAFTER STREET ISLANDIA, NEW YORK 11749-5074 TEL: 631-232-2600 FAX: 631-232-9898

July 22, 2004

Mr. David Locey New York State Department of Environmental Conservation Environmental Engineer I 270 Michigan Avenue Buffalo, New York 14203-2999

Re: Buffalo OuterHarbor/Radio Tower Area Site Site Number: 9-15-026

Proposed Soil Cover System

Dear Mr. Locey:

On behalf of Honeywell International, Inc. (Honeywell), Roux Associates, Inc. (Roux Associates) and Remedial Engineering, P.C. (Remedial Engineering), have prepared this letter to describe the revised proposed material management plan and soil cover system for the stabilized material at the Buffalo OuterHarbor/Radio Tower Area (Site). Honeywell has met with the NYSDEC on several occasions (May 27, 2004, July 1, 2004, and July 13, 2004) to discuss a revised plan to address the existing mound of treated/stabilized material at the Site. As discussed at the meetings, Honeywell proposes to excavate to ground surface the treated/stabilized material that is currently mounded up to approximately 7 feet above the surrounding ground surface. The excavated material will be beneficially used to stabilize sediments and soils in conjunction with the ongoing NYSDEC closure of the Alltift Landfill in Buffalo, New York. The stabilizing material from the Site (approximately 1,850 cubic yards) will be transported to the Alltift Landfill by a licensed Part 364 transporter, and will be located beneath the geosynthetic liner at the Alltift Landfill.

### Description of 2-foot Soil Cover System

Following the excavation of the excess material, a 2-foot soil cover will be placed over the 6,500 square foot remediated area (Refer to Figure 1). Prior to placement of the soil cover, a non-woven geotextile fabric will be placed over the footprint of the remediated area at the Site in 20-foot wide sheets with a minimum overlap of 12 to 18 inches and covered with 20 inches of imported clean fill overlain by 4 inches of imported topsoil. The soil at the edges of the soil cover system will be "feathered" into the existing landscape. As part of the stormwater management controls, the soil cover will be gently sloped to the existing drainage ditch/swale by the buried electric line and existing asphalt pavement to minimize runoff and erosion impacts. The soil will be compacted to

Mr. David Locey July 22, 2004 Page 2

85 percent of the Standard Proctor Density. The topsoil will then be either hydro-seeded or mechanically broadcast seeded, fertilized and mulched. The existing monitoring wells GW-18R and GW-23 will be protected, as necessary. The vegetated capped area could be used as either a gravel or asphalt parking lot consistent with potential future plans for the Site by NFTA. Immediately following completion of all soil cover system work activities, Site restoration activities will be performed including replacement of the chain link fencing and any monitoring well adjustments.

Roux Associates and Honeywell have consulted with Peter Burke of the NFTA and he is in agreement with the 2-foot soil cover system and stated that it would not interfere with the proposed commercial development planned for the Site.

### Justification for 2-foot Soil Cover System

The remedial activities conducted at the Site consisted of two rounds of *in situ* chemical oxidation injections with potassium permanganate (KMnO<sub>4</sub>). A total of approximately 91,000 pounds of KMnO<sub>4</sub> were injected during the two rounds of *in situ* chemical oxidation. Following the second *in situ* chemical oxidation injection round, post-treatment soil samples were collected from the remediation area. Additionally, at the request of the NYSDEC, three composite samples at three locations were also sampled from 0 to 8 feet below land surface (bls) (Figure 2). Subsequent to the second round of *in situ* chemical oxidation injection, *in situ* stabilization activities were performed.

Prior to the *in situ* stabilization round, two treatability studies were performed to determine the appropriate stabilization/fixation agents. The treatability studies demonstrated that a mixture of 4% activated carbon and 10% Portland cement effectively stabilized nitrobenzene as determined by the Toxicity Characteristic Leaching Procedure (TCLP). As shown in Table 1, the treatability study Round No. 2 results using either 4% or 6% activated carbon indicated nitrobenzene TCLP levels well below the NYSDEC criteria of 2 milligrams per liter (mg/L) for both studies. As an added factor of safety, and to address the NYSDEC request in their December 3, 2003 letter, the *in situ* stabilization round was performed using 6% activated carbon and 10% Portland cement. The remediation area was stabilized from 0 to 20 feet bls. In addition, Remedial Engineering submitted a certification letter on December 8, 2003 to the NYSDEC to certify that the Portland cement and activated carbon mixture used in the field will adequately protect the public health and environment. The December 8, 2003 letter is included as an attachment.

The 2-foot soil cover addresses the requirement made by the NYSDEC in their February 10, 2004 letter and will be protective of the public health and environment for the following reasons:

- The 2-foot soil cover will prevent direct contact with the treated/stabilized material through ingestion, dermal contact, and absorption (the identified routes of exposure);
- Since the treated/stabilized material will be covered, dust generation will not be a concern;
- Air monitoring conducted during the intrusive work activities (first round of
  in situ chemical oxidation) indicated that nitrobenzene concentrations were
  below action levels. Therefore, the potential risk for inhalation exposure is very
  low;
- Based on the groundwater monitoring conducted during the Phase I/II remedial investigation and the remedial activities, nitrobenzene has not impacted the groundwater;
- The non-woven geotextile fabric layer will act as a warning barrier for future excavation; and
- There is no current or planned consumption of the groundwater for potable uses.

As stated in the approved RD/RA Work Plan, institutional controls and deed restrictions will be implemented for the Site. The primary institutional control will require that the soil cover system is not disturbed except by authorized, properly trained construction personnel and any excavated soils (beneath the non-woven geotextile fabric) are managed pursuant to an approved soil management plan (SMP). The primary purpose of the deed restriction will be to prohibit future use of Site groundwater as a source for drinking water or agricultural uses. In addition, the SMP will cover inspections of the soil cover for uneven settling and/or eroded areas. The groundwater monitoring program will continue to be conducted to verify the performance of the treated/stabilized material and soil cover system. The SMP and groundwater monitoring program will be discussed in the Remedial Action Completion Report that will be prepared following completion of the soil cover system installation.

#### Schedule

To meet the existing construction schedules, all treated/stabilized material must be excavated and transported to be used as sub-base material at the Alltift Landfill no later than August 27, 2004. To meet this schedule, we would seek NYSDEC approval of this plan by July 30, 2004. The soil cover system will be installed at the Site by September 30, 2004.

Mr. David Locey July 22, 2004 Page 4

Roux Associates is confident that this revised material management plan and soil cover system addresses the NYSDEC comments stated in the February 10, 2004 letter, complies with the objectives of the RD/RA, is consistent with the Record of Decision (ROD), and is compatible with the NFTA plans regarding future development plans for the Site.

Please call if you have any questions or require additional information.

Sincerely,

ROUX ASSOCIATES, INC.

- Network

Glenn Netuschil, P.E.

Senior Engineer

REMEDIAL ENGINEERING, P.C.

Charles J. McGuckin, P.E.

Prinicipal Engineer

Enclosure

cc: Martin L. Doster, P.E., NYSDEC

John Morris, Honeywell

Christopher A. Burns, Ph.D., P.G., Clough, Harbour & Associates, LLP

Daniel Cantor, Esq., Arnold & Porter, LLP David Flynn, Esq., Phillips Lytle, et al.

Peter Burke, NFTA

Douglas J. Swanson, Roux Associates, Inc.

File No: Al0313003

Project: 25203Y04

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N-\ PRO IFCTS\ AIS

REMEDIAL CONSTRUCTION (CES. INC. (RECON)
KEMRON ENVIRONMENTAL, INC. (KEMRON)
OUTER HARBOR TREATABILITY STUDY RESULTS
TABLE 1

																-			
Round No. 1 Results	2	Mix Design				Pre-Treatment Results	ent Results			Post-Treat	Post-Treatment Results		Pre-Treatn	Pre-Treatment Results	Post Treatment		Percent	UCS	UCS Penetrometer
_	Portland	Fly Ash	Water		TCLP Ba	TCLP Sb	TCLP Pb	TCLP Cr	TCLP Ba	TCLP Sb		TCLPC	TCLP NB'	Total NB	TCLP NB		Reduction	psi	
HNWL10C-8W	10%	¥	8%		209.0	4.330	0.234	ND<0.1	0.301	3.760	ND<0 1	0.386	34.250	608,000	31,100		9.20%		AA
HNWL20D-10C-24W	10%	20%	24%		0.607	4.330	0.234	ND<0.1	1.350	3,820	ND<0.1	0.271	34.250	608.000	24.500		28.47%		80
HNWL5C-4W	2%	Ą	4%		0.607	4.330	0.234	ND<0.1	0.479	4.080	ND<0.1	0.121	34.250	608.000	31.000		9.49%		120
HNWL25F-5C-24W	2%	25%	24%		0 607	4.330	0.234	ND<0.1	2.320	3.940	ND<0.1	0.132	34.250	608.000	20 400		40.44%		45
3254-001	30%	Ą	24%		0.321	¥	QV	ND<0.1	0.340	ΑN	ND<0.1	QN	15.000	NA	6.980		53.47%	250	
3254-002	15%	15%	24%		0.321	ΑN	QV	ND<0.1	0.400	AN	ND<0.1	QV	15,000	NA	7.700		48.67%	51.2	
Round No. 2 Results		Mix	Mix Design										Pre-Tr	Pre-Treatment	Post Treatment	atment			
			Г	Organophilic			_	_					•	_					
Sample ID	Portland	Carbon	Water	Clay									TCLP NB	SPLP NB	TCLP NB	SPLP NB			
econ/STL HNWL10PC-2GAC-9W	10%	2%	%6										35.400	A N	3.690	3.040	89.58%		63
econ/STL HNWL10PC-4GAC-11W	10%	4%	11%		0.607		0.234	ND<0.1					35.400	NA	0.792	0.634	897.76		63
econ/STL HNWL10PC-6GAC-13W	10%	<b>%9</b>	13%	,									35.400	NA	0.267	0.231	99.25%		59
econ/STL HNWL10PC-2OC-9W	10%		%6	2%									35.400	NA	30.500	32.200	13.84%		63
HNWL10PC-40C-11W	10%	,	11%	4%									35.400	¥	28.400	34.500	19.77%		56
HNWL10PC-60C-13W	10%		13%	%9									35,400	NA	22.900	28.900	35.31%		49
3254-008	10%	2%	10%										15.000	AA	0.990	1.020	35.31%		
3254-007	10%	4%	12%										15.000	AN	0.0507	0.074	35.31%		
3254-008	10%	%9	16%										15.000	WA	0.017	0.017	35.31%		

Vote 1 - Pre-Treatment Results represent an average of 33.1 mg/l and 35.4 mg/l vote 2 - Pre-Treatment results represent an average of 552 mg/kg and 665 mg/kg vote 3 - Pre-Treatment results represents baseline no. 2 sample @ 35.4 mg/l vote 4 - Alf RCRA Metals not shown were ND for both Pre-treatment and Post Treatment

Barium Chromium Lead Nitrobenzene Antimory Milligrams per liter

Milligrams per kilogram
Toxicity Characteristic Leaching Procedure
Synthetic Precipitation Leaching Procedure
Not detected
Unconfined compressive strength
Pounds per square inch

ENVIRONMENTAL CONSULTING & MANAGEMENT

#### **ROUX ASSOCIATES INC**



209 SHAFTER STREET ISLANDIA, NEW YORK 11749-5074 TEL: 631-232-2600 FAX: 631-232-9898

December 8, 2003

Mr. David P. Locey New York State Department of Environmental Conservation Environmental Engineer I 270 Michigan Avenue Buffalo, New York 14203-2999

Re: Buffalo OuterHarbor/Radio Tower Area Site

Site Number: 9-15-026

Dear Mr. Locey:

On behalf of Honeywell International, Inc., Roux Associates (Roux Associates) and Remedial Engineering, P.C. (Remedial Engineering) have prepared this letter in response to the New York State Department of Environmental Conservation (NYSDEC) letter dated December 3, 2003 regarding the activated carbon being used for the in-situ stabilization at the Buffalo OuterHarbor/Radio Tower Area in Buffalo, New York (Site). Specifically, the NYSDEC letter expresses concern that the type of activated carbon (e.g., reactivated) being used for the in-situ stabilization activities does not compare to the activated carbon used in the treatability study by Remedial Construction Services, LP (RECON).

Remedial Engineering has reviewed the treatability study results prepared by RECON and Kemron Environmental Services, Inc. (Kemron) and the attached December 5, 2003 letter from RECON and certifies that the Portland cement and activated carbon mixture being used at the Site is expected to satisfy the remedial goals and adequately protect the public health and environment.

The project completion report will document the treatability study report findings and the type and quantity of Portland cement and activated carbon used in the full-scale in-situ stabilization round.

Please call if you have any questions or require additional information.

Sincerely,

ROUX ASSOCIATES, INC.

Glenn Netuschil, P.E. Senior Engineer

REMEDIAL ENGINEERING, P.C.

Charles J. McGuckin, P.E. Principal Engineer

cc: Martin L. Doster, P.E., NYSDEC
John Mojka, Honeywell International, Inc.
Pamela J. Cissick, Esq., Honeywell International, Inc.
David Flynn, Esq., Phillips Lytle, et al.



December 5, 2003

New York State Department of Environmental Protection Division of Environmental Remediation Region 9 270 Michigan Avenue Buffalo, New York 14203-2999

Attention: Mr. David P. Locey

Subject: Comments on Activated Carbon Honeywell Outer Harbor Project

Dear Mr. Locey:

As requested by John Huber with Roux and Associates, we are writing to answer guestions regarding the powdered activated carbon that was used in RECON's bench testing and is currently being used on the Honeywell Outer Harbor Project.

Steve Birdwell of RECON has confirmed that "40 X 200 mesh" powdered reactivated carbon, not virgin, supplied by US Filter was used by RECON for bench testing and is being used in the ongoing field production. The "40 X 200 mesh" material will range in size from fine sand to silt (i.e. passes a standard 40 sieve and is retained on a 200 sieve).

If you have any questions, or you require any additional information, please feel free to contact Steve Birdwell at 713-875-9111.

We look forward to the successful completion of this interesting project.

Sincerely, Remedial Construction Services, LP

Mitch Kawcak

Project Supervisor

# APPENDIX P

DEC Letter, August 13, 2004

# New York State Department of Environmental Conservation Division of Environmental Remediation, Region 9

270 Michigan Avenue, Buffalo, New York, 14203-2999 **Phone**: (716) 851-7220 • **FAX**: (716) 851-7226

lebsite: www.dec.state.ny.us



August 13, 2004

Dr. Christopher A. Burns Clough, Harbour & Associates 441 South Salina Street Syracuse, New York 13202-4712

Dear Dr. Burns:

Buffalo Outer Harbor/Radio Tower Area Site #915026 Buffalo, Erie County

The July 22, 2004 proposal for the site soil cover system has been reviewed and was discussed in your July 29, 2004 meeting here at the NYSDEC. The proposed soil cover system is acceptable; as proposed, a long-term groundwater monitoring plan and soil management plan will be submitted with the Remedial Action Completion Report for NYSDEC review.

NYSDEC recalls that during mobilization for the first round of in-situ treatment, it was found that the eastern edge of the area requiring treatment extended beneath and a short distance beyond an active, buried electrical cable. The site figures attached to the proposal indicate that the proposed soil cover will stop short of covering the buried cable. NYSDEC will require that eastern edge of the cover and demarcation layer extend over the buried cable to the edges of the treatment area, this may require modifying the nearby drainage swale.

Sincerely,

David P. Locey

Environmental Engineer I

DPL/tml

cc:

Mr. John Morris, Honeywell Mr. Martin Doster, NYSDEC David Flynn, Philips Lytle et al Mr. Glen Netuschil, Roux Mr. Charles McGuckin, Roux Peter Burke, Esq., NFTA

Mr. Cameron O'Connor, NYSDOH