

**NEW YORK STATE  
DEPARTMENT OF  
ENVIRONMENTAL CONSERVATION  
(NYSDEC)**

**6NYCRR PART 373  
HAZARDOUS WASTE MANAGEMENT  
PERMIT RENEWAL  
FOR  
CWM CHEMICAL SERVICES L.L.C.  
MODEL CITY FACILITY  
NIAGARA COUNTY**

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**NYSDEC  
RESPONSIVENESS  
SUMMARY**

## **INTRODUCTION**

### **Background:**

In February 2010, CWM Chemical Services, L.L.C. (CWM) submitted its original application to the New York State Department of Environmental Conservation (NYSDEC) for renewal of its Part 373 Hazardous Waste Management Permit for the CWM Model City, New York facility. The application was revised on July 7, 2011 and January 24, 2012 in response to Department issued Notices of Incomplete Application. It was subsequently revised up through September 4, 2012 to include a number of modifications. In November 2012, the NYSDEC determined this application to be complete, and the public was notified of this determination by newspaper, radio and the NYSDEC Environmental News Bulletin (ENB) on November 28, 2012. This notification informed the public that the NYSDEC had made a tentative determination to renew the Part 373 Hazardous Waste Management Permit for the CWM facility, and indicated that a new draft Permit had been prepared and was available for public review along with CWM's application. The notification also indicated the beginning of a sixty (60) day written public comment period on the new draft Permit and CWM application, and a Legislative Public Hearing as well as an Availability Session. The NYSDEC held a Legislative Public Hearing on January 14, 2013 at the Lewiston-Porter High School to receive public comment on the draft Permit renewal. The Availability Session was held (on the same date at the same location as the Hearing), in which NYSDEC staff responded to questions from the public regarding the new draft Permit and CWM application. In addition, in response to public requests, the period during which the NYSDEC would accept written comments from the public was extended through March 29, 2013.

### **NYSDEC's Decision on CWM Part 373 Permit Renewal:**

The NYSDEC received **83** written comment documents (i.e., letters, E-mails, comment forms, etc.) during the November 28, 2012 to March 29, 2013 comment period from individuals and organizations, regarding the CWM Part 373 Permit renewal. The NYSDEC has also received written transcripts from the Legislative Public Hearing held on January 14, 2013. In addition, the NYSDEC received **145** written comments from the applicant (CWM), mainly regarding conditions in the draft Permit.

**The NYSDEC's review of all these comments, including those made during the January 14, 2013 Legislative Public Hearing, has not identified any substantive and significant issues specifically related to the CWM Permit renewal application. Therefore, in accordance with Part 621.7, the NYSDEC has determined that an adjudicatory hearing is not warranted with respect to this particular application, and has decided to issue a renewal of CWM's Part 373 Hazardous Waste Management Permit.**

The new Part 373 Permit which has been issued to CWM is the same as the draft Permit with the

exception of some minor modifications made to the Permit due to comments received from the public and the applicant (CWM). These specific revisions are described in this Responsiveness Summary. **It should be noted that this Part 373 Permit does not authorize an expansion in size or capacity of CWM's landfill, nor any new landfill at CWM's Model City facility.**

#### Format & Content of the Responsiveness Summary:

This Responsiveness Summary is divided up into two (2) main Sections. The first, Section I, presents the public's comments and the NYSDEC responses to these comments. The second, Section II, presents the applicant's (CWM's) comments and the NYSDEC responses to these comments. The general content of each of these Sections is described below, and each has its own specific Table of Contents.

As explained at the beginning of Section I, this section contains **47** comments which were paraphrased by NYSDEC from **83** written public comment documents and from transcripts of the January 14, 2013 Legislative Public Hearing. Also, listed in a table under Comment #48 in this section, are a total of **244** specific comments provided by a written public comment letter. With each of the paraphrased and specific comments, a NYSDEC response is provided, followed by any specific revisions made to the draft Permit prior to issuance, as a result of the comment. Also, each of the paraphrased comments lists the individual public comment document from which the paraphrased comment was derived. A directory is included at the beginning of Section I listing the names of individuals and/or organizations who submitted comments, and indicating the paraphrased comment numbers which pertain to their comments. In addition, Appendix A of Section I contains the actual comment documents received, including the Hearing transcripts, and Appendix B contains documents which were submitted by the public in support of certain comments.

Section II contains **145** comments which were received from the applicant (CWM). With each of these comments, a NYSDEC response is provided.

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**NYSDEC  
RESPONSIVENESS  
SUMMARY**

**SECTION I  
PUBLIC COMMENTS &  
NYSDEC RESPONSES**

## **NOTICE**

**This Section presents comments which have been paraphrased by NYSDEC from the actual public comments received during the comment period on the CWM Draft Permit Renewal. All public comments received, whether in written form or in verbal form through public hearing transcript, are reflected in the paraphrased and specific comments listed under Comment #48. NYSDEC has paraphrased some of the public comments in order to facilitate summarized responses and avoid unnecessary repetition of similar comments/responses. NYSDEC has made every effort to retain the meaning and intent of each original comment in these paraphrased comments.**

**With each comment, this Section presents an NYSDEC response and indicates any specific revisions made to the CWM Draft Permit prior to issuance which have resulted from the comment and response. Also presented with each comment is a list of those individuals and/or groups that provided the actual individual comment from which the paraphrased or specific comment originated.**

**Copies of all actual public comments, including the transcript from the January 14, 2013 Legislative Public Hearing, are presented in Appendix A at the end of Section I of this Responsiveness Summary.**

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**Appendix A:** Actual Public Comment Documents & Legislative Public Hearing Transcripts

**Appendix B:** Documents submitted by Gary A. Abraham in support of Comment #s 41 - 47



## CWM PERMIT RENEWAL PUBLIC COMMENT DIRECTORY

List #	Commenter's Name and/or Organization	Date of Comments	Form of Comments	DEC Paraphrased Comment #s Which Pertain To Identified Commenter
1	Abraham, Gary A., Representing: Niagara County; Town of Lewiston; Village of Lewiston & Village of Youngstown	3/28/13	Letter	41, 42, 43, 44, 45, 46 & 47
2	Acker, Garold B.	1/30/13	Letter	16 & 18
3	Agnello, Lauren	1/14/13	Hearing Transcript – afternoon	2, 12, 14, 16, 21, 22, 24 & 27
4	Agnello, Vincent	1/14/13	Hearing Transcript – afternoon	2, 14, 16, 18, 20, 21, 22, 23 & 24
5	Agnello, Vincent	1/14/13	Letter	2, 14, 16, 20, 21, 22, 23, 24 & 27
6	Alati, Carmela	1/14/13	Hearing Transcript – afternoon	2, 16, 24, 27 & 37
7	Aversa, Tony & Maria	2/3/13	Letter #1	16, 18, 24 & 27
8	Aversa, Tony & Maria	2/3/13	Letter #2	16, 18, 24 & 27
9	Beahan, Laurence T., Conservation Chair, Sierra Club – Niagara Group	7/18/12	Letter	16, 18 & 27
10	Bittner, Jim, President, Niagara County Farm Bureau	3/28/13	Letter	2, 18, 20 & 24
11	Brabec, Duwayne	1/14/13 received	Form	1 & 11
12	Brennen, Deana A., President, Niagara USA Chamber	2/19/13 received	Letter	1, 7, 9 & 11
13	Brennen, Deborah	1/29/13	Letter	18
14	Brennen, Joseph	1/29/13	Letter	18
15	Bruening, Fred & Diane	1/28/13	Letter	2, 16, 18, 24 & 27

<b>List #</b>	<b>Commenter's Name and/or Organization</b>	<b>Date of Comments</b>	<b>Form of Comments</b>	<b>DEC Paraphrased Comment #s Which Pertain To Identified Commenter</b>
16	Brylski, Jeff, President, Teamsters Local 449	1/14/13	Hearing Transcript – afternoon	1, 3, 7 & 17
17	Burnett, Gerald	12/20/13 received	Letter #1	1, 11 & 17
18	Burnett, Gerald E.	12/20/13 received	Letter #2	1
19	Burnett, Marjorie S.	12/20/13 received	Letter	1
20	Burrow, Melody	1/14/13	Hearing Transcript – afternoon	1, 3, 7, 13, 17 & 19
21	Chabue, Lois	2/13/13	E-mail	12, 18 & 21
22	Chrisman, Trudy J.,	1/4/13	Letter	1, 7 & 17
23	Clark, Tom	2/1/13	Letter	18
24	Craft, Ron	12/24/12 received	Letter	1, 11 & 17
25	DiFranco, A.	2/3/13 received	Letter	18
26	Edwards, Annie	2/3/13 received	Letter	18 & 24
27	Fideli, April, President, Residents for Responsible Government (RRG)	1/14/13	Hearing Transcript – evening	2, 16, 24 & 27

<b>List #</b>	<b>Commenter's Name and/or Organization</b>	<b>Date of Comments</b>	<b>Form of Comments</b>	<b>DEC Paraphrased Comment #s Which Pertain To Identified Commenter</b>
28	Fideli, April, President, Residents for Responsible Government (RRG); Downs, Roger, Conservation Director, Sierra Club – Atlantic Chapter; Warren, Barbara, Executive Director, Citizens Environmental Coalition; Rabe, Anne, CHEJ Campaign Coordinator, Center for Health, Environment and Justice; Smith, Brian, Program and Communications Director, Citizens Campaign for the Environment; Haight, Laura, Senior Environmental Associate, New York Public Interest Research Group & Jedlicka, Jill, Executive Director, Buffalo-Niagara Riverkeeper	3/21/13	Letter (Note: Provided by Witryol E-mail on 3/21/13)	39
29	Figura, Joseph & Celia J.	12/28/12	Letter	1
30	Funk, Edwin & Lynn	2/3/13 received	Letter	18 & 24
31	Gregorski, Florence	12/20/12 received	Letter	1, 11 & 17
32	Harrington, Sharon	2/16/13	Letter	18
33	Hastings, Phyllis B.	12/26/12 received	Letter	1, 11 & 17
34	Hathaway, Barbara	2/20/13 received	Letter	2, 6 & 18
35	Haven, Alvin R.	2/28/13 received	Letter	2 & 18
36	Helmich, Helen	12/20/12 received	Letter	1
37	Henderson, Tim	1/14/13	Hearing Transcript - afternoon	2, 8, 12, 14, 18, 21 & 22
38	Herbst, Mary	1/29/13	Letter	18
39	Horvath, Dennis D.	12/31/12 received	Letter	1, 11 & 17
40	Ivey, Duaine	1/31/13	Letter	18 & 21
41	Jackson, Sandra	2/9/13	Letter	2 & 27

<b>List #</b>	<b>Commenter's Name and/or Organization</b>	<b>Date of Comments</b>	<b>Form of Comments</b>	<b>DEC Paraphrased Comment #s Which Pertain To Identified Commenter</b>
42	Jedlicka, Jill, Executive Director, Buffalo-Niagara Riverkeeper	12/4/12	Letter	38
43	Jedlicka, Jill, Executive Director, Buffalo-Niagara Riverkeeper	3/28/13	Letter	2, 20 & 39
44	Kalaga, Ted	1/2/13 received	Letter #1	1, 11 & 17
45	Kalaga, Ted	1/4/13 received	Letter #2	1
46	Kilmer, Daniel F.	1/7/13 received	Letter	1, 11 & 17
47	Kilmer, MaryAnn	12/21/12 received	Letter	1
48	Klettke, Bart, P.E.	1/14/13	Hearing Transcript - evening	1, 5, 9 & 13
49	Kuligowski, Andrew	12/31/12	Letter #1	1, 11 & 17
50	Kuligowski, Andrew	12/31/12	Letter #2	1
51	Lamb, Charles, Vice President, Residents for Responsible Government (RRG)	12/4/12	Letter	38
52	Lamb, Charles	1/14/13 received	Letter #1	1, 4 & 24
53	Lamb, Charles	1/14/13	Hearing Transcript - afternoon	1 & 24
54	Lamb, Charles	1/17/13	Letter #2	1, 6, 16, 18, 21 & 24
55	Lloyd, Tracey L.	1/29/13	Letter	18 & 24
56	Lombardo, Tina	2/12/13 received	Letter #1	2, 18 & 27
57	Lombardo, Tina	2/28/13 received	Letter #2	18 & 27
58	Maalouf, George	2/16/13	Letter	1
59	Mahar, MaryAnn	12/20/12	Letter	1
60	Martin, Shirley R.	3/19/13 received	Letter	18 & 24
61	Maziarz, George D., New York State Senator	3/21/13	Letter	1, 14, 18 & 40
62	Mazur, Patricia	1/10/13	Letter #1	2, 8 & 16

<b>List #</b>	<b>Commenter's Name and/or Organization</b>	<b>Date of Comments</b>	<b>Form of Comments</b>	<b>DEC Paraphrased Comment #s Which Pertain To Identified Commenter</b>
63	Mazur, Patricia	1/30/13	Letter #2	2, 8, 16, 18 & 27
64	McGhee, Louise, Niagara County Employment and Training	1/29/13	E-mail	16 & 18
65	McGreevey, Ed, Sierra Club – Niagara Group	1/14/13	Hearing Transcript - afternoon	2, 10, 14, 16, 22, 25, 26 & 27
66	Mirabelli, Sandra	1/30/13 received	Letter	2, 8 & 27
67	Nichols, Janette H. & Gerard C.	12/21/12 received	Letter #1	1 & 11
68	Nichols, Janette H. & Gerard C.	12/21/12 received	Letter #2	1
69	Olsen, Nils, Residents for Responsible Government (RRG)	1/14/13	Hearing Transcript - evening	2, 8, 10, 12, 18, 21 & 24
70	Orsi, Nancy J.D.	2/7/13	Letter	1, 11 & 13
71	Pavesi, Alexa	4/1/13	E-mail	2 & 24
72	Phoenix, Richard C., PhD	1/17/13	Letter	1, 5 & 15
73	Powell, Nadine, Director of Business Development, Buffalo-Niagara Partnership	1/14/13	Hearing Transcript - afternoon	1, 3, 7, 9 & 11
74	Riley, Barbara J.	3/15/13 received	Letter	18, 24 & 27
75	Rolland, MaryAnn	1/23/13	Letter #1	2, 4, 18, 24 & 31
76	Rolland, MaryAnn	1/27/13	Letter #2	2, 18, 21, 24 & 27
77	Rosario, Stephan, CAE, Executive Director, New York State Chemical Alliance	1/3/13	Letter	1, 9 & 17
78	Sackman, Megan	1/30/13	E-mail	2, 6, 24 & 27
79	Schneekloth, Lynda, Chair, Sierra Club – Niagara Group	12/10/12	Letter	38
80	Schneekloth, Lynda, Chair, & Roger Downs, Sierra Club – Niagara Group	1/14/13	Letter	2, 10, 14, 16, 18, 22, 25, 26 & 27
81	Schultz, Sara	1/27/13	Letter	18 & 27
82	Schultz, Sara	1/29/13	E-mail	2, 18 & 27

<b>List #</b>	<b>Commenter's Name and/or Organization</b>	<b>Date of Comments</b>	<b>Form of Comments</b>	<b>DEC Paraphrased Comment #s Which Pertain To Identified Commenter</b>
83	Smith, Brian P., Program and Communications Director, Citizens Campaign for the Environment	12/13/12	Letter	38
84	Smith, Brian P., Program and Communications Director, Citizens Campaign for the Environment	1/14/13	Hearing Transcript - afternoon	2, 12, 14, 18, 21 & 25
85	Smith, Nancy	1/29/13	Letter	16, 18 & 21
86	Snell, Susan R.	3/15/13 received	Letter	18, 24 & 27
87	Spira, George	1/18/13 received	Form	1, & 15
88	Spira, Joan	1/14/13 received	Form	1
89	Stephens, Fred	3/24/13	Letter	1, 7 & 9
90	Suarez, Darren	1/14/13	Hearing Transcript - afternoon	1, 3, 9 & 11
91	Unsigned	1/7/13 received	Letter	1, 11 & 17
92	Warren, Rose Mary	1/28/13	Letter	16 & 18
93	Weld, Marn	1/17/12 received	Letter	2, 16 & 24
94	Williman, Charles F.	2/25/13	Letter	18 & 24
95	Witryol, Amy	1/14/13	Hearing Transcript - evening	2, 4, 6, 8, 10, 12, 14, 18, 22, 24, 25, 26, 27, 28, 29 & 30
96	Witryol, Amy	3/29/13	Letter	22, 26, 32, 33, 34, 35, 36 & 48
97	Zohur, Anne	1/30/13	Letter #1	2, 18, 24 & 27
98	Zohur, Anne	1/30/13	Letter #2	16 & 27

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 1

**Comment Topic:** Support - General Comment in Favor of Renewal

**Paraphrased Comment:**

CWM Chemical Service's (CWM's) hazardous waste management permit should be renewed to extend the operation of the CWM Model City facility another 5 years.

NYSDEC will undoubtedly be receiving many negative letters from individuals who have not taken the time to understand the workings of the facility. Please know that there are many individuals in the community who do not share their views. This is evident by the hundreds of community members who attend CWM's annual open house to learn about the facility. Community members, who have taken the time to gain an understanding of the CWM facility, know that it is an extremely well run and thoroughly documented operation. We hope that the NYSDEC will take all things into consideration, including the best interest of this community and State, and renew the CWM permit.

CWM is one of the largest taxpayers in the community. They have also stepped up to the plate with financial aid to the community, helping organizations such as local clubs, food banks and local festivals. At the same time, many viable businesses are provided with a safe way of taking care of their chemical waste in a manner that is highly regulated and monitored. The service CWM renders fills an all important need for our few remaining industries, plus provides a repository for material generated in Brownfield clean-ups. This permit renewal will allow CWM to continue management of hazardous and non-hazardous at permitted levels, benefiting both New York businesses and employees, and ensuring the economic viability of many other businesses and operations.

Expanded Obligations – The proposed extension of CWM's operating permit allows it to meet its permitted capacity and increases CWM financial, environmental and other obligations in proportion to the extension. These are necessary and reasonable.

It is appreciated that the permit comes up for renewal every five years and that the NYSDEC makes a conscientious effort to review it. We agree with NYSDEC's stance on the negative declaration and we support the DEC's tentative determination to renew the hazardous waste permit for the CWM Model City facility. We urge that NYSDEC make a final determination to renew CWM's permit.

**NYSDEC Response:**

NYSDEC is aware that the community has varied views with respect to the CWM facility, as expressed in the wide variety of comments we have received. Be assured that NYSDEC has considered all comments, as well as all of the views which they express, in our decision process with regard to this Permit renewal application.

This comment presents a number of what it purports to be positive attributes with respect to the CWM facility in support of the renewal of its Hazardous Waste Management Permit. While NYSDEC does in no way mean to diminish the importance of these attributes, our primary consideration in deciding on whether to renew CWM's Permit is protection of human health and the environment. NYSDEC determines the adequacy of this protection by evaluating CWM's ability to comply with the environmental regulations based on the information contained in their renewal application and current regulatory compliance. Also, in deciding to renew this Permit, NYSDEC has placed a number of requirements on CWM by establishing Permit conditions and other stipulations in Permit attachments and incorporated documents which are focused on protection of human health and the environment.

This comment has correctly pointed out that the renewed Permit (i.e., the Permit presented in Draft for public review) places obligations on CWM in addition to those required by the previous 2005 Permit. NYSDEC acknowledges that these additional obligations are necessary and will enhance environmental protection.

NYSDEC acknowledges this comment that the five year regulatory limit on hazardous waste management Permits that involve land disposal, appropriately provides for periodic regulatory review of the facility's operation and the ability to improve/enhance environmental protection. NYSDEC also acknowledges this comment's support for renewal of the CWM Hazardous Waste Management Permit, and after considering all comments, is issuing a renewed Permit to CWM with certain appropriate modifications which are based on CWM and public comments.

**Permit Revisions:**     None.

**Persons/Groups That Submitted This Comment:**

1. Brabec, DuWayne, Comment Form (received January 14, 2013)
2. Brennen, Deanna, President, Niagara USA Chamber, Letter (received February 19, 2013)
3. Brylski, Jeff, President, Teamsters Local 449, Verbal (January 14, 2013 hearing transcript - afternoon)
4. Burnett, Gerald E., Letter #1 (received December 20, 2012)
5. Burnett, Marjorie S., Letter (received December 20, 2012)
6. Burnett, Gerald, Letter #2 (received December 24, 2012)
7. Burrow, Melody, Verbal (January 14, 2013 hearing transcript - afternoon)
8. Christman, Trudy J., Letter (dated January 4, 2013)
9. Craft, Ron, Letter (received December 24, 2012)



10. Figura, Joseph & Celia J., Letter (dated December 28, 2012)
11. Gregorski, Florence, Letter (received December 20, 2012)
12. Hastings, Phyllis B., Letter (received December 26, 2012)
13. Helmich, Helen, Letter (received December 20, 2012)
14. Horvath, Dennis D., Letter (received December 31, 2012)
15. Kalaga, Ted, Letter #1 (received January 2, 2013)
16. Kalaga, Ted, Letter #2 (received January 4, 2013)
17. Kilmer, Daniel F., Letter (received January 7, 2013)
18. Kilmer, MaryAnn, Letter (received December 21, 2012)
19. Klettke, Bart, P.E., Verbal (January 14, 2013 hearing transcript - evening)
20. Kuligowski, Andrew, Letter #1 (received December 31, 2012)
21. Kuligowski, Andrew, Letter #2 (received December 31, 2012)
22. Maalouf, George, Letter (dated February 16, 2013)
23. Mahar, MaryAnn, Letter (dated December 20, 2012)
24. Maziarz, George D., New York State Senator – 62<sup>nd</sup> District, Letter (dated March 21, 2013)
25. Nichols, Janette H. & Gerard C., Letter #1 (received December 21, 2012)
26. Nichols, Janette H. & Gerard C., Letter #2 (received December 21, 2012)
27. Orsi, Nancy J.D., Letter (dated February 7, 2013)
28. Phoenix, Richard C., PhD, Letter (dated January 17, 2013)
29. Powell, Nadine, Director of Business Development, Buffalo-Niagara Partnership, Verbal (January 14, 2013 hearing transcript - afternoon)
30. Rosario, Stephen, CAE, Executive Director, New York State Chemical Alliance, Letter (dated January 3, 2013)
31. Spira, George, Comment Form (received January 18, 2013)
32. Spira, Joan, Comment Form (received January 14, 2013)
33. Stephens, Fred, Letter (dated March 24, 2013)
34. Suarez, Darren, New York State Business Council, Verbal (January 14, 2013 hearing transcript - afternoon)
35. Unsigned, Letter (received January 7, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 2

**Comment Topic:** Oppose - General Comment in Opposition to Renewal

**Paraphrased Comment:**

CWM Chemical Service's (CWM's) hazardous waste management permit should not be renewed and NYSDEC should require closure of CWM's Model City facility.

Our environmental law on hazardous waste landfill permitting was designed to review the site-wide operating permit every five years to decide if the operator is worthy of an extension for another five years, or to put it another way, to force the permit holder to make things better in the next five years or face non-renewal of its permit to operate. Instead, DEC informs us that the hearing for the renewal is generally about technological and scientific issues that may affect CWM's permit. It should not be limited to the copious scientific or technological jargon contained in the 5 huge documents on display at the hearing which the majority of us who live in the surrounding community are not versed. The daily effect of this hazardous waste industry on the lives of those of us who live outside CWM's fence and the fact that this site has been a burden on the Youngstown Lewiston community for the past seventy years, should also be considered in the renewal decision. The danger to the physical, economical, psychological and emotional well being of all residents of this area, as well as the proximity and threat the facility poses to the environmentally sensitive Great Lakes, should be factored in to the renewal decision. Instead we see CWM "buying Favor" and votes with local elected officials and organizations, and only making minimal changes. In consideration of these detrimental effects, the focus of the process should have dealt with closing requirements, not requirements for continued operation.

The DEC is responsible for protecting the citizens of NY State, however budgetary woes make its enforcement arm nonexistent. As a result, CWM is destroying our quality of life every day they are in operation. DEC's decision on the CWM renewal should not be made from a purely bureaucratic standpoint or on how much this company pays in permitting fees, it should be based on the higher issues of human health, safety and quality of life.

The cumulative damage that has resulted in this community through the operation of this immense hazardous waste landfill, along with the fact that even DEC finds, in its Siting Plan, that CWM's continued operation is not necessary, it seems clear that CWM's hazardous waste permit should not be renewed. DEC should realize that denial of the

permit would be the right thing to do.

The renewal of the Permit would allow CWM to continue accepting and handling hazardous waste at a facility situated adjacent to a residential neighborhood, public school buildings and the Niagara River. Because of this, we are strongly opposed to additional waste being brought to the CWM facility. Stop the continued dumping of toxic waste at this CWM facility that jeopardizes the Great Lakes and our drinking water. We urge that NYSDEC deny CWM's application for renewal of its operating permit and require CWM to immediately begin closing this facility. Any Permit issued should only be for maintaining, securing and monitoring the toxic materials in the site's current landfills.

**NYSDEC Response:**

The five year Permit renewal process for facilities with land disposal units required by the regulations (6 NYCRR Part 621) provides for a periodic review of hazardous waste facility operations by NYSDEC and the public. This comment suggests that in the case of this CWM Permit renewal, NYSDEC has improperly limited this periodic review to the scientific and technological aspects of hazardous waste management, and has not given consideration to the facility's impact on the surrounding community and regional environment, nor required CWM to make operational improvements and justify that they meet the regulatory requirements for a Permit renewal. NYSDEC disagrees with this characterization of the CWM Permit renewal process.

In reviewing CWM hazardous waste management operations during the renewal process, NYSDEC's primary consideration is protection of human health and the environment, and more specifically, protection of the surrounding community and regional environment. The nature of hazardous waste necessitates the development and review of a substantial amount of scientific and technical information to insure that the waste is managed in a manner which adequately protects community residents and the regional environment. Therefore, while the renewal process may seem to involve a considerable amount of scientific and technical information at the expense of other important considerations, the reality is that this information is related to the NYSDEC's primary consideration which is protection of human health and the environment.

Furthermore, the comment suggests that NYSDEC's level of oversight of CWM operations is less than adequate, and that NYSDEC's decision on CWM's Permit is bureaucratic or based on regulatory fees. NYSDEC strongly disagrees with this characterization.

With respect to oversight of CWM operations, NYSDEC employs three monitors, (2) full-time on-site monitors and one (1) full-time monitor/supervisor, who oversee day-to-day operations and a part-time construction monitor for landfill final cover installation and other construction activities. This level of oversight was established in the 2005 Permit and has not been reduced since. The new Permit provides for NYSDEC monitor

staff to continue this level of oversight over the Permit's duration. This is in addition to Central Office and Regional staff who conduct periodic reviews and inspections. Therefore, there has been no reduction in NYSDEC oversight of CWM operations, nor are there any plans for any future reductions.

With respect to NYSDEC's decision on the CWM Permit renewal, it has been made in consideration of CWM's past management of hazardous and non-hazardous waste and on their ability to manage such wastes going forward in a manner that complies with State statutes and regulations governing waste management which are designed to protect human health and the environment. This decision is the result of a thorough technical analysis of CWM waste management operations by NYSDEC staff and fees paid to New York State are not considered in this decision. Staff's analysis focuses exclusively on issues of human health, safety and protection of the environment, NYSDEC's primary considerations in deciding to renew the CWM Permit.

This comment also suggests that Siting issues should be given consideration in deciding whether to renew CWM's Permit. However, NYSDEC would point out that statutes and regulations governing Siting are applicable to new or expansion of existing hazardous waste management facilities, and are not applicable to a Permit renewal for an existing facility which does not involve expansion, as is the case with respect to this CWM renewal. Therefore, NYSDEC does not consider it appropriate to review Siting issues during the CWM Permit renewal process.

As similarly stated in NYSDEC's response to Comment #1, after considering all comments and thoroughly evaluating CWM's application with respect to the applicable regulations governing protection of human health and the environment, NYSDEC has decided to issue the Permit renewal to CWM with certain appropriate modifications which are based on CWM and public comments.

**Permit Revisions:** None

**Persons/Groups That Submitted This Comment:**

1. Agnello, Lauren, Verbal (January 14, 2013 hearing transcript - afternoon)
2. Agnello, Vincent, Letter (dated January 14, 2013)
3. Agnello, Vincent, Verbal (January 14, 2013 hearing transcript - afternoon)
4. Alati, Carmela, Verbal (January 14, 2013 hearing transcript - afternoon)
5. Bittner, Jim, President, Niagara County Farm Bureau, Letter (dated March 28, 2013)
6. Bruening, Fred & Diane, Letter (dated January 28, 2013)
7. Fideli, April, President, Residents for Responsible Government (RRG), Verbal (January 14, 2013 hearing transcript - evening)
8. Hathaway, Barbara, Letter (received February 20, 2013)
9. Haven, Alvin R., Letter (received February 28, 2013)
10. Henderson, Tim, Verbal (January 14, 2013 hearing transcript - afternoon)
11. Jackson, Sandra, Letter (dated February 9, 2013)

12. Jedlicka, Jill, Executive Director, Buffalo-Niagara Riverkeeper, Letter (dated March 28, 2013)
13. Lamb, Charles, Verbal (January 14, 2013 hearing transcript - afternoon)
14. Lamb, Charles, Letter #1 (received January 14, 2013)
15. Lamb, Charles, Letter #2 (received January 17, 2013)
16. Lombardo, Tina, Letter #1 (received February 12, 2013)
17. Mazur, Patricia, Letter #1 (received January 10, 2013)
18. Mazur, Patricia, Letter #2 (received January 30, 2013)
19. McGreevy, Ed, Sierra Club – Niagara Group, Verbal (January 14, 2013 hearing transcript - afternoon)
20. Mirabelli, Sandra, Letter (received January 30, 2013)
21. Olsen, Nils, Residents for Responsible Government (RRG), Verbal (January 14, 2013 hearing transcript - evening)
22. Pavesi, Alexa, E-mail (dated April 1, 2013)
23. Rolland, MaryAnn & William C., Letter #1 (dated January 23, 2013)
24. Rolland, MaryAnn, Letter #2 (dated January 27, 2013)
25. Sackman, Megan, E-mail (dated January 30, 2013)
26. Schneekloth, Lynda, Chair, Sierra Club – Niagara Group, (also Roger Downs), Letter (dated January 14, 2013)
27. Schultz, Sara, E-mail (dated January 29, 2013)
28. Smith, Brian P., Program & Communications Director, Citizens Campaign for the Environment), Verbal (January 14, 2013 hearing transcript - afternoon)
29. Weld, Marn, Letter (received July 17, 2012)
30. Witryol, Amy, Verbal (January 14, 2013 hearing transcript - evening)
31. Zohur, Anne, Letter #1 (dated January 30, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 3

**Comment Topic:** Support - CWM Employment and Employees

**Paraphrased Comment:**

The CWM Model City facility employs approximately sixty-six individuals, with the majority residing in the communities of Lewiston, Ransomville, Sanborn, Wilson, Youngstown and Lockport within Niagara County. These CWM employees are our neighbors who could lose their jobs and be forced to move away in search of other employment if CWM's Permit is not renewed. We need to keep these jobs here.

The men and women who work at CWM are highly skilled professionals who take their jobs very seriously. The site has an excellent safety and compliance record, much of which is the result of these workers and their dedication and care they bring to the site every day. These workers take pride knowing the jobs they perform in stabilizing waste, properly landfilling wastes and inspecting each and every drum that is put into the landfill, puts them on the front line of safe guarding our environment. This is not a job they take lightly. CWM's Permit should be renewed so they can continue this important work.

**NYSDEC Response:**

The statutes and regulations governing the Permit renewal process do not provide any basis for consideration of facility employment matters. NYSDEC understands the concern over the jobs provided by this CWM facility, as pointed out by this comment. However, our decision on CWM's Permit renewal application must, by statute and regulation, be based on issues related to protection of human health and the environment. Therefore, our decision on CWM's Permit renewal application cannot and does not involve consideration of CWM employment issues, aside from those which could affect protection of human health and the environment (e.g., personnel training).

Part of NYSDEC's role in reviewing CWM's Permit renewal application involves evaluating whether hazardous wastes are being appropriately managed by CWM personnel.

**Permit Revisions:** None

**Persons/Groups That Submitted This Comment:**

1. Brylski, Jeff, President, Teamsters Local 449, Verbal (January 14, 2013 hearing transcript - afternoon)
2. Burrow, Melody, Verbal (January 14, 2013 hearing transcript - afternoon)
3. Powell, Nadine, Director of Business Development, Buffalo-Niagara Partnership, Verbal (January 14, 2013 hearing transcript - afternoon)
4. Suarez, Darren, New York State Business Council, Verbal (January 14, 2013 hearing transcript - afternoon)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 4

**Comment Topic:** Oppose - CWM Employment and Employees

**Paraphrased Comment:**

It's time for CWM to begin the process of closing down. While we are concerned about the welfare of CWM employees, it should be understood that some workers will continue to be needed to guard and maintain the site. Also, there are other Waste Management facilities that may offer others employment and the approval of Covanta in Niagara Falls will provide employment for many of the Engineers now at CWM.

Our criticisms of CWM are not aimed at employees, who go to work every day and try to conscientiously follow instructions provided by management. But it was not CWM management who identified radiological risks to workers; it was the public. While the excavation protocol DEC ultimately instituted under the last renewal remains inadequate to assure worker and public safety, it simply did not even exist until members of the public identified the historical problems on the property.

**NYSDEC Response:**

As similarly stated in NYSDEC's response to Comment #3, NYSDEC's decision to renew CWM's operating Permit does not involve consideration of matters related to CWM employees, aside from those personnel issues which could affect protection of human health and the environment (e.g., personnel training). Furthermore, it is not appropriate for NYSDEC to speculate on the employment effects of issuing or denying a CWM Permit renewal.

With respect to radiological concerns involving CWM employees, the comment is correct that Permit conditions requiring CWM to develop plans for chemical and radiological monitoring during site excavations originated from public comments during the last 2003-2005 Permit renewal process. However, as stated in NYSDEC's response to these previous comments, the Permit conditions related to site excavations were developed to address the possibility of encountering previously unknown contamination, and were not required due to any identified radiological risks to workers as suggested by this comment. Worker health and safety issues are regulated under other laws and regulations and are beyond the scope of this Permit. However, NYSDEC acknowledges that the radiological and chemical screening required by the Permit provides information that may be relevant to worker safety issues.

**Permit Revisions:** None



**Persons/Groups That Submitted This Comment:**

1. Lamb, Charles, Verbal (January 14, 2013 hearing transcript - afternoon)
2. Lamb, Charles, Letter #1 (received January 14, 2013)
3. Rolland, MaryAnn & William C., Letter #1 (dated January 23, 2013)
4. Witryol, Amy, Verbal (January 14, 2013 hearing transcript - evening)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 5

**Comment Topic:** Support - Current CWM Landfill Design & Leakage

**Paraphrased Comment:**

The science is abundantly clear. These landfill liner systems that DEC has required since the late 1980s and CWM has utilized in their landfill designs, simply stated, they work. That is to say, they do not leak. I know of no landfill where leachate has penetrated the primary liner system and shown up in the secondary leachate collection system. The science is clear, they offer environmental protection.

Also, the high surface area clay (i.e., Geosynthetic Clay Liner) used in CWM's landfill cover system improve the sealing of the enclosed materials. There is no evidence of any contaminated water or material escaping from the structures.

**NYSDEC Response:**

With respect to landfill liner systems, NYSDEC acknowledges this comment that the liner system design used at CWM since the late 1980s (i.e., double, composite liners and dual leachate collection systems) has proven to be highly effective at protecting environmental media (e.g., soil, groundwater, etc.) from the disposed wastes and their hazardous constituents. However, it should be noted that some minimal amount of primary liner leakage does routinely occur and is an anticipated part of the liner system's design. It is the basis for requiring a secondary leachate collection layer and secondary composite liner under the primary liner to both collect such leakage and prevent it from contacting environmental media. In CWM's case, the groundwater monitoring networks located immediately outside of these "double containment" landfills continue to show that any minimal primary liner leakage is being effectively controlled by the secondary leachate collection and liner systems and has not allowed release of hazardous constituents to groundwater above the detection levels stipulated in the Permit.

With respect to the use of Geosynthetic Clay Liner (GCL) in the final cover system, NYSDEC acknowledges this comment that its use helps seal leakage through any minor defects in the geomembrane component of the final cover system. The use of the GCL in concert with the geomembrane and other cover system components as well as the minimum cover slopes, are considered by the NYSDEC as providing a system that greatly minimizes the amount of precipitation which would otherwise enter the closed landfill and contribute to leachate generation.

**Permit Revisions:** None

**Persons/Groups That Submitted This Comment:**

1. Klettke, Bart, P.E., Verbal (January 14, 2013 hearing transcript - evening)
2. Phoenix, Richard C., PhD, Letter (dated January 17, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 6

**Comment Topic:** Oppose - Current CWM Landfill Design & Leakage

**Paraphrased Comment:**

All landfills may eventually leak. This includes those at so called “safe waste sites” like CWM which were constructed based on a circa 1980s design.

**NYSDEC Response:**

As discussed in NYSDEC’s response to Comment #5, secondary liner/leachate collection systems used in these designs have been historically demonstrated as effective in controlling any primary liner leakage. Furthermore, in the case of CWM’s 1989 and 1993 Permitted landfills, the Permit establishes limits on secondary leachate flow rates (i.e., on primary liner leakage) above which CWM is required to take response actions. Although such instances have occurred in the past, in each case CWM has taken response actions to locate and repair primary liner defects responsible for the leakage into the secondary system, and flows in the secondary leachate collection system have been reduced to within established limits. Currently, these two CWM landfills are operating within secondary leachate flow rate limits and groundwater monitoring results has not detected any release of hazardous constituents from these landfills above the levels stipulated in the Permit.

**Permit Revisions:** None

**Persons/Groups That Submitted This Comment:**

1. Hathaway, Barbara, Letter (received February 20, 2013)
2. Lamb, Charles, Letter #2 (received January 17, 2013)
3. Witryol, Amy, Verbal (January 14, 2013 hearing transcript - evening)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 7

**Comment Topic:** Support - CWM Regulatory Compliance and DEC Oversight

**Paraphrased Comment:**

This CWM site has an excellent safety and compliance record. CWM has an unbelievable amount of regulations they have to follow. These are rules made by the government, and they have to follow them, they don't have a choice. If they didn't they would be closed by now. CWM has regularly complied with the NYSDEC in regard to these various regulations.

CWM's state-of-the-art facility has demonstrated not only a conscientious commitment to the safe disposal of hazardous and industrial non-hazardous waste, but a willingness to work closely and collaboratively with the NYSDEC. This includes the hosting of on-site agency monitors to track and confirm CWM's compliance with numerous stringent regulations. Also, it is appropriate that the Permit comes up for renewal every five years and that the NYSDEC makes a conscientious effort to review it to ensure adequate environmental protection.

Unlike those who constantly antagonize CWM, those of us who have visited their facility have observed that it is an extremely well run and thoroughly documented operation. It is unfortunate that the perennial protagonists don't put an equal amount of energy towards promoting the positive facets of our community instead of reveling in picking the scab on issues dating back to WWII. We sympathize with DEC in having to plough through much of the same ground over and over, and admire DEC staff's ability to maintain a civil and reasoned response to largely unreasonable antagonists.

**NYSDEC Response:**

CWM's current compliance with the regulations and Permit are reviewed by NYSDEC during the Permit renewal process and factor into NYSDEC's decision to issue the Permit renewal. The decision to renew CWM's operating Permit is based on NYSDEC's determination that CWM is in substantial compliance with the regulations and its Permit.

NYSDEC acknowledges that the on-site monitors are a significant enhancement to NYSDEC's oversight capability at this CWM facility. NYSDEC also agrees that the five year renewal cycle appropriately provides for periodic regulatory review of the facility's operation and the ability to improve/enhance environmental protection.

With respect to the opinions expressed by this comment regarding members of the public

who raise concerns over CWM operations, it is not appropriate for NYSDEC to provide a response with respect to these stated opinions.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Brennen, Deanna, President, Niagara USA Chamber, Letter (received February 19, 2013)
2. Brylski, Jeff, President, Teamsters Local 449, Verbal (January 14, 2013 hearing transcript - afternoon)
3. Burrow, Melody, Verbal (January 14, 2013 hearing transcript - afternoon)
4. Christman, Trudy J., Letter (dated January 4, 2013)
5. Powell, Nadine, Director of Business Development, Buffalo-Niagara Partnership, Verbal (January 14, 2013 hearing transcript - afternoon)
6. Stephens, Fred, Letter (dated March 24, 2013)

## **CWM PERMIT RENEWAL NYSDEC RESPONSIVENESS SUMMARY**

### **Section I - Public Comments & Responses**

**Comment No:** 8

**Comment Topic:** Oppose - CWM Regulatory Compliance and DEC Oversight

**Paraphrased Comment:**

While CWM has a long history of fines, it appears they have not changed things since the company is never really in full compliance with the regulations. CWM collaborates with a few in DEC who help them delay clean-ups and cover up problems for more than two decades. History shows that the symbiotic relationship between CWM and the DEC has resulted in ongoing activities at this facility which have negatively affected the community. With respect to CWM, the DEC should be the “Department of Environmental Conversation”, since it engages in little more than a seemingly endless stream of “conversations” about CWM rather than meaningful regulation of their operation. To make matters worse, we [taxpayers] pay their travel expenses for them to come out here to work harder for CWM than they do for the public.

I’m not comfortable leaving the future of this community’s health and safety in the hands of DEC. Because of budgetary woes, its enforcement arm is virtually nonexistent. Also, I always thought the DEC was supposed to work for our environment and us, the common people. Instead it seems DEC gives CWM whatever it wants, permits, extensions, and constantly sides with CWM no matter how much we object.

DEC’s approach to surveillance and remediation over 30 years has created more loopholes than compliance with regulation. As an example, allegations from both sides in the Tonawanda Coke trial this week provide evidence to this effect. While non-enforcement is not an excuse for non-compliance, the *Tonawanda News* aptly reported:

*“... NYS DEC, he said, had granted the plant an exception to the baffles in one area of the plant. While the agency knew the devices were not installed elsewhere as required, he said, it failed to enforce the issue ... the apparatus was in a "clear and obvious location" and that DEC inspectors were well aware of it for decades. ... DEC officials failed to take action even though they had granted exceptions and knew of other violations.”*

DEC is responsible for protecting the citizens of NY State, not a big powerful business. Don’t you think you have given CWM enough? As NY State citizens and fellow human beings we are asking DEC for your help in protecting out interests.

**NYSDEC Response:**

With respect to the matter of CWM regulatory compliance raised by this comment, NYSDEC reviewed CWM's current operations as part of the Permit renewal process, and found them to be in substantial compliance with the regulations and Permit, as stated in NYSDEC's response to Comment #7.

With respect to the opinions expressed by this comment regarding DEC oversight of CWM operations, NYSDEC does not consider it appropriate to provide a response with respect to these stated opinions which are not considered to be related to the CWM Permit or Permit renewal process.

With respect to the matter of Tonawanda Coke raised by this comment, NYSDEC does not consider it appropriate to respond since this is not related to the CWM Permit renewal.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Henderson, Tim, Verbal (January 14, 2013 hearing transcript - afternoon)
2. Mazur, Patricia, Letter #1 (received January 10, 2013)
3. Mazur, Patricia, Letter #2 (received January 30, 2013)
4. Mirabelli, Sandra, Letter (received January 30, 2013)
5. Olsen, Nils, Residents for Responsible Government (RRG), Verbal (January 14, 2013 hearing transcript - evening)
6. Sackman, Megan, E-mail (dated January 30, 2013)
7. Witryol, Amy, Verbal (January 14, 2013 hearing transcript - evening)
8. Witryol, Amy, Letter (dated March 29, 2013)



**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 9

**Comment Topic:** Support - CWM Significance With Regard to NYS Waste Management

**Paraphrased Comment:**

- A. Primary Waste Management – Many New York State companies have and will continue to make significant efforts to reduce to the maximum extent practicable, the volume and toxicity of waste they produce. Most New York companies, where possible, have redesigned processes to eliminate or reduce chemical use and substitute more environmentally preferable chemicals. Many maintain programs for the proper management of chemicals that are designed to reduce the development of hazardous waste. Increasing regulatory oversight, fees and controls have resulted in higher costs for hazardous waste generation. That coupled with a growing environmental awareness by industry as well as hazardous waste reduction opportunities/requirements, serve as incentives for industries to modify their processes to generate less hazardous waste per unit of production. These incentives promote the reuse of materials by an industry within its own process or sell it to another industry for use, so as to recycle as much of the material as technically and economically feasible to recover resources. As a result, primary hazardous waste that is shipped off-site by industry continues to show a steady decline.

That said, some primary waste will continue to be generated in New York, and will continue to require proper handling, treatment and disposal. As the only commercial hazardous and industrial waste treatment, storage and disposal facility in the region, CWM provides access to handling and disposal by proven experts. The facility is a leader in the safety, reliability and technical sophistication, while maintaining full compliance with local, state and federal environmental regulations. The in-state location can assist in reducing expensive transportation and shipping costs. For some New York businesses, the CWM facility is a vital partner in their operations. Without this facility, costs and uncertainty would increase for some NYS industries, which could result in reduced competitiveness for those manufacturers. Therefore, allowing CWM to continue to manage hazardous and industrial non-hazardous waste at permitted levels, benefits New York businesses.

- B. Remedial Waste Management – Remedial waste is generated from clean-ups under state and federal environmental programs as well as other programs. While there is a goal to decrease the amount of primary hazardous waste generated from industrial processes, increases in remedial waste can be viewed as a positive trend since it

reflects increased environmental clean-up actions. Since 2003, New York State has seen a growing amount of remedial waste generated as a result of the clean-ups that have occurred under the Brownfield Cleanup Program (BCP). The BCP was established by New York State to facilitate the voluntary redevelopment or reuse of real property which may be complicated by the presence or potential presence of contaminants. The presence of contamination results in a barrier to redevelopment because lenders are reluctant to issue mortgages on contaminated properties, and developers are hesitant to purchase such properties because of potential liability.

CWM is instrumental in Brownfield and other NYS remedial cleanup projects and has taken such wastes from every County in New York State. CWM accepts waste from sites that allows them to transition from blighted properties to remediated, tax generating properties. More specifically, CWM has accepted waste from the following NYS remedial or Brownfield projects:

- Over 200 tons of Cadmium contaminated soil, concrete, clay tile and materials from a clean-up effort in the City of Rochester;
- Over 5000 tons of contaminated soil from a Brooklyn, New York remediation project (Rolling Frito-Lay Sales LP);
- Over 250 cubic yards of remedial construction trench material from a Sanborn, New York clean-up site; and
- A currently ongoing project which, when completed, is expected to result in a total of over 100,000 tons of contaminated soil, concrete and debris from a private clean-up of the GE Power Train site in Massena, New York.

Niagara Falls and the surrounding areas have provided generations with employment at chemical industries such as the Carborundums, the Hookers, the Occidentals, the Duponts and so on. However, they didn't understand proper environmental practices back in those days, and as a result they have polluted some of our area properties. So now it's up to our generation to do the proper thing, and have a facility such as CWM and other landfills in the area to help clean-up these contaminated properties in our area.

Therefore, the CWM Model City facility should be allowed to continue in operation giving the instrumental role this facility plays in ensuring the cost-effective execution of the State's successful Brownfield Clean-up Program, as well as other critical remediation projects.

**NYSDEC Response:**

- A. Primary Waste Management – This comment argues that although the generation of primary waste by New York State industries is steadily declining, some amount of such waste will continue to be generated and require proper handling, treatment and disposal. The comment goes on to purport that the CWM facility plays a necessary role in the management of these primary wastes, and due to its in-State location, provides a vital, cost effective service that benefits NYS businesses. This benefit to

NYS business is presented by the comment as a reason to allow continued operation of the CWM facility through renewal of its Permit.

Potential effects on NYS business may be considered during the Siting of a new industrial hazardous waste management facility or the expansion of land disposal capacity at an existing facility under the State's Siting Law/Regulations/Plan (see Chapter 9, Section II on Page 9-6 of the New York State Hazardous Waste Facility Siting Plan). However, the statutes and regulations governing the Permit renewal process do not provide any basis for consideration of potential benefits to NYS businesses. NYSDEC understands the potential benefits provided by this CWM facility, as expressed in this comment. However, the decision on CWM's Permit renewal application must, by statute and regulation, be based on issues related to protection of human health and the environment. Therefore, the decision to issue the renewal of CWM's Permit does not involve consideration of NYS business issues.

- B. Remedial Waste Management – This comment argues that the CWM facility should be allowed to continue operating since it plays an instrumental role in the NYS Brownfield Cleanup Program (BCP) and other critical NYS remediation projects. For reasons similar to those expressed above, the statutes and regulations governing the Permit renewal process do not provide any basis for consideration of the CWM facility's potential benefits to NYS BCP or other remedial projects, and as such it was not involved in NYSDEC's decision to issue the CWM Permit renewal.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Brennen, Deanna, President, Niagara USA Chamber, Letter (received February 19, 2013)
2. Klettke, Bart, P.E., Verbal (January 14, 2013 hearing transcript - evening)
3. Powell, Nadine, Director of Business Development, Buffalo-Niagara Partnership, Verbal (January 14, 2013 hearing transcript - afternoon)
4. Rosario, Stephen, CAE, Executive Director, New York State Chemical Alliance, Letter (dated January 3, 2013)
5. Stephens, Fred, Letter (dated March 24, 2013)
6. Suarez, Darren, New York State Business Council, Verbal (January 14, 2013 hearing transcript - afternoon)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 10

**Comment Topic:** Oppose - CWM Significance With Regard to NYS Waste Management

**Paraphrased Comment:**

The significance of CWM to the management of New York State hazardous waste has been exaggerated by misinformation, some of which has regularly been contradicted by the DEC's own records. Most NYS Brownfield clean-up project waste is contaminated, but does not meet the regulatory definition of hazardous waste, meaning that most Brownfield waste does not go to a hazardous waste landfill such as CWM's. Historical information from the DEC shows that primary hazardous waste generated by the manufacturing industry is typically about only one percent (1%) of the total waste CWM takes in. In fact, the number of New York State generators that send more than a nominal number of trucks to CWM from the entire State, can usually be counted on one hand. The vast majority of the eight (8) million tons of toxic waste brought to this CWM facility was shipped here from outside the state or country.

State and federal laws discouraging the practice of land disposal for hazardous waste has led to better technology to reduce the amount of hazardous waste produced, reducing demand for disposal capacity and closing many facilities like CWM across the United States. New York State's own Hazardous Waste Facility Siting Plan states there is no need for additional hazardous waste capacity. As a result, procedures should be implemented to close down the existing CWM landfill facility.

**NYSDEC Response:**

NYSDEC acknowledges, but does not expressly agree or disagree with the specific claims made in the first paragraph of this comment. For reasons similar to those expressed in NYSDEC's response to Comment #9, NYSDEC does not consider this information as having any bearing on the CWM Permit renewal.

This comment also makes the claim that the vast majority of waste brought to CWM is not from NYS. With respect to hazardous waste brought to CWM for land disposal, NYSDEC records indicate that from the year 2000 up through 2011, out-of-state quantities exceeded in-state quantities in 10 of the 12 years during the period with out-of-state and in-state totals over this 12 year period being approximately 1,138,000 tons and 777,000 tons, respectively. Therefore, it can be said that over this period, the percentage of out-of-state hazardous waste disposed of at CWM was about 59% with in-state being 41%. It is important to note however that these figures are for hazardous waste only, and do not include the quantities of industrial non-hazardous waste disposed of at CWM

during this period.

The comment suggests that since New York State's Hazardous Waste Facility Siting Plan (i.e., Siting Plan) states there is no need for additional hazardous waste capacity, CWM's landfill should be closed. However, it should be understood that the Siting Plan is, by statute, only applicable to new industrial hazardous waste facilities and or the expansion of land disposal capacity at an existing facility. Therefore, the Plan has no bearing on the renewal of CWM's Permit that includes its existing hazardous waste landfill which previously received a certificate of "environmental safety and public necessity" in accordance with New York State's Siting Law.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. McGreevy, Ed, Sierra Club – Niagara Group, Verbal (January 14, 2013 hearing transcript - afternoon)
2. Olsen, Nils, Residents for Responsible Government (RRG), Verbal (January 14, 2013 hearing transcript - evening)
3. Schneekloth, Lynda, Chair, Sierra Club – Niagara Group, (also Roger Downs), Letter (dated January 14, 2013)
4. Witryol, Amy, Verbal (January 14, 2013 hearing transcript - evening)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 11

**Comment Topic:** Support – CWM Economic Effects

**Paraphrased Comment:**

The CWM Model City facility represents a significant component to the overall Niagara County and regional economy. It generates significant direct and indirect benefits in the areas of wages, salaries and benefits, operating expenditures, capital expenditures, fees, taxes and host agreement benefits. CWM is one of the largest taxpayers in the community, contributing millions to the Niagara County tax base. Besides tax contributions, it has given rise to economic activities throughout the community and State via the goods and services consumed by the facility and its employees. In addition, CWM has stepped up to the plate in this community with financial support for local organizations such as Kiwanis Club, Lions Club and local food banks, not to mention contributing to local festivals geared to helping the local economy. The continued operation of this CWM facility is important to the economic vitality of State and local businesses as well as the local community.

**NYSDEC Response:**

This comment cites what it purports to be a number of economic benefits to the local community and New York State that would be derived from the continued operation of the CWM facility. However, for reasons similar to those presented in NYSDEC's response to Comment #3, NYSDEC's decision to renew CWM's operating Permit does not involve consideration of such economic matters. As previously stated, the decision to renew CWM's Permit is based on issues related to protection of human health and the environment in accordance with the applicable statutes and regulations.

**Permit Revisions:** None

**Persons/Groups That Submitted This Comment:**

1. Brabec, DuWayne, Comment Form (received January 14, 2013)
2. Brennen, Deanna, President, Niagara USA Chamber, Letter (received February 19, 2013)
3. Burnett, Gerald, Letter #2 (received December 20, 2012)
4. Craft, Ron, Letter (received December 24, 2012)
5. Gregorski, Florence, Letter (received December 20, 2012)
6. Hastings, Phyllis B., Letter (received December 26, 2012)
7. Horvath, Dennis D., Letter (received December 31, 2012)
8. Kalaga, Ted, Letter #1 (received January 2, 2013)

9. Kilmer, Daniel F., Letter (received January 7, 2013)
10. Kuligowski, Andrew, Letter #1 (received December 31, 2012)
11. Nichols, Janette H. & Gerard C., Letter #1 (received December 21, 2012)
12. Orsi, Nancy J.D., Letter (dated February 7, 2013)
13. Powell, Nadine, Director of Business Development, Buffalo-Niagara Partnership, Verbal (January 14, 2013 hearing transcript - afternoon)
14. Suarez, Darren, New York State Business Council, Verbal (January 14, 2013 hearing transcript - afternoon)
15. Unsigned, Letter (received January 7, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 12

**Comment Topic:** Oppose - CWM Economic Effects

**Paraphrased Comment:**

Property values in the towns of Lewiston and Porter are considerably lower than similar communities that are not burdened by a hazardous waste landfill. There are potential residents who would favorably consider relocating to our community, were it not for the presence of the active CWM facility and its proximity to the school. This is one of the most beautiful areas in the country, but having a hazardous waste landfill right in the middle of this picture postcard doesn't look attractive. Combine that with the fact that you can only eat one fish from the Niagara River a month, and it's no wonder why people aren't moving here. The under five population of this area has dropped 30 percent, which shows that people are not moving to our area because they're seeing the effects on the people who live here and the burdens we must continue to shoulder. This results in a depressed housing market which in turn results in significant revenue loss from the failure to construct new residential housing.

There has been a real lost opportunity to attract clean, sustainable business to the community, including those related to tourism, due to the perception that this area is basically a hazardous waste landfill. As a result, there's been an associated loss of property tax revenue related to the presence of the CWM facility in this community.

CWM actively campaigns to remind us how much they give to this community. But what about what they take away? CWM's membership fees and donations to organizations like the Business Council and the Buffalo-Niagara Partnership seem considerably larger than its contributions to our local economy. When companies like CWM violate environmental regulations they reach into the same accounts to pay fines as they use for donations to local charities. CWM's list of so-called charitable causes even includes our own governing bodies. Let's make something perfectly clear, CWM handing out money to various organizations and causes, should not equate to this community needing CWM. When our town hall becomes dependent on donations from a company which are based on how much waste that company buries in our town, it's all over. At that point our town government and CWM become partners in the community's downfall.

Our County Legislators have called CWM an economic albatross around our necks. The expansion of CWM affiliates in other parts of the country has lead to the closing of public schools. It discourages investment. One need only look at CWM and affiliate campaign donations to politicians and the committees they control to understand why



they are located here. Why they pay no disposal tax in contrast to all other states which tax far more than the amount obtained from local host agreements. Why they pay so much less per acre in property taxes than the rest of us, and why they robbed us of millions of dollars in low cost power.

The history of CWM's decisions has been based on profitability, regulatory requirements and sometimes insurance expense; not on what is best for the community. When it comes to a risk-benefit analysis, it's the community residents who are always tasked to take the risks, while CWM always gets the benefits. There is absolutely no benefit to having CWM in our community.

**NYSDEC Response:**

This comment cites what it purports to be a number of economic detriments to the local community that result from the continued operation of the CWM facility. However, for reasons similar to those presented in NYSDEC's responses to Comments #3 & 11, NYSDEC's decision to renew CWM's operating Permit does not involve consideration of such economic matters. As previously stated, the decision to renew CWM's Permit is based on issues related to protection of human health and the environment in accordance with the applicable statutes and regulations.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Agnello, Lauren, Verbal (January 14, 2013 hearing transcript - afternoon)
2. Chabue, Louis, E-mail (received February 13, 2013)
3. Henderson, Tim, Verbal (January 14, 2013 hearing transcript - afternoon)
4. Olsen, Nils, Residents for Responsible Government (RRG), Verbal (January 14, 2013 hearing transcript - evening)
5. Smith, Brian P., Program & Communications Director, Citizens Campaign for the Environment), Verbal (January 14, 2013 hearing transcript - afternoon)
6. Witryol, Amy, Verbal (January 14, 2013 hearing transcript - evening)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 13

**Comment Topic:** Support – Site Land Use History and Clean-up

**Paraphrased Comment:**

Last century, the US Government took this land and contaminated it. We didn't have a choice since the government does things in secret during wartime. So when they were done with it, the land on this site was contaminated. It couldn't be fixed so regular houses or public businesses could be built on this land. But the CWM facility that is there right now is the perfect business for this land.

The history of this CWM site is that it is located within the Lake Ontario Ordinance Works (LOOW) properties which were previously contaminated. Although having a hazardous waste landfill in our community has its drawbacks, since this land was previously contaminated, it needs to be on the tax rolls through some productive activity. What else are you going to use this land for? You're not going to use it for hotels, motels, shopping malls, orchards or other such public uses. So you may as well adhere to proper land use practices and use it for landfilling activities. Also, CWM is taking care of this land. They're doing the proper thing by cleaning up the low level radioactive waste on the property.

Therefore, the CWM facility operation is the appropriate use for this contaminated property.

**NYSDEC Response:**

NYSDEC acknowledges the land use history of the CWM property as described in this comment. We also acknowledge that the previous contamination and land disposal on this property which prompted the issuance of usage restrictions (e.g., NYSDOH Order and Deed Restrictions), limits alternative uses of this property. Furthermore, NYSDEC finds the CWM facility operation to be consistent with current zoning.

**Permit Revisions:** None

**Persons/Groups That Submitted This Comment:**

1. Burrow, Melody, Verbal (January 14, 2013 hearing transcript - afternoon)
2. Klettke, Bart, P.E., Verbal (January 14, 2013 hearing transcript - evening)
3. Orsi, Nancy J.D., Letter (dated February 7, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 14

**Comment Topic:** Oppose – Site Land Use History and Clean-up

**Paraphrased Comment:**

This property has been operated as a hazardous waste disposal area since 1972. Prior to 1972, the property was used for a variety of industrial purposes. These purposes included:

- 1942-1943: As part of the Lake Ontario Ordinance Works (LOOW), portions of the site were used for the manufacturing of trinitrotoluene (TNT). During this period, highly acidic and toxic effluent was generated and stored at the site.
- 1944-1946: As part of the Northeast Chemical Warfare Depot, portions of the site were used for temporary storage and shipment of ammunition and chemicals. The site was concurrently used in conjunction with the Manhattan Project (which conducted research associated with the development of the atomic bomb).
- 1946-1954: A part of the site was used by the Atomic Energy Commission for the storage and/or burial of radioactive materials. Considerable effort has been made by the U.S. government to locate radioactive areas at the site and to remove radioactive solid wastes.
- 1955-1959: Areas of the site were used to bury and burn waste from the U.S. Air Force and U.S. Navy projects to develop high energy rocket fuels.
- 1966-1972: The property was sold to a real estate group in 1966 and was subsequently sold to Chem-Trol Pollution Services in 1972. Private industrial waste operations which began in 1972 included reclamation of waste oils, distillation of waste solvents, aqueous waste treatment and land disposal.

In 1973, Chem-Trol was purchased by SCA Services, Inc. and in 1984 the site was acquired by an affiliate of Waste Management Incorporated (WMI). The facility is now owned by WMI, and it has been operated since 1988 by CWM, an affiliate of WMI. Current operational units at the facility include waste receiving areas, storage and mixing tanks, drum handling and stabilization areas, chemical treatment units, biological treatment impoundments, and secure landfills.

As required by state and federal hazardous waste regulations, CWM has investigated over 80 solid waste management units (SWMUs) and areas of concern at the Model City facility. Based upon the investigations, it has been determined that hazardous waste

constituents have been released to the soil and groundwater beneath the facility. Contaminants include volatile and semi-volatile organic compounds and polychlorinated biphenols (PCBs).

This site occupies about 750 acres that were once some of the most fertile farm land in this country; destroyed forever. Disturbance of soil and discharge of liquids from this site are of primary concern. There are creeks that run through the CWM property which empty directly into Lake Ontario, constituting pathways for contaminants to migrate. There's a two mile long abandoned World War II TNT pipeline that runs under an existing landfill, creating a French drain running into local aquifers which many surrounding farms depend on for clean well water. This site is not as clean as CWM would like everyone to believe.

In February 2001, the NYSDEC issued a modified CWM Permit for final corrective measures that are still in progress. In the operating agreement, CWM is required to prepare a site management plan related to its radiological characterization and additional on-site groundwater extraction and treatment. This is now 2013, twelve years after final corrective measures were put in place and it's still being studied. Twelve years is long enough to study the problem; action must be taken to clean-up the mess now. Even after these final measures were put in place, recent discovery of two new areas of groundwater contamination as identified in the Draft Permit supports the concern about the inadequacy of environmental surveillance and monitoring. Based on this history, it seems one should expect even more corrective actions to appear after a CWM permit decision is made. As a result, the Permit renewal must revisit all prior plans and approvals. It is essential that at this juncture, the DEC requires CWM to address the critical issues necessary to protect human health and the environment. We need to have real monitoring and a procedure to mandate changes to stop future emissions from the site. No new operating permit should be allowed until CWM, first complies with required clean-up activities, or a condition of any such permit renewal should be the timely completion of the corrective actions which were required 12 years ago.

Groundwater Contamination Corrective Measures – As described above, there are concerns about the situation which compels NYSDEC to modify CWM's operating permit to require "additional corrective measures to remediate two areas of groundwater contamination which were recently discovered by groundwater investigations" (NYSDEC Fact Sheet). This should also concern the NYSDEC. The extended permit should be modified to require more intensive and frequent monitoring connected with the disposal/storage of waste. The stakes are high should this groundwater migrate to water bodies and then Lake Ontario, not only for their own inherent ecological integrity, but their value to the communities' quality of life and economic livelihoods. These "recently discovered" contaminations should raise red flags for requiring closer monitoring of operations under this extended permit. Such incidents should be prevented, not discovered and addressed.

**NYSDEC Response:**

NYSDEC has reviewed the description of the CWM land use history presented in the above comment in the bullet items and subsequent two paragraphs. NYSDEC finds this description to be generally accurate with one exception. A review of Niagara County property deeds conducted by NYSDEC staff finds that the current owner of the 6 parcels which comprise the “CWM property” is “CWM Chemical Services, L.L.C.”, not its parent corporation WMI as stated in the comment.

The comment expresses concern over soil disturbance and discharge of liquids from the site, as well as concern over the creeks which run through the site acting as potential pathways of contaminant migration. However, it should be noted that protections have been put in place through Permits and other regulatory documents with respect to these contaminant migration concerns. With respect to soil disturbance at this site, CWM’s Part 373 Hazardous Waste Management Permit requires CWM to follow NYSDEC approved plans for any soil disturbance activities conducted on this site. These plans require monitoring for chemical and radiological constituents during soil excavation/disturbance, and proper management of any contamination that might be encountered. CWM discharges of treated wastewater to the Niagara River and surface water run-off from the site into Four Mile & Twelve Mile Creeks, are regulated under CWM’s Part 750 State Pollutant Discharge Elimination System (SPDES) Permit. This Permit sets environmentally protective concentration limits on the discharge of a variety of site contaminants to surface water bodies, and requires CWM monitoring of treated wastewater and surface water discharges to confirm that contaminant concentrations are within these established limits. NYSDEC considers that the above requirements stipulated by the Part 373 & 750 Permits provide a substantial degree of protection against contaminant migration from this site.

With respect to the “two mile long TNT pipeline” mentioned in this comment, it was encased in concrete and it does not run beneath any of the landfills at the facility. In 1999, this pipeline was subject to a US Army Corp of Engineers (USACE) interim removal project. Portions of the pipeline were either removed or flushed and cleaned as part of this USACE project.

This comment suggests that NYSDEC is still studying the contamination associated with this site twelve years after the establishment of final corrective measures in 2001, and that NYSDEC is only now requiring CWM to prepare a site management plan with respect to the contamination. NYSDEC considers this to be an improper characterization of the past and current situation with respect to corrective action. The characterization that NYSDEC has been “studying” the problem for the last 12 years is inaccurate. The corrective measures which were implemented in February 2001 included the removal of contaminated soils, the stabilization of waste (solidified into a concrete-like material), the capping of portions of the site with clean materials to prevent contaminant exposure/migration, and the removal and treatment of groundwater. In addition, requirements were put in place for monitoring of the corrective measures to continuously determine their effectiveness in preventing exposures and migration of contamination.

The Site Management Plan now being required by the Permit (Permit Condition D in Schedule 1 of Module I) is to be a consolidation and updating of previously approved plans into a single comprehensive document to improve the efficiency of site monitoring.

NYSDEC considers consolidating all required corrective measures for the site into a single document to be a prudent endeavor which will serve to improve corrective measures implementation and oversight.

With respect to groundwater contamination corrective measures, this comment raises concerns over modifications presented in the Draft Permit for additional corrective measures to remediate groundwater contamination. These corrective measures were deemed necessary to control two areas of groundwater contamination identified in Process Area 3 and Process Area 4. At Process Area 3, soil borings at known area of historical contamination (former Tank Farm E) provided further characterization of the area. Based on this additional characterization, CWM and NYSDEC considered it prudent to construct an additional groundwater extraction trench and associated pumping system to extract and treat contaminated groundwater in Process Area 3 and enhance previously established groundwater contaminant migration control. At Process Area Phase 4, additional groundwater extraction wells were installed to address another area of known contamination up-gradient of the existing extraction system. Based on recent monitoring of groundwater levels in Process Area 4, these additional extraction wells and pumping systems were deemed to lower groundwater levels so as to prevent seeps of contaminated water from reaching the ground surface and migrating via surface water flow. So as not to unduly delay these additional corrective measures, CWM requested and NYSDEC approved a Temporary Authorization request (see 6 NYCRR 373-1.7(f) of the regulations) to install and operate these groundwater extraction systems. These systems are currently in operation. Also, it should be noted that the presumed source of the contamination in these areas was removed over 30 years ago and groundwater monitoring indicates that contaminants have horizontally migrated less than 50 feet.

Also, this comment states that the need for these additional groundwater corrective measures suggests the potential for even more corrective measures in the future and demonstrates the inadequacy of the current monitoring systems. Furthermore, the comment states that this indicates the need to revisit all prior approved plans and for the renewed Permit to require closer monitoring and a timely completion of corrective actions. NYSDEC disagrees that the need for these additional groundwater corrective measures indicates flaws in the corrective action and monitoring systems put in place in 2001. To the contrary, NYSDEC considers that these additional systems demonstrate the adequacy of the 2001 corrective action program. This program was never intended to be stagnant and has built into it a provision to modify the Permit and include additional final corrective measures as necessary, in the event that monitoring or other investigations identifies Solid Waste Management Units (i.e., areas of contamination). In this case the procedures established by the 2001 program, which are contained in Attachment E, Appendix E-3 of the Permit, were followed and successfully lead to the installation of these additional corrective measures. Furthermore, it should be understood that these additional measures were installed to enhance the performance of the existing

groundwater extraction systems, and were not instituted to correct flaws in the existing systems. Therefore, NYSDEC does not see a need to make further modifications to the Permit at this time with respect to making the changes to the current CWM corrective action program as have been suggested in this comment.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Agnello, Lauren, Verbal (January 14, 2013 hearing transcript - afternoon)
2. Agnello, Vincent, Verbal (January 14, 2013 hearing transcript - afternoon)
3. Agnello, Vincent, Letter (dated January 14, 2013)
4. Henderson, Tim, Verbal (January 14, 2013 hearing transcript - afternoon)
5. Maziarz, George D., New York State Senator – 62<sup>nd</sup> District, Letter (dated March 21, 2013)
6. McGreevy, Ed, Sierra Club – Niagara Group, Verbal (January 14, 2013 hearing transcript - afternoon)
7. Schneekloth, Lynda, Chair, Sierra Club – Niagara Group, (also Roger Downs), Letter (dated January 14, 2013)
8. Smith, Brian P., Program & Communications Director, Citizens Campaign for the Environment), Verbal (January 14, 2013 hearing transcript - afternoon)
9. Witryol, Amy, Verbal (January 14, 2013 hearing transcript - evening)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 15

**Comment Topic:** Support – Waste Transport To/From CWM Facility

**Paraphrased Comment:**

In approving a previous re-zoning request, the town obtained CWM's commitment to the size of waste trucks, training of their drivers and the times of their operation. This began an ongoing monitoring relationship with CWM and its people that continues to a lesser degree to this day. Those complaining about 1500 truckloads of PCBs going to this facility fail to calculate the very small amount of actual oil in the soil represented by each truck volume, soil which is actually holding tightly to the oil and preventing its release.

In observing trucks entering this site and traveling to their check area, it should be said that CWM is doing a good job and their employees are prepared and trained for all types of waste being brought in.

**NYSDEC Response:**

NYSDEC notes the additional waste transportation controls agreed to by CWM through re-zoning as expressed in this comment. With respect to the portion of the comment characterizing the amount of PCB oils in each truckload of contaminated soil CWM receives, NYSDEC would acknowledge that it is small in comparison to the soil volume.

However, it should be noted that CWM receives PCB oils in decommissioned transformers, drums and other containers which it processes and sends off-site for incineration.

With respect to the trucks entering the facility, NYSDEC is aware that all waste transport vehicles are inspected by CWM personnel upon arrival, and acknowledges the opinion expressed in this comment regarding the adequacy of these inspections.

**Permit Revisions:** None

**Persons/Groups That Submitted This Comment:**

1. Phoenix, Richard C., PhD, Letter (dated January 17, 2013)
2. Spira, Joan, Comment Form (received January 14, 2013)



**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 16

**Comment Topic:** Oppose – Waste Transport To/From CWM Facility

**Paraphrased Comment:**

Having a site where trucks loaded with toxics must pass through residential neighborhoods and by our schools was wrong when the permit was originally issued and still wrong today. Daily, numerous trucks go through our once peaceful country setting creating dangerous situations at intersections and an atmosphere where accidents are waiting to happen which may involve school buses and young high school drivers. Not only was there a recent accident and death from CWM truck traffic, but these trucks are often found leaking their poisons on the land and into our fresh water resources along their route. Why are these dangerous toxics not transported in sealed containers?

Driving behind these trucks, one can hear particles from the waste hitting the car and in many cases, smelling the chemicals from the waste load. Is this protecting our community? The DEC must mandate additional restrictions, beyond requiring tarps over these toxic loads, in order to protect our school children and our community.

The trucks are frequent, loud and leave the worst odor in the air, especially in warm months. Along Creek Road Extension there are numerous garbage trucks which you can hear and smell from 300 feet away. We can't open our front windows because CWM sends truckloads of dead animal carcasses down the road all year long, not to mention the chemical smells. In the summer, the odor is unbearable. We are sick of hearing the "jake-brakes" squawking on these trucks and picking up pieces of truck parts and garbage from our yards that is thrown from the top and sides of these trucks. We can't mow our lawns until we clear the garbage and heavy metal pieces.

The trucks speed down Creek Road so fast it is dangerous to let our children play in the front yards. One truck pulled off the road and sank, leaving a terrible rut in the front yard. The dispatcher said they send someone out promptly to fill it, but that never happened.

CWM was supposed to send the trucks through town, not constantly down Creek Road. They said they did not "split" the traffic because it costs too much in gas. Also, they start coming down the road between 3:00 and 5:00 am and continue all day long. CWM constantly goes against their word to start at 7:00 am. CWM tells us that the drivers are "independent" and CWM does not control them.

The DEC should step forward and lead by example by doing what it can to put an end to the insane practice of hauling toxic wastes from other states across our community's roads and exposing us all to the risks associated with this outdated practice.

**NYSDEC Response:**

NYSDEC acknowledges the concerns expressed by this comment regarding waste hauler truck traffic and the potential for accidents.

With regard to the concerns expressed by this comment over potential container leakage and odor/particle releases, it should be understood that the design of containers with respect to how they are sealed and covered during transport is regulated by the US Department of Transportation (DOT). The regulations upon which the subject Part 373 hazardous waste Permit is based apply to containers once they arrive at the facility, and as such, the Permit only requires design standards for containers storing waste at the facility, not during transport. Similarly, concerns expressed by this comment over truck speed on local roads, noise and off-site property damage are beyond the regulatory jurisdiction of the Part 373 Permit. That said, waste transport issues were evaluated during the State Environmental Quality Review (SEQR) process for the original Permitting of CWM's existing RMU-1 landfill. The Permit renewal does not propose any significant modifications that would alter that original SEQR evaluation.

With regard to complaints expressed in this comment over "garbage" odors from numerous trucks and "truckloads of dead animal carcasses", be advised the Permit explicitly prohibits CWM from accepting "putrescible-type" wastes that could generate odors from decaying material. Therefore, it is unlikely that waste transport vehicles inbound to the CWM facility would produce odors associated with decaying garbage.

As a result of the Siting process for CWM's RMU-1 landfill, the Siting Board required that conditions be placed in the Permit requiring CWM to enforce restrictions waste haulers into their facility with respect to their local route of travel and arrival time periods. With regard to the route of travel, these conditions, which remain in the new Permit, involve the use of Creek Road, and do not allow CWM to "split" incoming waste haulers to send some through town. With regard to restrictions on arrival time periods, while there have been some haulers identified as arriving during restricted time periods from time to time, NYSDEC has not observed any substantial "non-compliance" with respect to these time period restrictions to the extent expressed by the comment.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Acker, Garold B., Letter (dated January 30, 2013)
2. Agnello, Lauren, Verbal (January 14, 2013 hearing transcript - afternoon)
3. Agnello, Vincent, Verbal (January 14, 2013 hearing transcript - afternoon)
4. Agnello, Vincent, Letter (dated January 14, 2013)
5. Alati, Carmela, Verbal (January 14, 2013 hearing transcript - afternoon)

6. Aversa, Tony & Maria, Letter#1 (dated February 3, 2013)
7. Aversa, Tony & Maria, Letter#2 (dated February 3, 2013)
8. Beahan, Laurence T., Conservation Chair, Sierra Club – Niagara Group, Letter (dated July 18, 2012)
9. Bruening, Fred & Diane, Letter (dated January 28, 2013)
10. Fideli, April, President, Residents for Responsible Government (RRG), Verbal (January 14, 2013 hearing transcript - evening)
11. Lamb, Charles, Letter #2 (received January 17, 2013)
12. Mazur, Patricia, Letter #1 (received January 10, 2013)
13. Mazur, Patricia, Letter #2 (received January 30, 2013)
14. McGhee, Louise, Niagara County Employment and Training, E-mail (dated January 29, 2013)
15. McGreevy, Ed, Sierra Club – Niagara Group, Verbal (January 14, 2013 hearing transcript - afternoon)
16. Schneekloth, Lynda, Chair, Sierra Club – Niagara Group, (also Roger Downs), Letter (dated January 14, 2013)
17. Smith, Nancy, Letter, (dated January 29, 2013)
18. Warren, Rose Mary, Letter (dated January 28, 2013)
19. Weld, Marn, Letter (received July 17, 2012)
20. Zohur, Anne, Letter #2 (dated January 30, 2013)

## **CWM PERMIT RENEWAL NYSDEC RESPONSIVENESS SUMMARY**

### **Section I - Public Comments & Responses**

**Comment No:** 17

**Comment Topic:** Support – CWM Proposed RMU-2 Landfill

**Paraphrased Comment:**

We encourage NYSDEC to move forward and complete their review CWM's Permit modification application for the proposed RMU-2 landfill with haste, so that New York State is not without safe, proper hazardous waste disposal. CWM needs to be allowed to add more space for disposal and put in another landfill area. Without it, the tax base will be harmed and we'll all pay more taxes. Also, our neighbors will be out of work. Without it, our community is not better off, but worse off.

In order to avoid the risk of New York State running out of hazardous waste disposal capacity and to remain compliant with NY ECL-27-1102, we strongly encourage the issuance of a notice of complete application for CWM's proposed RMU-2 landfill.

**NYSDEC Response:**

NYSDEC acknowledges the views expressed by this comment regarding CWM's Permit modification application for the proposed RMU-2 landfill. However, this RMU-2 application is being managed through a separate regulatory process and is not part of this CWM Permit renewal. Therefore, NYSDEC does not consider it necessary or appropriate to address the specifics of this comment at this time.

**Permit Revisions:** None

**Persons/Groups That Submitted This Comment:**

1. Brylski, Jeff, President, Teamsters Local 449, Verbal (January 14, 2013 hearing transcript - afternoon)
2. Burnett, Gerald, Letter #2 (received December 20, 2012)
3. Burrow, Melody, Verbal (January 14, 2013 hearing transcript - afternoon)
4. Christman, Trudy J., Letter (dated January 4, 2013)
5. Craft, Ron, Letter (received December 24, 2012)
6. Gregorski, Florence, Letter (received December 20, 2012)
7. Hastings, Phyllis B., Letter (received December 26, 2012)
8. Horvath, Dennis D., Letter (received December 31, 2012)
9. Kalaga, Ted, Letter #1 (received January 2, 2013)
10. Kilmer, Daniel F., Letter (received January 7, 2013)
11. Kuligowski, Andrew, Letter #1 (received December 31, 2012)

12. Rosario, Stephen, CAE, Executive Director, New York State Chemical Alliance, Letter (dated January 3, 2013)
13. Unsigned, Letter (received January 7, 2013)

## **CWM PERMIT RENEWAL NYSDEC RESPONSIVENESS SUMMARY**

### **Section I - Public Comments & Responses**

**Comment No:** 18

**Comment Topic:** Oppose - CWM Proposed RMU-2 Landfill

**Paraphrased Comment:**

CWM has applied for permits to build a new hazardous waste landfill which will result in toxic materials being imported into our community for decades to come. Residents of this community and environmental organizations oppose any new hazardous waste landfill in this area. It is dangerous to our environment, detrimental to our economy and not needed, as explained below:

- The New York State Hazardous Waste Facility Siting Plan adopted the State on October 18, 2010 says that no additional hazardous waste facilities are needed in this state. Specifically, Chapter 6 of the Plan which discusses facility need, indicates that based on the national availability of such facilities, there are sufficient Treatment, Storage and Disposal (TSD) facilities for management of hazardous waste generated in New York now, and will be for the foreseeable future. Also, since USEPA will periodically revisit the issue of national capacity and need through analysis of available data, regulators at both the state and federal levels will have years of lead time to address potential capacity shortfalls. Therefore, based on DEC's own plan, this CWM expansion (or new landfill) is not needed.
- CWM's boosters often cite the economic benefit CWM brings to the community saying that the Siting Plan offers such benefits as a reason for expansion of hazardous waste facilities. However, the plan calls as much attention to the economic downside of such facilities as it does to the positive cash flow elements. Specifically, the Section of the plan in question states:

“...whether approving the facility will result in significant economic costs or benefits to New York State, the community where the proposed facility will be located or New York industry, or, alternatively, whether the denial of an application will cause significant cost or benefit. Examples to consider include ... potential reduction in property values, new housing construction, attracting new clean sustainable business, tourism and tax dollars...”

The Niagara County Legislature has passed a resolution opposing CWM expansion declaring such expansion to be “a negative to the county's growth and well-being.” This view is shared by the Town of Lewiston and the Lewiston-Porter School

District. It is important in this case that questions be asked as to whom reaps the benefits and whom bears the costs. The only entity that will benefit from a new landfill is CWM.

- Having another landfill that is detrimental to the health of residents can never be good. Continuing to have trucks carrying toxics to the a new CWM landfill going past our school often leaking their poisons puts our children and grandchildren at high risk for all kinds of cancer and health problems. Given that the rates for some types of children's cancers in the vicinity of CWM are higher than state averages, clearly a health impact study should be done before any thought of further importation of toxic waste into a new area landfill is considered.
- Consider that this is a beautiful area – Niagara Falls and the Niagara River, the beautiful Fatima Shrine, not to mention the importance of keeping the Great Lakes as clean as possible. Another landfill at CWM would improperly perpetuate having our beautiful area be the dumping ground for hazardous materials from other States and Canada. The Western New York area has endured enough as far as landfills are concerned. In addition to Love Canal and the problems with the Niagara Falls Storage Site, as well as the other landfills in our area, Covanta is planning a waste burning facility in nearby Niagara Falls which will result in train loads of NY City coming to our area. This area should be a tourist destination, not a toxic waste landfill. Enough is Enough!

Regarding the location of CWM's proposed new landfill, it was deemed too polluted for a landfill to be built there. It has to be cleaned up before the landfill can be constructed. That's not science, that's insanity.

The current process should have dealt with the closing requirements for this facility, not an expansion of the CWM landfill and revised requirements for continued operation as contained in the 5 huge books of regulations which were put on display. Some were told that the expansion of CWM's landfill would be contingent on the approval these regulations and would not require another public hearing. Obviously there's some confusion about the intersection of the facility permit which is currently being considered and the pending application for a massive new hazardous waste landfill that deserves clarification.

**NYSDEC Response:**

NYSDEC acknowledges the views expressed by this comment regarding CWM's Permit modification application for the proposed RMU-2 landfill. However, as stated in NYSDEC's response to Comment #17, this RMU-2 application is being managed through a separate regulatory process and is not part of this CWM Permit renewal. Therefore, NYSDEC does not consider it necessary or appropriate to address the specifics of this comment at this time.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Acker, Garold B., Letter (dated January 30, 2013)
2. Agnello, Vincent, Verbal (January 14, 2013 hearing transcript - afternoon)
3. Aversa, Tony & Maria, Letter#1 (dated February 3, 2013)
4. Aversa, Tony & Maria, Letter#2 (dated February 3, 2013)
5. Beahan, Laurence T., Conservation Chair, Sierra Club – Niagara Group, Letter (dated July 18, 2012)
6. Bittner, Jim, President, Niagara County Farm Bureau, Letter (dated March 28, 2013)
7. Brennen, Deborah, Letter (dated January 29, 2013)
8. Brennen, Joseph, Letter (dated January 29, 2013)
9. Bruening, Fred & Diane, Letter (dated January 28, 2013)
10. Chabue, Louis, E-mail (received February 13, 2013)
11. Clark, Tom, Letter (dated February 1, 2013)
12. DiFranco, A., Letter (received February 3, 2013)
13. Edwards, Annie, Letter (received February 3, 2013)
14. Funk, Edwin & Lynn, Letter (dated January 28, 2013)
15. Harrington, Sharon, Letter (dated February 16, 2013)
16. Hathaway, Barbara, Letter (received February 20, 2013)
17. Haven, Alvin R., Letter (received February 28, 2013)
18. Henderson, Tim, Verbal (January 14, 2013 hearing transcript - afternoon)
19. Herbst, Mary, Letter (dated January 29, 2013)
20. Ivey, Duaine, Letter (dated January 31, 2013)
21. Lamb, Charles, Letter #2 (received January 17, 2013)
22. Lloyd, Tracy L., Letter (dated January 29, 2013)
23. Lombardo, Tina, Letter #1 (received February 12, 2013)
24. Lombardo, Tina, Letter #2 (received February 28, 2013)
25. Martin, Shirley R., Letter (received March 19, 2013)
26. Maziarz, George D., New York State Senator – 62<sup>nd</sup> District, Letter (dated March 21, 2013)
27. Mazur, Patricia, Letter #2 (received January 30, 2013)
28. McGhee, Louise, Niagara County Employment and Training, E-mail (dated January 29, 2013)
29. Olsen, Nils, Residents for Responsible Government (RRG), Verbal (January 14, 2013 hearing transcript - evening)
30. Riley, Barbara J., Letter (received March 15, 2013)
31. Rolland, MaryAnn, Letter #1 (dated January 23, 2013)
32. Rolland, MaryAnn, Letter #2 (dated January 27, 2013)
33. Schneekloth, Lynda, Chair, Sierra Club – Niagara Group, (also Roger Downs), Letter (dated January 14, 2013)
34. Schultz, Sara, Letter (dated January 27, 2013)
35. Schultz, Sara, E-mail (dated January 29, 2013)
36. Smith, Brian P., Program & Communications Director, Citizens Campaign for the Environment), Verbal (January 14, 2013 hearing transcript - afternoon)



37. Smith, Nancy, Letter, (dated January 29, 2013)
38. Snell, Susan R., Letter (received March 15, 2013)
39. Warren, Rose Mary, Letter (dated January 28, 2013)
40. Williman, Charles F., Letter (dated February 25, 2013)
41. Witryol, Amy, Verbal (January 14, 2013 hearing transcript - evening)
42. Zohur, Anne, Letter #1 (dated January 30, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 19

**Comment Topic:** Support – Area Odors

**Paraphrased Comment:**

Living near a garbage dump in this region (not the CWM landfill) makes you want to plug your nose. When the wind blows from the direction of this dump you don't want to be outside. However, in the many visits to the CWM facility there have never been any smells, just regular air.

**NYSDEC Response:**

NYSDEC acknowledges the views expressed by this comment. However, it is not appropriate for NYSDEC to respond to concerns over odors not associated with the CWM facility since they are unrelated to this CWM Permit renewal. With respect to the CWM facility, it is appropriate to note that a number of conditions in the Permit provide for odor and air emissions control (e.g., prohibition on acceptance of putrescible waste, engineering controls on air emissions from certain tanks and containers, etc.).

**Permit Revisions:** None

**Persons/Groups That Submitted This Comment:**

1. Burrow, Melody, Verbal (January 14, 2013 hearing transcript - afternoon)

## **CWM PERMIT RENEWAL NYSDEC RESPONSIVENESS SUMMARY**

### **Section I - Public Comments & Responses**

**Comment No:** 20

**Comment Topic:** Oppose – Past CWM Regulatory Compliance and Variances

**Paraphrased Comment:**

CWM's track record of operating its landfills in a safe and secure manner is poor. The current landfill has many operational problems and adding to the volume of material will only compound the environmental hazards the facility already imposes on Niagara County and Lake Ontario. CWM has a long history of SPDES permit violations, storm water management violations, leachate exceedences, leaking or improperly labeled drums, and failure to comply with waste transporter regulations. All of these violations most certainly have impacted the surrounding tributaries, groundwater, the Niagara River and Lake Ontario. Also, the draft Permit cites more violations, including radioactive leachate indicating a potential groundwater connection with the Lake Ontario Ordinance Works site adjacent to the CWM facility.

Given the extent of violations associated with this facility and the amount of hazardous waste at this location, the permit should be focused on closure and post-closure monitoring. Instead it is apparent that the intent is to expand facility operations by allowing additional waste types to be disposed in RMU-1 and increased treatment rates at its stabilization facility. This is not an outcome desired by the community.

Over the term of this landfill permit, CWM has continued to request variances from what current law and regulations allow. Each variance is an exception to what the law and regulations deemed best for our living environment. Most variances are for the convenience of the Permittee without regard to the consequences to the environment. If CWM applied for a new landfill with all of these variances requested in a new application, it would never be approved. We have deviated too far from the original law and regulations. While each variance may be what the DEC considers a minor issue, the accumulation of these has had a devastating effect on the well-being of our community members.

It's time to start making the right decisions. If CWM wants to continue operating for another five years, then this community wants stricter regulations and guidelines to insure that toxic exposure to our community is minimized by using the best available technology.

**NYSDEC Response:**

NYSDEC disagrees with this comment's characterization of the operational and regulatory compliance record associated with this CWM facility. While CWM's current and past landfills have had some operational problems, most have been minor in nature, and in each case they were rectified or mitigated in an environmentally safe manner. With regard to CWM's current landfill (RMU-1), operational problems have been or are being adequately addressed. For instance, partial clogging of leachate collection pipes in certain cells which slow leachate removal are being effectively addressed by the recent installation and operation of additional pumping systems to more rapidly remove leachate from these pipes. In addition, the new Permit requires more frequent flushing of these pipes to help mitigate the clogging problem.

With respect to regulatory compliance, be advised that it is NYSDEC policy to evaluate a facility's compliance with its Permit and the applicable regulations as part of the Permit renewal process. Any compliance problems identified through this evaluation are either rectified prior to Permit renewal or by the establishment of a compliance schedule as a Permit condition. In CWM's case, NYSDEC has not identified any serious compliance problems which would cause us to deny the renewal application and require facility closure. However, since regulatory time frames for closure of CWM's Facultative Pond 8 surface impoundment have not been met due to the identification of radiological contamination within the impoundment, a compliance schedule for its closure has been established as a condition of the new Permit.

This comment suggests that CWM has requested and NYSDEC has granted numerous variances from environmental laws and regulations over the term of the Permit. However, it should be understood that "variances" can only be granted with respect to regulations, not laws, and procedures within the regulations for granting such variances must be followed. It should also be understood that Permit modifications do not necessarily constitute the granting of a regulatory variance. In fact, they are most often changes in the way compliance with the regulations is achieved and not a variance from a regulation or set of regulations. In CWM's case, it can be said that CWM has requested and NYSDEC has granted numerous Permit modifications over the years. However, with very few exceptions, these Permit modifications have constituted changes in the way regulatory compliance is achieved in an equally environmentally protective manner. One current exception would be the continuation of a regulatory exemption previously granted for CWM's operational surface impoundments. This exemption to surface impoundment liner requirements was granted in 1993 in accordance with the requirements contained in 6 NYCRR 373-2.11(b)(2). In granting this exemption, NYSDEC established Permit conditions which are continued in the new Permit (see Exhibit E in Schedule 1 of Modules I in the Permit) that limit the waste stored in these impoundments to treated wastewater meeting the Land Disposal Restrictions contained in 6 NYCRR 376.

With regard to continued operation of this CWM facility, the comment states that the community requests stricter regulations and guidelines to insure community exposure to

toxic chemicals is minimized. With respect to this request, it should be understood that any establishment of “stricter” regulations is done on a statewide basis and not with respect to a single facility. However, with regard to Permit conditions, NYSDEC routinely evaluates existing conditions during the Permit renewal process to determine if additional or more stringent conditions are necessary to enhance protection of human health and the environment. In the case of the CWM Permit, NYSDEC has added/modified some Permit conditions to further minimize the potential for community and environmental exposure to hazardous waste and/or hazardous constituents. For instance, the new Permit contains new conditions requiring bulk hazardous waste to be stored in containers while awaiting test results to confirm that they meet the Land Disposal Restrictions contained in 6 NYCRR 376. It also contains new conditions requiring the operation of additional groundwater extraction systems to enhance prevention of hazardous constituent migration via surface water and groundwater flow. These and other Permit conditions are intended to reduce the potential for community and environmental exposure to hazardous substances and environmental contamination at this CWM facility.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Agnello, Vincent, Verbal (January 14, 2013 hearing transcript - afternoon)
2. Agnello, Vincent, Letter (dated January 14, 2013)
3. Bittner, Jim, President, Niagara County Farm Bureau, Letter (dated March 28, 2013)
4. Jedlicka, Jill, Executive Director, Buffalo-Niagara Riverkeeper, Letter (dated March 28, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 21

**Comment Topic:** Oppose – Niagara River and Great Lakes Impacts

**Paraphrased Comment:**

Each year CWM discharges between 20-30 million gallons of liquids into the Niagara River. The EPA mandates that firms report toxic chemicals that have been released into the environment each year. The numbers reported by CWM of what was dumped into the Niagara River are staggering. During a ten year period (1998-2008) CWM reported that they dumped 3740 pounds of toxics into the river. They include the following:

- Barium Compounds - 83 lbs
- Copper Compounds - 218 lbs
- Arsenic - 7 lbs
- Chromium - 59 lbs
- Lead - 3 lbs
- Manganese - 407 lbs
- Nickel - 439 lbs
- PCBs - 3 lbs
- Nitrate - 2511 lbs
- Benzo-Perylene - 1 lb
- Cadmium Compounds - 2 lbs
- Polycyclic Aromatics - 1 lb
- Cobalt - 4 lbs

Each of these is toxic to humans. Most, if not all, are cancer causing. That makes 3740 pounds of toxics dumped into the water that 43 million Americans and millions of Canadians rely on for safe drinking water. Dumped into the water that we and our children swim in each summer, and where people come to fish.

In April 1997, President Clinton issued an Executive Order requiring each federal agency to assess risks of toxics that disproportionately affect children, many of which are on the above list. On April 7, 1997, the United States and Canada signed the Bi-national Toxics Strategy, developed under the Great Lakes Water Quality Agreement. The Bi-national Toxics Strategy was designed to reduce toxics in the Great Lakes. Where do the NYSDEC ('revised') discharge standards for CWM fit with this Bi-national Toxics Strategy, and with the Toxic Substances Control Act? Are they within the strategy and

goals of the USEPA Persistent, Bio-accumulative, and Toxic Pollutants (PBT) action plan?

Back in the 70's the words "solution to pollution is dilution" were persuasively thought to be true. Conveniently, for the SCA Chemical Services company [former CWM] since they dumped thousands of gallons of chemicals straight into the Niagara River, which was utterly wrong. So why is CWM still allowed to dump into the Niagara River?

Stop giving CWM a variance from the Clean Water Act. Force CWM to remove all toxics before discharging into the Niagara River, and into Four and Twelve Mile creeks. At a time when the state is spending millions of dollars, and many more millions are being spent by the federal government, to protect and restore our Great Lakes, it's imperative that proactive steps are taken to prevent further contamination.

**NYSDEC Response:**

NYSDEC acknowledges the reported quantities of chemical elements/compounds discharged from the CWM facility over the indicated 10 year period and assumes them to be factually accurate. However, it is important to note that these chemical discharges to the Niagara River over this period were allowed under CWM's State Pollutant Discharge Elimination Systems (SPDES) Permit which sets strict limits on the concentrations of these chemicals in each discharge. Monitoring of the CWM Fac Pond discharges have consistently shown the chemical concentrations to be below SPDES Permit limits.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Agnello, Lauren, Verbal (January 14, 2013 hearing transcript - afternoon)
2. Agnello, Vincent, Verbal (January 14, 2013 hearing transcript - afternoon)
3. Agnello, Vincent, Letter (dated January 14, 2013)
4. Chabue, Louis, E-mail (received February 13, 2013)
5. Henderson, Tim, Verbal (January 14, 2013 hearing transcript - afternoon)
6. Ivey, Duaine, Letter (dated January 31, 2013)
7. Lamb, Charles, Letter #2 (received January 17, 2013)
8. Olsen, Nils, Residents for Responsible Government (RRG), Verbal (January 14, 2013 hearing transcript - evening)
9. Rolland, MaryAnn, Letter #2 (dated January 27, 2013)
10. Smith, Brian P., Program & Communications Director, Citizens Campaign for the Environment), Verbal (January 14, 2013 hearing transcript - afternoon)
11. Smith, Nancy, Letter, (dated January 29, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 22

**Comment Topic:** Oppose – Radiological Contamination

**Paraphrased Comment:**

The New York State Department of Health issued an Order requiring CWM to test for radioactive material on excavations done outside of their existing landfill. It did not require the same for movement of soil on the currently operating landfill for fear of interrupting its operation. Shortly after that Order was issued, CWM threatened to sue the Federal Government if it did not immediately clean-up the radioactive contamination on CWM's property. Given this admission by CWM that its land is radioactively contaminated, why would you automatically extend their operating permit without requiring testing and measures to prevent radioactive particulates from being blown around this community because of CWM operations? Why does the DEC not stop CWM from hosting families and children for open house picnics on its property? Given that employees of CWM wear badges to capture radioactive exposure, wouldn't such a ban be a wise thing to mandate?

According to several research articles, radionuclides that have been leaking from the West Valley site have now found their way into the Niagara River. In fact, annual reporting notices, pursuant to the Safe Drinking Water Act, have revealed that our drinking water from the Niagara River now has radionuclides. We cannot afford to allow any more radionuclides to enter our drinking water. As such, why aren't there any safeguards against radionuclides being discharged into the Niagara River from the CWM property in violation of the clean water act?

The excavation protocol for CWM related to the history of radiological contamination at this site is not protective of human health. CWM is not required to thoroughly sample all areas contemplated for excavation for all radiological contaminants known to be present on the site. The DEC's implication that, some 70 years after being deposited, gamma emitting radiological hazards will identify all potential locations of alpha or beta emitting hazards seems contradicted by experience at other Department of Energy sites in the United States. Given the complex contamination history of the CWM property, the burden of proof should be on CWM to demonstrate that alpha and beta emitting material such as Strontium and Plutonium are not present. Furthermore, since even the best sampling plan would not provide full assurance of safety, no excavation should be allowed on the property other than for the removal of contamination.

A New York State Department of Health Order limiting excavation on the CWM



property has been in place since 1972 because the DEC has refused to use its authority to require CWM to clean-up the high activity radiological material on the property. The only reason why some of that material meets the regulatory definition of “low level” is solely because it was not sourced from a nuclear reactor. That, however, does not have a correlation to the activity and risks to human health.

NOTE: The comment below is derived from a 2008 letter to the DEC which was re-submitted as a comment during this Permit renewal comment period and pertains to protocol for identification of plutonium prior to CWM excavations:

*It is requested DEC order a stop to excavation at CWM until there is a plan to address each of the scenarios for Plutonium that have been documented by the Army Corps to exist on, or adjacent to CWM property. To date, the DEC has addressed only one of several possibilities (listed below).*

*On August 24, 2007, DEC approved a Generic Small Excavation Plan (“Plan”) for CWM. An open issue at the time was the gap in excavation protocol for identifying Plutonium. The DEC’s August 24<sup>th</sup> letter responding to the concern stated:*

*“If any plutonium is present on the property, it would most likely be found in either laboratory waste or co-located with fission products.”*

*The Plan requires soil analysis for Plutonium after laboratory wastes are visually identified in an excavation, but takes no precautions for the presence of Plutonium, with or without fission products (Note: The Knolls Atomic Power Laboratory sent fission products such as Cesium-137 and transuranics such as Americium-241, to the LOOW where it was handled, spilled and stored on the NFSS, CWM and Town of Lewiston properties).*

*Concerns:*

- 1. DEC acknowledges that the gamma equipment employed during excavation will not detect Plutonium.*
- 2. Army Corps sampling results indicate Plutonium above fallout levels is not always co-located with lab waste or fission products which might be detected by gamma equipment.*
- 3. The Plan has no requirement to identify Plutonium prior to exposing it in an excavation.*
- 4. CWM has in the past posted an advertisement featuring children, for an open house at their facility.*

*It is hoped DEC will issue a stop order on excavations until these problems are resolved.*

### **NYSDEC Response:**

With respect to concern over human exposure expressed by this comment, there have been extensive radiological surveys of the ground surface and testing of soil, surface water, groundwater and air for radiological constituents on the CWM property. Based on this information there is no indication that any special precautions or controls are necessary for site visitors. Also, CWM has informed NYSDEC that during past Open House events, the public has been restricted to the Administrative Building area and parking lot. Furthermore, CWM states that no visitor has been allowed in the Facility's operating area except for those on bus tours which are lead by a CWM employee. For CWM employees who may be involved in excavation activities, potential exposures are minimized by conditions in the Permit requiring radiological monitoring during such activities. However, it should be noted that the radiological contamination found to date on the CWM property has been very limited and not caused any measureable exposure to excavation workers.

This comment questions why testing and other measures should not be employed to prevent radioactive particles from being transported off-site by air dispersal. After significant scanning of the surface soils on the CWM property for radiological contamination, only a few isolated areas have been identified as having elevated radiological readings, most of which determined to be caused by stone-like pieces of material which, because of their mass, would not likely be susceptible to wind dispersal and in many cases have since been removed. While one area in Fac Pond 8 was found to have small possibly light-weight particles on the bottom surface of the impoundment with elevated radiological readings, these particles have been properly removed from Fac Pond 8 through remediation conducted by CWM. Furthermore, past air monitoring for radionuclides conducted by CWM in accordance with a condition in the previous Part 373 Permit has not identified any elevated radiological readings in collected particles. Based on the above and the controls put in place by the Permit with respect to site excavations, NYSDEC does not consider air migration of radioactive particles from this site to be a concern.

This comment questions why safeguards have not been put into place against radionuclides from the CWM site being discharged into the Niagara River. Irrespective of the unlikelihood of such an incidence based on the previously mentioned few, isolated occurrences of elevated readings in the site's surface soils, safeguards in the form of monitoring have been put into place which are required to continue under the new Permit. Specifically, wastewater samples from Fac Pond 3 are analyzed for radiological constituents prior to each discharge to the Niagara River. Also, samples of surface water which flows off-site due to precipitation are analyzed twice per year for radiological constituents. To date, there have not been any confirmed detections of radiological constituents above background levels in wastewater or surface water samples.

In addressing the potential for Plutonium-239 contamination using MARSSIM techniques, NYSDEC determined that the potential for concentrations of this contaminant above levels consistent with those associated with weapons testing in the 1950's and

1960's is most likely negligible.

Regarding materials associated with Knolls Atomic Power Lab (KAPL) wastes, a recent US Department of Energy (DOE) report to Lake Ontario Ordinance Works (LOOW) stakeholders (letter dated May 15, 2013) states that *"DOE finds that KAPL wastes were remediated to levels that do not exceed regulatory limits and no use restrictions are required as the result of KAPL waste involvement at these [LOOW] properties."*

Furthermore, Plutonium was co-mingled with other gamma emitting isotopes (mostly Cs-137) which could be detected with the survey meters/sampling performed at CWM. Very little Cs-137 has been found at CWM or other DOE designated vicinity properties.

In all forms and source terms, the overall quantities of disposed Plutonium would have been very minute. One has to remember that Plutonium was and still is a valuable commodity and every effort to recover the isotope to the greatest extent possible would likely have been taken.

Be advised that NYSDOH was consulted and has provided input during the development of the above NYSDEC response.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Agnello, Lauren, Verbal (January 14, 2013 hearing transcript - afternoon)
2. Agnello, Vincent, Verbal (January 14, 2013 hearing transcript - afternoon)
3. Agnello, Vincent, Letter (dated January 14, 2013)
4. Henderson, Tim, Verbal (January 14, 2013 hearing transcript - afternoon)
5. McGreevy, Ed, Sierra Club – Niagara Group, Verbal (January 14, 2013 hearing transcript - afternoon)
6. Schneekloth, Lynda, Chair, Sierra Club – Niagara Group, (also Roger Downs), Letter (dated January 14, 2013)
7. Witryol, Amy, Verbal (January 14, 2013 hearing transcript - evening)
8. Witryol, Amy, Letter (dated March 29, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 23

**Comment Topic:** Oppose - Rejection of CWM Connection to Municipal Treatment Facility

**Paraphrased Comment:**

After discovering what CWM has dumped into the Niagara River and local creeks, it's understandable why they want to connect to the municipal sewer system. Radionuclides cannot be cleaned by the sewage treatment plant. In many cases, neither can the toxics that are being released each year into the Niagara River. CWM simply wants to pass the liability and cost of their mess to the Town of Lewiston residents. This cannot be allowed under any circumstances and the Town of Lewiston is to be applauded for passing a local law banning such liquid wastes from entering their sewer system. As residents, we must make sure that the DEC never allows this to happen. Can you imagine a back flow into residential homes of toxics and possibly radioactive water?

**NYSDEC Response:**

NYSDEC acknowledges this comment, but does not consider it to be related to the CWM Hazardous Waste Management Permit renewal, and as such is not providing a specific response to the matters raised in the comment. However, NYSDEC is unaware of any current CWM proposed plan to connect to the municipal treatment facility.

**Permit Revisions:** None

**Persons/Groups That Submitted This Comment:**

1. Agnello, Vincent, Verbal (January 14, 2013 hearing transcript - afternoon)
2. Agnello, Vincent, Letter (dated January 14, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 24

**Comment Topic:** Oppose – Abundance of Waste Disposal Facilities in the Region

**Paraphrased Comment:**

CWM operates the only toxic waste landfill in the Northeast right in our community. Also operating is Modern Disposal who trucks garbage daily into our community from other areas. Covanta Energy in Niagara Falls is planning to bring garbage and waste from NYC to incinerate. In addition, we have the largest amount of uranium in the world hidden in our soil, including the Federal Niagara Falls Storage Site. How much can a community be expected to bear? Why isn't there a law against burdening one area with waste? Where is the environmental justice? Our area has already done its fair share.

Both the Federal Government and State of New York have policies promoting environmental justice. I guess these policies are for everyone who does not have to deal with waste disposal as we have for the past seventy years. Governor Cuomo recently announced that the State of New York will provide one billion dollars for the revitalization of Western New York. Is continuing to make our area the dumping ground for other states the revitalization you had in mind?

The Lewiston – Porter community is presently the home to more than eight (8) million tons of hazardous waste that has been trucked into our community, driven through its residential neighborhoods, in front of the consolidated schools, and permanently buried in a series of landfills all in close proximity to the community residents. Eight million tons is enough. Over the last ten years, CWM's Model City Facility has taken in waste from every county in New York State, as well as being allowed to accept waste from thirty (30) states and Canada. For too many years Niagara County has been the dumping grounds for waste from all over the country. This community should not be compelled to have this continue. DEC should stop this free license to keep bringing in everyone else's garbage into our community. They have made this area the garbage can of the world and they should not be allowed to continue for another five years.

**NYSDEC Response:**

NYSDEC acknowledges the views expressed by this comment regarding what the comment characterizes as an over-abundance of waste management facilities and contaminated sites in the Niagara region. NYSDEC also understands that the comment suggests this to be an environmental justice matter and that the CWM facility is considered as contributing to the expressed over-abundance of waste/contamination in the region. However, while the concerns raised by this comment may be appropriate for

consideration with respect to proposals for new or expanded waste facilities in the region, NYSDEC does not consider them to be relevant to the CWM Hazardous Waste Management Permit renewal based on the applicable regulations governing the renewal process. Therefore, NYSDEC does not consider it necessary or appropriate to address the specifics of this comment at this time.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Agnello, Lauren, Verbal (January 14, 2013 hearing transcript - afternoon)
2. Agnello, Vincent, Verbal (January 14, 2013 hearing transcript - afternoon)
3. Agnello, Vincent, Letter (dated January 14, 2013)
4. Alati, Carmela, Verbal (January 14, 2013 hearing transcript - afternoon)
5. Aversa, Tony & Maria, Letter#1 (dated February 3, 2013)
6. Aversa, Tony & Maria, Letter#2 (dated February 3, 2013)
7. Bittner, Jim, President, Niagara County Farm Bureau, Letter (dated March 28, 2013)
8. Bruening, Fred & Diane, Letter (dated January 28, 2013)
9. Edwards, Annie, Letter (received February 3, 2013)
10. Fideli, April, President, Residents for Responsible Government (RRG), Verbal (January 14, 2013 hearing transcript - evening)
11. Funk, Edwin & Lynn, Letter (dated January 28, 2013)
12. Lamb, Charles, Letter #1 (received January 14, 2013)
13. Lamb, Charles, Verbal (January 14, 2013 hearing transcript - afternoon)
14. Lamb, Charles, Letter #2 (dated January 17, 2013)
15. Lloyd, Tracy L., Letter (dated January 29, 2013)
16. Martin, Shirley R., Letter (received March 19, 2013)
17. Olsen, Nils, Residents for Responsible Government (RRG), Verbal (January 14, 2013 hearing transcript - evening)
18. Pavesi, Alexa, E-mail (dated April 1, 2013)
19. Riley, Barbara J., Letter (received March 15, 2013)
20. Rolland, MaryAnn, Letter #1 (dated January 23, 2013)
21. Rolland, MaryAnn, Letter #2 (dated January 27, 2013)
22. Sackman, Megan, E-mail (dated January 30, 2013)
23. Snell, Susan R., Letter (received March 15, 2013)
24. Weld, Marn, Letter (received July 17, 2012)
25. Williman, Charles F., Letter (dated February 25, 2013)
26. Witryol, Amy, Verbal (January 14, 2013 hearing transcript - evening)
27. Zohur, Anne, Letter #1 (dated January 30, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 25

**Comment Topic:** Oppose – Inaction on CWM SPDES Permit Modification

**Paraphrased Comment:**

CWM has not met the State Pollution Discharge Elimination System (SPDES) requirements for additional monitoring or worked to meet tighter PCB and mercury limits, which has been pending for three years. It appears that the DEC and CWM may disagree on this issue, and that CWM has been fighting the DEC Water Division for the last 3 years on this SPDES Permit modification to reduce pollutants in our water. Also, apparently no action has been taken by DEC in over a year to complete the Permitting process by conducting a hearing which was requested by CWM.

The Great Lakes provide drinking water to more than forty (40) million people, and support millions of jobs in the state. Unfortunately, over the years we've polluted the Great Lakes and brought them to the point where scientists are saying if we continue to pollute, the damage will be irreparable. At a time when the state is spending millions of dollars, and many millions more from the federal government, to protect and restore our Great Lakes, it is imperative we take such proactive steps to prevent further contamination. It is essential that the DEC institute strict pollution prevention measures that use the best science and technology available to ensure zero discharge of harmful pollutants including PCBs and mercury. We need to take this opportunity to prevent further pollution.

The DEC must also ensure that CWM install additional internal monitoring, and hold them to the standard of using the best available technology to monitor PCBs and all volatile and semi-volatile organic compounds on the EPA priority pollutants list. No renewal of the RCRA permit should be issued and the "Negative Declaration" should be rescinded until the new SPDES requirements are incorporated into either CWM's RCRA or SPDES Permit.

**NYSDEC Response:**

With respect to the pending State Pollution Discharge Elimination System (SPDES) Permit requirements discussed in the first paragraph of this comment, it is important to understand that the pending SPDES Permit modification is a separate process from that of the RCRA Hazardous Waste Management Permit renewal and as such, NYSDEC does not consider it appropriate to discuss any of the specific matters related to this pending modification in response to this comment on renewal of CWM's Part 373 RCRA Hazardous Waste Management Permit (RCRA Permit).

NYSDEC acknowledges the concern for Great Lakes water quality as expressed in the second paragraph of this comment, and the comment's request for strict pollution prevention measures to ensure zero discharge of harmful pollutants. With respect to the new CWM RCRA Permit, NYSDEC considers that the conditions in this Permit provide adequate requirements to prevent releases harmful pollutants from regulated units (e.g., containers, tanks, landfills, etc.) as well as to control migration of pre-existing site contamination, based on currently available information. However, regarding the subject of Great Lakes water quality, NYSDEC considers such matters as falling under the jurisdiction of the Federal Clean Water Act and New York State Environmental Conservation Law (ECL) Water Pollution Control Article 17 which are the statutes upon which the CWM SPDES Permit is based. Therefore, NYSDEC does not consider it necessary or appropriate to address the specifics of this comment with respect to matters of Great Lakes water quality in this response to comments on the renewal of CWM's RCRA Permit.

The last paragraph of this comment requests that the renewal of CWM's RCRA Permit be delayed until the requirements in the pending SPDES Permit modification are incorporated into either CWM's RCRA or SPDES Permits. As stated above, the renewal of CWM's RCRA Permit and the SPDES Permit modification are separate regulatory processes which stem from different regulations and NYS statutes. As a result, NYSDEC determined that it was not appropriate to delay the CWM RCRA Permit renewal until the SPDES Permit modification process is complete, or to incorporate SPDES requirements into the RCRA Permit. Therefore, NYSDEC has issued CWM's RCRA Permit renewal without the pending SPDES requirements.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. McGreevy, Ed, Sierra Club – Niagara Group, Verbal (January 14, 2013 hearing transcript - afternoon)
2. Schneekloth, Lynda, Chair, Sierra Club – Niagara Group, (also Roger Downs), Letter (dated January 14, 2013)
3. Smith, Brian P., Program & Communications Director, Citizens Campaign for the Environment), Verbal (January 14, 2013 hearing transcript - afternoon)
4. Witryol, Amy, Verbal (January 14, 2013 hearing transcript - evening)



**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 26

**Comment Topic:** Oppose – Inadequacy of Financial Assurance Amount

**Paraphrased Comment:**

The DEC proposes increasing the Financial Assurance amount from only \$70 million to \$100 million for a period of 30 years. However, any major accident or natural disaster requiring replacement of the landfill facility for 8 million tons of predominantly hazardous waste within the next 30 years would be expected to cost exponentially more than \$100 million. What would be the replacement cost of all CWM landfills, including transfer of material from old to new? What would be the cost to store/destroy/dispose on-site or ship off-site and dispose of 8 million tons? A figure such as this which is likely in the billions should not be left to state or local governments, particularly because the vast majority of toxic and PCB waste buried at CWM came from outside New York State.

Also, the \$100 million in financial assurance is presented without any analysis to determine the dollar amount of the liability to tax payers, which increases with each and every truck load of waste that rolls into CWM. The absence of proof of property casualty insurance sufficient to replace all equipment and real property improvements needed for post-closure care creates taxpayer liability in the order of \$800 million, net of the proposed \$100 million surety instruments that are limited to monitoring and maintenance. DEC should immediately require an increase in CWM's Financial Assurance to cover not only post-closure maintenance, but also accidents and natural disasters.

The DEC should require 100% insurance, or require that the State indemnify Niagara County, the Town of Porter and the Town of Lewiston for all costs and liability arising from problems at CWM, as well as for any costs and liability arising from transportation to and from CWM.

**NYSDEC Response:**

The comment above argues that the increase in Financial Assurance to \$100 million which is required by the new Permit, is insufficient to cover potential costs stemming from the need to replace or make substantial repairs to the site's landfills as a result of a major accident or natural disaster. With respect to this Financial Assurance, a portion of the \$100 million (approximately \$62 million) is based on the CWM cost estimate for the post-closure care of the facility's operating and closed land disposal units over a 30 year period. The regulations under 6 NYCRR 373-2.8(e) require that such post-closure

estimates be based on the costs of conducting certain post-closure monitoring and maintenance activities as specified under cited post-closure regulations. For landfills, these post-closure activities are spelled out under 6 NYCRR 373-2.7 and 373-2.14(g) of the regulations, and are required to be detailed in the Facility's Post-Closure Plan. Since the post-closure activities required by these regulations do not include landfill replacement or substantial repairs (e.g., repair of a failed berm or liner system), the costs of such activities are not required by the above cited regulations to be included in a Facility's Post-Closure Estimate. Therefore, the facility is not required to provide Financial Assurance for such potential post-closure activities under the present regulations.

That said, it should be noted that a portion of CWM's Post-Closure Estimate (15% of each landfill unit's annual post-closure care cost multiplied times 30 years or approximately \$8 million) represents an amount allocated for unspecified contingencies during the 30-year landfill post-closure care period. Also, CWM's overall closure, post-closure and corrective measures estimates include an additional amount of approximately \$1.4 million for unspecified contingencies. NYSDEC will not speculate on, or attempt to argue that these amounts are sufficient to cover the costs to replace or make substantial repairs to the site's landfills as stated is necessary in this comment. However, they do represent the inclusion of some contingency funding in CWM's estimate which could be available to provide some coverage for expenses associated with unplanned events.

This comment also argues that the \$100 million for Financial Assurance is insufficient to cover the costs of replacing all equipment and making property improvements as needed for post-closure care. It should be noted that CWM's Post-Closure Estimate includes costs for the replacement of certain equipment deemed necessary for continuation of proper post-closure care. For instance, CWM's estimate includes costs for periodic replacement of leachate pumps and monitoring well equipment. It also includes costs for replacement of the portion of CWM's wastewater treatment system (i.e., tanks, pumps, etc.) that is necessary for leachate treatment during the post-closure period. Therefore, a portion of the financial assurance amount is intended to cover certain post-closure equipment replacement costs.

The comment suggests that NYSDEC require CWM to supply insurance which provides 100% coverage for any accidents (including off-site waste transportation accidents), any damage from natural disasters and any other problems at the CWM facility, so as to provide liability protection for the County and Towns in which this facility is located. Such comprehensive coverage as suggested by this comment is beyond NYSDEC's regulatory authority to require CWM to provide. However, the regulations and the Permit do require CWM to provide liability coverage for bodily injury and damage to third parties (e.g., damage to off-site properties) caused by sudden or non-sudden accidental occurrences arising from operations of the facility. The regulations require that owner or operator of the facility maintain this liability coverage in the amount of at least \$5.5 million per occurrence and \$11 million annual aggregate. CWM is required by the Permit to provide this coverage in addition to the \$100 million required for closure,

post-closure and corrective measures financial assurance.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. McGreevy, Ed, Sierra Club – Niagara Group, Verbal (January 14, 2013 hearing transcript - afternoon)
2. Schneekloth, Lynda, Chair, Sierra Club – Niagara Group, (also Roger Downs), Letter (dated January 14, 2013)
3. Witryol, Amy, Verbal (January 14, 2013 hearing transcript - evening)
4. Witryol, Amy, Letter (dated March 29, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 27

**Comment Topic:** Oppose – Regional Cancer Incidence and Other Health Concerns

**Paraphrased Comment:**

The children of the Lewiston-Porter school district have nearly double the rate of childhood cancers compared to the rest of the state, according to the New York State Department of Health (NYSDOH). The CWM facility lies within a zip code which shows breast cancer incidence 48% above that of the state, as well as elevated thyroid and other cancers, again according to NYSDOH.

There are many sick children and school personnel in the Lew-Port school district, and if checked out, it's probably due to the toxic waste being transported to and put in the CWM landfill. We know of children who went to the Lew-Port school for 12 years and now they have auto-immune disease, leukemia tumors, cysts, anemia, as well as miscarriages and other female problems. Our children at the Lew-Port school shouldn't be exposed to toxic waste. The CWM facility should be closed down before we have more children exposed to these wastes.

Community residents have also had their health affected, including a 43 year old mother of 3 children who lived next door to the landfill and died of brain cancer. Community residents are tired of seeing our friends and family die of cancer and other diseases. We are being put in danger of being exposed to a number of cancers and other health problems, as well as being burdened by the psychological and emotional effects of the CWM facility. While some have moved away out of concern for their health, others would like to leave but when your job is here and the economy is so bad there are not jobs elsewhere, you feel trapped.

**NYSDEC Response:**

In a study released in 2008, the NYSDOH found that the number of children living in the Lewiston-Porter School District who were diagnosed with cancer between 1991 and 2000 was about 80% higher than the number expected. This difference was statistically significant, meaning that it was unlikely to result from chance. Different cancers are different diseases, with different causes. When the different cancers diagnosed among the children were looked at separately, the numbers of leukemias and lymphomas diagnosed were similar to the number expected. Numbers of cases were significantly greater than expected only for a group of cancers that includes cancers of the testes and ovaries. These types of cancers are not known to be associated with exposures to radiation or to any

chemicals.

Most of the children with (any type of) cancer identified in this study lived in or near the Village of Lewiston. This area is upwind, upstream and at a higher elevation than the CWM facility, so the only exposures children living in the area might have received would have occurred while they were attending school at the Lewiston-Porter school campus. Most of the children with cancer identified in the study were school age at the time they were diagnosed. However, not all of the school-age children had ever attended the Lewiston-Porter schools. The study could not conclude that the higher numbers of childhood cancers were related to any exposures to contaminants related to the CWM (or the nearby former Lake Ontario Ordnance Works site).

The most recent data released by the NYSDOH show that in 2005-2009, breast cancer incidence in ZIP Code 14174, where CWM is located, was 25.5% greater than expected, with 29 cases actually diagnosed and 23.1 expected. This difference is not statistically significant, meaning it could have occurred by chance. None of the other cancers for which incidence was tabulated by ZIP Code (colorectal, lung and prostate) had numbers of cases that were statistically significantly greater than expected in this time period.

It is important to remember that cancer is, unfortunately, a common disease. Almost one in two men, and over one in three women, will develop cancer at some time in their lives. Also, cancer risk depends largely on individual risk factors, including lifestyle factors such as tobacco use, diet, physical inactivity and alcohol use, as well as age, workplace exposures, family history and personal medical history. All of these factors should be considered when attempting to account for variations in cancer from place to place.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Agnello, Lauren, Verbal (January 14, 2013 hearing transcript - afternoon)
2. Agnello, Vincent, Letter (dated January 14, 2013)
3. Alati, Carmela, Verbal (January 14, 2013 hearing transcript - afternoon)
4. Aversa, Tony & Maria, Letter#1 (dated February 3, 2013)
5. Aversa, Tony & Maria, Letter#2 (dated February 3, 2013)
6. Beahan, Laurence T., Conservation Chair, Sierra Club – Niagara Group, Letter (dated July 18, 2012)
7. Bruening, Fred & Diane, Letter (dated January 28, 2013)
8. Fideli, April, President, Residents for Responsible Government (RRG), Verbal (January 14, 2013 hearing transcript - evening)
9. Jackson, Sandra, Letter (dated February 9, 2013)
10. Lombardo, Tina, Letter #1 (received February 12, 2013)
11. Lombardo, Tina, Letter #2 (received February 28, 2013)
12. Mazur, Patricia, Letter #2 (received January 30, 2013)
13. McGreevy, Ed, Sierra Club – Niagara Group, Verbal (January 14, 2013 hearing transcript - afternoon)

14. Mirabelli, Sandra, Letter (received January 30, 2013)
15. Riley, Barbara J., Letter (received March 15, 2013)
16. Rolland, MaryAnn, Letter #2 (dated January 27, 2013)
17. Sackman, Megan, E-mail (dated January 30, 2013)
18. Schneekloth, Lynda, Chair, Sierra Club – Niagara Group, (also Roger Downs), Letter (dated January 14, 2013)
19. Schultz, Sara, Letter (dated January 27, 2013)
20. Schultz, Sara, E-mail (dated January 29, 2013)
21. Snell, Susan R., Letter (received March 15, 2013)
22. Witryol, Amy, Verbal (January 14, 2013 hearing transcript - evening)
23. Zohur, Anne, Letter #1 (dated January 30, 2013)
24. Zohur, Anne, Letter #2 (dated January 30, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 28

**Comment Topic:** Oppose – Lack of Parental Corporation Stewardship

**Paraphrased Comment:**

Why is it that the Permit says “CWM Chemical Services” but the company’s advertisements and press releases say “Waste Management”?

**NYSDEC Response:**

CWM is of course free to use the name of its parent corporation in its advertisements and press releases. However, the regulations under 6 NYCRR 373-1.4(a) require that the Permit be issued to the owner and operator of the facility. During the process of reviewing CWM’s Permit renewal application, NYSDEC obtained copies of the Deeds for the parcels which make up the facility property from Niagara County and confirmed that “CWM Chemical Services, L.L.C.” is the current property owner. CWM Chemical Services, L.L.C. is also the facility operator. Therefore, the new Permit has been issued to CWM Chemical Services, L.L.C. as required by the above cited regulations.

**Permit Revisions:** None

**Persons/Groups That Submitted This Comment:**

1. Witryol, Amy, Verbal (January 14, 2013 hearing transcript - evening)

## **CWM PERMIT RENEWAL NYSDEC RESPONSIVENESS SUMMARY**

### **Section I - Public Comments & Responses**

**Comment No:** 29

**Comment Topic:** Oppose – CWM Misleading Information

**Paraphrased Comment:**

The kind of information provided to the general public by both the applicant (CWM) and its regulator (DEC) has been largely irrelevant to risk. Why doesn't the Permit require CWM to provide the community with complete and accurate information? The following are some examples of the many ways CWM management has misled the public since the last Permit renewal:

- Waste Toxicity – CWM placed newspaper ads that try to equate the risks of PCBs, cyanide, mercury and other dangerous chemicals, with the risks from using hair dye.
- CWM Discharges – CWM told the community that CWM's discharges are cleaner than the water already in the Niagara River. That's because the PCBs and mercury which CWM discharges, accumulate in the river every year. So CWM discharges are, in reality, increasing the pollutants in the river each year.
- Hudson River Remediation PCB Waste – In 2011, to the community's surprise, we found an EPA hazardous waste manifest signed by CWM and General Electric for GE Hudson River PCB project waste disposal. First CWM reported to the public that they took absolutely nothing (no waste) from the Hudson River PCB project. Then CWM told the public they didn't take sediment from the Hudson River PCB project. Then they told the public they took a little sediment but no "bulk dredge sediment".

All these statements were contradicted by entries in CWM's own "bulk receiving logbook", which reported two bulk shipments of PCB sediment debris from the Hudson River PCB project. In addition, the EPA manifest forms, approved by CWM and GE, reported two shipments of sediment, PPE and debris. Furthermore, the waste profile analysis which CWM and GE approved, estimated that 13 tons of sediment from the project's processing facility was included in the total 27.95 tons shipped to CWM. It should be noted that the EPA 2002 Record of Decision shows that all sediment dredged from the Hudson River went through the processing facility.

**NYSDEC Response:**

NYSDEC acknowledges this comment, however, the statements and information provided to the public by CWM are not restricted by CWM's Permit or the NYSDEC.



Therefore, since such matters are considered by NYSDEC to be beyond the scope of this Permit renewal process, NYSDEC will not offer an opinion on CWM's public statements/information in response to this comment. However, with regard to the Hudson River PCB Project, it should be noted that the acceptance of waste from this project was allowed by, and in compliance with, CWM's Permit.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Witryol, Amy, Verbal (January 14, 2013 hearing transcript - evening)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 30

**Comment Topic:** Oppose – CWM Remaining RMU-1 Landfill Disposal Capacity

**Paraphrased Comment:**

The good news for the public is that in 2003 (or 2002), CWM held a meeting, as required by regulation, on its application to construct a new landfill. At that meeting, CWM presented a timeline showing that all approvals would be obtained by 2005. That has not happened. Also, in the next 12 to 18 months, CWM will cease toxic waste dumping here for the first time in over 40 years, if disposal in their present landfill continues at the current rate.

**NYSDEC Response:**

With regard to the portion of this comment concerning the timeline of CWM's application for a new landfill, as stated in NYSDEC's responses to Comment #s 17 & 18, CWM's new landfill application is being managed through a separate regulatory process and is not part of this CWM Permit renewal. Therefore, NYSDEC does not consider it necessary or appropriate to address the specifics of this comment at this time.

Also, with regard to the remaining capacity of CWM's present landfill (RMU-1), it is estimated to be approximately 115,000 cubic yards based on CWM's April 2013 landfill survey. However, NYSDEC will not speculate on the time period for when this capacity will be exhausted, as it is highly dependent on the rate of waste disposal which is controlled by CWM within certain annual limits set forth in the Permit.

**Permit Revisions:** None

**Persons/Groups That Submitted This Comment:**

1. Witryol, Amy, Verbal (January 14, 2013 hearing transcript - evening)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 31

**Comment Topic:** Oppose – Alleged Fish Kill

**Paraphrased Comment:**

CWM has only made minimal changes despite things like the massive fish kill by poisons dumped into the Niagara River at the CWM outfall this past Fall.

**NYSDEC Response:**

NYSDEC is unaware and has no records of a Niagara River fish kill in the Fall of 2012 which was conclusively linked to a CWM discharge from their outfall, as alleged by this comment.

However, NYSDEC is aware of a die-off of gizzard shad in the Lake Erie, Niagara River and Lake Ontario waterways which occurred over the winter/spring of 2013. Some die-off was also reported to have been observed in late Fall 2012. The NYSDEC investigated these incidents and determined that the die-off was most likely related to cold water temperature stress, to which this species are particularly sensitive. There is no indication that this fish die-off is linked to environmental pollution in general, or to the CWM discharge in particular. The Department issued a press release describing this cyclical event on April 5, 2013.

**Permit Revisions:** None

**Persons/Groups That Submitted This Comment:**

1. Rolland, MaryAnn, Letter #1 (dated January 23, 2013)

# CWM PERMIT RENEWAL NYSDEC RESPONSIVENESS SUMMARY

## Section I - Public Comments & Responses

**Comment No:** 32

**Comment Topic:** Oppose – Environmental Justice

**Paraphrased Comment:**

**Environmental Justice Discrimination:**

Environmental Justice as defined in regulation was not even considered for this community. We have the only commercial **Hazardous Waste landfill** operation the state, adjacent to the **2nd largest Solid Waste landfill** operation in the state and adjacent to “temporary storage” of **2,000 curies of high-activity radioactive** residues in a WWII-era basement, which is a highly ranked (not in a good way) U.S. FUSRAP site. We are within the analytical airspace of the **2nd largest MSW WTE Incinerator** in the state. The disposal sites are all located about one mile from all of our public schools where childhood cancer rates are elevated.

Niagara County is the #1 destination for all solid (hazardous and non-hazardous) waste in New York. Niagara County is also the #1 destination for waste industry campaign donations in New York. See chart below:

**Ending Inventory** at all New York Hazardous Waste Management Facilities (*in Tons*)

Facility Type*	Reg. 9	Reg. 8	Reg. 7	Reg. 6	Reg. 5	Reg. 4	Reg. 3	Reg. 2	Reg. 1
Landfills:									
CWM	9,000,000	0	0	0	0	0	0	0	0
CECOS	2,000,000								
Treatment:	0	0	0	0	0	0	0	0	0
Storage:	0	0	0	0	0	0	0	0	0
Recycle:	0	0	0	0	0	0	0	0	0
Incineration:	0	0	0	0	0	0	0	0	0
Ios: Fuel Blend:	0	0	0	0	0	0	0	0	0
*excludes wastewater									

The 2008 NYS Dept. of Health 10-yr study reported children in our school district had nearly double the expected rate of cancer, as well as many other cancer anomalies in our primarily agricultural and residential community. This, alone, should compel an EJ designation for this community.

**NYSDEC Response:**

Matters of Environmental Justice and Permitting are addressed under NYSDEC Commission Policy 29 (CP-29). In Section V.A.2 of CP-29 it is stated that “The policy shall not apply to permit applications for minor modifications..., **nor to renewals** [*emphasis added*], registrations or general permits.” Based on this policy statement, NYSDEC does not consider any potential issues of environmental justice to be relevant to this CWM Permit renewal. Therefore, NYSDEC does not consider it necessary or appropriate to address the specifics of this comment at this time.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Witryol, Amy, Letter (dated March 29, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 33

**Comment Topic:** Oppose – SEQR Negative Declaration

**Paraphrased Comment:**

**SEQR: The proposed Negative Declaration is inappropriate and discriminatory:**

It's been 10 years since DEC identified "ongoing" discharges of PCBs, VOCs, etc. from CWM property into our creeks, through people's back yards, accumulating by a heavily used State Park camp ground.

This draft RCRA Permit has the audacity to forecast future Corrective Action from a pending SPDES modification, conveniently sidelined in the Water Division for years. Proposed modifications would require needed PCB and Mercury, etc. identification causing even more CWM compliance problems.

This draft RCRA permit perpetuates likely radioactive discharges from the site by delaying clean up and exempting the most obvious areas from characterization. CWM was well aware of radiation problems when it purchased the property 30 years ago, and it has since created more obstacles to remediation.

DEC Radiation staff stated that no radiological waste was disposed from the investigation of property adjacent to and down-gradient of CWM (the former LOOW WWTP.) However, the Army Corps shipped radioactive waste to Idaho because plutonium, etc., was found in the scaling of a pipe historically used to transport wastewater from CWM property to the Niagara River.

When considering this pipeline in combination with shipments of plutonium experiment waste and nuclear reactor waste shipped in the 1950's to what is now CWM property, the large plume of plutonium identified at the mouth of the Niagara River (identified twenty years ago) may be attributable to discharges from CWM property.

Climate Change was inappropriately excluded from SEQR consideration given the high water table at the site, often about 3 feet from surface or worse in the spring. This is more troubling given the major increase in precipitation in recent years, particularly since portions of CWM are already in a flood plain.

Had the Siting Board known in 1993 that in 1995 the EPA would lift its Capacity Assurance requirement on states for the next 20 years if not forever, it may not have sited

RMU-1. That, alone, would constitute a Positive Declaration. DEC should exercise its authority under existing permit conditions to improve surveillance, pollution prevention, remediation, and raise the surety to an amount that does not have the potential to require taxpayer subsidies to manage or repair the site in the future.

The Siting Board issued a certificate for RMU-1 in 1993 relying on a prohibition of explosives at CWM. However, explosives were, in fact, shipped to CWM since the last permit renewal (more than once.)

Neither did the Siting Board contemplate a death related to transportation, which also occurred since the last permit renewal. The Negative Declaration was inappropriate, discriminatory and an insult.

**NYSDEC Response:**

This comment presents a number of specific matters which it purports to be reasons why the State Environmental Quality Review (SEQR) Negative Declaration associated with this Permitting action is, in the opinion expressed by this comment, “inappropriate and discriminatory.” Before addressing any of these specific matters, the NYSDEC would like to make clear that 6 NYCRR 617 (i.e. SEQR regulations) specifically lists Permit renewals where there is no material change in Permit conditions or the scope of Permitted activities, as a “Type II Action” not subject to SEQR review (6 NYCRR 617.5(c)(26)). However, in the case of the CWM Permit renewal, there were a number of proposed significant Permit modifications (as described in NYSDEC’s Fact Sheet) which constitute “Unlisted Actions” (as defined by 6 NYCRR 617.2(ak)) and as such require an initial review under the SEQR regulations (6 NYCRR 617.3). This review culminated in the issuance of the subject SEQR Negative Declaration which pertains exclusively to the proposed Permit modifications, and not to any other aspects of the CWM Permit renewal action (i.e., aside from the proposed Permit modifications, the CWM Permit renewal is not subject to SEQR review per 6 NYCRR 617.5(c)(26)). Therefore, since the matters raised by this comment are not relevant to the proposed Permit modifications, they are not required to undergo SEQR review, and as such are not addressed by the subject SEQR Negative Declaration.

With regard to some of the specific matters presented in this comment, NYSDEC has provided the following responses:

- CWM discharges of site storm water to local creeks has been, and continues to be regulated under the Facility’s State Pollutant Discharge Elimination Systems (SPDES) Permit which requires continuous monitoring and places strict limits on the concentration levels of PCB, VOCs and other pollutants that may be contained in such storm water discharges.
- NYSDEC disagrees with this comment’s characterization that the Draft RCRA Permit forecasts future corrective action from a pending SPDES Permit

modification. Under Condition A of Exhibit B in Schedule 1 of Module I, the “RCRA” Permit states that “...in the event that future monitoring of surface storm water identifies contaminant concentrations above the limits set forth in the Facility’s SPDES Permit, the Department, at its discretion, may require and the Permittee must implement additional corrective measures to control contaminant migration via surface water.” This condition is meant to apply to results from any monitoring performed in accordance with CWM’s SPDES Permit, and is not meant to forecast any corrective action being necessary as an outcome of the pending SPDES Permit modification. It is simply intended to make clear that additional corrective action will be required based on SPDES monitoring results if warranted to control contaminant migration to surface water. See NYSDEC’s response to Comment #25 regarding the current status of the pending SPDES Permit modification.

- NYSDEC disagrees that the CWM RCRA Permit in any way perpetuates radioactive discharges from the site by delaying cleanup and exempting areas from characterization, as alleged by this comment. To the contrary, due to potential presence of residual radiological contamination in isolated areas, this Permit requires CWM to monitor for radiological constituents in environmental sampling and during excavation activities, and requires clean up of identified radiological contamination in association with the closure of Fac Pond 8. With respect to CWM’s awareness and treatment of the site’s radiological matters expressed in this comment, NYSDEC does not consider necessary or appropriate to provide a specific response.
- With regard to matter of any residual Plutonium contamination expressed in this comment, it should be understood that the source term of plutonium within the boundaries of LOOW properties (including the CWM property) is so negligible, there is virtually no way any detectable concentrations could be associated with the site. There have been no large Plutonium plumes ever discovered at the mouth of the Niagara River that NYSDEC or NYS Department of Health have ever been made aware of, via a report from any credible source. Furthermore, considering the distance which groundwater travels within the area, even if there were to be a significant source of Plutonium present on the LOOW properties, any potential migration to the Niagara River would be extremely remote. Also see NYSDEC’s response to Comment #22.
- With respect to the portion of the comment concerning scale from the pipe associated with the LOOW WWTP project, it was found to contain elevated Uranium, Thorium and Radium. However, it was shipped to US Ecology for disposal solely due to the origin of the material and potential that it contained Manhattan Engineering District (MED) materials. Data did not indicate the presence of Plutonium in any samples.



- Matters regarding SEQR consideration of climate change are not applicable to this Permit renewal for reasons indicated in this response’s opening paragraph.
- The comment suggests that a SEQR Positive Declaration and/or other significantly more stringent changes to Permit be made based on whether the RMU-1 Landfill Siting would have issued the 1993 Siting Certificate if they had known EPA would lift the capacity assurance requirements on States in 1995, or if they had known of a waste transporter related accidental fatality. The NYSDEC does not consider such conjecture as a sound basis for a Positive Declaration or other significant Permit modifications.
- With regard to explosives allegedly shipped to CWM, operational records do not indicate that any such wastes were disposed of in CWM’s landfill over the term of the Permit. There was one documented occurrence of a waste shipment received at CWM from a household hazardous waste collection event, in which marine flares were included and listed on the manifest as flammable solid waste. CWM is authorized to store this waste class on-site. Subsequently, upon preparing the waste for shipment off-site it was determined that the flares should have been classified as a DOT Class C explosive waste, which is not authorized to be stored at CWM. This waste was properly packed and labeled and subsequently shipped off-site for incineration. A non-compliance report was issued for this incident in March 2012 and it was included in an order on consent executed in April 2012.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Witryol, Amy, Letter (dated March 29, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 34

**Comment Topic:** Oppose – Permit Reduces CWM Expenses & Increases Contamination

**Paraphrased Comment:**

**Permit Conditions Reduce CWM Expenses, Not Contamination Leaving the Site:**

The financial estimates for pending Corrective Actions in the permit reduce CWM expense by more than 50% compared to the historical average. Failure to address problems documented nearly 30 years ago has resulted in high concentrations and large volumes of contaminants diluted and dispersed away from monitoring well locations instead of remediated. Since 1995, more than 5 million additional tons dumped at CWM provide even more camouflage for contamination leaving the site.

The abuse of “Natural Attenuation” as a remedial remedy at CWM is disturbing as it exacerbates total exposure from CWM plus from the adjacent and upwind facilities.

DER-10 guidelines were not reasonably applied to all Corrective Actions. There are additional actions which should be added to clean up the property and prevent discharges of contaminants.

The public participation, analysis of alternatives and compatibility to Green Technology guidance is typically well done and documented by DER for brownfield projects, but is virtually absent for CWM.

**NYSDEC Response:**

NYSDEC is not certain as to what “financial estimates” for corrective action this comment is referring. However, a review of CWM’s current (1998) and new cost estimates for Financial Assurance indicates that the amount allocated for Corrective Measures is increased from approximately \$9.1 million to \$12.8 million under the new Permit. With regard to dispersion of contaminants away from monitoring wells expressed in this comment, NYSDEC is not aware of any data in support of this claim.

As part of the “Final Corrective Measures” put in place by NYSDEC’s “Statement of Basis” in January 2001, NYSDEC selected Natural Attenuation for a sub set of Solid Waste Management Units (SWMUs) at the facility. The selection of Natural Attenuation for groundwater at these units was based on site-specific factors including the removal of the presumed source, concentration of contaminants, monitoring of downgradient wells indicating that contamination has not migrated substantial distances from the area of

detection and, based on risk evaluations, do not appear to represent a significant threat to human health or the environment. Data collected as part of monitoring these units indicate decreasing concentrations of contaminants and do not indicate migration of contamination beyond previously detected areas.

The NYDEC's Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER -10) was developed and issued in May 2010. Likewise, NYSDEC's DER Green Remediation guidance (DER-31) was developed and issued in August 2010. As the corrective action investigation and selection process predated these guidance documents by almost 10 years, the guidelines were not applied at the time of the program development at the CWM facility. Retroactive review of the RCRA corrective action process at the CWM facility indicates that the program is generally consistent with these guidelines.

With respect to the development of CWM "Final Corrective Measures", they were put in place by NYSDEC's "Statement of Basis" in January 2001 through a Major Permit modification. This was preceded by an analysis of remedial alternatives based on a CWM Corrective Measures Study and opportunity for public comment on the Draft Corrective Measures.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Witryol, Amy, Letter (dated March 29, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 35

**Comment Topic:** Oppose – Alleged Inappropriate Inclusion of RMU-2 Conditions

**Paraphrased Comment:**

**Impermissible Inclusion of RMU-2 Conditions:**

Any condition applicable to capacity other than the 180,000 tons remaining for RMU-1 (as of Feb. 2013) is problematic. All permit conditions should be limited, removed or stepped down where applicable to reflect RMU-1 siting and closure. Failure to revise conditions to reflect only RMU-1 capacity violates SEQR and impermissibly processes an incomplete RMU-2 application. Conditions applicable to any capacity for the pending RMU-2 modification seeking a new 32-yr landfill are impermissible and should be removed.

**NYSDEC Response:**

Conditions in the CWM Hazardous Waste Management Permit related to the facility's land disposal capacity all pertain to the RMU-1 landfill, and are not intended to provide or in any way imply Permitted land disposal capacity for CWM's proposed RMU-2 landfill. The overall capacity of the RMU-1 landfill is estimated in Attachment A of the Permit ("Part A Application") to be approximately 2233 acre-feet based on the designed liner system and cover system topographic grades. The actual Permit limit on CWM RMU-1 land disposal capacity is established by the topographic "Top of Waste Grades" depicted on Drawing 11-a in Attachment J, Appendix D-6 of the Permit. It should be understood that while Condition E.1.a of Exhibit F in Schedule 1 of Module I of this Permit indicates annual waste disposal cap which is greater than RMU-1's estimated remaining capacity, it does not allow CWM to exceed the topographic waste disposal limits dictated by Drawing 11-a.

**Permit Revisions:** None

**Persons/Groups That Submitted This Comment:**

1. Witryol, Amy, Letter (dated March 29, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 36

**Comment Topic:** Oppose – Inadequate CWM Employee-to-Waste Volume Ratio

**Paraphrased Comment:**

**Weak CWM Employee-to-Waste-Volume Ratio:**

Proposed monitoring increases already elevated worker safety and public health risk at a time when we are seeing probably the worst CWM Employee-to-Waste-Volume ratio in history. CWM headcount is down some 75% since RMU-1 was sited. However, the facility still processed more than 200,000 tons last year.

Increasing pressure on CWM employees to cut costs should compel DEC to remove, not increase CWM discretion for emergency response, surveillance, and all hazardous waste management decisions. The dramatic headcount decline should curtail instead of add to the record number of dangerous chemicals CWM is proposing to accept.

The DEC monitors assigned on-site could not be expected to see more than 2-3% of activity at the site on a daily basis. They are not present during all hours of operation or fully staffed at all times for the current, limited assignments.

All permit documents were not posted on either the DEC or CWM website. For example, CWM's current Inspection Plan was not disclosed, nor do we know what changes have occurred since the last renewal or the siting of RMU-1. The "redundant" secondary containment or other pollution "prevention" measures at CWM have been breached too many times to warrant weak inspection intervals or "visuals" to satisfy non-visual risks.

The CWM Emergency Response Plan improperly requires certain of its remaining employees to somehow perform simultaneous multiple functions during an emergency. It is also improper to permit CWM to solely determine when to contact local authorities (i.e. whether off-site impacts are expected.)

The DEC approval of the historical in addition to the proposed Waste Analysis Plan for the facility exempts the vast majority of incoming waste from sampling to determine compliance with its own characterization standards, unnecessarily increasing risk to workers and the community. The current stabilization risk is unnecessary and inappropriate, let alone appropriate to a 50% or even a 1% increase.

**NYSDEC Response:**

NYSDEC acknowledges the concerns expressed in this comment over CWM employment levels. However, NYSDEC considers this to be an internal CWM matter beyond the regulatory authority of the Permit. Also, absent any evidence of substantial non-compliance, it is inappropriate for NYSDEC to require curtailment of CWM operations through this Permit. It should be noted however, that the Permit requires CWM employees to be properly trained in the management of hazardous waste and in response to any potential hazardous waste related emergencies. Also, regardless of whatever staffing level CWM should consider appropriate for this facility, the Permit obligates CWM to perform facility inspections and conduct environmental monitoring at unvarying frequencies as necessary for adequate protection of human health and the environment.

NYSDEC on-site monitors are not expected to witness every CWM waste management activity or be on-site during all hours of facility operation. However, it should be pointed out that Condition F.5.c of Exhibit F in Schedule 1 of Module I of the Permit, places certain date/time restrictions on waste placement in CWM's RMU-1 landfill, and requires CWM to provide NYSDEC on-site monitors with the landfill's weekly operational schedule in advance. This condition is intended to help NYSDEC set up on-site monitor schedules to maximize coverage during RMU-1 waste placement to the greatest practical extent.

The comment alleges that all Draft Permit documents, including the CWM Inspection Plan, were not made available for public review, and that all changes (i.e., Permit modifications) since the last Permit renewal were not disclosed. All Draft Permit documents associated with this renewal were posted on the indicated NYSDEC and CWM web sites, with Permit Modules & Attachments available through the NYSDEC web site and all incorporated Permit documents available through the CWM sites. Also, hard copies of the entire Draft Permit were available for public review at three (3) area document repositories. The CWM Inspection Plan referred to as being absent from the Draft Permit is located in Attachment F of the Draft Permit in both the electronic and hard copies made available for public review. With respect to Permit modifications which were made to the Permit since it was issued in 2005, a detailed summary of these modifications is presented in Attachment O of the 2005 issued Permit which is available on-line through the NYSDEC web site.

The comment expresses the opinion that secondary containment has been breached too many times and that this warrants more frequent and thorough inspections. It is not appropriate for NYSDEC to provide a direct response with respect to these stated opinions. However, it should be noted that while defects in secondary containment structures for container storage areas and tanks have been identified (and repaired) over the years since the Permit was last renewed in 2005, there have not been any breaches that have resulted in the release of hazardous waste. Also, it should be noted that in addition to the regular inspections of these secondary containment structure by CWM personnel, the Permit requires that these structures be assessed annually by an

independent NYS Professional Engineer or a qualified inspector working under the supervision of a NYS Professional Engineer, and that CWM make any and all repairs to defects identified from these assessments.

This comment suggests that CWM's Emergency Response Plan (i.e., Contingency Plan) requires CWM personnel to perform multiple functions simultaneously during an emergency incident. Based on NYSDEC's review of CWM's Contingency Plan (Attachment G of the Permit), it appears that certain CWM personnel (Emergency Coordinator, Casualty Control Officer, etc.) are required to perform a number of duties and tasks in certain emergency situations, however, nothing in the Plan specifically requires that these duties/tasks be conducted simultaneously.

The comment states that the Permit should not allow CWM to be the sole decider as to when local authorities should be contacted. For fires, explosions, or off-site releases (i.e., emergencies affecting or potentially affecting off-site areas), Condition A.5 of Exhibit A in Schedule 1 of Module I of the new Permit requires CWM to immediately notify the local fire company or department to respond. This requirement does not allow CWM to exercise any discretion with respect to this notification. Also see NYSDEC's response to Comment #16 in Section II of this Responsiveness Summary for further details with respect to this Permit condition.

With respect to CWM analysis of incoming wastes, it is true that the Waste Analysis Plan exempts certain waste types from needing to be sampled by CWM to verify the Generator's characterization. However, there are a number of legitimate reasons for why CWM sampling is not required for certain waste types. For instance, certain forms of hazardous debris (e.g., contaminated steel from demolition debris, etc.) do not lend themselves to sampling. However, regardless of whether a waste is exempted from CWM sampling, the Permit requires that NYSDEC staff review all available information on each waste stream destined for land disposal, and must approve the waste stream prior to disposal in the landfill. This condition also requires CWM to provide additional characterization information on a waste stream upon receipt of a request for such information from NYSDEC staff.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Witryol, Amy, Letter (dated March 29, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 37

**Comment Topic:** Administrative – Inadequate Signage for Public Hearing

**Paraphrased Comment:**

Why didn't DEC put a sign on the street indicating where the public hearing was being held? The buildings are not marked and some of us had to go around and around trying to find the correct building.

**NYSDEC Response:**

The NYSDEC acknowledges the concern expressed by this comment. In the future, NYSDEC will consider providing better identification of the specific location where NYSDEC is holding CWM-related public events.

**Permit Revisions:** None

**Persons/Groups That Submitted This Comment:**

1. Alati, Carmela, Verbal (January 14, 2013 hearing transcript - afternoon)



**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 38

**Comment Topic:** Administrative – Requests for Extension of Comment Period

**Paraphrased Comment:**

As you know, the CWM site has raised significant environmental and public health concerns in the community, prompting substantial interest from the public to comment on the permitting issues involving this facility. Given the complex nature of the site, strong public interest and the timing of the holidays, more time is needed beyond the January 31, 2013 deadline in order for everyone to have adequate time to study the permit application and send in their comments. Therefore, we respectfully request that the NYSDEC extend the public comment period for CWM's Part 373 Hazardous Waste Management Permit renewal for an additional 60 days (March 31, 2013).

**NYSDEC Response:**

In response to NYSDEC's November 28, 2012 public notice of a 60 day comment period on the CWM Draft Permit renewal, NYSDEC received a total of four (4) comment letters requesting an extension of the public comment period beyond the original January 31, 2013 end date. As indicated in the above paraphrased comment, the requests cited the Holiday season and the volume/complexity of the Draft Permit documents as reasons for an extending the comment period. Most of these comment letters requested an additional 60 days for public review and comment. Also, it should be noted that NYSDEC received a comment letter from CWM in opposition to an extension of the comment period (see Comment #145 in Section II of this Responsiveness Summary).

NYSDEC evaluated these requests and other expressions of public interest for additional public review of the Draft Permit documents, and decided to extend the public comment period an additional 60 days. NYSDEC provided the public with notification that the comment period was being extended to March 29, 2013 on January 9, 2013.

**Permit Revisions:** None

**Persons/Groups That Submitted This Comment:**

1. Jedlicka, Jill, Executive Director, Buffalo-Niagara Riverkeeper, Letter (dated December 4, 2012)
2. Lamb, Charles, Vice President, Residents for Responsible Government (RRG), Letter (dated December 4, 2012)
3. Schneekloth, Lynda, Chair, Sierra Club – Niagara Group, Letter (dated December 10, 2012)

4. Smith, Brian P., Program & Communications Director, Citizens Campaign for the Environment), Letter (received December 13, 2012)

## **CWM PERMIT RENEWAL NYSDEC RESPONSIVENESS SUMMARY**

### **Section I - Public Comments & Responses**

**Comment No:** 39

**Comment Topic:** Administrative – Requests for Re-Notice of Application

**Paraphrased Comment:**

Regulation requires the DEC to complete development of an application, and then issue it for public comment. However, that apparently was not the case in light of CWM's recent submission. CWM has caused countless delays on a variety of pollution prevention matters by objecting to pollution reduction measures. Correspondence previously obtained under the Freedom of Information Act show that CWM has requested delays from the DEC in processing DEC requests.

Now CWM has submitted nearly 300 pages of draft permit comments dated March 12, 2013. The form and substance of some comments suggest that they were not previously raised with the DEC, or that they were raised and deferred until after the Permit was issued for public review. For example:

“CWM asked the Department for clarification on this draft permit condition. Based on discussion with the Department, the permit condition was revised to reflect the facility's understanding of the intent of this condition.”

The CWM comments address many important application issues such as waste analysis, surveillance, attempted pollution prevention, emergency response, closure requirements, and perpetual maintenance of 8 million tons of toxic waste, to name a few. These comments are not limited to typos or objections raised before the draft permit was presented for public review. Although, the public comment period ends on March 29<sup>th</sup>, DEC and the applicant must still resolve how 300 pages of comments will be handled and must construct a new draft permit. The DEC must provide public notice again, once the draft permit has been completed, and provide a reasonable public comment period.

Therefore, in order to provide the public a fair and reasonable opportunity to comment on these large and complex documents, in light of CWM's late submission of comments, it is requested that the Department rescind its declaration of completeness for the CWM application, finish its development, and re-notice the application and draft permit for public review and comment. It is recommended that a minimum of 90 days given the length and complexity of the documents which have undergone numerous modifications since the last renewal.

**NYSDEC Response:**

This comment alleges that the CWM renewal application which was deemed “complete” by NYSDEC and presented for public review was not “complete” as required by regulation based on comments submitted by CWM during the comment period. It is true that CWM submitted comments requesting specific modifications to Draft Permit Attachments. It is also true that a number of these attachments come from sections of the CWM Permit renewal application which was presented for public review in concert with the Draft Permit. However, NYSDEC does not consider that CWM comments requesting modifications to Permit Attachments derived from their renewal application as automatically indicating that the application presented for public review was not “complete”. NYSDEC has reviewed these CWM comments and does not consider that they in any way alter the “completeness” of the original application, and as such there are no regulatory compliance issues with respect to the application presented for public review.

The comment also alleges that CWM has caused or requested delays in a number of pollution prevention matters, but does not present any specific examples of such delays. Without such specific examples the NYSDEC cannot directly respond to the comment’s allegation. However, it should be noted that past CWM requests for extension of time frames to complete Permit required activities were made and granted either in accordance with procedures spelled out in the Permit or through the Permit modification process stipulated by the regulations.

Lastly, this comment suggests that since comments submitted by CWM during the comment period request modifications to the Draft Permit beyond simple typographical corrections, the modified Draft Permit must be re-noticed, and presented for public review and comment prior to issuance. First, NYSDEC has evaluated these CWM comments and in some cases has not made the modification to the Draft Permit requested by the CWM comment. In these cases, the conditions in the issued Permit renewal are identical to those in the Draft Permit, and as such there is no modification to present for additional public review. For cases where NYSDEC has decided to modify the Draft Permit in response to CWM’s comment request, NYSDEC has evaluated whether any of these modifications constitute a significant revision to the Draft Permit which would warrant a re-notice of the Draft Permit to provide the public with an opportunity to review and comment on these modifications. In performing this evaluation, NYSDEC has utilized the criteria presented in 6 NYCRR 373-1.7(c) & (d) of the NYSDEC regulations and 40 CFR § 270.42 of the USEPA regulations with respect to classification of Permit modifications as “major” or “minor”. Specifically, Permit modifications which are classified as “major” under 6 NYCRR 373-1.7(d) are required to be treated as “new” Permit applications and require public review and comment on the draft modification prior to issuance or denial, while Permit modifications which are classified as “minor” under 6 NYCRR 373-1.7(c) do not require public review and comment. NYSDEC has reviewed each of the modifications to the Draft Permit made in response to the CWM comment requests utilizing these regulatory classification criteria, and has determined that they all constitute “minor” modifications in accordance with 6 NYCRR 373-1.7. As

such, since “minor” modifications do not require public review and comment, NYSDEC has determined that a re-notice of the Draft Permit for public review and comment on these modifications is unnecessary. Therefore, NYSDEC has proceeded with issuance of the CWM Permit renewal.

**Permit Revisions:** None

**Persons/Groups That Submitted This Comment:**

1. Fideli, April, President, Residents for Responsible Government (RRG), (also submitted by Downs, Roger, Conservation Director, Sierra Club – Atlantic Chapter; Warren, Barbara, Executive Director, Citizens Environmental Coalition; Rabe, Anne, CHEJ Campaign Coordinator, Center for Health, Environment and Justice; Smith, Brian, Program and Communications Director, Citizens Campaign for the Environment; Haight, Laura, Senior Environmental Associate, New York Public Interest Research Group & Jedlicka, Jill, Executive Director, Buffalo-Niagara Riverkeeper), Letter (dated March 21, 2013)
2. Jedlicka, Jill, Executive Director, Buffalo-Niagara Riverkeeper, Letter (dated March 28, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 40

**Comment Topic:** Modification Requested – Stabilization Verses Treatment

**Paraphrased Comment:**

Stabilization – Although the language in the existing permit and the draft extension interchangeably use “stabilization” and “treatment”, it must be emphasized that “treatment” as defined and used in the existing and proposed NYSDEC permits is not synonymous with the legal definition of “treatment” in the 1986 New York State Hazardous Waste Management Act. The Act legally defines “treatment” as bringing the substance to a benign state via chemical or other kind of change, not casking it or modifying its consistency to “stabilize” it. In addition, stabilize is not the same as neutralize.

Consider the following:

Quotation from Adopted New York State Hazardous Waste Facility Siting Plan:

*“Presently, CWM operations at this site primarily center around land disposal of solid, commercial hazardous waste and non-hazardous industrial waste, with some treatment and storage of on-site and off-site liquid waste.*

*There has been limited treatment of hazardous waste in-state. The 1991 number is artificially high due to the inclusion of hazardous wastewater quantities. The number of facilities that treat hazardous waste has steadily decreased, as can be seen in Table 1-3. As of 2008, no commercial facilities in New York State reported the treatment of hazardous waste other than: wastewater, and certain wastes that were treated so as to no longer be hazardous, but, nonetheless, were landfilled at a hazardous waste land disposal facility (1-15).”*

Quotation from NYS Environmental Conservation Law § 27-0901, Definitions:

*“10. “Treatment” means any method, technique, or process, including neutralization, designed to change the physical, chemical or biological character or composition of any hazardous waste so as to neutralize such waste or as to render it non-hazardous, safer for transport, amenable for recovery, amenable for storage, or reduced in volume.”*

Therefore, there is no reason to revise the word “stabilize” or “stabilizing” to “treat” or

“treating” in the permit extension, such as in Volume 2, page 11, Item f. It is suggested that all such wording be edited back to “stabilize” or “stabilizing”.

**NYSDEC Response:**

NYSDEC has reviewed this comment with respect to the use of the words “stabilize” or “stabilizing” in the Permit to describe CWM’s process of mixing waste with reagents to meet waste strength and /or Land Disposal Restriction (LDR) requirements prior to land disposal in their RMU-1 landfill, in lieu of the words “treat” or “treatment”. In consideration of the arguments made in this comment for the use of the words “stabilize” or “stabilizing”, the NYSDEC acknowledges that these terms are more descriptive of the specific process which entails chemically bonding the waste to meet strength and/or leachability requirements. Therefore, NYSDEC has revised the Draft Permit to replace the words “treat” or “treatment” with the words “stabilize” or “stabilizing” at the appropriate places in the Permit (indicated below), as suggested by this comment.

**Permit Revisions:**

Attachment D, Appendix D-1, Section B.(5).(f) on Draft Page 11 has been revised as follows:

“CWM may implement debris immobilization techniques by ~~stabilizing~~~~treating~~ debris utilizing microencapsulation and/or macroencapsulation ~~treatment~~ techniques.”

Attachment D, Appendix D-1, Section F.(1) on Draft Page 21 has been revised as follows:

“The Stabilization Facility is designed to process hazardous wastes so that the ~~stabilized~~~~treated~~ wastes conform to NYSDEC and Federal Land Disposal Restrictions (LDRs)...”

**Persons/Groups That Submitted This Comment:**

1. Maziarz, George D., New York State Senator – 62<sup>nd</sup> District, Letter (dated March 21, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 41

**Comment Topic:** Major Modification Requested – Corrective Action – General

**Paraphrased Comment:**

**Introduction:**

This comment and the comments presented under Comment Nos. 42 – 46 to follow have been submitted by the Person/Groups identified below who are collectively referred to by the submitter as the “Municipal Stakeholders”. The Municipal Stakeholders characterize these seven (7) comments as identifying substantive and significant issues that warrant major modifications in the draft Permit, with reference to 6 NYCRR §§ 621.7(b), 621.7(d), 624.1(a)(1), 624.4(c) & 624.5(b). In these comments the Municipal Stakeholders specifically request: 1) additional groundwater monitoring wells to characterize groundwater quality in the lower groundwater bearing zone to the west of the Process Area; 2) re-characterization and enhanced corrective actions to remediate a former wastewater lagoon known as Fac Pond 8, now drained and undergoing closure; and 3) more effective and stringent corrective actions and controls for PCBs, volatile organic compounds (VOCs), toxic metals and radioactive contamination found in site surface water, wastewater and groundwater. The Municipal Stakeholders state that all factual assertions made in these seven (7) comments and supporting materials represent an offer to prove these facts.

**Corrective Action is required at this facility regardless of the contaminant’s source:**

Because these comments (Comment Nos. 41 – 46) focus on modifications to the corrective action requirements that should be made to the draft Renewal Permit, some background on applicable corrective action requirements is appropriate.

"[RCRA] Section 3004(u), in essence, creates the broad duty to take corrective action as a *quid pro quo* to obtaining a permit"<sup>1</sup> Section 3004(u) requires "corrective action for all releases of hazardous waste or constituents from any solid waste management unit ["SWMU"] at a treatment, storage, or disposal facility seeking a permit under this

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<sup>1</sup> *United Technologies Corp. v. EPA*, 821 F.2d 714, 722 (D.C. Cir. 1987).



subchapter, regardless of the time at which waste was placed in such unit."<sup>2</sup> Section 3004(v) authorizes EPA or the Department to require that corrective actions be taken at adjacent or surrounding properties where necessary to protect human health or the environment.<sup>3</sup> Required corrective actions must continue under "a post-closure permit" following termination of the facility's "active life" permit, and must "address applicable 40 CFR part 264 groundwater monitoring, unsaturated zone monitoring, corrective action, and post-closure care requirements."<sup>4</sup>

In 1996 EPA stated:

In 1990, EPA proposed to define the term "solid waste management unit" or "SWMU" to mean, "Any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released." Pending resolution of the 1990 proposal, EPA has used this definition in corrective action implementation. The inclusion of units not specifically intended for the management of solid or hazardous waste is supported by the legislative history of RCRA sections 3004 (u) and (v), and this point has been applied in decisions by the EAB. (See, e.g., *In re General Motors Corp.*, RCRA Appeal No. 90-24 (EAB Nov. 6, 1992).)

As discussed in the 1990 proposal, not all areas where releases have occurred are considered SWMUs. In the 1990 proposal, EPA indicated a one-time spill which had been adequately cleaned up would not constitute a SWMU; on the other hand, a location at which wastes or other materials were released in a routine and systematic manner (such as a loading area where minor spills or leaks occurred routinely over time) would be a SWMU. The 1990 proposal indicated that industrial sewers used for collecting wastes would constitute SWMUs. This interpretation, which was based in part on earlier decisions in permit appeals, has been affirmed by the EAB in *In re Amoco Oil Co.*, RCRA Appeal No. 92-21 (EAB Nov. 23, 1993).

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2 RCRA Section 3004(u), 42 U.S.C. § 6924(u); codified at 40 C.F.R. § 264.101(a). See 6 N.Y.C.R.R. § 373-2.6(1)(1). See also 40 C.F.R. § 264.90(a)(2) ("A surface impoundment, waste pile, and a land treatment unit or landfill that receives hazardous waste after July 26, 1982 (hereinafter referred to as a 'regulated unit') must comply with the requirements of §§ 264.91 through 264.100 in lieu of § 264.101 for purposes of detecting, characterizing, and responding to releases to the uppermost aquifer.").

3 RCRA Section 3004(v), 42 U.S.C. § 6924(v); codified at C.F.R. § 264.101(c). See 6 N.Y.C.R.R. § 373-2.6(1)(3).

4 40 C.F.R. § 270.1(c). See *In re Adcom Wire*, 5 E.A.D. 84, 91 (EAB 1994) ("We can find nothing in the federal statute or regulations to suggest that the corrective action obligation expires when the need for the State-issued [permit] portion no longer exists."); *In re Brush Wellman, Inc., Elmore, Ohio Facility*, 4 E.A.D. 210, 212 n.5 (EAB 1992) (investigations for releases may be required at SWMUs designated as inactive).

The definition of a SWMU is often a point of disagreement when corrective action permits or orders are issued. Facility owners/operators and representatives of the regulated community often argue that Congress intended the RCRA corrective action program to be focused on waste management units (i.e., SWMU) and that non-waste-management related releases (e.g., spills) should be addressed by other cleanup programs or authorities. EPA notes that authority exists for requiring corrective action for releases that are not attributable to SWMUs. Given the legislative history of RCRA section 3004(u), which emphasizes that RCRA facilities should be adequately cleaned up, in part, to prevent creation of new Superfund sites, EPA believes that corrective action authorities can be used to address all unacceptable risks to human health or the environment from RCRA facilities.<sup>5</sup>

EPA has said this is "the primary guidance for much of the corrective action program."<sup>6</sup>

The primary concern of the Municipal Stakeholders is that the Model City site be adequately remediated or cleaned up to accommodate future land uses that, unlike hazardous waste management, enhance the development potential of the land and eliminate exposure risks to the Lewiston-Porter Central School campus and nearby residents. The corrective measures adopted in the draft permit do not adequately address the Municipal Stakeholders' concerns, do not ensure that monitoring will detect migration and release of hazardous wastes or constituents on or off site, and do not minimize the risk of release of hazardous constituents.

In support of these seven (7) comments are two reports by well-respected experts in their fields, hydrogeologist Dr. Andrew Michalski, and nuclear physicist Dr. Marvin Resnikoff (Referenced Reports are located in Appendix B, Volume 1 of this Responsiveness Summary). As discussed at greater length in these comments, against the background of applicable rules and requirements, Dr. Michalski finds that CWM has been utilizing a flawed and obsolete groundwater flow model that is contradicted by groundwater monitoring data collected over the last two decades. As a result, additional monitoring wells are warranted.

Dr. Resnikoff finds that the 2010 characterization of Fac Pond 8 is unreliable. The number of soil borings CWM's contractor EnSol took in Fac Pond 8 is far less than required under applicable standards. A subsequent contractor discovered that EnSol missed 50 hotspots on the surface, and found 66 tons of contaminated subsurface soils had to be removed. A resurvey of Fac Pond 8 indicates radiological contaminants remain

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5 61 Fed.Reg. 19,431, 19,437, 19,442-19,443, "Corrective Action for Releases From Solid Waste Management Units at Hazardous Waste Management Facilities" (May 1, 1996).

6 64 Fed.Reg. 54,604, 54,605 (October 7, 1999). *See also* EPA Region 2, "RCRA Corrective Action," available at <<http://www.epa.gov/region2/rcra/>>.

at concentrations prohibiting release or acceptance of the area as clean. Therefore, re-characterization and additional remediation of Fac Pond 8 is warranted.

Additionally, CWM has failed to comply with a 2005 New York State Department of Health (NYSDOH) directive, subsequently reiterated by Department Staff, that it fill data gaps left by previous site surveys and cleanups. CWM has also failed to comply with the existing permit condition, requiring that CWM investigate, identify and remove sources of PCB and VOC contamination in soils and surface water.<sup>7</sup> Instead, CWM has elected to stabilize *in situ* and divert contaminated site waters so that they do not trigger exceedences at monitoring points, and has avoided an effective survey of the site that could identify the location of buried legacy waste and contaminated media. Therefore more stringent permit conditions are warranted that will force effective corrective action.

#### **NYSDEC Response:**

First, NYSDEC acknowledges that this comment and Comment Nos. 42-46 to follow which were submitted on behalf of the Municipal Stakeholders identified below, are, in the opinion of these Stakeholders, characterized as identifying “substantive and significant issues” which warrant major modifications to the Draft Permit. Be advised that in reviewing these seven (7) comments and their accompanying supporting documents, NYSDEC has evaluated them in terms of whether their content raise any substantive and significant issues relating to the application or Draft Permit, in accordance with the Uniform Procedures regulations under 6 NYCRR 621.8. From this evaluation NYSDEC has determined that these comments do not raise any substantive and significant issues which might cause the NYSDEC to deny CWM’s renewal application or to impose significant new conditions beyond the conditions in the Draft Permit. The basis for this NYSDEC determination is presented in the subsequent responses to these seven (7) comments.

NYSDEC has reviewed the summary presented in the above comment with respect to EPA’s (and NYSDEC’s) regulatory authority pertaining to the RCRA corrective action program. NYSDEC has no significant disagreement with the characterization of the RCRA corrective action authority as summarized in the comment.

With regard to the Municipal Stakeholder’s stated primary concerns, NYSDEC would like to clarify the purpose of the corrective measures program for this CWM site. From an overall perspective, this program is intended to prevent/minimize off-site releases of hazardous constituents, minimize on-site exposures, stabilize on-site contaminants to prevent migration, reduce contaminant concentrations in groundwater, and provide

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<sup>7</sup> See CWM Part 373 Sitewide Renewal Permit, Module I, pp. 50-51 (sec. V(2)(b)). Module II, p. 4 (“Volatile organic compounds (VOCs) and PCBs are the hazardous constituents which are most commonly observed in the soil and groundwater at the facility.”). See also CWM, “Process Area Investigation Plan,” rev. April 2006, p. 5 (SPDES permit exceedences for discharge of PCBs and VOCs typically occur in late winter and early spring); J.A. Banzak, CWM, Letter to D. Weiss, NYSDEC Region 9, April 27, 2012, attachment: Golder Assocs., “Design Report for Process Area IV Extraction Wells,” rev. April 2012, p. 1 (“VOCs were detected in the surface water samples collected from the swale and the B Ditch”).

monitoring to continuously evaluate corrective measures performance and to determine if and where corrective measures enhancements might be warranted. However, the program is not, and was never intended to remediate this site to accommodate alternative future land uses. The lawful and permitted disposal of wastes at this site makes remediation of contaminants in soil and groundwater to standards applicable to non-industrial / non-commercial usages both impractical and unwarranted. The corrective measures for this site have been designed to meet criteria associated with the present commercial/industrial use of this property, and deed restrictions have been put in place to limit its future use to commercial/industrial applications so as to prevent other uses which are not appropriate and could pose a threat to human health and/or the environment. Also, the monitoring of groundwater and surface water at this site is considered adequate by NYSDEC to detect migration and any potential release of hazardous constituents, and has in the past alerted NYSDEC to areas where enhancements to existing corrective measures were necessary.

This Stakeholder's comment states that further characterization and remediation of Fac Pond 8 post-2010 with respect to radiological contaminants is warranted. Note additional characterization and remediation of Fac Pond 8 has been performed and further remediation is required by the new Permit in order to facilitate the closure of this impoundment (see NYSDEC Response to Comment #44 for additional details).

The Stakeholder's comment alleges that CWM has failed to comply with a 2005 NYSDOH directive, reiterated by NYSDEC, to fill in data gaps left by previous radiological surveys. The 2005 NYSDOH directive was related to CWM's request to lift the NYSDOH Orders on their property. At that time NYSDOH informed CWM that in order to lift the Orders they needed to document via the MARSSIM process that the land could be released for unrestricted use. Subsequently CWM withdrew its request to lift NYSDOH Orders and only will utilize the land for its current use – which is allowed under the orders. To address the soil movement provisions of the Orders, soil management plans were required by Condition J.1 in Module II of the 2005 NYSDEC Part 373 Permit. CWM has performed a radiological survey of all accessible areas of their property in accordance with their November 2006 Site Radiological Survey Plan which was approved by NYSDEC by letter dated August 24, 2007, and submitted a report on December 23, 2008 containing the survey results. Although it is true that a CWM survey of inaccessible areas of the site (e.g., operating Fac Ponds, etc.) has thus far not been performed, Condition D.1 of Exhibit F in Schedule 1 of Module I of the new Permit requires CWM to conduct a radiological survey of these areas whenever they become accessible.

The Stakeholder's comment also alleges that CWM has failed to comply with conditions in the 2005 NYSDEC Part 373 Permit requiring CWM to investigate and remove sources of contamination in soils and surface water. Based on the comment's citation of Permit conditions and other documents, NYSDEC assumes this allegation is related to Process Area soil/sediment contamination in surface water channels. As required by Condition V.2.b in the 2005 Permit, CWM has performed a Process Area investigation in

accordance with their April 2006 Plan which was approved by NYSDEC by letter dated October 17, 2006, which included the collection of soil/sediment samples from Process Area surface water channels. NYSDEC also independently collected and analyzed soil/sediment samples from these channels. As a result of this investigation, some source areas of PCB contamination were identified in these channels which the NYSDEC required CWM to submit a plan for their removal by letter dated May 14, 2008 so as to reduce the potential of migration of these PCB soils/sediment via surface water flow. CWM completed this removal action in accordance with a 2008 Addendum to their Process Area Investigation Plan which the NYSDEC approved on September 10, 2008. Therefore, NYSDEC regards CWM as having complied with the cited Permit condition. Also, subsequent to this action, additional investigation discovered that seepage of contaminated groundwater into certain Process Area channels was creating the potential for contaminant migration via surface water flow. As a result, additional groundwater extraction systems were installed and are required to be continuously operated by Condition B.2 of Exhibit B in Schedule 1 of Module I of the new Permit so as to prevent contaminant migration via surface water.

Be advised that NYSDOH was consulted and has provided input during the development of the above NYSDEC response with respect to radiological matters.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Abraham, Gary A., Representing Niagara County, Town of Lewiston, Village of Lewiston & Village of Youngstown, Letter and Accompanying Documents (dated March 28, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 42

**Comment Topic:** Major Modification Requested – Corrective Action – Additional Monitoring Wells

**Paraphrased Comment:**

See “Introduction” under the “Paraphrased Comment” section of Comment No. 41 for some background regarding this comment.

**Additional monitoring wells screened in the lower aquifer west of the Process Area SWMUs should be required under the Renewal Permit:**

As detailed in Dr. Michalski's report (contained in Volume 1, Appendix B), groundwater flows west beneath the highly contaminated Process Area and RMU-1, and there is "a significant hydraulic connection between the Upper and Lower Aquifer units,"<sup>8</sup> contrary to CWM's model which assumes flow is to the north-northwest and the groundwater bearing units are isolated by an effective aquitard. The Process Area has wells screened in the lower aquifer on the north, east and south sides of SWMUs, but none on the west side.<sup>9</sup> Because there are no deep wells on the western (downgradient) side of SWMUs in this area, the network of monitoring wells screened in the lower aquifer in the vicinity of the Process Area is ineffective.<sup>10</sup> The detection of DNAPL, acetone and other VOCs in the Process Area,<sup>11</sup> and the stratigraphy of the geological units beneath the site, show that overburden groundwater interacts with what CWM has termed the lower aquifer.<sup>12</sup>

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8 Michalski Report (contained in Volume 1, Appendix B)

9 See *id.*, Exhibit 7.

10 Contrary to 6 NYCRR § 373-2.6(k)(4).

11 Cf. CWM, "RCRA Facility Investigation Summary Report, Model City TSDR," January 1993, Table 5.24 at 5/38 and 23/38.

12 The same conclusions are reached by Dr. Scott King, a hydrogeologist asked by Niagara County to comment on the scope of the proposed RMU-2 DEIS. See G. Abraham, letter to Steven J. Doleski, fm. NYSDEC Region 9 Permit Administrator, "Re: CWM Chemical Services, LLC, Draft Public Scoping Document for the RMU-2 Landfill Proposal," July 26, 2006, Exhibit B. Dr. King's comments and resume are contained in Volume 1, Appendix B of this Responsiveness Summary. It appears that Department Staff agree. See J. Strickland, NYSDEC Region 9, letter to CWM, January 26, 2006, enclosing comments on draft Radiation Env'tl. Mon. Plan ("there is a connection between the two [groundwater] flow zones, especially in the vicinity of former lagoons 1 and 2").

These conclusions have significant implications for corrective actions at this facility. For over a decade the Department has asked CWM to achieve by means of corrective actions the following goals:

- A. Remediation of the overburden contamination and restoration of the overburden groundwater through the development of a groundwater extraction system, natural attenuation, or an alternative system as needed.
- B. Containment and control of the plume of overburden contamination to prevent its migration.
- C. Containment and control of the DNAPL contamination through the development of a groundwater/DNAPL extraction system or an alternative system as needed.
- D. Preclude the dispersal of the contaminated soil, fill and waste from closed Landfills and Surface Impoundments, and Areas of Contamination.<sup>13</sup>

Twelve years later, it has become clear that corrective actions have failed to achieve these goals. For example, DNAPL has not been contained in the overburden groundwater and has instead migrated into the aquifer below. During CWM operations, an area of acetone-impacted groundwater has migrated 1,500 feet from its apparent source within the aquifer. Widespread contamination, apparently from isolated sources, has dispersed and migrated into the aquifer. Some of these contaminants, such as PCBs, DNAPL and (as discussed below) ionizing radiation, are not amenable to natural attenuation. The sources of overburden contamination have not been identified, and so the restoration of the overburden groundwater has been very limited. Groundwater extraction wells and shallow interception trenches have not prevented dispersal and migration of contaminants into the aquifer.<sup>14</sup>

There is therefore a compelling case for enhanced and expanded monitoring of the lower aquifer that reflects the groundwater flow direction and the interconnection of shallow and lower groundwater. Instructions should accompany a requirement to modify the groundwater monitoring system to implement additional corrective action as warranted by the results of enhanced and expanded monitoring. The additional wells and monitoring should be included in any analysis to fully characterize area groundwater to the west of the Process Area.

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13 NYSDEC, "Statement of Basis: Selection of Final Corrective Measures, CWM Chemical Services, LLC," January 31, 2001, p. 6.

14 Each of these issues is discussed in the Michalski report (contained in Volume 1, Appendix B).

Pending further investigation of groundwater quality and flow, the detailed description of corrective actions incorporated into the draft Renewal Permit should be comprehensively revised to eliminate references to "final" remedies.<sup>15</sup>

**NYSDEC Response:**

In general this comment requests that the renewed Permit require the installation of groundwater monitoring wells to the west of the Process Area to monitor for potential westward migration of Process Area contamination in the Glaciolacustrine Sand/Silt (GSS) (Deep) groundwater zone, and presents reasons and information in support of this request.

In support of the request for additional monitoring wells, the comment alleges that there is a "significant hydraulic connection" between the upper (shallow) and lower (deep) groundwater zones. NYSDEC acknowledges that there are isolated locations on the facility property where the Glaciolacustrine Clay (GC) aquitard between the upper and lower groundwater zones is absent and at such locations there is a potential for an hydraulic connection between the zones. However, concluding that these isolated locations constitute a significant hydraulic connection between the zones is one which NYSDEC does not find sufficient evidence to support. With respect to the Process Area, a number of soil samples were collected from the GSS (deep) groundwater zone beneath this area during the RCRA Facility Investigation (RFI). Analysis of these collected samples did not indicate that contaminants from the Process Area Upper Tills (shallow) zone had migrated to the GSS (deep) groundwater zone. Therefore, NYSDEC concluded that there is not a significant vertical migration of groundwater contaminants into the GSS in the vicinity of the Process Area and as such, there was not a significant need for groundwater monitoring of the GSS within this area. Furthermore, NYSDEC considered that the installation of a substantial number of GSS (deep) groundwater monitoring wells within the Process Area could create potential conduits for migration of Upper (shallow) zone contaminants into the GSS (deep) groundwater. As a result, NYSDEC did not require installation of GSS (deep) monitoring wells within the Process Area.

With respect to the comment's concern over the potential for westward migration of contaminants from the Process Area through the GSS (deep) groundwater zone and the expressed need for groundwater wells to monitor for such potential migration, NYSDEC would note that there are two existing GSS (deep) monitoring wells which should be capable of detecting such migration. One is Well WDA01D located northwest of the Process Area (or north of the West Drum Area) and the other is Well F5801D (associated with Tank T-58 monitoring) which is located west of the Process Area and east of the West Drum Area. To date, chemical and potentiometric data collected from these wells do not indicate any westward migration of Process Area contaminants through the GSS (deep) groundwater zone.

In this comment it is stated that the discovery of acetone impacted groundwater in the

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<sup>15</sup> See Draft Renewal Permit, Module II, Attachment E.



GSS (deep) zone 1500 feet from the presumed source provides evidence of widespread contaminant migration in this deeper zone. This claim is apparently based on the one-time detection of acetone in groundwater samples obtained from some GSS (deep) monitoring wells during a single round of sampling in 2008. However, there is significant evidence which suggests that this is not indicative of widespread contaminant migration in the GSS (deep) groundwater zone. First, it is widely known that acetone is a common laboratory contaminant that can, at times, be detected in the analysis of samples due to improperly cleaned sample vessels or laboratory equipment. Second, subsequent rounds of groundwater sampling and analysis since 2008 have not detected acetone in the GSS (deep) monitoring wells. Third, DNAPL contamination in the Upper (shallow) zone within the Central Area of the facility has numerous constituents including chlorinated compounds in the 100's of parts per million which were not detected in these GSS (deep) monitoring wells during any of the sampling rounds making it unlikely that the source of the acetone in the one round of samples is from upper zone migration. Based on the above evidence, NYSDEC considers this single detection of acetone in samples from some GSS (deep) monitoring wells to be an artifact likely related to laboratory contamination.

Based on the above, NYSDEC does not presently consider it necessary to require CWM to install additional monitoring wells through this Permit renewal, as requested by this comment. That said, it should be noted that NYSDEC does not consider the CWM groundwater monitoring program to be a stagnant entity that is never altered or enhanced. Should new information come to light (e.g., groundwater data, etc.) which NYSDEC determines as presenting a need to alter or enhance the present system, NYSDEC would initiate a Permit modification to require such system alterations or enhancements.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Abraham, Gary A., Representing Niagara County, Town of Lewiston, Village of Lewiston & Village of Youngstown, Letter and Accompanying Documents (dated March 28, 2013)

## **CWM PERMIT RENEWAL NYSDEC RESPONSIVENESS SUMMARY**

### **Section I - Public Comments & Responses**

**Comment No:** 43

**Comment Topic:** Major Modification Requested – Corrective Action – Cleanup of Radiological Contamination

**Paraphrased Comment:**

See “Introduction” under the “Paraphrased Comment” section of Comment No. 41 for some background regarding this comment.

**The current permit has been ineffective in achieving cleanup of radiological contamination:**

While DNAPL, PCBs and VOCs found at the Model City site could originate from either legacy or operational sources or both, radiological contaminants above background levels are likely entirely the legacy of past uses and failed cleanups at the site. The Model City site is part of the former Lake Ontario Ordnance Works (LOOW), which served as a storage and disposal<sup>16</sup> site for wastes generated by the Manhattan Project during and following World War II, by experiments with high-level radiation exposure to animals at the University of Rochester, and by experiments to extract plutonium and uranium from spent nuclear fuel at the Knolls Atomic Power Laboratory in Schenectady, NY.

NYSDOH issued Orders in 1972 and 1974 prohibiting major excavation at Model City because legacy radiological contamination had not been properly remediated or surveyed.<sup>17</sup> In 2005 NYSDOH considered and rejected a request by CWM<sup>18</sup> to lift the orders to accommodate the proposed RMU-2 landfill.<sup>19</sup> In 2003, at the time of the last

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16 Waste disposal at LOOW was characterized by poor recordkeeping and general mismanagement with radioactive waste being buried, left on the surface in several areas of the site, and openly burned. The Aerospace Corporation, "Background and Resurvey recommendations for the Atomic Energy Commission Portion of the Lake Ontario Ordnance Works," Contract No. DE-ACOI-82EPI5100, November 1982, pp. 28-29.

17 Hollis S. Ingraham, NYSDOH Commissioner, Order, *In the Matter of Certain Property of the Fort Conti Corporation Located in the Town of Lewiston, Niagara County, State of New York*, April 27, 1972; Robert P. Whalen, NYSDOH Deputy Commissioner, Supplemental Order, *In the Matter of Certain Property of the Fort Conti Corporation Located in the Town of Lewiston, Niagara County, State of New York*, June 21, 1974.

18 R. Sturges, District Manager, Model City Facility, Letter to Antonio C. Novello, NYSDOH [Commissioner], December 23, 2003.

19 S.M. Gavitt, Assistant Director, Bureau of Environmental Radiation Protection, NYSDOH, Letter to J.A. Knickerbocker, Technical manager, CWM, December 14, 2004.

renewal permit, the Department decided "to incorporate the DOH directives to CWM with respect to radiological surveys and environmental monitoring of radiation into conditions of the permit."<sup>20</sup> These conditions are important for understanding how far CWM still needs to go to comply with its permit, and why the Municipal Stakeholders are calling for more stringent corrective measures in the proposed renewal permit to clean up radiological contamination.

In 2005 NYSDOH concluded that because development of the site occurred at the same time as the radiological surveys and analysis in 1982-1984 on which DOE release certifications rely, the surveys and analysis are incomplete and unreliable. At the time of these surveys CWM's predecessor Chem-Trol was engaged in "on-going earthmoving activities ... such as the construction of landfills, ponds and berms."<sup>21</sup> Earthmoving activities were occurring at DOE-designated "Vicinity Properties" ("VP") on CWM property, including VP A, B, C, C', D, and F, "prevent[ing] ORAU [DOE contractor Oak Ridge Associated Universities] from conducting a complete characterization of the properties."<sup>22</sup> Such activities "had the potential to obscure the detection of contamination in the soil and to relocate contaminated soil to other parts of the property."<sup>23</sup> Resurveying "should have included conducting subsurface investigations in impacted areas that had been covered or disturbed by earthmoving activities and areas where soils from the impacted areas had been relocated."<sup>24</sup>

VP D was found to be subject to "continual construction and maintenance activities [having] the potential for relocating, distributing, and concealing contaminated residues that were identified by this survey," according to ORAU, but no follow-up analysis of the fate of these materials or the characterization of the area after construction was conducted.<sup>25</sup>

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20 NYSDEC, Responsiveness Summary [to public comments in 2003 on CWM renewal permit], April 27, 2003, p. 1-14, available at <[http://www.dec.ny.gov/docs/materials\\_minerals/pdfhmulmdressum.pdf](http://www.dec.ny.gov/docs/materials_minerals/pdfhmulmdressum.pdf)> Cf. Module II, Condition J in the current permit, requiring a suite of plans for investigating radiological site contamination, and radiation in monitored groundwater, ambient air and wastewater, and supplemental corrective actions "if locations with elevated [radiological] levels are identified and defined, ... upon concurrence of NYSDOH." Cf. *also id.*, Module II(J)(1), (J)(2), (J)(3)(a) (providing that modifications to investigation plans must also receive NYSDOH concurrence).

21 S.M. Gavitt, NYSDOH, Letter to J.A. Knickerbocker, CWM, December 14, 2004, at 2.

22 *Id.*

23 *Id.*, at 1.

24 *Id.*

25 *Id.*, (quoting ORAU)

The DOE surveys failed to comply with guidelines for determining site acceptance. These guidelines require at least one sample for every 100 square meters, but ORAU obtained fewer than one sample for every 1,000 square meters.<sup>26</sup>

DOE declined to certify VP E for release because access could not be gained to the entire area due to the presence of a lagoon. However, NYSDOH notes other VPs with lagoons were certified,<sup>27</sup> such as VP C, which was not fully accessible "due to the presence of 2 ponds, 4 landfill areas, [and] a swamp ..".<sup>28</sup>

NYSDOH concludes from these and other shortcomings of the DOE certification process that "small isolated areas of contamination exceeding the guidelines could be present in areas released by DOE" such that "detailed information from CWM on historical soil movements on the affected properties" will be necessary prior to any NYSDOH re-evaluation of whether areas have been properly surveyed and remediated.<sup>29</sup> The "data gaps" left by DOE,<sup>30</sup> therefore need to be filled for both surface and subsurface contamination. NYSDOH would expect CWM to comply with MARSSIM, a multi-agency federal standard for an adequate surface investigation of radiological contaminants, and NUREG-1727 regarding the number of soil cores required for an adequate subsurface investigation.<sup>31</sup>

CWM has consistently resisted these directives. A principal element of the MARSSIM protocol, for example, is a survey of the historical record of the site to determine the location of contaminants that may need to be cleaned up. CWM has made no effort to perform such a survey, or even to evaluate the substantial history search produced for the LOOW site by DOE, as it relates to Model City.<sup>32</sup>

On January 25, 2006, the Department requested that a surface radiation survey plan required under the 2005 permit investigate "the entire property owned by CWM".<sup>33</sup> On July 19, 2006, CWM rejected the request, with the result that the plan includes no

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<sup>26</sup> *Id.*

<sup>27</sup> *Id.*, at 4-5.

<sup>28</sup> *Id.*, at 3.

<sup>29</sup> *Id.*, at 5.

<sup>30</sup> *Id.*, at 1.

<sup>31</sup> *Id.*, at 4. MARSSIM and NUREG-1727 standards are discussed at length in the Resnikoff report (contained in Volume 1, Appendix B).

<sup>32</sup> U.S. Army Corps of Engineers (USACE), HISTORY SEARCH REPORT, LAKE ONTARIO ORDNANCE WORKS, NIAGARA COUNTY, NEW YORK (August 1998) (covering Department of Defense activities at the LOOW between 1938 and 1997).

<sup>33</sup> Department Comments on CWM, Revised Radiological Survey Plan, January 25, 2006, p.17.

historical site investigation, no subsurface soil investigation, and no radiological surveys in areas that are "inaccessible due to dense vegetation, thick brush, trees, steep slopes and ponds" or areas that "are not part of CWM's current operations."<sup>34</sup>

In December 2008 CWM submitted a required report on the results of a surface gamma survey of accessible portions of the site. NYSDOH found that this report "incorrectly stated the purpose of the survey was to confirm the findings of the USDOE, which certified the property as properly decontaminated. ... CWM has confused matters by stating that the surveys demonstrate that most of their property has been adequately decontaminated."<sup>35</sup> NYSDOH advised that, "[b]efore the DOH Orders can be lifted, remediation and a final status survey consistent with MARSSIM will need to be performed."<sup>36</sup>

MARSSIM also specifies that for radiological surface surveys the detector must be held about 10 cm from the soil surface.<sup>37</sup> For its gamma walkover survey at the adjacent Niagara Falls Storage Site, the Army Corps positioned a gamma detector at -10 cm. from the ground surface.<sup>38</sup> The Army Corps also measured background gamma radiation at the Lewiston-Porter schools at -10 cm. from the ground surface.<sup>39</sup> In contrast, CWM's gamma walkover scan survey was performed with the gamma detector 30.8 cm (one foot) from the ground surface.<sup>40</sup>

The consequence of CWM's failure to complete final status surveys on any of several areas found by its required investigations to contain elevated radioactivity is that these areas will need to be further investigated, remediated, and surveyed again until levels of radiation are at or below site acceptance levels. For example, this has been the consequence of CWM's effort to remediate the Fac Pond 8 area.

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34 CWM, Response to January 25, 2006 Department Comments on Revised Radiological Survey Plan, July 19, 2006, p.17.

35 NYSDOH letter to J. Devald, NCRD, July 16, 2010, at 2.

36 *Id.*, at 3.

37 MARSSIM 2000 (NUREG-1575, Rev. 1, August 2000), p. 6-44. *See also* NUREG-1507 (June 1998), p. 6-21 ("average height of the NaI scintillation detector above the ground during scanning" should be 10 cm).

38 USACE, Remedial Investigation Report for the Niagara Falls Storage Site, Contract No. W912P4-04-D-000I (December 2007), Appendix B, GAMMA WALKOVER SURVEY (CONTINUED REMEDIAL INVESTIGATION CHARACTERIZATION REPORT) (May 30, 2003), p. 5-1.

39 FINAL GAMMA WALKOVER SURVEY REPORT, LEWISTON-PORTER SCHOOL PROPERTY YOUNGSTOWN, NEW YORK, Contract No. DACW49-00-R-0027 (February 6, 2002), p.2.

40 CWM, RESULTS OF GAMMA WALKOVER SURVEY, SOIL SAMPLING, AND LEGACY BUILDING SURVEYS (December 2008), p. 1-3.

**NYSDEC Response:**

First, NYSDEC has reviewed the summary presented in the first 5 paragraphs of the above comment with respect to the CWM site's radiological history and the actions of the involved regulatory agencies (e.g., USDOE, NYSDOH). NYSDEC has no significant disagreement with the characterization of this history or regulatory actions as summarized in the comment.

NYSDEC does not dispute that the shortcomings of past DOE surveys in combination with soil excavation and relocation activities in the 1970s, 80s and 90s, presents challenges in determining with any degree of certainty that residual radiological soil contamination does not remain in isolated areas on the CWM property. Based on these circumstances, NYSDOH concluded in 2005 that without detailed information on historical soil movement and a comprehensive radiological survey of surface and sub-surface soils on the CWM property, the 1972 and 1974 NYSDOH Orders could not be lifted. However, NYSDOH did not issue any directive to CWM in 2005 to provide a detailed history of soil movement or to conduct such comprehensive surveys in accordance with guidance (MARSSIM or NUREG-1727) as this comment infers. NYSDOH statements regarding information and survey needs are strictly related to what they consider necessary for lifting the NYSDOH Orders, and are not intended to compel CWM to take any action.

With regard to radiological survey performed by CWM from 2006 through 2008, it should be understood that NYSDEC did not require this survey to strictly adhere to MARSSIM nor did we (or NYSDOH) regard it as a "final status" survey to confirm any previous USDOE findings of adequate radiological decontamination. First, it must be pointed out that MARSSIM is not regulation, but a guidance document that gives the user a statistical framework within which to perform radiation surveys. While the placement of the radiation detector used by CWM in its survey is above the 10 cm prescribed in MARSSIM, the difference in distance is likely negligible in terms of the results since the purpose of the survey was to identify any substantial areas of elevated radiological readings and a majority of what has been encountered on the LOOW properties has been very concentrated, discrete material. The overall survey performed at CWM provided a sufficient level of information regarding evaluation of surveyed areas. Areas of the CWM property which have not been surveyed because they are presently inaccessible, will be surveyed whenever they become accessible, as described in NYSDEC's response to Comment #41.

Sub-surface radiological contamination remains a concern on this site due to its history of usage and soil relocations. Therefore, NYSDEC established Permit conditions in 2005 that have been carried over into the new Permit, which require that any excavation or soil movement on the CWM property be conducted in accordance with approved plans which require rigorous radiological scanning during excavation/soil movement activities. These radiological screenings have been proven effective in detecting very small amounts of radiological contamination during such excavations which has led to the proper management of these materials.

Be advised that NYSDOH was consulted and has provided input during the development of the above NYSDEC response.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Abraham, Gary A., Representing Niagara County, Town of Lewiston, Village of Lewiston & Village of Youngstown, Letter and Accompanying Documents (dated March 28, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 44

**Comment Topic:** Major Modification Requested – Corrective Action – Fac Pond 8  
Radiological Contamination

**Paraphrased Comment:**

See “Introduction” under the “Paraphrased Comment” section of Comment No. 41 for some background regarding this comment.

**Re-characterization, remediation and resurvey of Fac Pond 8 to remove radiological contaminants from the area should be required under the Renewal Permit:**

On February 7, 2011, Department Staff directed CWM to contract for the "remedial design and final status survey plans (and all associated supporting documentation) for the areas of concern in regards to radiological contamination present" at Fac Pond 8.<sup>41</sup> Staff also commented on CWM's plans for characterizing Fac Pond 8: "The remedial design and final status survey plan (for post remedial closure) must be consistent with the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)," and "the contractor should perform a data gap analysis to determine if enough information is present for a remedial design with the information available," and the contractor "should be licensed by the State Health Department to perform decontamination and decommissioning work in New York State, or be able to obtain reciprocity if licensed by the NRC or another Agreement State."<sup>42</sup>

The substance of these comments were reiterated in Staff comments to CWM, dated July 8, 2011.<sup>43</sup> At that time Staff added that because "[d]evelopment of MARSSIM final status survey plans and implementation are dependent on the information obtained from [EnSol's] characterization," it would be necessary for CWM's contractor Los Alamos Technical Associates (LATA) to critically review EnSol's report "to ensure that the Radiological Program does not delay work at the site."<sup>44</sup> LATA responded to this

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41 T. Papura, NYSDEC Region 9, Letter to J. Banaszak, CWM, February 7, 2011, at 1.

42 *Id.*, at 2.

43 J. Banaszak, CWM, Letter to D. Weiss, NYSDEC Region 9, dated August 1, 2011, attaching J.M. Brydges, LATA, Letter to J.P. Rizzo, CWM, July 29, 2011 (LATA responses to NYSDEC Staff comments, reproducing the comments).

44 *Id.* (Brydges Letter, 1).



comment by stating EnSol's report was adequate and obviates the need for any further investigation. LATA based this conclusion "upon (1) previous scoping surveys performed throughout WM property (including Fac Pond 8 Area) that followed MARSSIM and supports the current classification of Fac Pond 8 Survey units, and (2) subsequent remedial action support surveys and final status surveys will also be performed in accordance with the MARSSIM."<sup>45</sup> However, no MARSSIM-compliant survey has been performed at Model City. As noted previously, CWM has performed surface scans with a gamma detector held at three times the height specified by MARSSIM.<sup>46</sup>

Dr. Resnikoff's report (contained in Volume 1, Appendix B) shows that CWM failed to obtain a NYSDOH- or NRC licensed contractor, failed to comply with MARSSIM, performed no data gap analysis, and produced a final "completion" report characterizing Fac Pond 8 contamination that falls far short of a "final status survey." CWM's contractor EnSol performed a surface sample analysis that was invalidated by LATA. However, LATA's subsequent reports are improperly termed final status surveys because they rely on enSol's substandard sampling approach.

As detailed in Dr. Resnikoff's report, after completion of the planned work by EnSol, LATA was brought in to resurvey the area, finding 50 surface hotspots had been missed by EnSol; radiologically contaminated subsurface soil was missed by EnSol and subsequently required additional removal of 66 tons of soil; and substantial contamination remains, including a vein of contaminated debris embedded 7-12 feet into a berm. As a result, additional remediation and resurveying will be needed.

Cleanups for areas contaminated with radioactive materials is governed by Department guidance that prescribes an iterative procedure to determine appropriate cleanup requirements.<sup>47</sup>

A dose analysis begins the procedure, and "should be appropriate to the complexity of the contaminated site and to the potential for harm," and should determine "[c]oncentration profiles as a function of depth in the soil."<sup>48</sup> There are three components of the dose analysis. The first includes modeling for dose estimates, and the model must be "conservative." The second component includes "a rationale for potential use of the site," assuming that "the maximally exposed individual of concern is a member of the general

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<sup>45</sup> *Id.*

<sup>46</sup> *See above*, text at footnotes 36-39.

<sup>47</sup> DEC PROGRAM POLICY DSH-RAD-05-01: CLEANUP GUIDELINES FOR SOILS CONTAMINATED WITH RADIOACTIVE MATERIALS, rev. April 5, 2005, available at <<http://www.dec.ny.gov/regulations/23472.html>>.

<sup>48</sup> *Id.*, at 2-3.

public not associated with the use of radioactive materials." The third component requires an analysis of exposure pathways. "Pathways that must be considered are: (a) Doses from direct exposure to radiation emitted from the contaminated soil and, where applicable, from contaminated ground or surface waters; and (b) Doses from internal exposure - including inhalation of contaminated dust (including radon progeny if present), ingestion of contaminated soil, ingestion of food raised on contaminated soil, and ingestion of drinking water (both aquifer and surface waters) or contaminants from irrigation water."<sup>49</sup>

The second step in the procedure is an analysis of remediation alternatives that will achieve an individual dose limit of 10 mrem/year or lower, including:

1. Removal of contaminated soil for disposal at a licensed facility;
2. Isolation of contamination such as covering the contamination with clean soil. This technique may be acceptable for short-lived isotopes assuming that restrictions to land use are used until the radionuclides no longer pose a threat; and
3. Other remediation techniques, if applicable, considered and approved on a case-by-case basis.<sup>50</sup>

The radionuclide most commonly found in contaminated media at Model City is Radium-226, with a half-life 1,600 years. The long half-life of Radium-226 means that example 2 is not available. As Dr. Resnikoff shows, example 1 (additional site remediation) must be employed in order to achieve an appropriate dose limit.

"If site remediation is needed to achieve the 10 mrem/year dose limit, it will be necessary to prepare a work plan that is acceptable to Department and other cognizant agencies (NYS Department of Labor, NYS Department of Health)."<sup>51</sup> Thus, the draft Renewal Permit should be modified to require an acceptable work plan for further remediation of Fac Pond 8.

Once re-characterization and further remediation of Fac Pond 8 is completed, the site must be modeled again for dose estimates. "The final modeling step will need to show that release of the site, with any radionuclide concentrations still remaining after remediation, will not cause the dose limit to be exceeded."<sup>52</sup> Accordingly, modifications to the draft Renewal Permit should also provide that final modeling will follow further remediation of Fac Pond 8. As noted by Dr. Resnikoff, because radioactive contamination is primarily below the surface of the Fac Pond 8 berms, final modeling

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<sup>49</sup> *Id.*, at 3.

<sup>50</sup> *Id.*, at 4.

<sup>51</sup> *Id.*

<sup>52</sup> *Id.*

should be specified to require subsurface soil sampling at sufficient depth and spacing to make final modeling reliable. As he urges, the sufficiency of subsurface soil samples should be determined by complying with the method prescribed for investigating Class 1 contaminated sites under MARSSIM.<sup>53</sup>

CWM has signaled that it does not plan to clean up the Fac Pond 8 area to achieve a dose limit of 10 mrem/year or lower. Instead, its cleanup goal is a dose estimate appropriate "to release Fac Pond 8 for subsequent RMU-2 construction."<sup>54</sup> CWM's goal is inappropriate.<sup>55</sup> Future development should not assume a new landfill for which no complete application has been accepted, let alone approved. Dose estimates should be modeled assuming future unrestricted use. That is the future Municipal Stakeholders aim to achieve, but less conservative dose estimates allow excessive residual contamination to remain in place, and the desired future for the site will never be achieved.

#### **NYSDEC Response:**

In responding to this comment, NYSDEC considers it important to review the activities which have been performed regarding radiological matters related to Fac Pond 8, and to summarize what remains to be done based on the conditions in the new Permit.

##### **Past Fac Pond 8 Radiological Activities:**

During the performance of CWM's Site Radiological Survey within Fac Pond 8, CWM notified NYSDEC in November 2007 of a significant area of elevated radiological readings on the bottom of the pond and emanating from a sediment filled piece of pipe located in a different area of the pond (Note: Fac Pond 8 had been previously emptied and taken out of service). This radiological contamination is the result of historic usage of this property by the Federal government. Based on these results, NYSDEC recommended that CWM restrict access to Fac Pond 8 and indicated to CWM that further investigation would be necessary to define the extent of the identified radiological contamination in Fac Pond 8.

After further Fac Pond 8 survey work in 2008, CWM submitted a Radiological Sampling Plan for Fac Pond 8 in June of 2009. This plan was reviewed by NYSDEC in consultation with NYSDOH. After a series DEC/DOH comments and CWM revisions, CWM submitted a revised Fac Pond 8 Radiological Sampling Plan in June 2010 which was approved by the NYSDEC. The purpose of this plan was to investigate Fac Pond 8 for radiological contamination through a series of surface walk-over scans and soil borings over the entire area of the Fac Pond with a more extensive survey and soil boring program in/near the previous

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53 This is consistent with NYSDOH findings. See S.M. Gavitt, NYSDOH, Letter to J. A. Knickerbocker, CWM, December 14, 2004, at 3 ("each VP [on the Model City site] (except C) had areas requiring remediation (Class 1).").

54 LATA 2012b (Resnikoff reference list contained in Volume 1, Appendix B), at 1.

55 Cf Resnikoff report (contained in Volume 1, Appendix B), at 5.

identified area of elevated radiation readings to define the vertical and horizontal extent of the radiological contamination in this area. It should be noted that in its approval of this plan, NYSDEC clarified that it considered the purpose of the plan to be for the collection of additional radiological information, and not as a “final survey plan” for Fac Pond 8. The results of this radiological investigation were submitted to the NYSDEC in December 2010. These results indicated elevated radiation levels in the previously identified bottom area of Fac Pond 8 to depths of 2 to 4 feet below the base of the pond, and in an area on the inside of the pond’s east berm to a depth of about 8 inches.

In June 2011, CWM submitted a Radiological Remedial Action Plan for the area of radiological contamination located at the bottom of Fac Pond 8, which was revised in August of 2011 in response to NYSDEC comments, and accepted by NYSDEC in August 2011. This plan was reviewed and approved by NYSDEC in consultation with NYSDOH. The plan called for excavation of an estimated 550 cubic yards of radionuclide impacted soil over an area of about 4300 square feet to a depth of approximately 4 feet below the base of the pond. The plan states that the actual extent of excavation in this area will be determined from the results of confirmatory sampling for radionuclides. In concert with this remedial plan, CWM also submitted a Project-Specific Soil Excavation Plan in August 2011 as required by the CWM Part 373 Permit, which NYSDEC approved in September 2011. This plan provided for radiological screening of the excavated soils so that they could be properly segregated for off-site disposal. It should be noted that the remedial action plan was prepared and implemented by a NYSDOH licensed contractor (Los Alamos Technical Associates (LATA)). CWM’s contractor has completed implementation of this remedial action.

In October of 2011, CWM submitted what they characterize as a “Final Status Survey Plan” for Fac Pond 8 which was prepared by LATA. Although NYSDEC has reviewed this plan, to date we have made no determination as to whether it is consistent with MARSSIM guidelines, or whether it is acceptable as a “final status” plan, especially with regard to the potential for sub-surface radiological contamination.

In February 2012, CWM submitted a Radiological Investigation Work Plan prepared by LATA for the area of elevated radiation readings on the inside of Fac Pond 8’s east berm which was identified during 2010 investigations. This plan was revised in March 2012 in response to NYSDEC comments and determined to be acceptable by NYSDEC. This plan was reviewed and deemed acceptable by NYSDEC in consultation with NYSDOH. This plan was intended to define the vertical and horizontal extent of the radiological contamination identified in the berm soils through analysis of soil borings. CWM’s contractor (LATA) has performed the sampling and CWM submitted a report containing the results in July 2012.

Summary of Remaining Fac Pond 8 Radiological Activities:

Since CWM has initiated but not completed closure of Fac Pond 8 within regulatory timeframes due to the presence of radiological contamination, NYSDEC has established a Compliance Schedule in the new Permit to address this matter. The Compliance Schedule presented under Condition C in Schedule 1 of Module I of the Permit and Condition D.2 in Exhibit E of Schedule 1 of Module I of the Permit, set forth the radiological activities that CWM is required to perform in order to facilitate the completion of the Fac Pond 8 closure. These include the following:

- Within one year of the new Permit's effective date, complete radiological characterization of Fac Pond 8 in accordance with NYSDEC approved plans, identifying all areas requiring remediation, including the area in the pond's east berm, and commence such remediation in accordance with an NYSDEC approved remedial plan.
- Within two years of the new Permit's effective date, complete all radiological remedial activities, conduct a final status radiological survey in accordance with a NYSDEC approved plan using procedures consistent with MARSSIM guidelines, and submit a final status survey report.
- Subsequent to NYSDEC approval of the final status survey report, complete and certify closure of Fac Pond 8 in accordance with the closure plan in Attachment I of the new Permit, within three years of the new Permit's effective date.

In completing closure of Fac Pond 8, the closure plan in Attachment I of the new Permit requires soil to be excavated from the Pond's berm to help fill it in. It is important to note that even with the confirmation provided by a final status survey, CWM is still required by Condition D.4.b in Exhibit B of Schedule 1 of Module I of the Permit to conduct such berm excavations in accordance with a NYSDEC approved Project-Specific Soil Excavation Monitoring and Management Plan which includes radiological screening during excavation. The NYSDEC considers that this plan will adequately provide for identification of any potential sub-surface radiological contamination that might be unearthed during excavation.

The NYSDEC would like to emphasize a few important points in response to this comment:

- CWM's June 2010 Fac Pond 8 Radiological Sampling Plan was not regarded by NYSDEC as "final status" survey plan, regardless of how it may have been characterized by CWM.

- CWM’s August 2011 Fac Pond 8 Radiological Remedial Action Plan was prepared and implemented by a NYSDOH licensed contractor.
- CWM’s October 2011 Fac Pond 8 “Final Status Survey Plan” has, to date, not been approved by NYSDEC.
- NYSDEC has not made any final determinations regarding the adequacy of past CWM radiological investigative and remedial activities with respect to Fac Pond 8, and the new Permit requires CWM to perform additional radiological activities before any such determinations will be made by NYSDEC.

Lastly, to clarify the relationship of Fac Pond 8 to CWM’s RMU-2 landfill proposal, be advised that since the Fac Pond 8 modified closure plan in the RMU-2 modification application is still undergoing NYSDEC review, the specific changes to the plan that will be in the complete RMU-2 application are presently uncertain. However, NYSDEC does not anticipate that such changes will alter the above described radiological investigative and remedial requirements nor the requirement to close Fac Pond 8 in accordance with 6 NYCRR 373-2.11(f)(1) of the regulations. Also, if the RMU-2 Permit modification is not issued, CWM is obligated to close Fac Pond 8 as required by the Closure Plan in the new Permit (i.e., fill in the pond and provide for a free draining vegetative cover).

Be advised that NYSDOH was consulted and has provided input during the development of the above NYSDEC response with respect to radiological matters.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Abraham, Gary A., Representing Niagara County, Town of Lewiston, Village of Lewiston & Village of Youngstown, Letter and Accompanying Documents (dated March 28, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 45

**Comment Topic:** Major Modification Requested – Corrective Action – Achievement of Radiological Unrestricted Use

**Paraphrased Comment:**

See “Introduction” under the “Paraphrased Comment” section of Comment No. 41 for some background regarding this comment.

**The Renewal Permit should require corrective actions be designed to achieve radiological unrestricted release:**

No institutional controls, such as deed and land-use restrictions, together with governmental monitoring of engineered barriers, would prevent excavation of subsurface soils for as long as known radiological contamination remains a threat to public health and the environment. For long-lived radionuclides such as Radium-226, institutional controls are not a meaningful restriction on future land uses.<sup>56</sup> Nuclear Regulatory Commission release criteria require the annual whole body exposure level to be 25 mrem or less (the Department's release criteria are less, 10 mrem/yr.).<sup>57</sup> NRC release criteria state that "institutional controls may not be relied upon for more than 100 years following transfer of control of the disposal site to the owner."<sup>58</sup>

A cleanup to "restricted release" levels relies on institutional controls. NRC policy allows a restricted release cleanup only where institutional controls can be shown to be reliable for 1,000 years:

Restricted release relies on the sustained effectiveness of institutional controls over a 1000-year compliance period to restrict future access and use to meet the 25 mrem per year dose requirement. Satisfaction of the 25 mrem per year dose requirement under restricted release also relies on the predicted effectiveness of engineered controls over a 1000-year compliance period. Such engineering controls over this 1000-year period would be depended upon to perform

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<sup>56</sup> Cf 10 C.F.R. § 61.55 (tables) (Table 1 lists certain long-lived radionuclides and Table 2 lists certain short-lived radionuclides; Table 1 includes "Alpha emitting transuranic nuclides with half-life greater than 5 years").

<sup>57</sup> 10 C.F.R § 61.41.

<sup>58</sup> 10 C.F.R § 61.59.

numerous complex functions, including shielding, erosion protection, and limiting infiltration of water that could result in leaching radionuclides out of the restricted area. Monitoring and maintenance over 1000 years also would be necessary to ensure that the engineered controls remain effective. Finally, sufficient long-term funding would be required by an independent third party to further ensure that the controls sustain protection over the 1000-year period.<sup>59</sup>

In this case, because long-lived radionuclides contaminate site soils, surface water, wastewater and groundwater, CWM will need to clean up the site for unrestricted release. No corrective actions should therefore be identified as final remedies in the draft Renewal Permit unless they are designed to achieve unrestricted release.

**NYSDEC Response:**

To be clear, the new Permit makes no final determinations regarding the adequacy of any past or current radiological corrective actions, nor does it establish any final radiological criteria for this site. While such determinations may be made in the future, they are not contained in this new Permit.

Decisions on the final radiological status of a property would not be made without consideration being given to the properties current and most likely future use. In the case of CWM, the hazardous waste landfills on the property significantly restrict the current and future use of the property, and by regulation, require the establishment of usage restrictions that run with the property in perpetuity. Also, after a number of radiological investigations performed over the years on this property, only a few isolated areas have been identified as having elevated radiological readings and many of these have been dealt with by removal of small amounts of contaminated material. These are important considerations that should be factored into any decisions regarding the final radiological status of this property.

While not attempting to make any judgment with regard to an appropriate final radiological state for this property, NYSDEC considers the restrictions imposed by the NYSDOH Orders and the excavation requirements in the Part 373 Permit, as currently providing adequate protection of human health and the environment.

Be advised that NYSDOH was consulted and has provided input during the development of the above NYSDEC response.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

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<sup>59</sup> *In re Shieldalloy Metallurgical Corp.*, NRC No. 40-7102-MLA, 2011 NRC LEXIS 15, \*61-62 (NRC 2011) (citing and discussing NUREG-1757, Vol. 1, Rev. 2, § 17.7.1, at 17-64; Vol. 2, Rev. 1, § 3.5.3, at 3-13).



1. Abraham, Gary A., Representing Niagara County, Town of Lewiston, Village of Lewiston & Village of Youngstown, Letter and Accompanying Documents (dated March 28, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 46

**Comment Topic:** Major Modification Requested – Corrective Action – Investigation of Possible Fac Pond 3 Radiological Contamination

**Paraphrased Comment:**

See “Introduction” under the “Paraphrased Comment” section of Comment No. 41 for some background regarding this comment.

**Investigation of radiological contaminants in Fac Pond 3 should be required under the Renewal Permit:**

The nature and extent of radiological contamination at Fac Pond 8 reflects directly on the condition of Fac Pond 3, currently used to store, treat and discharge treated wastewater to the Niagara River, because both lagoons were constructed from site soils moved from elsewhere on site, and thus should be presumed contaminated.

Fac. Pond 8 is located on DOE Vicinity Property C, and Fac Pond is located on VP F. DOE reports for these two VPs state that for both, surface radiological contamination was likely relocated or covered and made inaccessible by waste treatment and construction operations.<sup>60</sup> In 2008, in response to concerns raised by NYSDEC regarding the potential for radiological contamination on the floor of Fac Ponds 1& 2 and Fac Pond 3, CWM proposed a plan to characterize the bottom sediments of both lagoons.<sup>61</sup> The plan called for one random sediment sample to be taken from each 10,000 square foot grid, the sample depth to be 6 inches or more. Sediment samples were analyzed for isotopic uranium and isotopic thorium and radium-226. All sediment samples taken from the floor of Fac Pond 3 were consistent with background levels.<sup>62</sup> However, sediment

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60 Berger J. D., ORAD, "Comprehensive Radiological Survey for Off-Site Property C, Niagara Falls Storage Site, Lewiston, NY, Final Report," March 1984; and *sub. nom.*, "Comprehensive Radiological Survey for Off-Site Property F, Niagara Falls Storage Site, Lewiston, NY, Final Report," February 1984.

61 CWM Chemical Services, LLC, "Faculative Ponds 1/2 and 3 Bottom Sampling & Assessment Procedure", April 2008.

62 URS, "Results of Subsurface Soil and Pond Sediment Sampling for RMU-2", April 2009, p. 13, Table 4.

sampling under the plan did not investigate the clay liner of Fac Pond 3, which is where dispersed radioactive contamination was found in Fac Pond 8.<sup>63</sup>

To provide assurance that radioactive wastewater is not being discharged to the Niagara River, the current renewal permit requires CWM to take samples of wastewater from the upper, middle and bottom of Fac. Pond 3 water column and analyze the samples for radium, uranium and thorium. In 2012 CWM reported that the water in Fac. Pond 3 met all of the required specifications and requested NYSDEC approval to discharge to the Niagara River.<sup>64</sup>

Notwithstanding Staffs final discharge approval, two short-lived daughter isotopes of Radium-226 were detected in the bottom of the water column.<sup>65</sup> The presence of these radioisotopes in Fac. Pond 3, which indirectly measure Radium-226, has not been explained. The draft Renewal Permit should therefore be modified to require sampling and analysis of bottom sediments in Fac Pond 3, and corrective action as warranted by the analytic results of sampling.

**NYSDEC Response:**

With regard to the 2012 sampling of wastewater in Fac Pond 3 prior to discharge, the initial radiological results did indicate detections of certain isotopes. However, after further laboratory quality assurance review, these results were determined to be lab errors and not actual detections.

Based on the radiological findings in Fac Pond 8 and the lack of any previous radiological scanning or sampling within Fac Ponds 1/2 & 3, NYSDEC determined it would be prudent to investigate the possibility of radiological contamination within the operating Fac Ponds. Therefore, in response to a NYSDEC request, CWM submitted a procedure for the sampling and radiological analysis of Fac Pond 1 / 2 & 3 bottom sediment and interior berm soils. CWM's consultant (URS Corporation) performed the sampling and analysis, and CWM submitted the Consultant's April 2009 Report containing the sampling results. According to the report, Fac Pond 3 berm soil was collected from 15 boring locations around the berm's interior slope, and bottom sediment was collected from a total of 45 locations. The report indicates that radiological scans of these Fac Pond 3 soil/sediment samples all indicated readings consistent with background levels.

Nonetheless, NYSDEC considers it prudent to analyze Fac Pond 3 wastewater samples

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63 CWM, Investigation and Sampling Plan for Radiological Characterization of Facultative Pond 8, June 2009, Revised March 2010 & June 2010, p. 5, para. V.

64 CWM, Banaszak, Jill A, CWM, Letter to D. Weiss, NYSDEC Region 9, "Re: 2012 Pre-Qualification Discharge Report for Facultative Pond 3," June 22, 2012.

65 *Id.* (reporting Lead-214 at a concentration of 1,390 pCi/L + or - 111 pCi/L and Bismuth-214 at a concentration of 1,490 pCi/L + or - 94.5 pCi/L).

prior to discharge, and has continued this requirement in the new Permit.

Be advised that NYSDOH was consulted and has provided input during the development of the above NYSDEC response.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Abraham, Gary A., Representing Niagara County, Town of Lewiston, Village of Lewiston & Village of Youngstown, Letter and Accompanying Documents (dated March 28, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 47

**Comment Topic:** Major Modification Requested – Corrective Action – Additional Modifications to Corrective Actions

**Paraphrased Comment:**

See “Introduction” under the “Paraphrased Comment” section of Comment No. 41 for some background regarding this comment.

**Additional permit modifications to the corrective actions required under the proposed Renewal Permit are warranted:**

The comments above may only scratch the surface of corrective actions that should be required at this facility. In view of the significant new information concerning groundwater movement in the aquifer beneath the central portion of the facility site presented by Dr. Michalski (contained in Volume 1, Appendix B), the RCRA Facility Investigation (RFI) on which the permit proposes to rely is unreliable. The draft Renewal Permit should therefore require CWM to conduct a comprehensive review of all past RFI investigations of the central portion of the facility.

A comparable review of the Groundwater Monitoring Program and the Groundwater Sampling and Analysis Plan, also proposed to be incorporated into the Renewal Permit, should be a requirement in the final permit.

Radiological analysis of groundwater was, during the term of the current renewal permit, reduced from twice annually to once. In light of the widespread occurrence of radiological contamination on the site, the Renewal Permit should restore the previous condition, requiring radiological analysis of groundwater twice annually.

Finally, to the extent the draft Renewal Permit excuses CWM from corrective actions on former U.S. Department of Defense (DoD) properties at Model City, based on the assumption that DoD, DOE or USACE will be responsible for remediation of radiological contamination, the Renewal Permit should be modified to note that DoD and DOE bear no such responsibility. According to DOE's Office of Legacy Management:

Remediation of the completed NFSS VPs resulted in removal of FUSRAP and KAPL wastes to levels that permit unrestricted residential use of those properties. Sample and walkover gamma scan results indicate that no wastes remain in place

that would cause referral to USACE for further remediation. No EM [DOE] involvement is required at these properties.<sup>66</sup>

Accordingly, federal agencies are not responsible for the remediation of radioactive contamination at Model City. The Renewal permit should therefore require clear identification of responsibility for remediation of radioactive contamination.

**NYSDEC Response:**

For reasons detailed in NYSDEC's response to Comment #42, NYSDEC does not consider it necessary to require CWM to perform a comprehensive review of past RFI pertaining to the central portion of the site. NYSDEC considers that the previous investigations of this area have adequately identified the significant sources of groundwater contamination, and that the corrective measures required by the Permit will effectively control and remediate these known sources. That being said, if in the future, new information were to identify new sources, NYSDEC will evaluate such sources and determine whether the Permit requires modification to provide enhancements to the current corrective measures or new corrective measures.

NYSDEC acknowledges that periodic review of the site's Groundwater Monitoring Program to evaluate any potential changes to groundwater flow direction and rate, and to determine if any changes to the monitoring system are necessary. To this end, Condition L.9.b in Exhibit F of Schedule 1 of Module I in the new Permit requires CWM to submit an annual summary report of the past year's groundwater data and propose any changes to groundwater monitoring that may be appropriate based on a review of the past year's results. In addition, NYSDEC reviews the annual summary reports to determine whether any changes are necessary.

In response to a CWM Permit modification request to reduce the frequency of groundwater radiological analysis, NYSDEC reviewed all available groundwater radiological data for the CWM site during preparation of the draft Permit renewal. A review of this data did not indicate any elevated levels of radiological parameters in groundwater since such monitoring began in 2005. Based on this review and in consideration of the low flow rate of groundwater at the site, NYSDEC decided that reducing groundwater sampling and radiological analysis to an annual frequency was appropriate, and as such is reflected in the new Permit.

The new Permit does not excuse CWM from corrective actions with respect to any residual radiological contamination related to past usage of the CWM property by the Federal government. It is true that the NYSDEC regards the U.S Department of Defense (DoD) as responsible for certain SWMUs, of which low level radioactive contamination" is one, since the Federal government has designated the US Army Corp of Engineers (ACoE) as the managing agency. However, as stated in the Final Statement of Basis

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<sup>66</sup> DOE, "Assessment of Historical Knoll Atomic Power Laboratory Waste Storage Locations, NFSS FUSRAP Site, Lewiston, NY," February 2012, p. 25.

which is incorporated into the new Permit by reference:

“If the Department determines that the DoD has failed to accomplish the necessary remediation of these SWMUs, the Department may require CWM, as Owner of the property on which the SWMUs are located, to remediate the SWMUs. ( *Note:; Nothing in this Module is intended, and nothing herein is to be construed, to waive, prejudice or otherwise limit the authority of the Department, in the exercise of their lawful discretion, to order CWM to remediate the aforesaid SWMUs under any applicable laws.*)”

With respect to Vicinity Properties (VPs) E, E’ & G which are all within the CWM facility, it is important to note that the USACoE has not completed their investigations of these VPs, nor have they made any determinations with respect to whether they will or will not perform corrective action on them. As such, NYSDEC considers that the responsibility for remediation of any radiological contamination within VPs E, E’ & G as remaining with the Federal government.

With respect to the other VPs within the CWM facility, NYSDEC acknowledges that the USACoE may consider that no further action is required in these areas with respect to radiological contamination. However, if NYSDEC determines that further corrective action is needed in these VPs to protect human health and the environment, and the DoD fails to perform such remediation, NYSDEC will use its authority as stated in the above quote, to compel CWM as the property owner to perform such corrective action.

Be advised that NYSDOH was consulted and has provided input during the development of the above NYSDEC response with respect to radiological matters.

**Permit Revisions:**     None

**Persons/Groups That Submitted This Comment:**

1. Abraham, Gary A., Representing Niagara County, Town of Lewiston, Village of Lewiston & Village of Youngstown, Letter and Accompanying Documents (dated March 28, 2013)

**CWM PERMIT RENEWAL  
NYSDEC RESPONSIVENESS SUMMARY**

**Section I - Public Comments & Responses**

**Comment No:** 48

**Comment Topic:** Specific Comments

**Specific Comments / Responses / Permit Revisions:**

<b>DOCUMENT: DRAFT PERMIT</b>		
<b>Com. No.</b>	<b>Volume / Section / Page</b>	<b>Comment / Response / Revisions</b>
1	Volume 1, Permit, Pg. 1 of 5	<p><b>Comment:</b> CWM Chemical Services, LLC is probably a Delaware Corporation. Therefore, it may or may not be appropriate to include the mailing address beneath the Permittee name, unless labeled as a mailing address.</p> <p><b>Response:</b> NYSDEC acknowledges the point made by this comment. NYSDEC does not see a need to specify an address under the "Permit Issued To:" item on Page 1 of 5 of the Permit form since the name of the company is all that is required, and the address of the site is presented under the "facility:" item. Therefore, NYSDEC has deleted the address from under the in the "Permit Issued To:" item, as indicated below.</p> <p><b>Revisions:</b> The "Permit Issued To:" item on Page 1 of 5 of the Permit form has been revised as follows:</p> <p>"CWM CHEMICAL SERVICES LLC <del>1550 BALMER ROAD</del> <del>MODEL CITY, NY 14107</del>"</p>
2	Volume 1, Permit, Pg. 1 of 5	<p><b>Comment:</b> Facility Location should be: Town of Porter and Town of Lewiston because this is a sitewide permit to include security, fencing, etc. and other conditions extending to the property perimeter.</p> <p><b>Response:</b> NYSDEC acknowledges that the Permit is applicable to the entire contiguous property not just the location of the regulated units, and that the CWM property extends into the Town of Lewiston. However, the Town of Porter is indicated on Page 1 of 5 of the Permit as the facility location since the entrance(s) to the facility are located in Porter. Therefore, NYSDEC does not see a need to alter the facility location on this page.</p> <p><b>Revisions:</b> None</p>



DOCUMENT: DRAFT PERMIT		
Com. No.	Volume / Section / Page	Comment / Response / Revisions
3	Volume 1, Permit, Pg. 4of5	<p><b>Comment:</b> Permit Modifications, Suspensions etc. should include "f. any material change in the type or volume of waste treated, stored or disposed by the applicant during the 5 years preceding the date of this permit." In addition, the first sentence might be clarified to reserve the Department's right to suspend or revoke the permit in part or in whole.</p> <p><b>Response:</b> The grounds for Department modification, suspension or revocation of the Permit expressed in "a" through "e" under Item 5 on Page 4 of 5 of the Permit, are taken verbatim from 6 NYCRR 621.13(a) in the regulations. Since the additional ground for NYSDEC action with regard to the Permit requested by this comment is not specified in these regulations, NYSDEC does not consider its inclusion as appropriate. However, it should be noted that in order to make substantial operational changes, CWM would need to seek and obtain a Permit modification. With regard to the additional phrase "in part or in whole", NYSDEC cannot "partly" suspend or revoke a Permit, and as such, has not added this phrase. However, it should be noted that, if deemed necessary, NYSDEC can initiate a Permit modification to delete a particular unit/activity from the Permit based on the grounds specified under 6 NYCRR 621.13(a) in the regulations.</p> <p><b>Revisions:</b> None</p>
4	Volume 1, Module I, Schedule 1, Pg. S1-3&4	<p><b>Comment:</b> Documents incorporated by reference should, instead, be appendices to the permit to ensure that 1) they remain accessible to the public, and not at the discretion of the applicant and 2) the public can track the (numerous) changes made by DEC in between permit renewals.</p> <p><b>Response:</b> NYSDEC sees no reason why "Documents Incorporated By Reference" should be made appendices or attachments to the Permit. Modifications to these "incorporated documents" must be made in accordance with the terms of the Permit. If there are major modifications to incorporated documents which have been made available to the public during this Permit renewal, the public will be notified as required under 6 NYCRR 373-1.7 of the regulations.</p> <p><b>Revisions:</b> None</p>
5	Volume 1, Module I, Schedule 1, Pg. S1-3&4	<p><b>Comment:</b> The footnotes in the draft Permit to the documents incorporated by reference are confusing. It is difficult to understand whether the DEC has altered the Application on CWM's website, or is indicating it may do so before the permit is issued. In either case, it is confusing and more reason to include all permit documents as part of the permit, rather than as a reference.</p> <p><b>Response:</b> The footnotes referred to by this comment are simply intended to indicate that the NYSDEC can approve modifications or replacements of the referenced documents after Permit issuance without having to modify the document's date as indicated of this page of the Permit. See NYSDEC Response to Comment 48-4 above regarding modifications of incorporated documents.</p> <p><b>Revisions:</b> None</p>
6	Volume 1, Module I, Schedule 1, Pg. S1-6	<p><b>Comment:</b> Additional Financial Assurance should be delivered to the DEC immediately, and should not be delayed with other permit conditions.</p> <p><b>Response:</b> NYSDEC assumes this comment refers to the additional financial assurance required by the increase in CWM's Closure, Post-Closure and Corrective Action cost estimates made effective by this Permit. NYSDEC considers that the 60 day period to establish financial assurance for this cost estimate increase required by the Permit condition is appropriate since it is consistent with the period allowed under 6 NYCRR 373-2.8(d) &amp; (e) of the regulations.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: DRAFT PERMIT		
Com. No.	Volume / Section / Page	Comment / Response / Revisions
7	Volume 1, Module I, Schedule 1, Pg. S1-6	<p><b>Comment:</b> Please furnish any Financial Assurance estimates previously supplied to the Department for any activity under a Corrective Action, as well as any "actual" cost reported for comparison to "estimated" costs. The Applicant and Dept. history of actual vs. estimate is important to commenting on the reliability of the current proposed amount of Financial Assurance.</p> <p><b>Response:</b> With respect to previously approved cost estimates for Corrective Action, the NYSDEC has in our files, a single previous estimate submitted by CWM in September 1998. . . The public can submit a request under the Freedom of Information Law (FOIL) to obtain relevant records. It should be noted that the cost estimate put in place by the new Permit replaces this previous estimate in totality.</p> <p>With respect to any "actual" costs reported by CWM, NYSDEC does not have any documents in our files containing CWM reported actual costs for Corrective Action at their facility, nor are reports of actual costs/expenditures required by the applicable regulations. Therefore, NYSDEC cannot provide such documents.</p> <p><b>Revisions:</b> None</p>
8	Volume 1, Module I, Schedule 1, Pg. S1-7	<p><b>Comment:</b> Why is a Final SMP required 6 months after renewal, instead of required as a pre-condition?</p> <p><b>Response:</b> As explained in NYSDEC's Response to Comment #14, the Site Management Plan (SMP) is intended to be a compilation of previously approved plans, and as such the Corrective Actions required by these plans are already underway. The 90 day period is simply to allow sufficient time to incorporate the requirements of these various plans into a single SMP.</p> <p><b>Revisions:</b> None</p>
9	Volume 1, Module I, Schedule 1, Pg. S1-10	<p><b>Comment:</b> "Technical support/assistance" is not an appropriate function for a regulator to provide the Applicant. The Department's responsibility should be limited to regulatory oversight.</p> <p><b>Response:</b> NYSDEC acknowledges this comment. The cited Permit condition has been revised as indicated below.</p> <p><b>Revisions:</b> Schedule 1 of Module I, Condition E.2 on Draft Page S1-10 has been revised as follows:</p> <p>"...- Meet with the Permittee on an as-needed basis; <del>Technical support/assistance;</del> and, ..."</p>
10	Volume 1, Module I, Schedule 1, Pg. S1-10	<p><b>Comment:</b> "Meet with Permittee on an as-needed basis" as determined by whom?</p> <p><b>Response:</b> Either NYSDEC or CWM can determine the need for a meeting.</p> <p><b>Revisions:</b> None</p>
11	Volume 1, Module I, Schedule 1, Pg. S1-10	<p><b>Comment:</b> Please indicate the number of hours each of the four monitors has been on-site during each year since the 2005 renewal.</p> <p><b>Response:</b> The information request made by this comment, deals with NYSDEC employee time and activity records which are internal NYSDEC documents that are not subject to public release, and as such the requested information cannot be provided. See NYSDEC Response to Comment #36 with regard to NYSDEC monitor oversight of CWM landfill operations.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: DRAFT PERMIT		
Com. No.	Volume / Section / Page	Comment / Response / Revisions
12	Volume 1, Module I, Schedule 1, Pg. S1-10	<p><b>Comment:</b> There are no "Routine" monitoring results at the facility. Please revise and or specifically define.</p> <p><b>Response:</b> The "Routine Environmental Monitoring Results" indicated in the Item column of the table under Condition F in Schedule 1 of Module I of the Permit is intended to refer to the results required by the cited regulations, and Permit Modules and Attachments identified under the Requirement column in the table. NYSDEC considers that these cited requirements provide sufficient definition of the specific "routine" results required to be reported to the NYSDEC.</p> <p><b>Revisions:</b> None</p>
13	Volume 1, Module I, Schedule 1, Pg. A-3	<p><b>Comment:</b> Does the Dept. want a copy of, or the original financial assurance? Or is an original certification of possession required from a Trustee?</p> <p><b>Response:</b> NYSDEC acknowledges the point made by this comment. This condition was intended to require CWM to submit the original actual financial assurance instrument(s), not a copy. This inadvertent error has been corrected as indicated below.</p> <p><b>Revisions:</b> Schedule 1 of Module I, Exhibit A, Condition B.1.d on Draft Page A-3 has been revised as follows:   <i>"The original <del>One (1)</del> (paper) version of all financial assurance instruments to: ..."</i></p>
14	Volume 1, Module I, Schedule 1, Pg. A-5	<p><b>Comment:</b> "Trucks arriving from the eastern part of Niagara County" should be changed to "Trucks <i>originating</i> from the eastern..." Trucks originating from elsewhere use the designated route.</p> <p><b>Response:</b> Condition D.1.c which is apparently referred to by this comment refers to trucks arriving <b>from</b> the eastern part of Niagara County, not <b>through</b> the eastern part of the County. As such, NYSDEC considers that the use of the word "from" makes the intended meaning clear and there is no need to make the wording change requested by this comment.</p> <p><b>Revisions:</b> None</p>
15	Volume 1, Module I, Schedule 1, Pg. A-6	<p><b>Comment:</b> Local law enforcement should be granted authority to enforce or ticket violation of the permit transportation conditions, not just DOT law. DEC should conduct periodic training for the Towns.</p> <p><b>Response:</b> Condition D.1.e which is apparently being referred to by this comment, places the burden of enforcing the cited waste transportation conditions on CWM. NYSDEC considers it beyond our regulatory authority to grant local law enforcement the ability to enforce these conditions.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: DRAFT PERMIT		
Com. No.	Volume / Section / Page	Comment / Response / Revisions
16	Volume 1, Module I, Schedule 1, Pg. B-7	<p><b>Comment:</b> Page B-7 essentially acknowledges the Department's expectation that CWM will not be able to meet proposed SPDES limits and will require a Corrective Action for problems it's known about for more than 10 years. Again, the permit for treatment, (adds to) storage and disposal should be suspended until the longstanding problem of contaminant discharges, ends.</p> <p><b>Response:</b> This comment apparently refers to condition which reads: "...in the event that future monitoring of surface storm water identifies contaminant concentrations above the limits set forth in the Facility's SPDES Permit, the Department, at its discretion, may require and the Permittee must implement additional corrective measures to control contaminant migration via surface water." As similarly stated in NYSDEC's Response to Comment #33, this condition is meant to apply to results from <u>any</u> monitoring performed in accordance with CWM's SPDES Permit, and is not meant to forecast any corrective action being necessary. It is simply intended to make clear that additional corrective action will be required based on SPDES monitoring results if warranted to control contaminant migration to surface water. NYSDEC sees no reason to suspend CWM's Hazardous Waste Management Permit as suggested by this comment.</p> <p><b>Revisions:</b> None</p>
17	Volume 1, Module I, Schedule 1, Pg. B-12	<p><b>Comment:</b> The SRISSP remains inadequate to protect worker safety, public health and the environment. DEC has yet to respond to correspondence issued (and re-issued three times thereafter) regarding assumptions for gamma detection that are contradicted by DOE/USACE experience at the site.</p> <p><b>Response:</b> By "SRISSP" NYSDEC assumes the comment is referring to the "Generic Small Projects Soil Excavation Monitoring and Management Plan" required by Condition D.4. NYSDEC considers this plan as adequately protective of human health and the environment. See NYSDEC's Response to Comment #22 with respect to the radiological concerns expressed in this comment.</p> <p><b>Revisions:</b> None</p>
18	Volume 2, Attach. E, Pg. 3of66	<p><b>Comment:</b> Natural Attenuation is recommended as a Final Remedy for the Drum Storage Area west of SLF-1. Given PCB's in parts per million, not parts per billion, this is inappropriate and based on 20-year old documentation. Please provide the analysis conducted in accordance with DER-10. If there is none, it should be completed and published before the Final Remedy and cost estimate are agreed to.</p> <p><b>Response:</b> Investigation of this area, conducted as part of a NYSDEC approved work plan, indicated isolated areas of shallow soil contamination. Groundwater at the area is hydraulically isolated by the presence of Faculitative Pond 1 &amp; 2 to the west and SLFs 1 &amp; 2 and the west salts area to the east. This limits the ability of any contaminants leached to the groundwater to migrate. Any material excavated from this area would be subject to the soil excavation program in place at the facility. The remedy for this area was public noticed on September 27, 2000 and finalized on January 31, 2001. Also, see NYSDEC's Response to Comment #34. The public can submit a request under the Freedom of Information Law (FOIL) to obtain relevant records.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: DRAFT PERMIT		
Com. No.	Volume / Section / Page	Comment / Response / Revisions
19	Volume 2, Attach. E, Pg. 5of66	<p><b>Comment:</b> Natural Attenuation is recommended as a Final Remedy for the SLF 7 area and wells. Please provide the analysis CWM performed and DEC's approval which determined the contamination was not related to releases from the landfill. This remedy seems inappropriate and references 20-year old documentation. Please provide the analysis conducted in accordance with DER-10 which requires consideration of the timeframe. If there is no DER-10 compliant analysis, it should be completed and published for comment before the Final Remedy and cost estimate are agreed to.</p> <p><b>Response:</b> Monitoring results subsequent to remedy selection indicate that contamination levels have decreased in the monitoring wells subject to the remedial action and migration has not occurred. This data support the selection of natural attenuation as the appropriate remedy. The remedy for this area was public noticed on September 27, 2000 and finalized on January 31, 2001. Also, see NYSDEC's Response to Comment #34. The public can submit a request under the Freedom of Information Law (FOIL) to obtain relevant records.</p> <p><b>Revisions:</b> None</p>
20	Volume 2, Attach. E, Pg. 5of66	<p><b>Comment:</b> Natural Attenuation is recommended as a Final Remedy for SLF 11 and Drum Area I. This remedy seems inappropriate and references 28-year old documentation. Please provide the analysis conducted in accordance with DER-10 which requires consideration of the timeframe. If there is no analysis, it should be completed and published for comment before the Final Remedy and cost estimate are agreed to.</p> <p><b>Response:</b> Monitoring results subsequent to remedy selection indicate that contamination levels have decreased in the monitoring wells subject to the remedial action and migration has not occurred. This data support the selection of natural attenuation as the appropriate remedy. The remedy for this area was public noticed on September 27, 2000 and finalized on January 31, 2001. Also, see NYSDEC's Response to Comment #34.</p> <p><b>Revisions:</b> None</p>
21	Volume 2, Attach. E, Pg.5&6of66	<p><b>Comment:</b> Natural Attenuation is recommended as a Final Remedy for the Drum Storage Along "H" Street and MacArthur Street. This remedy seems inappropriate and references 28-year old documentation. Please provide the analysis conducted in accordance with DER-10. If there is no DER-10 compliant analysis, it should be completed and published for comment before the Final Remedy and cost estimate are agreed to.</p> <p><b>Response:</b> Monitoring results subsequent to remedy selection indicate that contamination levels have decreased in the monitoring wells subject to the remedial action and migration has not occurred. This data support the selection of natural attenuation as the appropriate remedy. The remedy for this area was public noticed on September 27, 2000 and finalized on January 31, 2001. Also, see NYSDEC's Response to Comment #34. The public can submit a request under the Freedom of Information Law (FOIL) to obtain relevant records.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: DRAFT PERMIT		
Com. No.	Volume / Section / Page	Comment / Response / Revisions
22	Volume 2, Attach. E, Pg.10&11 of66	<p><b>Comment:</b> Natural Attenuation is recommended as a Final Remedy for GROUP D. This remedy seems inappropriate and references 25-year old documentation. Please provide the analysis conducted in accordance with DER-10. If there is no DER-10 compliant analysis, it should be completed and published for comment before the Final Remedy and cost estimate are agreed to.</p> <p><b>Response:</b> Investigation of this area, conducted as part of a NYSDEC approved work plan, indicated isolated areas of contamination. The remedy for this area was public noticed on September 27, 2000 and finalized on January 31, 2001. Any material excavated from this area would be subject to the soil excavation program in place at the facility. As part of the application for proposed landfill RMU-2, investigatory soil sampling was performed. Data collected as part of this program did not indicate additional areas of contamination or contaminant levels requiring the reevaluation of the remedial decision for Group D. Also, see NYSDEC's Response to Comment #34. The public can submit a request under the Freedom of Information Law (FOIL) to obtain relevant records.</p> <p><b>Revisions:</b> None</p>
23	Volume 2, Attach. E, Pg.16of66	<p><b>Comment:</b> Natural Attenuation is recommended as a Final Remedy for Tank Farm E. Does the increase in (100 ppm) DNAPL for Tank Farm E (p.57) indicate that the site is deteriorating? This remedy seems inappropriate and references 28-year old documentation. Please provide the analysis conducted in accordance with DER-10. If there is no DER-10 compliant analysis, it should be completed and published for comment before the Final Remedy and cost estimate are agreed to.</p> <p><b>Response:</b> In response to the detection of high levels of contamination the NYSDEC directed CWM to design and install the "Process Area III" collection trench, which is being made permanent as an additional final corrective measure through issuance of this Permit renewal. Also, see NYSDEC's Response to Comment #14. The public can submit a request under the Freedom of Information Law (FOIL) to obtain relevant records.</p> <p><b>Revisions:</b> None</p>
24	Volume 2, Attach. E, Pg.18&19 of66	<p><b>Comment:</b> Please provide evidence to support the statement "NYSDEC anticipates that the Department of Defense will assume responsibility for development and implementation of appropriate corrective measures to address the [ALL] Group I soil and groundwater contamination." Also, please indicate the date of original identification of the contamination, and the maximum acceptable timeframe of added remedial delay in anticipation of DOD action. And please include a date by which CWM must undertake the action, if DOD has failed to do so. CWM and DEC have had decades in which to prompt DOD action. In any case. CWM should be required to undertake the remedial action this year.</p> <p><b>Response:</b> The Permit does not excuse CWM from corrective actions at Group I SWMUs with contamination associated with former Department of Defense (DoD) activities. As stated in the Final Statement of Basis, which is incorporated into the Permit by reference, "...If the Department [NYSDEC] determines that the DoD has failed to accomplish the necessary remediation of these SWMUs, the Department [NYSDEC] may require CWM, as owner of the property on which the SWMUs are located, to remediate the SWMUs." At present, NYSDEC has not received any formal notification from the Federal government that they have completed investigation / remediation of the Group I SWMUs. Upon receipt of any such notification, NYSDEC will evaluate whether additional corrective measures are necessary with respect to these SWMUs. If determined that further corrective measures are needed, NYSDEC will initiate a Permit modification to require CWM to perform the additional corrective measures. Also, any material excavated from these areas would be subject to the soil excavation program in place at the facility.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: DRAFT PERMIT		
Com. No.	Volume / Section / Page	Comment / Response / Revisions
25	Volume 2, Attach. E, Pg.20&22 of66	<p><b>Comment:</b> Natural Attenuation is recommended as a Final Remedy for SLF 10. This remedy seems inappropriate and references 25-year old documentation. Please provide the analysis conducted in accordance with DER-10. If there is no DER-10 compliant analysis, it should be completed and published for comment before the Final Remedy and cost estimate are agreed to.</p> <p><b>Response:</b> Investigation of this area, conducted as part of a NYSDEC approved work plan, indicated isolated areas of shallow soil and groundwater contamination. Groundwater at the area is hydraulically isolated by the presence of Facultative Pond 3 to the west and SLF 10 area to the east. This limits the ability of any contaminants leached to the groundwater to migrate. Any material excavated from this area would be subject to the soil excavation program in place at the facility. The remedy for this area was public noticed on September 27, 2000 and finalized on January 31, 2001. The public can submit a request under the Freedom of Information Law (FOIL) to obtain relevant records.</p> <p><b>Revisions:</b> None</p>
26	Volume 2, Attach. E, Pg.44of66	<p><b>Comment:</b> Natural Attenuation is recommended as a Final Remedy for RMU-1 groundwater monitoring wells. So soon after siting? This remedy seems inappropriate. If only DEC would require removal of the VOC source and obstacle to remediating the area: RMU-1. Please provide the analysis conducted in accordance with DER-10. If there is no DER-10 compliant analysis, it should be completed and published.</p> <p><b>Response:</b> Monitoring results subsequent to remedy selection indicate that contamination levels have decreased in the monitoring wells subject to the remedial action and migration has not occurred. This data support the selection of natural attenuation as the appropriate remedy. The public can submit a request under the Freedom of Information Law (FOIL) to obtain relevant records.</p> <p><b>Revisions:</b> None</p>
27	Volume 2, Attach. E, Pg.44of66	<p><b>Comment:</b> Natural Attenuation is recommended for monitoring wells R102S, R108S &amp; R110S installed as part of the RMU - 1 monitoring system. (Ref. Figures J-10, J-11 and J-11 in RFI). This remedy seems inappropriate. Please provide the analysis conducted in accordance with DER-10. If there is no DER-10 compliant analysis, it should be completed and published for comment before the Final Remedy and cost estimate are agreed to.</p> <p><b>Response:</b> Monitoring results subsequent to remedy selection indicate that contamination levels have decreased in the monitoring wells subject to the remedial action and migration has not occurred. This data support the selection of natural attenuation as the appropriate remedy. The public can submit a request under the Freedom of Information Law (FOIL) to obtain relevant records.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: SEQR NEGATIVE DECLARATION		
Com. No.	Page / Item #	Comment / Response / Revisions
28	Overall	<p><b>Comment:</b> Please provide a copy of DEC's "preliminary screen" for this application that should have been conducted in accordance with:</p> <p><b>"B. Methodology for Conducting Preliminary Screen.</b> Upon receipt of an application for a permit covered by this policy, the DEC Division of Environmental Permits shall conduct a preliminary screen to identify whether the proposed action is in or near a potential environmental justice area(s) and determine whether potential adverse environmental impacts related to the proposed action are likely to affect a potential environmental justice area(s)."</p> <p>If the screen was limited solely to the DEC's minimum areas mapped as low income or minority, please explain why DEC ignored Modern, the NFSS, the LOOW site and neglected the applicant to conduct a review in accordance with regulation.</p> <p><b>Response:</b> This is primarily a Permit renewal action. As explained in NYSDEC's Response to Comment #32, NYSDEC Commissioner Policy 29 (CP-29) indicates that matters of environmental justice are not applicable to Permit renewals. As such the "preliminary screen" mentioned in CP-29 as cited by this comment is not applicable to the CWM Permit renewal. However, NYSDEC has compared the facility location to mapped potential environmental justice areas with respect to past CWM Permit actions regarding the site's currently operational landfill. The CWM facility is not located in or near an environmental justice area. A map showing potential environmental justice areas in Niagara County can be found at the following link: <a href="http://www.dec.ny.gov/docs/permits_ej_operations_pdf/niagaraej.pdf">http://www.dec.ny.gov/docs/permits_ej_operations_pdf/niagaraej.pdf</a></p> <p><b>Revisions:</b> None</p>
29	Overall	<p><b>Comment:</b> Please provide a reference to the location of the full EAFs for the renewal, pursuant to:</p> <p>"E. Full Environmental Assessment Form. Where a <i>potential</i> environmental justice area is identified by the preliminary screen, a full environmental assessment form shall be completed for those actions classified as Unlisted in 6 NYCRR Part 617 and meeting the applicability requirements of this policy. (A full environmental assessment form is currently required for all Type I actions.)"</p> <p><b>Response:</b> See NYSDEC Responses to Comment 32 and 48-28 above.</p> <p><b>Revisions:</b> None</p>
30	Overall	<p><b>Comment:</b> Please provide a reference to the location of the full EIFs for the renewal, pursuant to:</p> <p>"F. Environmental Impact Assessment. Under existing regulations, as part of its impact review, DEC must consider other sources of pollution or similar facility types in the project area in order to establish the baseline conditions against which project impacts will be assessed."</p> <p><b>Response:</b> See NYSDEC Responses to Comment 32 and 48-28 above.</p> <p><b>Revisions:</b> None</p>



DOCUMENT: SEQR NEGATIVE DECLARATION		
Com. No.	Page / Item #	Comment / Response / Revisions
31	Pg.2, Item 8	<p><b>Comment:</b></p> <p>"The draft permit contains changes to the corrective action program for the CWM facility. The program has been revised to comply with Division of Environmental Remediation Guidance (DER-10). The change clarifies, strengthens and standardizes the development and implementation of investigation and remediation for instances where events require immediate response and follow-up. The proposed change will be at least as protective, if not more protective, of the environment than present procedure for corrective action."</p> <p>This is untrue by any reasonable, comprehensive (as opposed to unit by unit) review of past Corrective Actions. The remedies applied are DER-10 are not typical compared to other brownfields and superfund sites.</p> <p>The costs of future Corrective Actions proposed (financial assurance calculations) are less than half the average historical expenditures reported to DEC by the applicant. We've not seen the documentation and analysis of alternatives for each unit as is typically required for a brownfield ROD or ROD revision.</p> <p>Not only have historical Corrective Actions created a much larger cumulative "attenuation pool" of impacts, but the dispersion has served to lower the standard of clean up, and therefore expected costs.</p> <p><b>Response:</b></p> <p>NYSDEC considers the quotation taken from the SEQR Negative Declaration to be a true and accurate characterization of the Permit modification with respect to DER-10 guidance. This guidance is not meant to be applied retroactively to past Corrective Action decisions, and it is not appropriate to compare the corrective actions selected for this CWM facility to other Brownfield or Superfund sites since remedies are site-specific and depend on site-specific property usages and circumstances.</p> <p>NYSDEC is unclear as to what historical expense reports the comment refers to, and as such, cannot provide a specific response to the comment's comparison of actual verses estimated costs. With respect the selection of the Corrective Measures for the CWM site, a Corrective Measure Study (CMS) was performed by CWM and presented for public review in September 2000 in conjunction with the Draft Statement of Basis. This CMS contained an analysis of alternatives analogous to that performed in a Feasibility Study under the Superfund program.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: SEQR NEGATIVE DECLARATION		
Com. No.	Page / Item #	Comment / Response / Revisions
32	Pg.3, Item 10	<p><b>Comment:</b> A 50% increase in treatment capacity for stabilization is incompatible with a Negative Declaration. DEC's determination that a process can be conducted safely based on an "evaluation" was not disclosed in the Negative Declaration.</p> <p>Please provide all documents relevant to such an "evaluation." The remaining waste disposal capacity suggests this condition relates only to RMU-2, as it would be technically impossible for CWM to process the same volume or greater volume going forward than was processed in 2012.</p> <p>Please explain why this modification is needed for RMU-1.</p> <p><b>Response:</b> The document used in the SEQR evaluation of the stabilization rate increase Permit modification request was CWM's Permit Renewal Application which contains a Short Environmental Assessment Form with respect to the requested Permit modifications contained in the application. This application has been made available to the public both electronically through the CWM web site and in hard copy located at document repositories. During the evaluation NYSDEC considered the fact that this was an existing process and that it did not entail any physical expansion of the processing units.</p> <p>This is an increase in the maximum hourly rate of the stabilization process. CWM could process waste at this higher rate for a number of hours or days with the produced waste volume remaining within the RMU-1 capacity limits. This increase is not in any way associated with CWM's RMU-2 Permit modification application. CWM has indicated that they have requested this increase to provide some processing flexibility for occasions when receipt of wastes requiring stabilization may warrant processing at a rate above the previous limit.</p> <p><b>Revisions:</b> None</p>
33	Pg.3, Item 12	<p><b>Comment:</b> The following statement cannot be true given limited remaining air space. And there is no sublimit on trucks for certain types of treatment vs. disposal vs. storage operations. "No substantial changes to the amount of truck traffic or in the area around the landfill are anticipated as a result of this action since the type and quantity of waste to be accepted at the site should remain substantially the same. Traffic patterns in and around the site are not expected to change. The number of truck trips delivering waste to the site is limited in the existing permit; this will remain unchanged."</p> <p><b>Response:</b> The above quotation taken from the SEQR Negative Declaration was simply intended to reflect the fact that the renewal of the CWM Permit is not anticipated to cause a substantial change in truck traffic, based on the information provided in CWM's renewal application. While fluctuations in truck traffic associated with waste transport to the CWM facility have, and will likely continue to occur from one day to the next, these fluctuations are not expected to produce a sustained substantial change in local traffic volume.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: SEQR NEGATIVE DECLARATION		
Com. No.	Page / Item #	Comment / Response / Revisions
34	Pg.3, Item 15	<p><b>Comment:</b> The Negative Declaration states, "No significant aesthetic, agricultural, historic, or other natural or cultural resources are known to exist at or near the CWM facility. Therefore, no adverse impacts to these resources are expected." The schools are not a resource and a transportation fatality is not adverse? 12 Mile and 4 Mile Creeks are not cultural resources?</p> <p><b>Response:</b> The NYSDEC acknowledges the importance of the concerns raised by this comment with respect to the mentioned community and environmental assets. However, the environmental review conducted under SEQR for this Permit action only considered impacts from the proposed Permit modifications associated with this renewal in accordance with the regulations under 6 NYCRR 617. Waste transport and other issues mentioned in the above quotation were previously evaluated during the SEQR process for the original Permitting of CWM's existing RMU-1 landfill. The Permit renewal does not propose any significant modifications that would alter that original SEQR evaluation.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: CWM PERMIT RENEWAL APPLICATION		
Com. No.	Title / Section / Page	Comment / Response / Revisions
35	7/31/2012 Permit Mod. Request Letter, Pg.1	<p><b>Comment:</b> This is not a minor modification. When comparing the changes in monitoring frequency and reporting timeframes, Corrective Action, Waste Acceptance, staff available for Emergency Response, just to name a few, compared to the 2005 renewal and also the first permit issued to operate RMU-1, the changes are very significant and cumulative.</p> <p><b>Response:</b> While the cover letter to CWM's renewal application requested that the proposed changes to the Permit all be considered as "minor" modifications, this should not be interpreted to mean that NYSDEC agreed with CWM's proposed classification for all the requested modifications. Although NYSDEC did not explicitly classify each modification as minor or major with respect to the regulations under 6 NYCRR 373-1.7, it is important to note that the public involvement process which was followed for this Permit renewal is the same process required under 6 NYCRR 373-1.7 &amp; 621 for "major" Permit modifications. As a result, all proposed modifications were provided for public review and comment through the Permit renewal process as if they were major modifications.</p> <p><b>Revisions:</b> None</p>
36	7/31/2012 Permit Mod. Request Letter, Pg.1	<p><b>Comment:</b> Submission of the 10-year Plan on an annual basis should be reinstated, not eliminated altogether as proposed. It elimination would preclude tracking of operational trends and continuity of monitoring or regulatory oversight by DEC staff and executive. CWM is an unusually large and complex operation and there is no other document summarizing the regulatory and operational history and plans. Keeping the requirement for this document is also important given the; 1) unusually extensive history of Corrective Actions, 2) the applicant's poor track record of keeping the community informed in a manner that is reasonably complete, understandable, and accessible from off-site 3) the need for DEC management and Executive to have a living document showing the past and the future is important given the perpetual maintenance agreement, and frequent changes in various management of the Department.</p> <p><b>Response:</b> First, it should be noted that the regulations governing hazardous waste management facilities do not require submission of a plan projecting future hazardous waste management activities (e.g., 10-Year Plan). While the original intent of this Permit requirement was to give NYSDEC some advanced notice of CWM anticipated substantial changes in facility operation (e.g., application for a hazardous waste incinerator, etc.), submission of these Plans over the years have not identified any substantial changes that NYSDEC was not already aware of through other submissions (e.g., RMU-2 landfill application). Also, the previous Permit condition requiring the periodic submission of the 10-Year Plan did not, and could not require CWM to adhere to such a Plan, since the regulations allow CWM to apply for Permit modifications at any time to add/delete hazardous waste management units or make other changes that were not identified in their last 10-Year Plan. In addition, the Permit requires a number of other CWM submissions which NYSDEC uses to track compliance and progress with regard to Corrective Action, and NYSDEC makes DEC Monitor monthly reports available to the public to help keep the community informed with regard to facility operational matters. Therefore, NYSDEC does not see a need to continue requiring periodic submission of a 10-Year Plan.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: CWM PERMIT RENEWAL APPLICATION		
Com. No.	Title / Section / Page	Comment / Response / Revisions
37	7/31/2012 Permit Mod. Request Letter, Pg.2	<p><b>Comment:</b> Radiological Air Monitoring should not be discontinued based on data from a monitoring system that was flawed to begin with. The air grab locations are largely irrelevant to the areas of excavation, and the radioisotopes identified for analysis are incomplete when compared to those known to have been handled and or spilled and or buried on CWM property. Until all radiological contamination is removed from CWM property, monitoring should be required, and be designed to reflect the most likely, instead of the least likely locational sources.</p> <p>Removing the monitoring discourages rather than encourages the applicant from removing radiological contamination from its property. The applicant has known about this contamination since the 1980's, and DEC has improperly and willfully neglected to require the applicant to remove its radiological contamination, which has led to further dispersion of these contaminants on the property.</p> <p><b>Response:</b> Past site perimeter air monitoring for radionuclides conducted by CWM in accordance with a condition in the previous Permit has not identified any elevated radiological readings in collected particles. Furthermore, sediment particles on the bottom surface of Fac Pond 8 which were found as having elevated radiological readings have been removed, and other isolated locations identified as having elevated readings have been found to be attributable to larger particles that would not be susceptible to wind dispersal. Also, radiological monitoring of excavation or soil disturbance activities as required by the Permit provides an adequate means of identifying any potential radiological contamination that could be subject to airborne migration. As a result, NYSDEC does not consider continuation of perimeter air monitoring for radionuclides to be necessary at this time. However, it should be noted that NYSDEC has retained the requirement for CWM to resume air monitoring for radionuclides should new information indicate that such monitoring is warranted.</p> <p><b>Revisions:</b> None</p>
38	7/31/2012 Permit Mod. Request Letter, Pg.2	<p><b>Comment:</b> The permit should not be revised to allow drums to be double stacked because it would increase difficulty of leak identification and therefore, inspection. The size of the drum is not relevant in this regard. CWM has an extensive, repeated history of (undeclared) violations, and this proposal is more likely to accommodate CWM reductions in staffing and non-compliance, than to prevent spills/leaks.</p> <p><b>Response:</b> This Permit modification is specifically to allow double stacking of drums in the PCB Warehouse Area 3/6 which have capacities of less than 30 gallons. It should be understood that double stacking of waste drums, except for drums containing flammable wastes, is already allowed by CWM's Permit in other CWM Container Storage Areas, and is uniformly allowed at other facilities as a standard condition in NYS Hazardous Waste Management Permits. NYSDEC does not regard such double stacking as impacting the ability to inspect containers or prevent spills/leaks.</p> <p><b>Revisions:</b> None</p>

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Com. No.	Title / Section / Page	Comment / Response / Revisions
39	7/31/2012 Permit Mod. Request Letter, Pg.2	<p><b>Comment:</b> The permit should not be revised to defer installation of Final Cover by a calendar year, as opposed to next construction season, or to lift restrictions on Intermediate Cover. The delay increases the risk of infiltration mobilizing contaminants in the landfill. The change would seem to provide the applicant more flexibility in the quarter in which it chooses to report the expense, rather than reduce the risk of exposure to the environment.</p> <p><b>Response:</b> Specifically, CWM originally requested that intermediate cover be allowed to be placed anytime wastes reach final Permitted grades in the RMU-1 landfill, and not just when there is not sufficient time left in a construction season to complete installation of final cover. They also requested that the requirement to remove intermediate cover and place final cover be changed from the "next construction season" to the "next calendar year." These requested modifications were deemed acceptable by NYSDEC and were presented in the Draft Permit (Condition F.4.b of Exhibit F in Schedule 1 of Module I). CWM submitted a comment on this Draft Permit condition (Comment #37 in Section II of this Responsiveness Summary) requesting to leave intermediate cover in place for an unspecified period longer than a single calendar year. In response to this comment, NYSDEC has modified the condition to allow NYSDEC to approve a case specific extension to leave an intermediate cover in place (i.e., defer placement of final cover) for up to one additional calendar year (i.e., total maximum of 2 years). NYSDEC is allowing this extended period of intermediate cover use based on our recent observation of its performance on a section of RMU-1 during the 2012-2013 period. These observations indicate that the intermediate cover held up well over the winter period with no significant defects in the temporary geomembrane or erosion of underlying cover soils. NYSDEC therefore, considers that intermediate cover can function adequately to protect against migration of waste via storm water run-off for a period of up to 2 years.</p> <p><b>Revisions:</b> None</p>
40	CWM NOIA Responses, Pg. RC-4	<p><b>Comment:</b> A 50% increase in the permitted volumes of Treatment (100 tons per hour to 150 tons per hour) has potentially significant implications to Air Monitoring and Control as well as worker safety, particularly because this permit has an extraordinary number of WAP exemptions which increases risk of fire or explosion in the stabilization pit.</p> <p>In addition, should the landfill close and the applicant continues waste treatment, the releases to the environment from treatment could change very substantially. Therefore, the permitted treatment per hour tonnage limit should not be increased in an unqualified manner which serves to increase the applicant's profitability at the expense of removing releases to the environment.</p> <p>In light of the small amount of remaining capacity left in RMU-1, this condition is seems solely related to the RMU-2 application and should be proposed with that modification, not in this operating permit for a facility otherwise on its way to closure to waste acceptance.</p> <p><b>Response:</b> This comment is similar to Comment #48-37. Therefore, see NYSDEC's Response to Comment 48-37.</p> <p><b>Revisions:</b> None</p>

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41	CWM NOIA Responses, Pg. RC-4	<p><b>Comment:</b> A condition should be added to change the permit expiration date from 5 years, to the earlier of; a) 5 years, or b) within 30 days of discontinuing acceptance of waste for land disposal.</p> <p>When RMU-1 is closed, the character of treatment and storage operations could be altered dramatically, and should therefore, require a new application. This is particularly important given the applicant's attempt to increase its treatment capacity by 50% per hour over current rates.</p> <p><b>Response:</b> The 5 year maximum term of the Permit for land disposal facilities is stipulated under the regulations (6 NYCRR 621.4(n)(3)(i)). NYSDEC does not see a significant reason for shortening the term of the CWM Permit from this 5 year maximum. While the closure of RMU-1 may occur during the 5 year term of this Permit, the Permit contains requirements for its closure and post-closure, as well as for the continued operation of the other CWM storage/treatment units after RMU-1 closure. Therefore, NYSDEC does not consider the closure of RMU-1 as a basis for shortening the term of the Permit.</p> <p><b>Revisions:</b> None</p>
42	CWM NOIA Responses, Pg. RC-8	<p><b>Comment:</b> Container repair options should be specified and expressly limited to current operations. CWM's permit as a storage/transfer facility should also expire within 30 days of discontinuing acceptance of waste for land disposal.</p> <p><b>Response:</b> As indicated in the Draft Permit, NYSDEC has modified Section B.(4).(a) in Appendix D-1 of Attachment D to allow containers to be repaired as long as such repairs result in a container which meets RCRA &amp; USDOT specifications. See NYSDEC's Response to Comment #48-41 regarding this comment's statements on Permit expiration.</p> <p><b>Revisions:</b> None</p>
43	CWM NOIA Responses, Pg. RC-9	<p><b>Comment:</b> The RCRA permit should immediately be modified to include DEC's proposed, lower, detection methods/limits for SPDES discharges. The failure of DEC to address this in advance of RCRA permitting seems designed to deliberately avoid a likely and serious non-compliance issue regarding releases of contaminants such as PCBs and Mercury into area waterways and surface ditches.</p> <p><b>Response:</b> See NYSDEC's Response to Comment #25.</p> <p><b>Revisions:</b> None</p>
44	CWM NOIA Responses, Pg. RC-10	<p><b>Comment:</b> CWM should not be granted a variance to regulatory requirements for secondary containment. The waiver serves to reduce the applicant's costs, instead of releases to the environment.</p> <p><b>Response:</b> The secondary containment variance for Tank T-58 was previously granted and is simply being continued in the new Permit. The CWM request is simply to correct an inadvertent error in text that did not reflect the previously granted variance. It should be noted that this variance is conditioned upon the tank only containing treated wastewater meeting land disposal restrictions, as well as other requirements stipulated in the Permit.</p> <p><b>Revisions:</b> None</p>

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45	CWM NOIA Responses, Pg. RC-13	<p><b>Comment:</b> CWM should be required to report the number of employees trained in fire and emergency response, and there should be a determination of the number of employees with that training for all shifts during which time there is handling, including but not limited to stabilization (treatment) or land disposal taking place. Since RMU-1 was sited CWM has dramatically reduced its employee headcount relative to the volumes of waste it is disposing of, which increases risk of fire and other non-compliance.</p> <p>DEC must ensure that emergency-trained personnel headcount on site is adequate to address all potential operational emergencies, at all times, to minimize the releases into the community.</p> <p>Maintaining a list of personnel training at the facility is not an appropriate substitute for submissions to DEC which should be required. This should not be diminished to become a self-regulated matter.</p> <p><b>Response:</b> The regulations do not set specific requirements for a minimum number of facility employees required to be trained in fire and emergency response, nor how many trained employees must be present during a given shift. Both the regulations and the Permit obligate CWM to maintain a sufficient number of trained personnel to respond to any fires or other emergencies during operational periods.</p> <p><b>Revisions:</b> None</p>
46	CWM NOIA Responses, Pg. RC-13	<p><b>Comment:</b> Due to lapses or lack of specificity in what does or does not require a self-report, the monthly environmental surveillance report should be revised to require CWM to affirm that no employee assigned to handling or treatment of waste observed a fire, explosion or unplanned reaction of any kind.</p> <p>Since the community identified regular fires at the facility, the self-reports suddenly and sharply diminished (except an electrical fire that should down systems for days.) There should be specificity as to what employees observed as opposed to reported, to ensure that all non-compliance issues observed are, in fact, reported.</p> <p><b>Response:</b> NYSDEC does not consider it necessary to have CWM make monthly affirmations regarding employee observations, nor to provide specifics on what employees have observed. NYSDEC considers the Permit to be clear with respect to CWM's obligation to report and rectify any incidents of non-compliance, and that oversight by NYSDEC On-Site Monitors serves to further insure such incidents are properly reported.</p> <p><b>Revisions:</b> None</p>



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47	CWM NOIA Responses, Pg. RC-18	<p><b>Comment:</b> Certain container types are documented by DEC and CWM as chronically leaking upon arrival at CWM's gate, therefore, they should be excluded from the permit. This is the applicant's responsibility, not the generator's. DEC needs to impose restrictions because of repeated and prolonged history of trucks arriving with leaks at its gate.</p> <p><b>Response:</b> The new Permit requires that containers which are used to store waste at the facility meet appropriate US Department of Transportation (USDOT) specifications applicable to the specific type of waste being stored in such containers. With respect to containers on trucks which arrive at the facility, the Permit requires CWM to inspect each transport vessel for leaks and obvious structural problems, and take action to record and rectify the situation (Condition D.2 of Exhibit A in Schedule 1 of Module I). Also, CWM's own transport rules and regulations provide penalties for transporters which increase with each incident of leakage associated with a transport company, which can lead to temporary banning of some transporters.</p> <p><b>Revisions:</b> None</p>
48	CWM NOIA Responses, Pg. RC-24	<p><b>Comment:</b> Transportation conditions from the CAC agreement should be incorporated into the Permit, with authority for DEC or law enforcement to enforce.</p> <p><b>Response:</b> See NYSDEC's Response to Comment #48-15.</p> <p><b>Revisions:</b> None</p>
49	CWM NOIA Responses, Pg. RC-26	<p><b>Comment:</b> The fact that CWM uses only its parent's macroencapsulation boxes is not a rationale for inadequate properties such as thickness. CWM should be required to provide data from any manufacturer for review by DEC.</p> <p><b>Response:</b> In reviewing CWM's request to reduce the thickness requirements for macroencapsulation boxes manufactured by Waste Management (WM) it was discovered that defects were occurring primarily during unloading operations, and mainly at a stress point in the box's upper lip where the box's thickness was less than the proposed nominal thickness of 300 mils. Therefore, in conjunction with this Permit modification to reduce the thickness requirement, the new Permit contains conditions requiring reinforcement of the box's lip and unloading precautions to minimize the potential for damage.</p> <p><b>Revisions:</b> None</p>
50	CWM NOIA Responses, Pg. RC-29	<p><b>Comment:</b> The debate over the definition of "elevated levels" in stormwater highlights the need to institute tighter SWSAP limits via the RCRA permit, immediately.</p> <p><b>Response:</b> See NYSDEC's Response to Comment #25.</p> <p><b>Revisions:</b> None</p>

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51	7/27/2010 Permit Mod. Request on RMU1 Tech. Specs., 7/7/2011 Letter, Attach. A, Pg.02210-5	<p><b>Comment:</b> Analysis of the suitability of on-site fill should be fully compliant with MARRSM, with concurrence required from the New York State Dept. of Health, due to the Order restricting excavation on the site. The DEC should include analysis for all radioisotopes known to have been handled on the CWM site, to include Pu239/40 and Pu 242. Failure to impose this requirement will unnecessarily elevate risk to worker safety and public health. Absent a complete Fate and Transport Analysis for all radioisotopes and explosives known to have been handled and spilled on what is now CWM property, the DEC cannot reasonably assume that certain contaminants would serve as "markers" or be co-located, some 60-70 years after placement on the property.</p> <p><b>Response:</b> Any excavation of on-site fill for use in the RMU-1 intermediate or final cover will require chemical and radiological screening in accordance with either the Generic Small Project Soil Monitoring and Management Plan (if below quantities established in the Permit) or a Project-Specific Plan approved by NYSDEC with concurrence of NYSDOH. Also, see NYSDEC's Response to Comment #22.</p> <p><b>Revisions:</b> None</p>
52	7/27/2010 Permit Mod. Request on RMU1 Tech. Specs., 7/7/2011 Letter, Attach. A, Pg. A-2	<p><b>Comment:</b> LOOW site history would suggest that any new clay sourced from the former Lake Ontario Ordnance Works Site should be analyzed for radioisotopes, chemicals and explosives, prior to approval as cap material. This requirement should be added to permit conditions, not using screening, but excavation protocol.</p> <p><b>Response:</b> NYSDEC conducts oversight of RMU-1 final cover placement, including inspection of off-site borrow areas from which CWM proposes to obtain clay or other soils. If there is reason to suspect such areas may contain radiological contaminants, NYSDEC can require appropriate testing.</p> <p><b>Revisions:</b> None</p>
53	7/27/2010 Permit Mod. Request on RMU1 Tech. Specs., 7/7/2011 Letter, Attach. A, GRI Test Method 13 Pg. 4of11	<p><b>Comment:</b> Geosynthetic Institute June 1, 2009 memo regarding cap: Section 5.1, Note 4: What is the handwritten note intended to signify? And will the alternative be included in the permit?</p> <p><b>Response:</b> NYSDEC is uncertain as to the meaning of the hand written note, however, it has no bearing on the technical specifications in the Permit.</p> <p><b>Revisions:</b> None</p>
54	1/15/2010 Pre-Applic. Meeting Letter, Overall	<p><b>Comment:</b> The DEC should require the applicant to submit all of its public communication since the last permit renewal and DEC should undertake a review to determine the adequacy and accuracy of that communication with respect to permitting of this complex, contaminated and large operation.</p> <p><b>Response:</b> NYSDEC acknowledges the suggestion made by this comment but does not consider a review of CWM's public communications as necessary.</p> <p><b>Revisions:</b> None</p>

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55	1/15/2010 Pre-Applic. Meeting Letter, Overall	<p><b>Comment:</b> A permit condition should be added to require the applicant provide the same integrity of information to the public, including public officials, that it is required to provide the Department. The same fines, penalties, etc. provided for in regulation and law should apply to both. This is necessary because the information the applicant frequently supplies the public is contradicted by the information it supplies its regulators. Public participation as required by regulation, is therefore, impaired absent a similar standard for information provided to the public and the regulator.</p> <p><b>Response:</b> With respect to the comment's suggested Permit condition, placing controls on the information CWM informally provides to the public is beyond NYSDEC's regulatory authority.</p> <p><b>Revisions:</b> None</p>
56	1/15/2010 Pre-Applic. Meeting Letter, CWM Fact Sheet	<p><b>Comment:</b> Even a cursory comparison of the Department's 8-page Fact Sheet to CWM's pre-application public meeting suggests that the information provided by the applicant to the public was sorely inadequate, even if the community were not an Environmental Justice community with respect to disproportionate burden. The application should be re-noticed with a more relevant public information process regarding permit conditions required by the applicant.</p> <p><b>Response:</b> The pre-application meeting was held by CWM in compliance with 6 NYCRR 373-1.10 of the regulations. Expanded Public Participation requirements are applicable to renewal applications where the applicant is proposing major Permit modifications. Therefore, it is NYSDEC's understanding that CWM's pre-application meeting and other expanded public participation activities were conducted primarily to present information to the public with regard to these modifications. In its review of the renewal application, NYSDEC reviewed the information CWM provided at the public meeting and other documentation related to expanded public participation, and determined that they had fulfilled the applicable regulatory requirements (6 NYCRR 373-1.10). NYSDEC does not consider any re-noticing of the application to be necessary. Also, see NYSDEC's Response to Comment #39.</p> <p><b>Revisions:</b> None</p>
57	1/15/2010 Pre-Applic. Meeting Letter, CWM Fact Sheet	<p><b>Comment:</b> The January 2010 public meeting did not accurately describe changes to the permit - that the types of waste landfilled is being expanded (whether via modifications or the renewal permit) the amount of material processed (stabilization) is proposed to increase by 50% are just a few examples. There was no discussion of yet another Corrective Action and the outcomes of prior Corrective Actions (which led to more Corrective Actions)</p> <p><b>Response:</b> From review of CWM's application, NYSDEC determined that all major Permit modifications which CWM proposed in its original February 2010 Permit renewal application were previously presented to the public through the pre-application process required under 6 NYCRR 373-1.10 of the regulations. However, in subsequent revisions of their application, CWM proposed some additional major Permit modifications which include those mentioned in this comment. NYSDEC does not consider that there is either a need nor a regulatory requirement to repeat pre-application activities once they have been completed and the renewal application has been submitted, even if additional major modifications are proposed by the applicant subsequent to the application's original submission. It should be noted however, that these additional major modifications were presented for public review through the Permit renewal process, in compliance with 6 NYCRR 373-1.7 and 621.</p> <p><b>Revisions:</b> None</p>

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58	1/15/2010 Pre-Applic. Meeting Letter, Public Meeting Roster	<p><b>Comment:</b> There are no reports of community comments, concerns or questions from the public meeting regarding the application which CWM conducted, included in the application. Were any provided to DEC?</p> <p><b>Response:</b> All information pertaining to CWM's expanded public participation, including its pre-application meeting, was provided to the NYSDEC by CWM letter dated January 15, 2010 which is presented in CWM's Permit renewal application. No other additional information regarding CWM's pre-application meeting was provided to NYSDEC.</p> <p><b>Revisions:</b> None</p>
59	1/15/2010 Pre-Applic. Meeting Letter, Public Comment, Lewiston News Article	<p><b>Comment:</b> It appears CWM included a December 2009 newspaper article in the application regarding the Town of Lewiston code revision to preclude processing of treated hazardous industrial wastewater. The article reports CWM threatened to sue the Town. What is the purpose for inclusion of this article?</p> <p><b>Response:</b> The December 2009 newspaper article appears to be part of a public comment letter submitted to CWM during the pre-application public process, and as such was included in the application by CWM with this public comment letter.</p> <p><b>Revisions:</b> None</p>
60	Application, Section A, Part A, Pg. 1 of 4	<p><b>Comment:</b> CWM's location (as opposed to its mailing address) was incorrect on its RCRA identification form. The location asks for the name of the City Town or Village. In this case, the entrance to CWM is located in the Town of Porter. Model City is not a municipality. The Site Identification form should be corrected.</p> <p><b>Response:</b> NYSDEC acknowledges this comment, and considers it to be correct with respect to the site location being the Town of Porter, not Model City as indicated on the RCRA form. Although this form was submitted as part of CWM's renewal application, it was included as Attachment A in the Draft Permit. Therefore, NYSDEC has modified the form in Attachment A to correct this error as indicated below. It should also be noted that Page 4 of 4 in the form has been revised so that the signature of the CWM Facility Manager is updated to reflect this and other form modifications.</p> <p><b>Revisions:</b> Item 4, "Site Location Information" on Page 1 of 4 in Attachment A of the Permit form has been revised as follows:</p> <p>"City, Town or Village: <del>Model City</del> Porter"</p>

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61	Application, Section A, Part A, Pg. 1of4	<p><b>Comment:</b> The CWM RCRA Site Identification form also notes the "Date Became Operator" as 1996. Should this be corrected to reflect the date the parent company purchased the facility, circa 1984? This is a sitewide permit, not merely an RMU-1 permit.</p> <p><b>Response:</b> NYSDEC partially agrees with this comment, in that there is an error in the date on which "CWM" became the operator of the facility, which is indicated on the RCRA form. According to CWM's facility description, the current company known as CWM Chemical Services, L.L.C. became the operator of the facility in 1998, which was reflected in a revised RCRA Part A Application submitted to NYSDEC on February 3, 1998. Also, based on NYSDEC's review of the property deed for this facility, CWM Chemical Services, L.L.C. became the legal owner of the facility property on August 22, 2006 through a property transaction with "Waste Management of New Jersey, Inc., and as such, the date indicated on the RCRA form on which "CWM" became the legal owner of the property is also incorrect. Although this form was submitted as part of CWM's renewal application, it was included as Attachment A in the Draft Permit. Therefore, NYSDEC has modified the form in Attachment A to correct these errors as indicated below. It should also be noted that Page 4 of 4 in the form has been revised so that the signature of the CWM Facility Manager is updated to reflect this and other form modifications.</p> <p><b>Revisions:</b> Item 9, "Legal Owner and Operator of the Site" on Page 1 of 4 in Attachment A of the Permit form has been revised as follows:</p> <p>"Date Became Owner: <del>01/30/1996</del>08/22/2006" "Date Became Operator: <del>01/30/1996</del>01/30/1998"</p>
62	Application, Section A, Part A, Pg. 2of4	<p><b>Comment:</b> The CWM RCRA Site Identification form states that CWM is not permitted as a Transfer facility, however, CWM makes numerous transshipments from its Porter location. This permit should expressly state that CWM does not have a permit to act as a transfer station, and that transshipments, regardless of duration of interim storage, may arise only from its hazardous waste land disposal operation of RMU-1, (expected to conclude in approximately 12 months.)</p> <p><b>Response:</b> The activities authorized by this Permit are expressly indicated on Page 1 of 5 of the permit, and do not include operation as a Transfer Facility. Furthermore, since this RCRA form is part of the Permit (Permit Attachment A) and the box on the form for "Transfer Facility" is not checked, it also indicates that CWM is not a transfer facility. However, the Permit does authorize CWM to conduct Commingling and Blending of hazardous waste for off-site thermal destruction (see Permit Module VIII). Since these processes entail waste treatment, receipt and subsequent off-site shipment of such wastes is not considered to be a straight transfer of hazardous waste, and as such CWM is not considered to be a "Transfer Facility".</p> <p><b>Revisions:</b> None</p>

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63	Application, Section A, Part A, Form, Pg. 1of6	<p><b>Comment:</b> CWM's EPA Permit Information form reflects an expiration date of July 31, 2012. Please provide documentation evidencing EPA has extended it permit. The EPA form also incorrectly reflects the RMU-2 application as separate from the sitewide permit.</p> <p><b>Response:</b> The July 31, 2012 expiration date located on the top of Pages 1 through 6 on the RCRA form, is meant to indicate the form's expiration date, not a Permit expiration. The current version of this form has an expiration date of December 31, 2014, and as such this version should be the one used for this CWM Permit renewal.</p> <p>With respect to the listing of the RMU-2 application on the RCRA form, NYSDEC acknowledges this comment in that it should be identified as a Permit "modification" application, and not as a separate application.</p> <p>Although this form was submitted as part of CWM's renewal application, it was included as Attachment A in the Draft Permit. Therefore, NYSDEC has replaced the form in Attachment A with the updated version and corrected the identified errors as indicated below. It should also be noted that Page 4 of 4 in the form has been revised so that the signature of the CWM Facility Manager is updated to reflect this and other form modifications..</p> <p><b>Revisions:</b> Item 5.C., "Other Environmental Permits - Descriptions" on Page 1 of 6 in Attachment A of the Permit form has been revised as follows:</p> <p>"000225 <del>RMU-2</del> Part 373 <del>RMU-2 Haz Waste</del> Permit <b>Modification</b> (pending)"</p>
64	Application, Section A, Part A, Form, Pg. 6of6	<p><b>Comment:</b> The permitted annual disposal volume has not come close to the limit of 425,000 tons since 1999 and should be reduced to 175,000 tons in 2013 and 100,000 in 2014, and 30,000 tons through 2015 and -0- thereafter to reflect the present operating structure and diminishing capacity. The permit conditions should not be allowed to survive and conflict with the air space limitations. And without air space, all treatment and storage conditions should be similarly extinguished as they would then represent a material change to the applicant's operation both environmentally and economically in a way that was never contemplated by a Siting Board.</p> <p><b>Response:</b> See NYSDEC's Response to Comment #35.</p> <p><b>Revisions:</b> None</p>
65	Application, Section A, Part A, Form, Pg. 6of6	<p><b>Comment:</b> The volume exemption for remedial waste should also be removed in its entirety, or limited to approval on a case-by-case basis by the DEC Commissioner - not a delegate, but by the Commissioner or Acting Commissioner. Given the unnecessary "big dumps" from RODs revisions from treatment to landfill, an exemption warrants this level of attention, whether on the front page of the <i>Buffalo News</i> again, or not.</p> <p><b>Response:</b> The volume exemption from the annual RMU-1 landfill waste disposal cap for remedial waste, as indicated by Condition E.1.a.i of Exhibit F in Schedule 1 of Module I of the Permit is intended help facilitate the clean-up of contaminated sites in New York State. NYSDEC sees no reason to eliminate or modify this condition with respect to RMU-1.</p> <p><b>Revisions:</b> None</p>

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66	Application, Section A, Part A, Form, Pg. 6of6	<p><b>Comment:</b> A sublimit for non-hazardous industrial waste should be established to reflect current operating structure and diminishing capacity.</p> <p><b>Response:</b> Condition E.1.a.i of Exhibit F in Schedule 1 of Module I of the Permit places an annual cap on the total amount of waste (both hazardous and non-hazardous) which can be disposed of in RMU-1 in a given year, with exception of remedial waste. NYSDEC does not find a sublimit on non-hazardous waste to be necessary with respect to RMU-1. Also, see NYSDEC's Response to Comment #35.</p> <p><b>Revisions:</b> None</p>
67	Application, Section A, Part A, Form, Facility Photos	<p><b>Comment:</b> The 2001 photos of the facility included in the application are inappropriate to this renewal as they do not represent the current conditions at the site. For example, Fac Pond 8 is no longer full of water.</p> <p><b>Response:</b> NYSDEC does not consider it necessary to provide replacement photos at this time, since there have not been any substantial changes to the facility.</p> <p><b>Revisions:</b> None</p>
68	Application, Section B, Pg.B-2	<p><b>Comment:</b> The facility description should disclose the length of the pipeline for Outfall #1. This is important to understanding the qualification done on only one end of the pipeline</p> <p><b>Response:</b> NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM's application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions.</p> <p><b>Revisions:</b> None</p>
69	Application, Section B, Pg.B-2	<p><b>Comment:</b> Facility description should note the ground location relative to feet above sea level with a reference to the source and date of that information (given changes in sea level since 1971 inception of operations.)</p> <p><b>Response:</b> NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM's application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions.</p> <p><b>Revisions:</b> None</p>
70	Application, Section B, Pg.B-2	<p><b>Comment:</b> Facility description should also note the ground location relative to feet above Lake Ontario level with a reference to the source and date of that information (given changes since 1971 inception of operations.)</p> <p><b>Response:</b> NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM's application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions.</p> <p><b>Revisions:</b> None</p>

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71	Application, Section B, Pg.B-3	<p><b>Comment:</b> Facility description should identify what evidence there is to show Hydrology reports that are 26 years old are reflective of current conditions.</p> <p><b>Response:</b> NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM's application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions. Also, with respect to the topic raised by this comment, the Facility provides annual updates as part of the Annual reports. All data collected and analyses performed are consistent with previously submitted reports.</p> <p><b>Revisions:</b> None</p>
72	Application, Section B, Pg.B-3	<p><b>Comment:</b> Facility description for hydrology and surface water should note findings of DEC and US Army Corps that the upper and lower groundwater zones are connected, and that the upper zone charges surface waters.</p> <p><b>Response:</b> NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM's application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions.</p> <p><b>Revisions:</b> None</p>
73	Application, Section B, Pg.B-3	<p><b>Comment:</b> There is no description of the high water table at the site, and the seasonal variations which can often bring the table near or to the surface. This should be included in the site geology description and is another example of climate changes which render 20-28 year old geological documents irrelevant to much of the design for the existing site monitoring well system.</p> <p><b>Response:</b> NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM's application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions. Also, with respect to the topic raised by this comment, the high water table and seasonal changes in the water table are consistent with low permeability geologic materials with high clay content. This condition has occurred since it was deposited at the end of the most recent glacial epoch.</p> <p><b>Revisions:</b> None</p>
74	Application, Section B, Pg.B-3	<p><b>Comment:</b> All references to the SPDES permit in this application should make clear that a DEC-initiated SPDES permit modification has been pending for 3 years, based on issued identified by the Water Division 10 years ago.</p> <p><b>Response:</b> NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM's application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions.</p> <p><b>Revisions:</b> None</p>



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75	Application, Section B, Pg.B-3	<p><b>Comment:</b> Facility description implies that all stormwater is gated and sampled before gates are opened. Has this ever been the case? If so, since what date?</p> <p><b>Response:</b> The Surface Water Sampling and Analysis Plan in Attachment M of both the previous and new Permit requires CWM to visually inspect accumulated surface water and sample it for specific conductance analysis prior to opening control gates and releasing this water to SPDES Outfalls. This procedure has been followed by CWM in the past each time surface water is released based on precipitation volume/frequency.</p> <p><b>Revisions:</b> None</p>
76	Application, Section B, Pg.B-4	<p><b>Comment:</b> Facility description land use statistics should reference the source and date of that information.</p> <p><b>Response:</b> NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM's application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions.</p> <p><b>Revisions:</b> None</p>
77	Application, Section B, Pg.B-4	<p><b>Comment:</b> The Market location should be accompanied by statistics reflecting the source of waste disposed. The vast majority of the 8.5 million+ tons disposed in CWM landfills, to date, originated from outside NY State and even more from outside WNY. The description as presently drafted suggests the opposite.</p> <p><b>Response:</b> NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM's application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions. Also, see NYSDEC's Response to Comment #10 with respect to the topic raised by this comment.</p> <p><b>Revisions:</b> None</p>
78	Application, Section B, Pg.B-5	<p><b>Comment:</b> The facility description should disclose that in addition to low level radioactive waste, high level radioactive waste was also shipped to the CWM property from the Knolls Atomic Power laboratory reactor.</p> <p><b>Response:</b> NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM's application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions. Also, with respect to the topic raised by this comment, "High Level Waste" is defined as originating from the nuclear power cycle. The materials shipped to the Niagara Falls Storage Site do not qualify as high level waste.</p> <p><b>Revisions:</b> None</p>

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79	Application, Section B, Pg.B-6	<p><b>Comment:</b> Site History ignores the Castle Garden dumpsite, the Knolls Atomic Power Laboratory (Naval nuclear reactor shipments) to CWM property, etc.</p> <p>The following statement is inaccurate: “The NYS Department of Health and the NYSDEC oversaw these remedial efforts by the AEC and DOE.” It should be revised in the facility description to reflect jurisdiction or lack thereof that state agencies had over federal clean ups in both instances.</p> <p><b>Response:</b> NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM’s application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions.</p> <p><b>Revisions:</b> None</p>
80	Application, Section B, Pg.B-6	<p><b>Comment:</b> The application or draft permit must be updated to incorporate issues related to Climate Change. A floodplain study in 1993 does not seem relevant to heavier rainfall events in recent years documented at the site as well as potentially flood issues over the next 17 years. Reference: “Consequently, CWM contracted Wehran to perform a detailed floodplain study of Twelve Mile Creek specifically with respect to RMU-1. The conclusions of the resultant Wehran report, dated February 16, 1993”</p> <p><b>Response:</b> NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM’s application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions.</p> <p><b>Revisions:</b> None</p>
81	Application, Section B, Pg.B-6	<p><b>Comment:</b> Wind Rose data from 1994 is not sufficiently recent and should be updated for this application and draft permit. In addition to measurement dates, frequency of measurements should also be referenced</p> <p><b>Response:</b> NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM’s application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions.</p> <p><b>Revisions:</b> None</p>
82	Application, Section B, Pg.B-6	<p><b>Comment:</b> CWM property is not 1.9 miles from Creek Rd. and also 1.9 miles from School property. This should be corrected to, at a minimum, calculate the distance between the eastern property line of the school and the western property line of CWM which constitutes the distance between the nearest locations of CWM and school property.</p> <p><b>Response:</b> NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM’s application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions.</p> <p><b>Revisions:</b> None</p>

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83	Application, Section B, Pg.B-6	<p><b>Comment:</b> The surrounding "general" land use description should include the trailer park across from CWM property, the homes on Balmer, etc., the Walleye Hatchery, the farms - not just "industrial and government" related uses.</p> <p><b>Response:</b> NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM's application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions.</p> <p><b>Revisions:</b> None</p>
84	Application, Section B, Pg.B-6	<p><b>Comment:</b> The Seismic considerations are inappropriately dismissed citing relevance to only one of the applicable regulations. What activity has occurred in the region during a retrospective period of time appropriate to a "permanent" warehouse for hazardous waste? And what prospective period of seismic analysis is appropriate if it were required to remove all waste to an alternate location?</p> <p>“(7) a seismic analysis for new landfills, lateral expansions of existing landfills, and subsequent development of any landfill permitted pursuant to these provisions located in a seismic impact zone, as defined in subparagraph (i) of this paragraph. Such analysis must use reasonable judgment that addresses the serviceable life of the landfill, its internal components and its related appurtenances. At a minimum, the analysis must demonstrate that all long-term containment structures including liners, leachate collection and removal systems, and surface water control systems, are designed to retain a minimum factor of safety of 1.0, unless otherwise approved by the department, to resist the maximum horizontal acceleration for the site as defined in subparagraph (ii) of this paragraph:</p> <p>(i) seismic impact zone means an area with a 10 percent or greater probability that the maximum horizontal acceleration in lithified earth material, expressed as a percentage of the earth's gravitational pull (g), will exceed 0.10g in 250 years as delineated on the most current version of the United States Geological Survey Map - MF 2120 entitled Probabilistic Earthquake Acceleration and Velocity Maps for the United States and Puerto Rico by S. T. Algermissen, D. M. Perkins, P.C. Thenhaus, S. L. Hanson, and B. L. Bender - 1990 or other equivalent seismic impact zone map approved by the department;</p> <p>(ii) maximum horizontal acceleration in lithified earth material means the maximum expected horizontal acceleration depicted on a seismic hazard map, with a 90 percent or greater probability that the acceleration will not be exceeded in 250 years, or the maximum expected horizontal acceleration based on a site-specific seismic risk assessment;</p> <p>(iii) lithified earth material means all rock, including all naturally occurring and naturally formed aggregates or masses of minerals or small particles of older rock that formed by crystallization of magma or by induration of loose sediments. This term does not include man-made materials, such as fill, concrete, and asphalt, or unconsolidated earth materials, soil, or regolith lying at or near the earth surface;”</p> <p><b>Response:</b> Seismic analyses were performed for the CWM landfills which received Part 373 Permits at the time they were permitted. These analyses indicated that internal operational and external final waste/cover slopes of these landfills are expected to be stable during the anticipated regional seismic event based on the USGS maps showing probabilistic earthquake accelerations. There have been no seismic events since this analyses were performed which would cause an increase in the regional earthquake accelerations shown on the USGS maps, nor which would require the performance of a re-analysis of seismic stability for CWM's existing landfills.</p> <p><b>Revisions:</b> None</p>

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85	Application, Section B, Pg.B-7	<p><b>Comment:</b> The permit documents should identify the number of vehicle trips in and out of its facility and since the last permit renewal and report all incidents, wherever they occurred.</p> <p><b>Response:</b> NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM's application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions.</p> <p><b>Revisions:</b> None</p>
86	Application, Section B, Pg.B-7	<p><b>Comment:</b> Using historical vehicle data related to ave. tonnage, the permit documents should identify the number of vehicles into and out of the facility, based on the maximum disposal, storage and treatment volumes allowed under the proposed permit conditions</p> <p><b>Response:</b> NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM's application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions.</p> <p><b>Revisions:</b> None</p>
87	Application, Section B, Pg.B-7	<p><b>Comment:</b> The permit documents should identify the number of homes, businesses, churches, hospitals and schools along its designated transportation route (from the I-190) and the populations of each.</p> <p><b>Response:</b> NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM's application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions.</p> <p><b>Revisions:</b> None</p>
88	Application, Section B, Pg.B-7	<p><b>Comment:</b> RMU-1 should not be used as a temporary storage area for material awaiting analysis or characterization.</p> <p><b>Response:</b> NYSDEC acknowledges this comment, but does not see a necessity to make revisions to Section B of CWM's application at this time. NYSDEC will consider this comment with respect to future CWM site description submissions. Also, with respect to the topic raised by this comment, while this CWM Site Description indicates temporary storage in the RMU-1 landfill, Conditions in the new Permit require that any waste awaiting test results for compliance with the Land Disposal Restriction (LDR) regulations must be stored in containers within Permitted Container Storage Areas, not in the RMU-1 landfill.</p> <p><b>Revisions:</b> None</p>
89	Application, Section B, Pg.B-8	<p><b>Comment:</b> The transportation conditions from the CAC Agreement should be incorporated into the permit if it was relied upon by the RMU-1 siting board (whether formally or informally).</p> <p><b>Response:</b> The transportation conditions from the RMU-1 Siting Board decision and CAC Agreement, are located under Condition D.1 of Exhibit A in Schedule 1 of Module I of the new Permit, with a few limited modifications.</p> <p><b>Revisions:</b> None</p>

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90	Application, Section B, Pg.B-8	<p><b>Comment:</b> What are the number of hours the applicant has stationed personnel in front of the schools to measure compliance to its Transportation Rules since the last permit renewal? And what are the number of blackout hours since the last renewal?</p> <p><b>Response:</b> In response to the first question in this comment regarding the number of hours CWM has stationed personnel in front of the schools to monitor compliance with transportation conditions, NYSDEC does not have information on any such monitoring and the Permit does not require CWM to provide such information. With respect to the second question in this comment, the total number of "blackout" hours since the last renewal as required by the transportation conditions is dependent on the type of waste being transported and the number of days that CWM operated their facility over this time period. As a result, it is not possible to definitively determine a specific number of hours.</p> <p><b>Revisions:</b> None</p>
91	Application, Section B, Pg.B-8	<p><b>Comment:</b> How does the Department measure compliance for Transportation conditions it does not monitor, or require the applicant to monitor?</p> <p><b>Response:</b> NYSDEC on-site monitors will periodically check to determine if CWM is identifying transporters that are not complying with transportation conditions and if they are taking the required enforcement action with respect to such transporters. Also, see NYSDEC's Response to Comment #16.</p> <p><b>Revisions:</b> None</p>
92	Application, Section B, Pg.B-8	<p><b>Comment:</b> The Department has been asked on numerous occasions to clarify which violations, compliance issues, etc. were identified by the Department and which by the applicant, and has not supplied that information. Please indicate whether the Department can provide that information for all fines, noncompliance reports, event reports and monthly reports since the last permit renewal. Please provide whatever is available.</p> <p><b>Response:</b> In general, issues of actual or potential non-compliance identified by CWM are contained in CWM operational records and/or provided in the form of written notices of non-compliance which CWM submits to the NYSDEC. Issues of actual or potential non-compliance identified by NYSDEC are contained in NYSDEC On-Site Monitor Monthly Reports and in reports resulting from RCRA Inspections periodically performed by NYSDEC RCRA Inspectors. With respect to documents requested by this comment, the public can submit a request under the Freedom of Information Law (FOIL) to obtain relevant records.</p> <p><b>Revisions:</b> None</p>
93	Application, Section B, Pg.B-9, Fig. B-1	<p><b>Comment:</b> Figure B-1. Please provide the population size for the area pictured on the map, to include Canadian portion. Please provide the data of the original map (vs. date used by contractor)</p> <p><b>Response:</b> NYSDEC does not have information on population size associated with Figure B-1 and the Permit does not require CWM to provide such information.</p> <p><b>Revisions:</b> None</p>

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94	Application, Section B, Pg.B-10, Fig. B-2	<p><b>Comment:</b> Figure B-2. Please provide the population size for the area pictured on the map. Please provide the data of the original map (vs. date used by contractor)</p> <p><b>Response:</b> NYSDEC does not have information on population size associated with Figure B-2 and the Permit does not require CWM to provide such information.</p> <p><b>Revisions:</b> None</p>
95	Application, Section B, Pg.B-10, Fig. B-2	<p><b>Comment:</b> Figure B-2 What is the arrow over the National Guard WETS property pointing to? There is no corresponding identification.</p> <p><b>Response:</b> NYSDEC is uncertain as to what, if anything, the subject arrow is identifying.</p> <p><b>Revisions:</b> None</p>
96	Application, Section B, Pg.B-10, Fig. B-2	<p><b>Comment:</b> Figure B-2. Please clarify the difference between "PROPERTY LIMIT" and "LIMITS OF RCRA PERMITTED AREA" boundaries. Both areas appear to point to the same boundary however the map notes indicate there is an 80-acre difference.</p> <p><b>Response:</b> The total area of all RCRA Permitted units at the CWM Facility is less than the total area of the entire property. The figure's notations may be simply indicating this difference. However, it should be noted that the Permit applies to the entire facility property and does not recognize any internal limit on the RCRA Permitted area.</p> <p><b>Revisions:</b> None</p>
97	Application, Section B, Pg.B-11, Fig. B-3	<p><b>Comment:</b> Figure B-3. This map does not appear to be current. Please include a current map and the "date as of" reflected in the map.</p> <p><b>Response:</b> Figure B-3 is the most current available map of the existing CWM Facility.</p> <p><b>Revisions:</b> None</p>
98	Application, Section B, Pg.B-12, Fig. B-4	<p><b>Comment:</b> Figure B-4. Why is it relevant to use a meteorological map from Buffalo, for 1948 to 1978? What does this tell the Department about the applicant's facility, which is located in a different meteorological area?</p> <p><b>Response:</b> NYSDEC acknowledges that a wind rose from an area closer to the CWM facility may be more indicative of the site's meteorological character. However, since the application also provides a wind rose based on meteorological data collected at the facility (Figure B-5), NYSDEC has determined the Buffalo wind rose is an acceptable regional wind rose for the site.</p> <p><b>Revisions:</b> None</p>

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99	Application, Section B, Pg.B-13, Fig. B-5	<p><b>Comment:</b> Figure B-5. A 1994, 12-month wind rose is inadequate for analysis. Wind directions in the former Lake Ontario plain (below the escarpment) is seasonal. The public cannot reasonably comment on the air sampling locations without seasonal information over an extended period of time. Please provide.</p> <p><b>Response:</b> Since the site's wind rose depicted on Figure B-5 is based on an entire years worth of monitoring data, NYSDEC considers that it adequately accounts for seasonal variations in wind direction. That said, Attachment N of the Permit requires CWM to continuously monitor wind speed and direction at their site. With respect to documents requested by this comment, the public can submit a request under the Freedom of Information Law (FOIL) to obtain relevant records.</p> <p><b>Revisions:</b> None</p>
100	Application, Section B, Pg.B-13, Fig. B-5	<p><b>Comment:</b> Have there been any wind direction or velocity changes with the increasing climate changes detected in recent years? If so, has an analysis been conducted for the facility?</p> <p><b>Response:</b> NYSDEC does not have any information with respect to regional wind direction or velocity changes associated with climate change.</p> <p><b>Revisions:</b> None</p>
101	Application, Section B, Pg.B-13, Fig. B-5	<p><b>Comment:</b> Please provide annual precipitation since a) RMU-1 was sited and b) projected precipitation for each of the next 20 years.</p> <p><b>Response:</b> With respect to historic annual precipitation data, Attachment N of the Permit requires CWM to collect and record precipitation amounts at their site. Therefore, NYSDEC can provide annual precipitation data since RMU-1 was cited as requested by this comment. . The public can submit a request under the Freedom of Information Law (FOIL) to obtain relevant records. With respect to the comment's request for predicted site precipitation, NYSDEC does not have any information regarding projections of future regional precipitation.</p> <p><b>Revisions:</b> None</p>
102	Application, Section B, Pg.B-14, Fig. B-6	<p><b>Comment:</b> Which SLF's comingle leachate, prior to sampling? Which SLF's comingle leachate prior to treatment?</p> <p><b>Response:</b> Leachate from SLF 1-6, 7, 10, 11 &amp; 12 and RMU-1 is separately tested periodically prior to treatment. Leachate from SLF 1-6 goes through an oil/water separation process before the aqueous portion is co-mingled with other leachate. SLF 1-6 (aqueous phase) and SLF 10 &amp; 11 leachate is co-mingled prior to treatment in one of the main leachate storage tanks. SLF 12 &amp; RMU-1 leachate is co-mingled prior to treatment in separate leachate storage tanks from the one used for the other landfill leachate. The co-mingled SLF 12 &amp; RMU-1 leachate is treated separately from the other landfill leachate. SLF 7 leachate is separately pre-treated and shipped off-site for final treatment.</p> <p><b>Revisions:</b> None</p>

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103	Application, Section B, Pg.B-14, Fig. B-6	<p><b>Comment:</b> Why is there a Truck Movement diagram showing all site facilities, and not a Truck Movement diagram for the transportation route showing all structures (including identification of what type of structure, topography, etc.) for the Designated Transportation Route?</p> <p><b>Response:</b> Instead of a diagram, the designated truck routes into the facility are described by text in Section B-4, as well as in the transportation condition.</p> <p><b>Revisions:</b> None</p>
104	Application, Section B, Pg.B-14, Fig. B-6	<p><b>Comment:</b> The applicant would presumably be notified of the reasons for rescheduling a shipment in the event of a transportation incident or accident. Is the applicant required to notify DEC of all transportation incidents or accidents it has knowledge of, wherever located?</p> <p><b>Response:</b> The Permit does not require CWM to notify NYSDEC in the event of an off-site waste transporter incident or accident.</p> <p><b>Revisions:</b> None</p>
105	Application, Section C, Pg.C-1	<p><b>Comment:</b> The draft permit states, "The facility receives and manages virtually every type of hazardous waste identified in 6 NYCRR Subpart 371." a) what have the volumes been for each since the last permit renewal? b) if the relative volumes were to change in the future, would DEC revised the WAP?</p> <p><b>Response:</b> General information on the waste types received by CWM is routinely recorded in NYSDEC On-Site Monitor Monthly Reports which are publically available. If substantial changes occurred in the amounts of waste types managed by CWM, NYSDEC would evaluate the need for revisions to the WAP. With respect to documents requested by this comment, the public can submit a request under the Freedom of Information Law (FOIL) to obtain relevant records.</p> <p><b>Revisions:</b> None</p>
106	Application, Section C, Pg.C-1	<p><b>Comment:</b> If the WAP is based on a certain expectation of, for example, cyanides, the WAP should include sub-limits for each waste type, to address, before, not after unanticipated changes occur - whether wastewater, or solids or sludges</p> <p><b>Response:</b> It is unclear what type of "sub-limit" for each waste type this comment is referring to (e.g., concentration limits, quantity limits, etc.). Therefore, NYSDEC cannot provide a specific response to this comment.</p> <p><b>Revisions:</b> None</p>



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Com. No.	Title / Section / Page	Comment / Response / Revisions
107	Application, Section C, Pg.C-2	<p><b>Comment:</b> Explosive, shock sensitive and pyrophoric substances, are defined by references dated 1977- 1987. Does DEC consider each of the 5 references, the most current , most protective and applicable?</p> <p><b>Response:</b> NYSDEC considers these to be applicable and appropriate references with respect to defining explosive, shock sensitive and pyrophoric substances. With respect to the currency of these references, the first 3 references all state “or most recent” edition. The last reference to the Federal regulations is considered by NYSDEC to imply inclusion of any promulgated changes to these regulations. With respect to the fourth reference, NYSDEC considers it appropriate to also indicate usage of the most recent version of this document in case newer versions are issued. Although this WAP was submitted as part of CWM’s renewal application, it was included as Attachment C in the Draft Permit. Therefore, NYSDEC has modified the WAP in Attachment C to indicate usage of the most recent version of the cited reference as indicated below.</p> <p><b>Revisions:</b> The fourth reference on Page C-2 of the Waste Analysis Plan in Attachment C of the Permit has been revised as follows:   <u>“Chemistry of Hazardous Materials, Eugene Meyer, Prentice-Hall, Inc., Englewood Cliffs, NY, 1977 (or most recent version).”</u></p>
108	Application, Section C, Pg.C-3	<p><b>Comment:</b> How many waste approvals has DEC declined since the last permit renewal?</p> <p><b>Response:</b> NYSDEC does not track the total number of CWM submitted waste approval requests which NYSDEC has declined to approve since the last renewal and therefore cannot provide a specific response to the question posed in this comment.</p> <p><b>Revisions:</b> None</p>
109	Application, Section C, Pg.C-3	<p><b>Comment:</b> How many waste approvals has DEC approved since the last permit renewal?</p> <p><b>Response:</b> NYSDEC does not track the total number of CWM submitted waste approval requests which NYSDEC has approved since the last renewal and therefore cannot provide a specific response to the question posed in this comment.</p> <p><b>Revisions:</b> None</p>
110	Application, Section C, Pg.C-3	<p><b>Comment:</b> Does DEC keep a copy of all Waste Approvals in its possession?</p> <p><b>Response:</b> NYSDEC maintains a summary sheet of waste approvals. The public can submit a request under the Freedom of Information Law (FOIL) to obtain relevant records.</p> <p><b>Revisions:</b> None</p>
111	Application, Section C, Pg.C-3	<p><b>Comment:</b> Does DEC require the applicant scan all soils disposed at the facility at a depth not to exceed 6 inches?</p> <p><b>Response:</b> NYSDEC does not require scanning in 6 inch depth intervals of soils disposed at the facility. However, CWM radiologically scans all incoming waste loads with a hand held detector.</p> <p><b>Revisions:</b> None</p>

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Com. No.	Title / Section / Page	Comment / Response / Revisions
112	Application, Section C, Pg.C-3	<p><b>Comment:</b> For waste received from FUSRAP and similar sites, does DEC require analysis for all radioisotopes known to have been present on those sites, prior to acceptance? Prior to land disposal?</p> <p><b>Response:</b> NYSDEC does not require CWM to conduct additional analysis for radioisotopes on wastes which CWM might receive from FUSRAP or similar sites. However, the WAP requires radioactivity screening on all pre-acceptance waste samples (except for specifically listed wastes were pre-acceptance samples are not required) and on each waste load arriving at the facility.</p> <p><b>Revisions:</b> None</p>
113	Application, Section C, Pg.C-3	<p><b>Comment:</b> WAP - pg. C-3. What is the "Background" level established for the facility? How much higher is this level when compared to the Background level established by the Army Corps of Engineers for the Lewiston-Porter School campus?</p> <p><b>Response:</b> NYSDEC is uncertain whether this comment is referring to the wastes accepted by the CWM facility or the facility property. With respect to wastes, see NYSDEC's Response to Comment 48-114 below. With respect to the facility property, NYSDEC has not established a single radiological "Background" level applicable to the entire facility. CWM's Site Survey Plan and Generic Small Project Soil Monitoring and Management Plan which have been approved by NYSDEC use a reading of 16,000 counts per minute (CPM) to determine if further investigation is warranted based on a general background in the range of 10,000 cpm. However, NYSDEC may consider lower readings as being above background if such readings are significantly above those obtained from the immediately surrounding area. Also, NYSDEC would agree that the Background level established by the Army Corps of Engineers for the Lewiston-Porter School campus may be appropriate for areas of the CWM property that contain natural soils indigenous to the region.</p> <p><b>Revisions:</b> None</p>
114	Application, Section C, Pg.C-3	<p><b>Comment:</b> What are considered "trace" levels of radioactive wastes? Please indicate the # of approvals since RMU-1 was permitted, and the # of approvals since the last permit renewal.</p> <p><b>Response:</b> NYSDEC has not established specific numerical values as to what would be considered as "trace levels slightly above background" with respect to radioactivity and the waste approval process. However, NYSDEC has provided correspondence to CWM in 1999 which included specific examples of wastes which NYSDEC would consider as having concentrations of radioactive material above "trace" levels and therefore not to be considered for disposal at the CWM facility. The correspondence also states that NYSDEC decisions on other wastes potentially containing radiological constituents would be made on a case-by-case basis.</p> <p>NYSDEC does not track the total number of waste approvals under Item 6 on Page C-2 of the WAP since RMU-1 was Permitted or the last renewal and therefore cannot provide a specific response to the question posed in this comment.</p> <p><b>Revisions:</b> None</p>
115	Application, Section C, Pg.C-3	<p><b>Comment:</b> What are considered "trace" levels of shock sensitive wastes? Please indicate the # of approvals since RMU-1 was permitted, and the # of approvals since the last permit renewal.</p> <p><b>Response:</b> NYSDEC has not established specific numerical values as to what would be considered as "trace levels slightly above background" with respect to shock sensitivity and the waste approval process. NYSDEC has not approved, nor has CWM requested approval of wastes containing shock sensitive material.</p>

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		<b>Revisions:</b> None
116	Application, Section C, Pg.C-3	<p><b>Comment:</b> What are considered "trace" levels of pyrophoric wastes? Please indicate the # of approvals since RMU-1 was permitted, and the # of approvals since the last permit renewal.</p> <p><b>Response:</b> NYSDEC has not established specific numerical values as to what would be considered as "trace levels slightly above background" with respect to pyrophoric material and the waste approval process. NYSDEC has not approved, nor has CWM requested approval of wastes containing pyrophoric material.</p> <p><b>Revisions:</b> None</p>
117	Application, Section C, Pg.C-3	<p><b>Comment:</b> What are considered "trace" levels of etiologic wastes? Please indicate the # of approvals since RMU-1 was permitted, and the # of approvals since the last permit renewal.</p> <p><b>Response:</b> NYSDEC has not established specific numerical values as to what would be considered as "trace levels slightly above background" with respect to etiologic material and the waste approval process. NYSDEC has not approved, nor has CWM requested approval of wastes containing etiologic material.</p> <p><b>Revisions:</b> None</p>
118	Application, Section C, Pg.C-3	<p><b>Comment:</b> How many industrial non-hazardous waste streams have been approved for "modified" analytical procedures since the last permit renewal?</p> <p><b>Response:</b> NYSDEC does not track the total number of non-hazardous waste streams which have been approved for "modified" analytical procedures since the last renewal and therefore cannot provide a specific response to the question posed in this comment.</p> <p><b>Revisions:</b> None</p>
119	Application, Section C, Pg.C-3	<p><b>Comment:</b> Does the permit require DEC to approve all non-hazardous waste shipments? If so, which require approval?</p> <p><b>Response:</b> Condition E.1.b of Exhibit F in Schedule 1 of Module I of the Permit requires NYSDEC approval of all waste for land disposal at the facility (i.e., both hazardous and non-hazardous).</p> <p><b>Revisions:</b> None</p>
120	Application, Section C, Pg.C-3	<p><b>Comment:</b> What is the volume of non-hazardous waste shipped to the facility, in each year since the last permit renewal?</p> <p><b>Response:</b> NYSDEC does not track actual annual total amounts of non-hazardous waste shipped to the CWM facility since the last renewal. However, NYSDEC does have estimated volumes of non-hazardous waste disposed of annually in CWM's RMU-1 landfill from 2005 through 2011 which are based on annual quantities of hazardous waste reported to NYSDEC by CWM and total waste disposal volumes estimated from CWM quarterly landfill surveys. These estimated non-hazardous annual waste volumes, in cubic yards (cy), are as follows: 2005: <u>45,872 cy</u>; 2006: <u>70,189 cy</u>; 2007: <u>31,733 cy</u>; 2008: <u>17,611 cy</u>; 2009: <u>21,388 cy</u>; 2010: <u>12,900 cy</u>; and 2011: <u>14,750 cy</u>.</p> <p><b>Revisions:</b> None</p>

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121	Application, Section C, Pg.C-3	<p><b>Comment:</b> If DEC does not require the applicant to report the volume of non-hazardous waste to the facility, why? How would DEC otherwise confirm actual shipments vs. air space utilization?</p> <p><b>Response:</b> NYSDEC does not require CWM to report non-hazardous waste volumes. However, NYSDEC does estimate the non-hazardous waste volumes disposed of in RMU-1 as indicated the NYSDEC Response to Comment 48-120 above. NYSDEC considers this provides us with adequate information with respect to how CWM is utilizing the RMU-1 air space.</p> <p><b>Revisions:</b> None</p>
122	Application, Section C, Pg.C-69	<p><b>Comment:</b> Please list all 6 NYCRR 373-2.2(e) requirements and identify, for each, whether other states permitting similar facilities have more restrictive requirements or guidelines for any. Please also identify any temporary or ongoing waivers or exemptions DEC has provided for this applicant since the RMU-1 permit was approved that were less restrictive than the current policy or guidelines existing in other states hosting this type of facility (ex. Michigan, Ohio, Indiana, Alabama, Utah, Idaho, Texas, California, Oregon, Oklahoma, Washington). The Waste Analysis Plan does not ensure safety, however, it potentially reduces the fires, explosions and reactions in the landfill, the stabilization pit, in handling and for applicable standards, transportation. To date, the applicant has saved millions and millions of dollars in sampling expense due to DEC exemptions, which have been unrelated to volume or waste type or waste source, and therefore, wholly unrelated to risk for worker and public safety. Please be sure to distinguish between screening and sampling. This is important because the draft permit states, "The purpose of the inspection, sampling or analysis when a waste material arrives at the site is to ensure that the shipped waste matches the description of the waste designated on the accompanying manifest or shipping paper and WPS. Therefore, CWM can often use a less comprehensive sampling approach. . ." Again, this makes it important to separately compare "Mandatory" and "Supplemental" policy and guidelines in other states. Given that very little of the applicant's hazardous waste volume is recurring, and very little from sources expected to have narrow variability, a detailed review and explanation from the Department is warranted, particularly because this a land disposal facility, which in contrast to all other types of facilities, manages the waste accepted, forever.</p> <p><b>Response:</b> NYSDEC acknowledges the concerns and sentiment expressed in this comment. However, with respect to the requested information, NYSDEC does not have records or other documents containing this information and therefore cannot provide the specific information requested in this comment.</p> <p><b>Revisions:</b> None</p>
123	Application, Section C, Pg.C-71	<p><b>Comment:</b> Please list all hazardous wastes in 6 NYCRR Subpart 371 which could not be detected under the applicant's "Mandatory" screening. This is requested because the applicant acknowledges it "manages virtually every type of hazardous waste identified in 6 NYCRR Subpart 371." A response organized for the categories broken out in Table C-3 would be useful, or whatever format the Dept. believes is appropriate to public understanding.</p> <p><b>Response:</b> NYSDEC does not have records specifically listing all hazardous wastes that could not be detected under CWM's "Mandatory" screening process and therefore cannot provide a specific response to the request made in this comment.</p> <p><b>Revisions:</b> None</p>

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124	Application, Section C, Pg.C-71	<p><b>Comment:</b> Please explain how a "small cartridge of explosives" circumvented Mandatory Analyses in 2007. Please provide every document related to the size, volume and description of this material that DEC has access or authority to obtain.</p> <p><b>Response:</b> Assuming NYSDEC and the person making this comment are referring to the same incident, the arrival of "small cartridge of explosives" at the CWM facility was the result of an improper characterization of the waste stream by the Generator. However, CWM identified the explosives in the waste shipment and took appropriate action to manage the small cartridge. Should NYSDEC identify any documents specific to this incident, they will be provided to the person making this comment within 15 days of the issuance of this Responsiveness Summary.</p> <p><b>Revisions:</b> None</p>
125	Application, Section C, Pg.C-72	<p><b>Comment:</b> What safeguards are in place to prevent storage of "unwitting explosives" in proximity to ignitables or potential flammables?</p> <p><b>Response:</b> The Permit does not allow the storage of explosive wastes at the facility since they are not specifically listed in the WAP. There are a number of screening processes in the WAP and inspection requirements in the Permit which provide safeguards against potential storage of explosive waste.</p> <p><b>Revisions:</b> None</p>
126	Application, Section C, Pg.C-73	<p><b>Comment:</b> Specific Comment #111 applies to this page.</p> <p><b>Response:</b> See NYSDEC's Response to Comment #48-111.</p> <p><b>Revisions:</b> None</p>
127	Application, Section C, Pg.C-74	<p><b>Comment:</b> Please indicate what volume of waste for each truckload is screened for radioactivity, and how.</p> <p><b>Response:</b> CWM radiologically scans all incoming waste loads with a hand held detector.</p> <p><b>Revisions:</b> None</p>
128	Application, Section C, Pg.C-74	<p><b>Comment:</b> Please list "miscellaneous special wastes"</p> <p><b>Response:</b> "Miscellaneous special wastes" are wastes which do not require a representative sample and are listed under Section C-2d(1)(a) of the WAP.</p> <p><b>Revisions:</b> None</p>
129	Application, Section C, Pg.C-74	<p><b>Comment:</b> Are there any categories of waste that do not require Mandatory analysis (i.e., screening) other than special wastes? If so, please list.</p> <p><b>Response:</b> In general, there are other wastes which are not amenable to some of the tests associated with Mandatory analysis. These wastes are generally described with the tests listed under Section C-2b(1) of the WAP.</p> <p><b>Revisions:</b> None</p>

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130	Application, Section C, Pg.C-74	<p><b>Comment:</b> DEC has access to the number of hazardous waste truckloads to the facility. Since the last permit renewal and since RMU-1 was sited, how many trucks carrying hazardous waste have arrived at the facility in each year? (provide the "as of " date please.)</p> <p><b>Response:</b> NYSDEC does not track the total number of trucks carrying hazardous waste to the CWM facility in each year and therefore cannot provide a specific response to the question in this comment. However, there are records with similar information (e.g., manifests, annual reports) which the public can submit a request under the Freedom of Information Law (FOIL) to obtain.</p> <p><b>Revisions:</b> None</p>
131	Application, Section C, Pg.C-75	<p><b>Comment:</b> Since the last permit renewal and since RMU-1 was sited, how many of the total incoming trucks were sampled by the generator and how many by the applicant, and how many be neither in each year? This is not only important information for the community but important for Department to consider for the overall effectiveness of its conditions versus other U.S. facilities. Because a small portion of the applicant's waste is primary waste, the sampling per truck for facility should be higher than most or almost all other U.S. facilities. For example, choosing the highest concentration for only one contaminant from a dredging is not going to identify potentially large concentrations of another contaminant - variability is typically very high in sediment, and there are typically many unanticipated findings in dredging.</p> <p><b>Response:</b> NYSDEC does not track the total number of trucks sampled by CWM or Generators since the last permit renewal or since RMU-1 was sited and therefore cannot provide a specific response to the question in this comment. .</p> <p><b>Revisions:</b> None</p>
132	Application, Section C, Pg.C-80	<p><b>Comment:</b> Why is page C-80 of the WAP, blank?</p> <p><b>Response:</b> This page was apparently inadvertently left blank in the version of the WAP which is in the CWM Permit renewal application. The WAP in Attachment C of the Permit has no such blank page.</p> <p><b>Revisions:</b> None</p>
133	Application, Section C, Pg.C-83	<p><b>Comment:</b> please define "SDP"</p> <p><b>Response:</b> "SDP" stands for "Standard Division Practice".</p> <p><b>Revisions:</b> None</p>
134	Application, Section C, Pg.C-83	<p><b>Comment:</b> The draft permit includes conditions for analysis of waste in Impoundments. Please explain the location and size of these impoundments, and the limits if any for waste volumes or types in these Impoundments.</p> <p><b>Response:</b> The sampling procedures for impoundments are likely meant to apply to the Facility's Facultative (Fac) Ponds. The locations of these Fac Ponds are depicted on Figure A-2 in Attachment A of the Permit. The sizes, capacities and wastes contained in these impoundments are presented in Exhibit E in Schedule 1 of Module I and Appendix D-2 in Attachment D of the Permit.</p> <p><b>Revisions:</b> None</p>

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135	Application, Section C, Pg.C-83	<p><b>Comment:</b> "C-2c(2)(d)" is vague as to what sampling is required and when for material in Impoundments.</p> <p><b>Response:</b> NYSDEC would agree that the impoundment sampling described in Section C-2c(2)(d) is in general terms. However, the detailed sampling requirements for the Fac Ponds prior to discharge are presented in CWM's SPDES Permit. Also, CWM must obtain NYSDEC approval of the analytical results from this pond sampling prior to each discharge as required by Section C-2f(2)(b) of the WAP in Attachment C of the Permit.</p> <p><b>Revisions:</b> None</p>
136	Application, Section C, Pg.C-84	<p><b>Comment:</b> Why would DEC not include guidance for "LDR Grab" sampling? Whether EPA has promulgated policy does not seem justification to leave it up to the applicant.</p> <p><b>Response:</b> Although this WAP was submitted as part of CWM's renewal application, it was included as Attachment C in the Draft Permit. In a comment on the Draft Permit (see Comment #78 in Section II of this Responsiveness Summary), CWM requested that the text of Section C-2c(2)(e) of the WAP be modified. NYSDEC has agreed with this CWM request and modified the section as requested. NYSDEC considers that this modification clarifies the matter of LDR "Grab" sampling and removes the somewhat ambiguous text regarding possible future changes to EPA guidance. The specific modification is indicated below.</p> <p><b>Revisions:</b> Section C-2c(2)(e) on Pages C-77 &amp; C-78 of the Waste Analysis Plan in Attachment C of the Permit has been revised as follows:</p> <p><i>"The current EPA guidance for RCRA sampling is SW-846, see 40 CFR 260.11, which specifies representative and composite sampling for waste characterization. This type of sampling provides averaged concentration values or properties. The Land Disposal Restrictions, 40 CFR 268, have specified the use of "grab" sampling for most of the compliance demonstrations to the Land Disposal Restrictions BDAT treatment standards. The current EPA guidance for RCRA sampling is SW-846, see 40 CFR 260.11, which specifies representative and composite sampling. SW-846 make no difference to "grab" sampling. When industry or EPA guidance becomes available through the regulatory or SW-846 mechanism, "grab" sampling will be hereby incorporated into this document and conducted to demonstrate compliance with the Land Disposal Restrictions. Until such time, the sampling of LDR wastes will be conducted as previously identified in this document. A grab sample is a single sample taken from a particular location. For a large container, more than one grab sample may be collected. For LDR compliance, none of the samples may exceed the applicable LDR standard(s)."</i></p>

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137	Application, Section C, Pg.C-85	<p><b>Comment:</b> The following condition should be revised to require written approval from the Department and not be discretionary to the applicant. "A representative sample may not be required if CWM determines that the pre-acceptance documentation supplied by the generator gives sufficient information to maintain compliance with the permit and operational constraints and that submittal of a sample would not aid in the disposal decision process (e.g. soil with a limited number of organic contaminants for which the generator has supplied chemical analysis). In addition, a sample may be waived if handling or obtaining a sample poses an unnecessary hazard of acute or chronic exposure of CWM employees to carcinogenic (e.g., asbestos)."</p> <p><b>Response:</b> NYSDEC acknowledges the concern expressed by this comment and considers it appropriate that the NYSDEC be involved in deciding whether representative samples are not necessary in specific cases. Although this WAP was submitted as part of CWM's renewal application, it was included as Attachment C in the Draft Permit. Therefore, NYSDEC has modified the WAP in Attachment C to indicate NYSDEC's involvement in deciding the need for a representative sample as indicated below.</p> <p><b>Revisions:</b> Section C-2d(1) on Page C-79 of the Waste Analysis Plan in Attachment C of the Permit has been revised as follows:</p> <p>"A representative sample may not be required if CWM and NYSDEC determines that the pre-acceptance documentation..."</p>
138	Application, Section C, Pg.C-86	<p><b>Comment:</b> Exemptions improperly include "RCRA or RCRA/TSCA contaminated soil where appropriate analytical data has been furnished."What is appropriate? The permit should establish a standard.</p> <p><b>Response:</b> NYSDEC acknowledges this comment that the word "appropriate" without further definition leaves this particular testing exemption vague and unclear as to when such contaminated soil would be exempt. NYSDEC considers that exempting "RCRA or RCRA/TSCA contaminated soil from testing by CWM would be appropriate if the Generator provides test results which adequately characterizes the waste.</p> <p>Although this WAP was submitted as part of CWM's renewal application, it was included as Attachment C in the Draft Permit. Therefore, NYSDEC has modified the WAP in Attachment C to better clarify when "RCRA or RCRA/TSCA contaminated soil can be exempted from sampling by CWM as indicated below.</p> <p><b>Revisions:</b> Section C-2d(1)(a) on Page C-80 of the Waste Analysis Plan in Attachment C of the Permit has been revised as follows:</p> <p>"RCRA or RCRA/TSCA contaminated soil where appropriate analytical data that adequately characterizes the waste has been furnished."</p>



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139	Application, Section C, Pg.C-86	<p><b>Comment:</b> Exemptions include "Waste from a medical practitioner, hospital, medical clinic, nursing home, medical testing laboratory, mortuary taxidermist, veterinarian, veterinary hospital, or animal testing laboratory." What federal waste management documentation, if any is required for these generators?</p> <p><b>Response:</b> Although this WAP was submitted as part of CWM's renewal application, it was included as Attachment C in the Draft Permit. In a comment on the Draft Permit (see Comment #80 in Section II of this Responsiveness Summary), CWM requested that the wastes indicated in the above comment be deleted from the testing exemption list in Section C-2d(1)(a) of the WAP as CWM does not receive such wastes. NYSDEC has agreed with this CWM request and modified the section as requested. The specific modification is indicated below. Based on this change the question of federal waste management documentation does not apply to this permit renewal.</p> <p><b>Revisions:</b> Section C-2d(1)(a) on Page C-80 of the Waste Analysis Plan in Attachment C of the Permit has been revised as follows:</p> <p><del>"Waste from a medical practitioner, hospital, medical clinic, nursing home, medical testing laboratory, mortuary, taxidermist, veterinarian, veterinary hospital, or animal testing laboratory."</del></p>
140	Application, Section C, Pg.C-86	<p><b>Comment:</b> Does the permit allow CWM to effectively act as an alternative to a cemetery for humans or animals? What are the applicable state or federal manifest requirements, if any?</p> <p><b>Response:</b> Although this WAP was submitted as part of CWM's renewal application, it was included as Attachment C in the Draft Permit. In a comment on the Draft Permit (see Comment #80 in Section II of this Responsiveness Summary), CWM requested that the wastes indicated in the above comment be deleted from the testing exemption list in Section C-2d(1)(a) of the WAP as CWM does not receive such wastes. NYSDEC has agreed with this CWM request and modified the section as requested. The specific modification is indicated below. Based on this change the question of federal waste management documentation does not apply to this permit renewal.</p> <p><b>Revisions:</b> Section C-2d(1)(a) on Page C-80 of the Waste Analysis Plan in Attachment C of the Permit has been revised as follows:</p> <p><del>"Animal waste and parts from slaughterhouses or rendering plants."</del></p>

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141	Application, Section C, Pg.C-87	<p><b>Comment:</b> It is clear from the historical and proposed conditions described in "C-2d(1)(a) Exceptions" that the vast majority of waste disposal at CWM is not sampled prior to disposal. There should be, but are no limitations to the exemptions, for example, based on either volume or timeframe. This elevates an already unacceptable level of risk. And it indicates that with little capacity remaining, neither the DEC nor the community have an adequate understanding of the 8 million tons of material buried at the facility. This further complicates permanent surveillance and should compel the Department to expand, rather than what appears to be regularly reducing both the frequency of groundwater and soil sampling, in addition to contaminants analyzed for in those samples as part of the post-closure conditions. (This does not include the inception of radiation monitoring required by the Department of Health, but rather the DEC's reduction in that monitoring since inception.)</p> <p><b>Response:</b> Though CWM does not sample exempted waste streams, the generator has supplied CWM with a Waste Profile or analytical data to accurately identify the waste prior to its acceptance by CWM. It should also be noted that the Permit requires NYSDEC to review and approve each and every waste stream to be land disposed in RMU-1 regardless of whether the waste stream has been tested by CWM or is exempted from such testing by the WAP. For the exempted waste streams, if NYSDEC considers that additional information or analytical data is needed to adequately characterize the waste for land disposal, CWM is required by the Permit to provide such additional information/data in order to obtain NYSDEC approval.</p> <p>NYSDEC acknowledges the other concerns over landfill content and monitoring which are expressed in this comment.</p> <p><b>Revisions:</b> None</p>
142	Application, Section C, Pg.C-89	<p><b>Comment:</b> A two-year "Re-evaluation process" is not appropriate. Shorter durations should be imposed based on the volume and on the variability; limits should differ for documentation versus sampling by the applicant.</p> <p><b>Response:</b> The regulations under 6NYCRR 373-2.2(e)(1)(iii) outline when facilities need to re-evaluate their incoming waste. CWM's re-evaluation process complies with the frequencies required by these regulations and includes a biennial re-evaluation which is in addition to the regulatory requirements. NYSDEC considers CWM's re-evaluation frequencies in combination with routine load inspections and on-site monitoring by NYSDEC, as adequate to detect any significant changes in the character of waste streams.</p> <p><b>Revisions:</b> None</p>
143	Application, Section C, Pg.C-89	<p><b>Comment:</b> In no case should a "re-evaluation" rely solely on documentation, with no time limit whatsoever.</p> <p><b>Response:</b> Documentation review alone may be appropriate for cases where the process generating the waste stream is well known and past monitoring of incoming loads indicates a homogeneous consistency in the waste received. Also, it should be noted that this section of the WAP states that the re-evaluation process typically involves comparing the current waste profile to available results from routine inspection, sampling, and analysis obtained upon receipt of an incoming load.</p> <p><b>Revisions:</b> None</p>

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144	Application, Section C, Pg.C-89	<p><b>Comment:</b> The WAP established no standards whatsoever for generator documentation furnished to the applicant, in the re-evaluation process. Again, this seems to provide the applicant latitude to take a "see no evil" approach that effectively circumvents waste characterization regulation and policy.</p> <p><b>Response:</b> The regulations under 6NYCRR 373-2.2(e)(1)(iii), which the Permit requires CWM to comply with, require a repeat of the original analysis upon which the waste stream was initially characterized. Therefore, either CWM or the generator must repeat the original characterization process and does not have the latitude to curtail the documentation originally required for the initial characterization.</p> <p><b>Revisions:</b> None</p>
145	Application, Section C, Pg.C-91	<p><b>Comment:</b> The draft permit states "All nonmiscellaneous bulk solids will be sampled according to site SDP, unless a reduced frequency for a given profile has been approved by the DEC." Please provide a list of these DEC approvals since the last permit renewal and well as the volumes of waste received between the sampling intervals.</p> <p><b>Response:</b> NYSDEC does not track all DEC waste approvals since the last renewal and therefore cannot provide a specific response to the request made in this comment.</p> <p><b>Revisions:</b> None</p>
146	Application, Section C, Pg.C-91	<p><b>Comment:</b> The DEC has access to the number of drums received by the applicant since the last permit renewal. What was the total number of drums received in each year since the last permit renewal, and how many of those drums were sampled in each year? This is important again to assess the reasonability and effectiveness of the extensive exemptions in the draft permit conditions.</p> <p><b>Response:</b> NYSDEC does not have track the total number of drums of waste received by the CWM facility in each year since the last Permit renewal and therefore cannot provide a specific response to the question in this comment. However, there are records with similar information (e.g., manifests, annual reports) which the public can submit a request under the Freedom of Information Law (FOIL) to obtain.</p> <p><b>Revisions:</b> None</p>
147	Application, Section C, Pg.C-93	<p><b>Comment:</b> The following condition is not a Waste Analysis standard : "Site management decides whether additional analyses are required for a particular waste based on the following: . . .Knowledge of the limitations of the targeted waste management units . . . Experience of site management determining the need to know more information." What standards does DEC require that in any way limit this discretion by the applicant?</p> <p><b>Response:</b> NYSDEC on-site monitors can request additional analysis if they observe a waste load, or loads, which does not appear consistent with the approved waste profile. Therefore, the decision regarding additional analysis is not completely discretionary with respect to CWM site management.</p> <p><b>Revisions:</b> None</p>

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148	Application, Section C, Pg.C-93	<p><b>Comment:</b> If most of "The actual waste identification" methods are routinely exempt from sampling and analysis, why would weight, container or a visual constitute an acceptable screen?</p> <p><b>Response:</b> Checking the weight, container and performing a visual inspection of the waste loads can help ensure that the waste matches the approved Waste Profile and identify whether there are substantial changes in the waste's character from one load to the next. For instance, a load which weighs considerably more or less than previous loads of the same waste might signify a substantial change in waste character and indicating that the waste load may not match may not match the approved Waste Profile. Therefore, NYSDEC considers these inspection items as providing appropriate waste load screening information.</p> <p><b>Revisions:</b> None</p>
149	Application, Section C, Pg.C-93	<p><b>Comment:</b> Please indicate the volume, if any, of hazardous or non-hazardous waste shipped to the facility via the U.S. Postal Service or a Courier (ex. FedEx, UPS, etc). It is unclear from the permit whether the applicant participates in its parent-company "Recycle by Mail" program. Please provide amounts, by year, since the last permit renewal.</p> <p><b>Response:</b> NYSDEC does not track the volumes of waste received by the CWM facility by U.S. Postal Service or a Courier and therefore cannot provide a specific response to the question in this comment.</p> <p><b>Revisions:</b> None</p>
150	Application, Section C, Pg.C-94	<p><b>Comment:</b> Evaluations of waste discrepancies are the same for those identified with a visual versus lab analysis. As noted earlier, the WAP would seem to allow for substantial understatement of discrepancies. Please provide the number of discrepancies identified for each container and the total number of containers, by year, since the last permit renewal. Then please indicate the statistical margin of error and the method DEC used to calculate that margin of error.</p> <p><b>Response:</b> NYSDEC does not track the total number of discrepancies for each container nor the total number of containers with discrepancies in each year since the last Permit renewal and therefore cannot provide a specific response to the question in this comment.</p> <p><b>Revisions:</b> None</p>
151	Application, Section C, Pg.C-95	<p><b>Comment:</b> The Process Operations Procedure indicates that site management determines the compatibility of ignitables, flammables, corrosives, reactives with the storage area. Please identify what permit documents describe the construction standards for buildings housing each, and identify these buildings on the applicant's property and the maximum allowable concentrations and total materials that are permitted in each building, along with an affirmative statement that the applicant's facility, as constructed, accommodates those limits. If that construction analysis and sublimit for storage concentrations and volumes are not included in the permit, minimum conditions should be added.</p> <p><b>Response:</b> This comment appears to pertain to the Facility's Container Storage Areas and requests the identification of the Permit documents related to their design, wastes in storage, capacities and provisions for separation of incompatibles. This information is provided in the following locations within the Permit: 1) Exhibit C in Schedule 1 of Module I; 2) Module III; and 3) Appendix D-1 in Attachment D.</p> <p><b>Revisions:</b> None</p>

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152	Application, Section C, Pg.C-95	<p><b>Comment:</b> In addition to permitted materials, please indicate whether unpermitted material either shipped to or accepted by the applicant, to date, could be secured in existing structures, as constructed in the event of a spill, fire, explosion or reaction.</p> <p><b>Response:</b> The Permit allows for storage of "materials" in hazardous waste container storage areas at the facility as long as those materials are demonstrated to be compatible with the containerized wastes stored in these areas (see Condition H in Module III of the Permit).</p> <p><b>Revisions:</b> None</p>
153	Application, Section C, Pg.C-96	<p><b>Comment:</b> "Liquid wastes delivered in bulk form by tank trucks or decanted from drums or portable tanks are placed in bulk storage tanks or directly into reactors prior to further treatment." Please identify the "reactors" by equipment name, process and location at the site -reference permit document, section and page if already described</p> <p><b>Response:</b> The "reactors" referred to in this comment's quotation of text in Section C-2f(1)(b) of the WAP, presumably refer to the Facility's "Bio-Reactor" tanks which are Tanks T-310 &amp; T-320 in the Permit. Information regarding these tanks can be found in Exhibit D in Schedule 1 of Module I and Appendix D-3 in Attachment D of the Permit.</p> <p><b>Revisions:</b> None</p>
154	Application, Section C, Pg.C-99	<p><b>Comment:</b> Stratification - No standards are included or referenced for determining "miscibility" of material comingled in storage. Please identify where in the permit documents minimum standards are set forth. If not set forth in permit, please indicate minimum standards and or specific criteria for that determination to ensure that a new contaminant is not created by mixing in storage, but not analyzed for during the treatment or disposal process.</p> <p><b>Response:</b> Standards regarding the compatibility of co-mingled waste are set forth in ASTM 5058 Standard Test Methods for Compatibility of Screening Analysis of Waste. This test method is listed in Appendix A of the WAP.</p> <p><b>Revisions:</b> None</p>
155	Application, Section C, Pg.C-99	<p><b>Comment:</b> Heat Generation - No standards are included or referenced for determining heat or reactions of material co-mingled in storage. Please identify where in the permit documents minimum standards are set forth. If not set forth in permit, please indicate minimum standards and or specific criteria for that determination to ensure that a new contaminant is not created by mixing in storage, but not analyzed for during the treatment or disposal process. It should also be clarified what the design capacity of the storage actually is vs. the volumes and concentration of material permitted to be mixed.</p> <p><b>Response:</b> Standards regarding the compatibility of co-mingled waste are set forth in ASTM 5058 Standard Test Methods for Compatibility of Screening Analysis of Waste. This test method is listed in Appendix A of the WAP. The design capacities of the container storage areas are specified in Exhibit C in Schedule 1 of Module I of the Permit, however, NYSDEC is unclear as to what the comment is requesting regarding the volume and concentration of mixed materials.</p> <p><b>Revisions:</b> None</p>

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156	Application, Section C, Pg.C-99	<p><b>Comment:</b> Gas Evolution - What is a "quantity of concern"? What is the standard? How is it defined? Is it entirely at the discretion of the applicant? No standards are included or referenced for determining "quantity of concern" for liberate flammable, explosive or toxic vapors, fumes or mists co-mingled in storage. Please identify where in the permit documents minimum standards are set forth. If not set forth in permit, please indicate minimum standards and or specific criteria for that determination to ensure that a new contaminant is not created by mixing in storage, but not analyzed for during the treatment or disposal process. It should also be clarified what the design capacity of the storage actually is vs. the volumes and concentration of material permitted to be mixed in the event of a fire, explosion or reaction.</p> <p><b>Response:</b> Standards regarding the compatibility of co-mingled waste are set forth in ASTM 5058 Standard Test Methods for Compatibility of Screening Analysis of Waste. This test method is listed in Appendix A of the WAP. The design capacities of the container storage areas are specified in Exhibit C in Schedule 1 of Module I of the Permit, however, NYSDEC is unclear as to what the comment is requesting regarding the volume and concentration of mixed materials.</p> <p><b>Revisions:</b> None</p>
157	Application, Section C, Pg.C-99	<p><b>Comment:</b> Undesirable Reactions - Please provide technical standard that defines: 1) "large amount" of precipitate, 2) "solidification" and 3) "gelling"</p> <p><b>Response:</b> Standards regarding the compatibility of co-mingled waste are set forth in ASTM 5058 Standard Test Methods for Compatibility of Screening Analysis of Waste. This test method is listed in Appendix A of the WAP.</p> <p><b>Revisions:</b> None</p>
158	Application, Section C, Pg.C-100	<p><b>Comment:</b> Please provide the # of post-treatment sampling conducted for Aqueous Waste, Fuel Blending and Incinerables, Transformer Decommissioning and Landfill, and the associated number of shipments for each, and the volume of each shipment. This is important to understand the extent to which a visual is used for post-treatment confirmation, versus a sample, versus no post-treatment analysis, prior to permanent land disposal, or shipments transported back out through the community transportation routes.</p> <p><b>Response:</b> NYSDEC does not track the total number of post-treatment sampling associated with the identified hazardous waste management activities nor on the total number of shipments related to these activities and therefore cannot provide a specific response to the question in this comment.</p> <p><b>Revisions:</b> None</p>
159	Application, Section C, Pg.C-100	<p><b>Comment:</b> Aqueous Waste Conditions should REQUIRE IMMEDIATE INCORPORATION OF ALL PENDING SPDES PERMIT MODIFICATIONS PROPOSED BY THE DEPARTMENT. If, at the completion of the SPDES permit modification, RCRA and SPDES determine the requirements should be further modified, they can consider doing so in the future, with the appropriate public participation. It has been 10 YEARS since the Water Division determined that discharges of PCBs and VOCs/semi-VOCs were "ongoing" and, since that time, all of the related problems have not been addressed in the SPDES permit. Since the applicant has not prevented discharges of contaminants from its property under SPDES, the RCRA and SPDES PERMITS SHOULD BE SUSPENDED OTHER THAN CONDITIONS FOR REMEDIATION, SITE POLLUTION PREVENTION, AND MAINTENANCE.</p> <p><b>Response:</b> See NYSDEC's Responses to Comment #s 25 &amp; 33.</p> <p><b>Revisions:</b> None</p>

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160	Application, Section C, Pg.C-101	<p><b>Comment:</b> The permit language that "if there is a concern that additional constituents should be tested for on a routine basis, a dialogue may take place between CWM and the Department and a permit modification may be proposed." This could be construed as removing the DEC's discretion and replacing it with "MUTUALLY AGREEABLE". Please revise to clarify the authority of the Department.</p> <p><b>Response:</b> NYSDEC acknowledges the concern raised by this comment. It should be clarified that a concern over the need for testing of additional constituents based on a review of raw leachate data can be raised by either CWM or NYSDEC, and either party could initiate a Permit modification process in such circumstances. No prior agreement between CWM and NYSDEC is necessary to begin the Permit modification process.</p> <p>Although this WAP was submitted as part of CWM's renewal application, it was included as Attachment C in the Draft Permit. Therefore, NYSDEC has modified the WAP in Attachment C to clarify the above matter as indicated below.</p> <p><b>Revisions:</b> Section C-2f(2)(b) on Pages C-93 and C-94 of the Waste Analysis Plan in Attachment C of the Permit has been revised as follows:</p> <p>"Based on review of the raw leachate characterization and the parameters being routinely monitored, if <del>CWM or NYSDEC has</del> there is a concern that additional constituents should be tested for on a routine basis, <del>CWM or NYSDEC may initiate</del> a dialogue may take place between CWM and the Department and a permit modification may be proposed."</p>
161	Application, Section C, Pg.C-101	<p><b>Comment:</b> The history of the applicant's property should require radiation sampling for every batch of wastewater treated, and not to the exclusion of radioisotopes known to have been handled, stored, buried, burned and spilled on the applicant's property.</p> <p>In addition to the legal requirement for the property owner to clean up contamination on its property, the Department has seemed to disregard the fact that 1) the applicant was well aware of the radiological hazards on its property at the time its affiliated acquired the property and, 2) the applicant's operations have made the identification, location and remediation of the radiological problems more difficult and more expensive.</p> <p><b>Response:</b> Condition D.3.d of Exhibit B in Schedule 1 of Module I of the Permit requires CWM to perform radiological sampling of treated wastewater from the Fac Pond prior to each discharge. Based on the results of such analysis to date, NYSDEC does not see a need to perform additional sampling and radiological analysis of each batch of wastewater prior to discharge into the Fac Pond. With respect to the second paragraph of this comment, NYSDEC acknowledges the expressed concerns.</p> <p><b>Revisions:</b> None</p>

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162	Application, Section C, Pg.C-101	<p><b>Comment:</b> The existing Excavation Protocol is not protective of worker safety. All excavation on the property should cease, regardless of size, until the protocol can address all radioisotopes known to have been burned, buried, spilled or otherwise handled at the site, to ensure worker safety and public health.</p> <p><b>Response:</b> The "Generic Small Projects Soil Excavation Monitoring and Management Plan" required by Condition D.4 to be followed during any site excavation or soil disturbance under a Permit stipulated size/volume. For larger excavations the Permit requires CWM to submit and obtain NYSDEC approval of a "Project-Specific" plan. NYSDEC considers such plans as adequately protective of human health and the environment with respect to the potential for chemical or radiological exposures. Also, see NYSDEC's Responses to Comment #s 22 &amp; 43.</p> <p><b>Revisions:</b> None</p>
163	Application, Section C, Pg.C-101	<p><b>Comment:</b> All land disposal operations should be suspended until all Corrective Actions are completed. The applicant has had 30 years to clean up its property, and has little incentive to expedite the process while operations continue.</p> <p>If the applicant cannot clean up its property, then the permit should be suspended, other than the conditions for site pollution prevention, surveillance and maintenance.</p> <p><b>Response:</b> See NYSDEC's Responses to Comment #s 14, 22 &amp; 41.</p> <p><b>Revisions:</b> None</p>
164	Application, Section C, Pg.C-102	<p><b>Comment:</b> The once per month composite effluent sampling for PCBs and VOCs is insufficient and unrelated to both the volume and sources of such effluent. This is internal lab work that should be conducted at least weekly.</p> <p><b>Response:</b> In addition to the monthly composite effluent sampling, each batch of treated wastewater in the effluent storage tanks are sampled and analyzed for PCBs and VOCs, as well as subsequent sampling and testing of treated wastewater in the Fac Pond prior to discharge. NYSDEC considers this to be a sufficient amount of sampling and analysis for these constituents.</p> <p><b>Revisions:</b> None</p>
165	Application, Section C, Pg.C-102	<p><b>Comment:</b> What are "sufficient quantities" of gate receipts that could cause an exceedance of the F039 Standard?</p> <p><b>Response:</b> Based on past operations and system flow capacity, more than 90% of the wastewater processed through CWM's AWT system is landfill leachate. Therefore, the volume of leachate verses the volume of gate receipts would likely have to shift dramatically to effect compliance with F039 standards.</p> <p><b>Revisions:</b> None</p>



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166	Application, Section C, Pg.C-102	<p><b>Comment:</b> Twice per year split sampling by the Department to confirm internal lab work by the applicant is insufficient and unrelated to volume and concentrations of contaminant sources. This should be conducted at least monthly. It should be clarified that all costs and expenses for the sampling will be borne by the applicant, to include any incurred by the Dept.</p> <p><b>Response:</b> There is no established guidance with regard to how often split samples should be taken with respect to NYSDEC oversight of such a wastewater treatment process. However, experience has shown twice per year to be sufficient based on comparison of CWM and NYSDEC results. Also, it should be noted that the Permit requires CWM to utilize laboratories regulated under NYSDOH's Environmental Laboratory Approval Program (ELAP) which are subject to QA audits by NYSDOH.</p> <p><b>Revisions:</b> None</p>
167	Application, Section C, Pg.C-102	<p><b>Comment:</b> Split sampling by the Department should be conducted without notice to the applicant to minimize the risk that internal lab analysis does not vary from independent analysis.</p> <p><b>Response:</b> Split samples are used to check the accuracy of the analytical work performed by the laboratory, not the field work. Whether the sampling is announced or un-announced will not change how the lab analyzes the samples or how well the results of the independent lab correlate with CWM's lab.</p> <p><b>Revisions:</b> None</p>
168	Application, Section C, Pg.C-102	<p><b>Comment:</b> The presence of Department personnel during split sampling should be mandatory, not discretionary.</p> <p><b>Response:</b> As stated in NYSDEC's Response to Comment #48-167 above, split samples are used to check the accuracy of the analytical work performed in the laboratory, not the field work. DEC presence during sampling would not affect how the lab analyzes the samples.</p> <p><b>Revisions:</b> None</p>
169	Application, Section C, Pg.C-102	<p><b>Comment:</b> What is the maximum allowable volume of Fuels for Blending under the proposed permit? If there is no sublimit, one should be established in an amount no more than 5% higher than peak annual volume since the last renewal, notwithstanding the permit suspension recommendation.</p> <p><b>Response:</b> The Permit does not place a limit on the volume of fuels CWM can blend over a given period of time. However, the volume of blended waste stored on site is limited by the Permitted capacities of the Container Storage Areas.</p> <p><b>Revisions:</b> None</p>
170	Application, Section C, Pg.C-102	<p><b>Comment:</b> What is the maximum allowable volume of PCB feedstock under the proposed permit? If there is no sublimit, one should be established in an amount no more than 5% higher than peak annual volume since the last renewal, and reduce with diminishing capacity, notwithstanding the permit suspension recommendation.</p> <p><b>Response:</b> The Permit does not place a limit on the volume of PCB feedstock CWM can blend over a given period of time. However, the volume of blended waste stored on site is limited by the Permitted capacities of the Container Storage Areas.</p> <p><b>Revisions:</b> None</p>

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171	Application, Section C, Pg.C-104	<p><b>Comment:</b> If post-treatment transformer "testing" includes only a physical description, what confidence is there in the applicant's sole determination of material greater than 500 ppm versus less than 500 ppm?</p> <p><b>Response:</b> It is not feasible to sample transformers for PCBs with respect to a concentration limit. NYSDEC considers it reasonable to assume that if the transformer is empty, the PCB level is below 500 ppm.</p> <p><b>Revisions:</b> None</p>
172	Application, Section C, Pg.C-104	<p><b>Comment:</b> How many shipments did DEC require for the Additional Review Program since the last permit renewal? Please provide the number, by month, so trends can be observed. Of those, how many required actual samples and analysis? (not screening, analysis.) There has been longstanding concern about the number of DEC monitors on-site, who are not "full time" relative to the applicant's hours of operation, and not always fully staffed during vacations, resignations, etc.</p> <p><b>Response:</b> NYSDEC does not have records indicating the total number of additional reviews required by month and therefore cannot provide a specific response to the question in this comment. NYSDEC acknowledges the concern expressed by this comment with respect to NYSDEC Monitor staffing.</p> <p><b>Revisions:</b> None</p>
173	Application, Section C, Pg.C-104	<p><b>Comment:</b> Transformer decommissioning has been curtailed if not suspended at the site according to the applicant due to space limitations. The permit should remove Transformer decommissioning on or before Sept. 8, 2013. Should the applicant wish to conduct that activity after that date, it should request that condition in future major modifications it may (or may not) pursue in the future.</p> <p><b>Response:</b> The closure of the Transformer Container Storage Area (CSA) was extended by NYSDEC until September 8, 2013 in accordance with the closure regulations (6 NYCRR (c)(4)(ii)(a)). CWM must either resume use of this CSA prior to that date, or commence closure of the CSA on that date in accordance with the closure regulations and the approved Closure Plan.</p> <p><b>Revisions:</b> None</p>
174	Application, Section C, Pg.C-104	<p><b>Comment:</b> The ARP should not include ANY exemptions, particularly those in C-2d(1)(a) which effectively exempts the vast majority of waste to the facility.</p> <p><b>Response:</b> Although CWM's Additional Review Program (ARP) exempts certain waste streams from being selected for additional sampling, NYSDEC does not consider this as restricting the NYSDEC On-Site Monitor's ability to obtain samples of waste (including ARP exempt waste) and have those samples independently analyzed should NYSDEC determine it to be necessary.</p> <p><b>Revisions:</b> None</p>

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175	Application, Section C, Pg.C-105	<p><b>Comment:</b>  "Wastes that are to be stabilized on-site will have their compliance with LDR standards verified according to the frequency specified in the CWM procedure on demonstrating that stabilized residuals meet land ban standards." This condition was tested via a FOIL for one generator, and was found to be flawed with respect to distinguishing between LDR compliance and exceedances of characteristic levels. DEC should specify the requirement that the applicant properly analyze for and report, each, in order to provide the Department with accurate data on the applicant's ability to reduce toxicity "to the lowest extent practicable."</p> <p>There is no way to measure progress or lack thereof, absent a condition that specifies both LDR and characteristic thresholds. Again, the enormous loopholes in the WAP which exempt the vast majority of waste from sampling sufficient to characterize the waste is of particular concern.</p> <p><b>Response:</b>  It should be understood that LDR compliance does not pertain to wastes that are hazardous solely due to a characteristic (so called "characteristic hazardous wastes" as identified in 6 NYCRR 371.3), as per 6 NYCRR 376.1(a)(3) of the regulations. Therefore, these characteristic hazardous wastes do not require stabilization or testing to meet LDR standards. While it is true that the Toxicity Characteristic Leaching Procedure (TCLP) is used for both determining LDR compliance and determining whether a waste is characteristically hazardous, there should be no confusion as to which standards are applicable to the testing of stabilized wastes for LDR compliance.</p> <p><b>Revisions:</b> None</p>
176	Application, Section C, Pg.C-105	<p><b>Comment:</b>  Ash residues - "Other organics of concern to the Department may be requested based on agreement by site management and DEC." This language should be revised to state that other organics of concern will be required at the discretion of the Department. The Department's authority should not be delegated to the applicant.</p> <p><b>Response:</b>  NYSDEC acknowledges the concern raised by this comment. It should be clarified that NYSDEC may require testing of "other organics of concern" if deemed necessary. Prior agreement between CWM and NYSDEC is not necessary nor appropriate. Although this WAP was submitted as part of CWM's renewal application, it was included as Attachment C in the Draft Permit. Therefore, NYSDEC has modified the WAP in Attachment C to clarify the above matter as indicated below.</p> <p><b>Revisions:</b>  Section C-2f(5) on Page C-98(3<sup>rd</sup> bullet) of the Waste Analysis Plan in Attachment C of the Permit has been revised as follows:  <del>"Other organics of concern will may be analyzed for if requested based on agreement by site management and NYSDEC."</del></p>
177	Application, Section C, Pg.C-105	<p><b>Comment:</b>  If F039 sources include the applicant's site, or any FUSRAP or similarly impacted site, analysis for all radioisotopes known to have been present at those sites should be included in the analysis.</p> <p><b>Response:</b>  See NYSDEC's Response to Comment #48-161.</p> <p><b>Revisions:</b> None</p>

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Com. No.	Title / Section / Page	Comment / Response / Revisions
178	Application, Section C, Pg.C-106	<p><b>Comment:</b> Non-Hazardous waste: The facility should not have full discretion as to whether PCB analysis is required based on the Waste Profile, absent any minimum thresholds and specific guidance. Please reference or include them.</p> <p><b>Response:</b> The criterion for testing a non-hazardous waste for PCBs is clearly identified in the WAP. If a non-hazardous waste is determined to be oil bearing as a result of the 2% Organic Limit Analysis or as indicated on the Waste Profile, then it is tested for PCBs.</p> <p><b>Revisions:</b> None</p>
179	Application, Section C, Pg.C-107	<p><b>Comment:</b> To reiterate, no interim storage in the landfill should be permitted. The reduction in staff at the site is likely to cause delays in analysis, in addition to unnecessarily increasing the risk of a fire, explosion or reaction in the landfill, which inevitably exposes the community absent any air detection capabilities to assess the same. Dust control does not calculate exposure, especially with the largely irrelevant air grab placement.</p> <p><b>Response:</b> NYSDEC acknowledges this comment. While Section C-2f(6) of the WAP indicates temporary storage in the RMU-1 landfill, Conditions in the new Permit require that any waste awaiting test results for compliance with the Land Disposal Restriction (LDR) regulations must be stored in containers within Permitted Container Storage Areas, not in the RMU-1 landfill.</p> <p>Although this WAP was submitted as part of CWM's renewal application, it was included as Attachment C in the Draft Permit. Therefore, NYSDEC has modified the WAP in Attachment C to make it consistent with the aforementioned Permit condition as indicated below.</p> <p><b>Revisions:</b> Section C-2f(6) on Page C-100 of the Waste Analysis Plan in Attachment C of the Permit has been revised as follows:</p> <p>"A post-treatment analysis, which includes TCLP, is conducted to assure that the process continues to be effective in meeting the treatment standards. The analysis will be performed on retained material in interim storage in the landfill (refer to CWM procedure on interim storage of stabilized waste) or in other containers such as roll-off boxes (see Condition E.1.f in Exhibit F of Schedule 1 of Module I)."</p>
180	Application, Section C, Pg.C-108	<p><b>Comment:</b> DEC impositions on this community preclude comment on "CWM QA/QC policies are found in the corporate Quality Assurance and Control Policies, portions of which have been extracted and included in the following sections. The performance standards will be available for review at the facility."</p> <p>For reasons noted earlier, all of these documents should be attached to the permit. Due to the length of the public comment period and the absence of technical assistance on this topic normally afforded an environmental justice community, and such assistance in an amount proportional to the complexity of this permit and facility, no review and therefore, no comments can be provided for this portion of the WAP.</p> <p><b>Response:</b> As stated in the quote, the applicable portions of the policies are included in the WAP, and therefore are part of the Permit by inclusion in Attachment C. NYSDEC does not consider the other portions of the CWM corporate QA/QC policies to be relevant or necessary for the waste analysis at this CWM facility, and therefore there is no need for their inclusion in the Permit. NYSDEC acknowledges the concerns expressed in the second paragraph of this comment.</p> <p><b>Revisions:</b> None</p>

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Com. No.	Title / Section / Page	Comment / Response / Revisions
181	Application, Section C, Pg.C-108	<p><b>Comment:</b> Please provide a copy of the QA/QC policies; a) at the time RMU-1 was sited, b) at the time of the last permit was issued and c) current policies.</p> <p><b>Response:</b> As stated above in NYSDEC Response to Comment #48-180, the portions of the CWM corporate QA/QC policies applicable to waste analysis at this CWM facility are contained in the WAP. NYSDEC has the versions of the WAP applicable at the time RMU-1 was sited and at the time of the last Permit in our files. . The public can submit a request under the Freedom of Information Law (FOIL) to obtain relevant records. The current WAP is in Attachment C of the Permit and is already publically available. NYSDEC does not have the complete CWM corporate QA/QC policy document in our files and therefore cannot provide a copy.</p> <p><b>Revisions:</b> None</p>
182	Application, Section D, Entirety	<p><b>Comment:</b> DEC impositions on this largely rural community preclude comment on SECTION D – PROCESS DESCRIPTION. Due to the length of the public comment period and the absence of technical assistance on this topic normally afforded an environmental justice community, and such financial assistance in an amount proportional to the specialized and technical complexity of this permit and facility, no review and therefore, no comments can be provided for this portion of the application.</p> <p><b>Response:</b> Comment noted.</p> <p><b>Revisions:</b> None</p>
183	Application, Section E, Pg.1	<p><b>Comment:</b> This Section indicates that the applicant undertook 83 Remedial Investigations over 10 years completed from 1988-1993. And now, 20 years later, the Department has failed to require Corrective Actions sufficient to remediate the site. All conditions other than post-closure should be suspended until the applicant has fully remediated ALL contamination requiring remediation at the site, which includes radiological contamination.</p> <p><b>Response:</b> As part of the RCRA corrective action process, the NYSDEC investigated and evaluated the presence of contamination at the subject facility. Subsequent to the completion of the investigation phase, a Corrective Measures Study (CMS) was performed. The CMS included an "Ecological Assessment/Fish and Wildlife Impact Analysis" and a Risk Evaluation". Remedial alternatives were developed and evaluated following criteria found in USEPA guidance. In September 2000, Final Corrective Measures were public noticed in Draft for public review and comment. No comments were received during the public comment period or public information session. A Selection of Final corrective measures was made on January 31, 2001 with the issuance of a Permit modification containing the Final Statement of Basis. Also see NYSDEC's Response to Comment #14.</p> <p><b>Revisions:</b> None</p>
184	Application, Section E, Pg.1	<p><b>Comment:</b> Please list those "cases the contamination was [not] thought to have resulted from pre-1980 spills and leaks "</p> <p><b>Response:</b> A listing/description of the individual and Groups of Solid Waste Management Units (SWMUs) is contained in Attachment E of the Permit which has been made available for public review. This listing/description provides information on the suspected origins of the contamination related to the SWMUs.</p> <p><b>Revisions:</b> None</p>

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Com. No.	Title / Section / Page	Comment / Response / Revisions
185	Application, Section E, Pg.1	<p><b>Comment:</b> Section E of the application incorrectly states, "It should be noted that due to the slow rates of groundwater migration at the facility, there are no cases where the contamination has traveled more than a short distance from its presumed source." This statement is contradicted by Water Division correspondence that discharges of contaminants have left the site, and the findings by DEC, the Corps of engineers, and independent experts that the upper and lower groundwater bearing zones at the site are connected, and that the upper zone can charge surface ditches.</p> <p>In addition, the Dept. has no off-site surveillance program on which to confirm such a statement, even if it weren't already contradicted by DEC documentation. The statement is contradicted by Department records and should be removed if included anywhere in any permit related documents.</p> <p><b>Response:</b> The statement in Section E of the application quoted in this comment is meant to apply to sub-surface groundwater flow, not surface water, and in that sense NYSDEC acknowledges the quoted statement. The statements on off-site discharges that the comment attributes to NYSDEC Division of Water (DOW) correspondence relates to surface water discharges, and as such NYSDEC does not consider there to be a conflict between the Section E and the NYSDEC DOW statements.</p> <p>The NYSDEC acknowledges this comment that the upper and lower groundwater flow zones are connected to some degree. However, NYSDEC requires that both zones be monitored accordingly. Also, NYSDEC considers the present on-site groundwater monitoring network as adequate to detect any potential groundwater migration of contaminants to off-site areas. Also, see NYSDEC's Response to Comment #42.</p> <p><b>Revisions:</b> None</p>
186	Application, Section E, Pg.1	<p><b>Comment:</b> Regulation requires an Annual Report from the applicant. However, none could be provided in response to a FOIL request. Instead, some 100 documents dated and submitted throughout the year, including duplicates were furnished as an unapproved substitute. This appears to be an unidentified non-compliance issue. DEC should require an Annual Report, prepared and consolidated, annually.</p> <p>Aside from the technical lack of compliance, the form and duplication of DEC's FOIL response indicates that the Department cannot manage all the moving parts of the permit conditions - the site is too large, too complex and too contaminated to oversee on-site, or by the multitude of staff involved in reviewing documents and data, off-site. This is another reason to suspend all operating conditions unrelated to closure, post-closure and pollution prevention/remediation.</p> <p><b>Response:</b> CWM's Annual Report for 2012 was due to be submitted by March 1, 2013. CWM requested an extension for its submission which was granted by NYSDEC. As a result, CWM's 2012 Annual Report could not be provided at the time of the F.O.I.L. request.</p> <p><b>Revisions:</b> None</p>
187	Application, Section E, Pg.1	<p><b>Comment:</b> What document has the applicant submitted since RMU-1 was sited which provides a Fate and Transport Analysis for each contaminant known to have been on the site?</p> <p><b>Response:</b> No document as referenced by this comment has been submitted since NYSDEC has not required CWM to perform fate and transport modeling since the construction of the RMU-1 landfill.</p> <p><b>Revisions:</b> None</p>

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188	Application, Section E, Pg.1	<p><b>Comment:</b> What document has the applicant submitted since 1986 (through RMU-1 Siting) which provides a Fate and Transport Analysis for each contaminant known to have been on the site?</p> <p><b>Response:</b> CWM conducted modeling of the groundwater as part of the Corrective Measures Study it submitted in January 1995.</p> <p><b>Revisions:</b> None</p>
189	Application, Section E, Pg.1	<p><b>Comment:</b> If the site were properly analyzed, radioisotopes would likely exceed the large volume of PCBs "observed on the site." Permit documents should be revised to also reflect large volumes of radioisotopes.</p> <p><b>Response:</b> See NYSDEC's Responses to Comment #s 22, 43 &amp; 45.</p> <p><b>Revisions:</b> None</p>
190	Application, Section E, Pg.2	<p><b>Comment:</b> The slow 30-year pace of Corrective Actions has contributed to dispersion of the contaminants both on and off-site.</p> <p><b>Response:</b> See NYSDEC's Responses to Comment #s 14, 41 &amp; 42.</p> <p><b>Revisions:</b> None</p>
191	Application, Section E, Pg.2	<p><b>Comment:</b> Why would the Department rely on a 1995 Ecological and Wildlife Assessment for a 2013 permit renewal? The technique is not only outdated, but so are any measurements given the bioaccumulative nature of PCBs, one of the most widespread contaminants on the site.</p> <p>Not only did the slow pace of the Corrective Measures inappropriately allow contamination to move, but DEC has not required updates of the underlying documents relied upon to determine impacts.</p> <p><b>Response:</b> NYSDEC considers the need for reevaluation of environmental/ecological conditions to be necessary when: 1) new information comes to light which indicates substantially different conditions than those assumed in the original evaluation; or 2) substantial changes in environmental conditions since the original evaluation; or 3) substantial changes in facility operations and/or new units which could affect ecology and wildlife. In this case, NYSDEC has not identified any new information or changes in environmental conditions at the site that would warrant a reevaluation of ecological and wildlife impacts, and the Permit renewal does not contain any significant changes in site operation or new units that would necessitate such a reevaluation. Therefore, a reevaluation is not necessary at this time.</p> <p><b>Revisions:</b> None</p>
192	Application, Section E, Pg.3	<p><b>Comment:</b> Where is the CWM groundwater modeling and performance monitoring from wells summarized to support the conclusion, that after 30 years, pulsed pumping is remediating more contaminants than are migrating vertically away from a 20-year old, archaic design of well location and depths forming its monitoring system?</p> <p><b>Response:</b> NYSDEC's review of groundwater monitoring analytical and potentiometric data indicates that the groundwater recovery systems with enhancements as deemed necessary continue to provide an effective means to control migration of groundwater contaminants and remediate sources of contamination. NYSDEC does not consider modeling to be necessary at this time.</p> <p><b>Revisions:</b> None</p>

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Com. No.	Title / Section / Page	Comment / Response / Revisions
193	Application, Section E, Pg.3	<p><b>Comment:</b> Does DEC consider "pulsed-pumping" of groundwater, a/k/a pump and treat, a state-of-the-art remedial technology? Where is that referenced in Green Remediation Guidelines? And where in the preference of techniques?</p> <p><b>Response:</b> NYSDEC considers the pumping and treatment of contaminated groundwater to be an effective remedial technology which has been successfully employed at a number of sites, and one which is consistent with Green Remediation Guidelines in that it assists in restoring the quality of groundwater, an important resource.</p> <p><b>Revisions:</b> None</p>
194	Application, Section E, Pg.3	<p><b>Comment:</b> How much energy has been consumed during 30 years of pulsed groundwater pumping?</p> <p><b>Response:</b> NYSDEC does not have records indicating energy usage by CWM's groundwater pumping systems and therefore cannot provide a specific response to the question posed in this comment.</p> <p><b>Revisions:</b> None</p>
195	Application, Section E, Pg.3	<p><b>Comment:</b> All of the documents referenced in Section E should be attached to the permit to, at a minimum, provide user friendly public access to the long and complex history of the site, as well as to support the February 2010 representations made about these reports and documents.</p> <p><b>Response:</b> The documents referenced in Section E of the application, and in turn, in Attachment E of the Permit, are presented for informational purposes to provide background documentation with respect to the site's SWMUs and their remediation. They do not contain corrective action requirements, and therefore do not need to be incorporated into the Permit. For referenced documents which are in NYSDEC files, the public may obtain access via F.O.I.L.</p> <p><b>Revisions:</b> None</p>
196	Application, Section E, Pg.4	<p><b>Comment:</b> Are Corrective Actions subject to the DEC's Green Remediation guidelines? If so, please provide a copy of the submission by CWM or its contractor comparing these guidelines, for each unit, to support the current proposal, particularly in light of the historical practices and results, to date.</p> <p><b>Response:</b> See NYSDEC's Response to Comment #48-193.</p> <p><b>Revisions:</b> None</p>
197	Application, Section E, Pg.4	<p><b>Comment:</b> The Corrective Actions conclusion suggests that Corrective Actions proposed will be final. However, this section acknowledges that only certain areas and levels of contamination requiring remediation are not included in the "Final" Measures.</p> <p><b>Response:</b> All corrective measures put in place through the February 2000 Permit modification which finalized the NYSDEC's Statement of Basis, are considered final from a regulatory perspective (i.e., they are not "interim" corrective measures). However, this does not preclude enhancements to these "final" measures which have been determined to be necessary in certain areas, nor does it preclude future enhancements/modifications which may be needed based on new information or changed conditions.</p> <p><b>Revisions:</b> None</p>



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Com. No.	Title / Section / Page	Comment / Response / Revisions
198	Application, Section E, Pg.4	<p><b>Comment:</b> Where are "Appropriate Institutional Measures" set forth in the permit?</p> <p><b>Response:</b> "Appropriate Institutional Controls" pertaining to corrective action entail deed restrictions which are described by Condition C of Exhibit B in Schedule 1 of Module I of the Permit.</p> <p><b>Revisions:</b> None</p>
199	Application, Section E, Pg.4	<p><b>Comment:</b> After 30 years of failing to achieve completion of a Final Corrective Measure, why does DEC believe it is appropriate to renew treatment, storage and disposal conditions, in advance of achieving remediation?</p> <p><b>Response:</b> See NYSDEC's Responses to Comment #s 14, 22 &amp; 41.</p> <p><b>Revisions:</b> None</p>
200	Application, Section F, Pg.2	<p><b>Comment:</b> What are the intervals of the "DANGER" signs posted around the facility fencing? Is this also clearly marked and posted in areas where roads and off-road recreational vehicle paths (approved or otherwise) are visible from 25 feet of the CWM fence?</p> <p><b>Response:</b> The requirements for posting of signs reading "Danger-Unauthorized Personnel Keep Out" along the Facility's perimeter fence are contained in Attachment B of the Permit and are in compliance with regulations under 6 NYCRR 373-2.2(f)(3). These regulations require that such signs be posted at the facility entrance and at other locations so as to be seen from any approach to the facility and are legible from a distance of at least 25 feet. In CWM's case, such signs are posted at the Facility entrance and on the perimeter fence at approximately 50 foot intervals so that a sign is visible within 50 feet of any approach to the Facility property.</p> <p><b>Revisions:</b> None</p>
201	Application, Section G, Pg.5	<p><b>Comment:</b> CWM should be required to notify local officials and DEC in event of any fire, explosion or reaction.</p> <p><b>Response:</b> NYSDEC acknowledges this comment. See NYSDEC's Response to Comment #16 in Section II of this Responsiveness Summary for details regarding this topic and the specific modifications made to Condition A.5 of Exhibit A in Schedule 1 of Module I of the Permit pertaining to notification of local fire authorities.</p> <p><b>Revisions:</b> See revisions to Condition A.5 of Exhibit A in Schedule 1 of Module I of the Permit as presented under NYSDEC's Response to Comment #16 in Section II of this Responsiveness Summary.</p>
202	Application, Section I.2, RMU1 P-Clos. Pg.2	<p><b>Comment:</b> We disagree that 2006 is the year RMU-1 is expected to close, (though we certainly would support this date.) The applicant should revise its application to reflect 2015.</p> <p><b>Response:</b> Although Section I.2 of the Post-Closure Plan in the Application indicates 2006 as the expected year of RMU-1 closure, this sentence was indicated for deletion in the incorporation of Section I.2 into Attachment I of the Draft Permit and has been deleted from the new Permit.</p> <p><b>Revisions:</b> None</p>

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Com. No.	Title / Section / Page	Comment / Response / Revisions
203	Application, Section I.2, Site P-Clos. Pg.2	<p><b>Comment:</b> We disagree that the year 2021 represents a realistic final closure date for the facility. Capping should be complete by 2015.</p> <p><b>Response:</b> The year 2021 is CWM's expected year for closure of the entire facility, not just a particular landfill.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: NONE SPECIFIED <sup>1</sup>		
Com. No.	Topic	Comment / Response / Revisions
204	Public Access	<p><b>Comment:</b> Please "describe the existing environmental burden on the potential environmental justice area" or, describe why this community if not the entire county is not an environmental justice area.</p> <p><b>Response:</b> See NYSDEC's Responses to Comment #s 24, 32, 48-28 &amp; 48-56.</p> <p><b>Revisions:</b> None</p>
205	Operations	<p><b>Comment:</b> Please identify the impact to surveillance and well monitoring as analyzed by DEC during the extended downtime of groundwater pumping at the site a few years ago.</p> <p><b>Response:</b> The downtime of the groundwater pumping system indicated by this comment did not result in a measureable impact on the remediation of the subject areas.</p> <p><b>Revisions:</b> None</p>
206	Operations	<p><b>Comment:</b> Please provide all dates during which groundwater pumping systems were not functioning; a) since the last permit renewal and b) since RMU-1 was sited.</p> <p><b>Response:</b> NYSDEC does not have records specifically listing the dates the groundwater pumping systems were not in operation and therefore cannot provide a specific response to the question posed in this comment. However, information on operational periods of these systems is presented in quarterly effectiveness monitoring reports for the corrective action systems which are in NYSDEC files. The public can submit a request under the Freedom of Information Law (FOIL) to obtain relevant records.</p> <p><b>Revisions:</b> None</p>
207	Air	<p><b>Comment:</b> What is the most recent date that a member of DEC's Air Division has inspected the site and reviewed all operational and emergency response conditions in the permit and documents incorporated by reference? What documentation is available to describe such a review if it took place?</p> <p><b>Response:</b> The Division of Air Resources (DAR) utilizes the NYSDEC On-site monitors who perform frequent inspections of the site which include matters of air quality. Any identification of odors or other air concerns are documented in the Monitor's monthly reports which are reviewed by DAR staff.</p> <p><b>Revisions:</b> None</p>
208	SPDES	<p><b>Comment:</b> The SPDES permit requires annual inspection of the diffuser at the point of the CWM discharge in the Niagara River. Has this diffuser been inspected since the last RCRA permit renewal? If so when?</p> <p>What is the date of the last SPDES permit renewal for CWM?</p> <p><b>Response:</b> The inspection of the discharge diffuser is not part of the RCRA program, but rather is overseen by the NYSDEC's Division of Water. The public can submit a request under the Freedom of Information Law (FOIL) to obtain relevant records.</p> <p>The SPDES Permit became effective on October 1, 2003 and expired on October 1, 2008 but was extended under the State Administrative Procedures Act (SAPA) based on CWM's timely submission of a renewal application. The renewal process for CWM's SPDES Permit is currently ongoing.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: NONE SPECIFIED <sup>1</sup>		
Com. No.	Topic	Comment / Response / Revisions
209	Stabilization	<p><b>Comment:</b> Please provide a list (to include date) of bag replacements in the bag houses of the stabilization pit.</p> <p><b>Response:</b> NYSDEC does not have records specifically listing the dates of Stabilization facility air emission control system bag replacements and therefore cannot provide a specific response to the question posed in this comment.</p> <p><b>Revisions:</b> None</p>
210	Stabilization	<p><b>Comment:</b> Please explain why all unpermitted emissions from the stabilization pit are monitored by daily "visual" inspection. Does DEC believe that all potential unpermitted emissions would be "visible"?</p> <p><b>Response:</b> Because of reagents routinely used in the stabilization process (e.g., cement dust), visible particulates are often released into the air within the stabilization building. Visual inspection of the building's exterior for particulate emissions can therefore be used to assist in compliance monitoring. However, NYSDEC On-Site Monitors also inspect the facility for odor generation.</p> <p><b>Revisions:</b> None</p>
211	Stabilization	<p><b>Comment:</b> The O&amp;M for Stabilization states: "Particulate air emissions to the environment are controlled by baghouses on the reagent silos and a dust collection system in the facility." What does "controlled" mean?</p> <p>What volume of particulates have entered the environment from the stabilization pit since; a) siting of RMU-1, and b) since the last permit renewal?</p> <p><b>Response:</b> The term "controlled" with regard to particulate air emissions is likely associated with requirements in the Facility's Fugitive Dust Control Plan (Attachment L of the RCRA Permit) which requires the facility to comply with the national primary and secondary 24 hour ambient air quality standard for particulate matter of 150 micrograms/cubic meter, 24 hour average concentration, and the level of the national primary and secondary <b>annual</b> standard for particulate matter is 50 micrograms/cubic meter, (annual arithmetic mean).</p> <p>NYSDEC does not have records indicating the total volume of particulates generated from the stabilization facility since RMU-1 siting and since the last Permit renewal, and therefore cannot provide a specific response to the question posed in this comment.</p> <p><b>Revisions:</b> None</p>
212	Stabilization	<p><b>Comment:</b> Given the sharp reduction in staffing at CWM since RMU-1 was sited, and since the last permit renewal, does DEC believe that a permit condition requiring only "A CB radio system designed for communications between the operating floor and the supervisor's office" constitutes an adequate emergency communication network from the Stabilization area?</p> <p><b>Response:</b> NYSDEC has no concerns with this form of communication for the Stabilization area.</p> <p><b>Revisions:</b> None</p>
213	Stabilization	<p><b>Comment:</b> When was the last time DEC's Air Division reviewed the Stabilization O&amp;M manual? Please provide all information or documents related to that review.</p> <p><b>Response:</b> NYSDEC reviewed the Stabilization O&amp;M Manual as part of our review of CWM's Permit renewal application.</p> <p><b>Revisions:</b> None</p>

<b>DOCUMENT: NONE SPECIFIED<sup>1</sup></b>		
<b>Com. No.</b>	<b>Topic</b>	<b>Comment / Response / Revisions</b>
214	Engineering	<p><b>Comment:</b> The 1,027 page Engineering Report, does not appear to have been updated nor substantially revised in many years, despite its 2008 "revision date." Please indicate the last date on which a member of DEC engineering staff reviewed this document in its entirety.</p> <p>Please provide documents that may reflect a full review was conducted and completed by the Department.</p> <p><b>Response:</b> The RMU-1 Engineering Report provides support for the liner/cover design and operational documents associated with the RMU-1 landfill (e.g., RMU-1 Drawings, RMU-1 Technical Specifications, RMU-1 Construction QA/QC Manual, RMU-1 O&amp;M Manual, etc.). Since there has been a limited number of substantial changes to RMU-1 design and operation since it was originally Permitted, there has not been a need for frequent revisions of this report.</p> <p>NYSDEC reviewed the RMU-1 Engineering Report as part of our review of CWM's Permit renewal application.</p> <p><b>Revisions:</b> None</p>
215	Daily Cover	<p><b>Comment:</b> Please indicate the number of days since a) RMU-1 was permitted and b) the permit was renewed, that contaminated soils were used for daily cover.</p> <p>Please also indicate the number of days fugitive emissions from such cover were sampled and analyzed for contaminants (list contaminants analyzed for)</p> <p><b>Response:</b> NYSDEC does not have records specifically listing the number of days contaminated soils were used for RMU-1 daily cover since the landfill was sited or since the last renewal and therefore cannot provide a specific response to the question posed in this comment.</p> <p>The Permit does not require monitoring of emissions that might originate specifically from RMU-1 Daily Cover. However, Attachment N of the RCRA Permit requires CWM to perform "PM-10" facility perimeter air sampling for particulates at a minimum of six (6) locations on a frequency of once every six (6) calendar days.</p> <p><b>Revisions:</b> None</p>
216	Final Cover	<p><b>Comment:</b> Have the defects in the geomembrane identified in 2010 been resolved? If so, how? And did the resolution result in any changes to the cap redesign modification originally approved? (which resulted in significant additional waste disposal capacity that was the subject of formal dispute between local stakeholders and the Department)</p> <p><b>Response:</b> The geomembrane seaming problems encountered during the 2010 RMU-1 Phase VII final cover installation was determined to be attributable to manufacturing defects in the geomembrane sheets. This problem was resolved by the replacement of all defective geomembrane sheets deployed in 2010 with new material that was able to be seamed to specifications.</p> <p>The resolution of this problem did not result in any changes to the RMU-1 final cover design.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: NONE SPECIFIED <sup>1</sup>		
Com. No.	Topic	Comment / Response / Revisions
217	Financial Assurance	<p><b>Comment:</b> The issuing financial institution is no longer in existence. Does documentation need to be updated to reflect the successor and current law?</p> <p><b>Response:</b> In 2008, the Wachovia Corporation (issuing entity for a Letter of Credit totaling \$68,657,993 for CWM Facility Closure, Post-Closure and Corrective Action) was acquired by Wells Fargo &amp; Company. The financial obligations with regard to the Letter of Credit have been transferred to Wells Fargo upon their acquisition of Wachovia. The permit includes a provision for the applicant to submit acceptable financial assurance within 60 days of issuance for the full amount (i.e. \$100 million) required by the renewed permit.</p> <p><b>Revisions:</b> None</p>
218	Financial Assurance	<p><b>Comment:</b> Whether letter of credit from a bank, or surety instrument from an Insurance Company, what are the bond ratings for all issuing institutions? (list please)</p> <p>Is there a trigger to require replacement of the assurance instrument if the rating of the bank or insurer drops below investment grade?</p> <p><b>Response:</b> NYSDEC does not have records indicating the Bond Ratings for the institutions issuing the CWM financial instruments and therefore cannot provide a specific response to the question posed in this comment.</p> <p>The regulations governing financial assurance do not contain a specific Bond Rating trigger which would require replacement of these CWM financial instruments. For letters of credit, the regulations require that "the financial institution issuing the letter of credit must be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by a Federal or State Agency." [See 6 NYCRR 373-2.8(d)(3) and 373-2.8(f)(3).] For surety bonds, the regulations require that "the surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on Federal bonds in Circular 570 of the U.S. Department of the Treasury." [See 6 NYCRR 373-2.8(d)(2) and 373-2.8(f)(2).]</p> <p>Wachovia Corporation and now Wells Fargo are financial institutions that have authority to issue letters of credit and whose such operations are regulated &amp; examined by a Federal or State Agency. RLI Insurance Company is the surety for CWM's existing surety bond and they are listed in US Department of Treasury's Circular 570 as an acceptable surety.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: NONE SPECIFIED <sup>1</sup>		
Com. No.	Topic	Comment / Response / Revisions
219	Financial Assurance	<p><b>Comment:</b> The trustee bank in Illinois is not a large institution and underwent a merger in 2006 into another relatively small institution. Is there a bond rating for this bank?</p> <p>Does the permit require replacement of the trustee if its bond rating declines below investment grade? The institution, MB Financial, listed as a "small cap".</p> <p><b>Response:</b> NYSDEC does not have records indicating the Bond Ratings for the institution issuing the CWM Standby Trust and therefore cannot provide a specific response to the question posed in this comment.</p> <p>The regulations governing financial assurance do not contain a specific Bond Rating trigger which would require replacement of the trustee. However, the regulations require that "the trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State Agency." [See 6 NYCRR 373-2.8(d)(1) and 373-2.8(f)(1).]</p> <p>Oak Brook Bank was assumed by MB Financial Bank under the 2006 merger. Financial obligations with regard to the Standby Trust Agreement have been transferred to MB Financial Bank upon their acquisition of Oak Brook Bank. This was confirmed with their Trust Department.</p> <p><b>Revisions:</b> None</p>
220	Financial Assurance	<p><b>Comment:</b> What conditions in the financial assurance instruments prevent a draw on those instruments from being stayed in the event of bankruptcy by CWM or its parent, WM? Note: Letters of credit with draw provisions on "sight" have been stayed in some cases.</p> <p><b>Response:</b> The conditions upon which the NYSDEC Commissioner can direct the entity providing the third party financial assurance instrument to fund the Stand By Trust are spelled out in the wording of each third party instrument, as stipulated in the regulations. NYSDEC cannot speculate under what circumstances a court might issue a "stay" on a Commissioner's direction to fund the stand by trust.</p> <p><b>Revisions:</b> None</p>
221	Financial Assurance	<p><b>Comment:</b> Why is the one-year estimate for Corrective Actions in the financial assurance calculation, less than half the actual yearly average since 1993?</p> <p>This higher yearly average would also need to be adjusted for inflation as well as the off-site vs. on-site treatment and disposal costs.</p> <p>The calculated estimate that Corrective Actions would average as low as \$446,000 (before adjusted for inflation) is contradicted by the history, size and complexity of the site.</p> <p><b>Response:</b> NYSDEC is unaware of any publically available information detailing CWM's actual annual expenditures on corrective action, therefore it is not possible for NYSDEC to provide a response to the question posed in this comment regarding a comparison of "actual" verses estimated annual corrective action costs.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: NONE SPECIFIED <sup>1</sup>		
Com. No.	Topic	Comment / Response / Revisions
222	Financial Assurance	<p><b>Comment:</b> Why does the financial assurance calculation exclude post-closure expense for any radiological surveillance and remediation? This is another reason why all radiation-related documents should be incorporated into the permit, and not by reference.</p> <p><b>Response:</b> The regulations under 6 NYCRR 373-2.8(e)(1) require that the amount of financial assurance for post-closure care of a land disposal facility be based on the annual cost of post-closure monitoring and maintenance activities which are required by specific cited regulations, and which are detailed in a Facility's Post-Closure Plan. These cited regulations (6 NYCRR 373-2.14(g) for landfills) do not require post-closure activities with respect to radiological contamination.</p> <p><b>Revisions:</b> None</p>
223	Oversight	<p><b>Comment:</b> The authority of the New York State Department of Health with respect to its Order on most of CWM property should be acknowledged in this permit.</p> <p>Where in the draft permit documents is this authority clearly described? Does that description have affirmative concurrence from NYS DOH counsel?</p> <p><b>Response:</b> Although not explicitly cited in the Permit, NYSDOH's authority to enforce its 1972/1974 Order pertaining to the LOOW properties (including the CWM facility property) is in no way in conflict with the Permit. To further insure against any potential conflict, Permit Conditions requiring NYSDEC review and approval of CWM documents related to radiological matters require NYSDEC to obtain the concurrence of NYSDOH prior to granting such approvals. This is described under Condition D of Exhibit B in Schedule 1 of Module I of the Permit.</p> <p><b>Revisions:</b> None</p>
224	Financial Assurance	<p><b>Comment:</b> Why does the financial assurance calculation exclude the cost of remediating the Castle Garden dump site located directly beneath Fac Ponds 1 &amp; 2? This area is documented to contain radiological residues from processing of atomic weapons production material. There is no known documentation indicative of any Atomic Energy Commission remediation. CWM is clearly a PRP and DEC cannot predict the outcome of future determinations on the extent of CWM responsibility for placing and or operating obstacles to remedial investigation.</p> <p><b>Response:</b> The financial assurance does not include remediation of the Castle Garden site as cited by this comment since such remediation is not required by the Permit based on the February 2000 Final Statement of Basis. Also, see NYSDEC's Responses to Comment #s 47 &amp; 48-24.</p> <p><b>Revisions:</b> None</p>
225	Corrective Action - Radiological	<p><b>Comment:</b> What "containment" if any was documented to have been used for Linde residues that reside in the Castle Garden dump site under CWM Fac Ponds 1&amp; 2? What containment if any was constructed for the Castle Garden burial area? (located beneath CWM Fac Ponds 1 &amp; 2)</p> <p><b>Response:</b> The presence of "Linde residues" beneath Fac. Pond 1 &amp; 2 has not been established. Regardless, exposure to any potential sub-surface residues be addressed through the Site Soil Excavation Monitoring and Management Plans which contain protections against radiological exposures.</p> <p><b>Revisions:</b> None</p>



DOCUMENT: NONE SPECIFIED <sup>1</sup>		
Com. No.	Topic	Comment / Response / Revisions
226	Corrective Action - Radiological	<p><b>Comment:</b> Has DEC given up its authority to require CWM to identify and remediate any radiological contamination on its property? Regardless of the extent of CWM's Responsible Party status under federal regulation?</p> <p><b>Response:</b> See NYSDEC's Response to Comment #48-24.</p> <p><b>Revisions:</b> None</p>
227	Corrective Action - Radiological	<p><b>Comment:</b> Has the DEC made any comments to the Dept. of Energy or the Army Corps of Engineers regarding CWM's responsibility for obstructing federal remediation, or dispersal of federal contamination on its property?</p> <p>Please post or electronically provide copies of all DEC communication with U.S. DOE or USACE regarding radiological contamination on CWM property since the last permit renewal.</p> <p><b>Response:</b> NYSDEC has not made any comments to the USDOE or the USACE of the type specified by this comment.</p> <p>With respect to the request for copies of DEC written communications with USDOE or USACE regarding radiological contamination on CWM property since the last permit renewal, these communications are maintained in NYSDEC files and will be available upon a FOIL request. The person making this comment will be contacted within 15 days of the issuance of this Responsiveness Summary to confirm the person's interest in obtaining these documents and if interested, to make arrangements to provide the documents.</p> <p><b>Revisions:</b> None</p>
228	Financial Assurance	<p><b>Comment:</b> Is the applicant required to maintain 100% insurance coverage sufficient to replace all structures, equipment, Fac Ponds, liners and caps, etc. necessary to comply with perpetual maintenance, in the event those property improvements are damaged to the extent they require replacement?</p> <p>If so, what is the amount of that insurance and what documents evidence this coverage and support the amount is appropriate?</p> <p><b>Response:</b> See NYSDEC's Response to Comment #26.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: NONE SPECIFIED <sup>1</sup>		
Com. No.	Topic	Comment / Response / Revisions
229	Financial Assurance	<p><b>Comment:</b>            If the amount financial assurance is insufficient or unavailable to cover maintenance or replacements and CWM went bankrupt, what entity would be required to assume post-closure responsibility;            a) if the facility were not foreclosed upon by taxing authorities?            b) what taxing authorities would potentially have a right to foreclosure? (whether or not that possibility would be likely)</p> <p><b>Response:</b>            First, as a point of clarification, should CWM fail to fully fund the Stand By trust with its own financial resources prior to final closure as required under the regulations (6 NYCRR 373-2.8(d) &amp; (f)) due to bankruptcy or other reasons, the Commissioner may draw upon the financial instruments (e.g., Surety Bond, Letter of Credit) to fund the Trust for closure, post-closure and corrective action in the amount specified by the financial instruments. If the amount of the Trust is subsequently determined to be insufficient to finance all the necessary closure, post-closure and corrective action activities or the Trust is totally depleted without completing all such activities, it will be likely necessary to seek alternative sources of funding to continue such activities. NYSDEC cannot and will not speculate on alternative funding sources or on the CWM foreclosure scenarios described in this comment at this time since they are not currently relevant to the CWM Permit renewal.</p> <p><b>Revisions:</b> None</p>
230	Operations	<p><b>Comment:</b>            CWM's actual inspection schedules were not provided in its application, and were instead, referenced as being located on site. Please provide a copy of CWM's Inspection Plan; a) as it existed when RMU-1 was sited, 2) at last permit renewal, and 3) proposed for this permit renewal. All of three are requested to determine the extent to which inspections have been reduced, which seems probable given the more than 75% decline in the number of CWM employees since RMU-1 was sited.</p> <p>Please provide the total number of full-time CWM (not WM) employees at the site; a) when RMU-1 was sited, b) at the last permit renewal and c) today. (Headcount is not exempt from FOIL.)</p> <p><b>Response:</b>            The version of the CWM Inspection Forms which CWM is required by the new Permit to utilize for facility inspections, are contained in Attachment F of the new Permit, and were presented for public review in the Draft Permit during the renewal process and are available through the NYSDEC web site at <a href="http://www.dec.ny.gov/chemical/49051.html">http://www.dec.ny.gov/chemical/49051.html</a>. The version of these inspection forms which were put in place as a result of the previous 2005 Permit renewal, are contained in Attachment F of the 2005 Permit which is available to the public through the NYSDEC web site at <a href="http://www.dec.ny.gov/chemical/30726.html">http://www.dec.ny.gov/chemical/30726.html</a>. The version of these inspection forms which were in the Permit at the time RMU-1 was sited are in NYSDEC files. The public can submit a request under the Freedom of Information Law (FOIL) to obtain relevant records.</p> <p>With respect to CWM employees, NYSDEC does not have records indicating the number of CWM employees at the times specified in this comment and therefore cannot provide a specific response to the question posed in this comment.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: NONE SPECIFIED <sup>1</sup>		
Com. No.	Topic	Comment / Response / Revisions
231	Emergency Response	<p><b>Comment:</b> The home addresses for the Emergency Coordinator and 2 alternates are in other towns, far away from the CWM site. Is that coverage adequate?</p> <p>All CWM Emergency coordinators listed are not on-site at all times, nor are their addresses (Lockport, N. Tonawanda and Newfane) near the site. Are they all still employed by CWM Chemical?</p> <p><b>Response:</b> The Permit requires CWM to comply with the regulations under 6 NYCRR 373-2.4 (Condition K.2 in Module I of the Permit). These regulations require the Emergency Coordinator or one of the designated alternates to either be on-site or available to respond to an emergency incident within a short period of time (6 NYCRR 373-2.4(f)). Regardless of where CWM's Emergency Coordinators reside, NYSDEC considers that CWM is obligated by the above cited regulation to either have an Emergency Coordinator on-site or off-site and able to respond within a short period of time.</p> <p>With respect to the specific individuals indicated in the CWM Contingency Plan (Attachment G of the Permit), as the Emergency Coordinator and Alternates, to the best of NYSDEC's knowledge, these individuals are current CWM employees. It should be noted that CWM must request a Permit modification to change the Emergency Coordinator or Alternates.</p> <p><b>Revisions:</b> None</p>
232	Emergency Response	<p><b>Comment:</b> Is it appropriate for CWM to make the sole determination of whether any release has the potential to travel off site? Particularly with reduced staff and therefore depth. Any emission would seem likely to travel off-site in some form.</p> <p><b>Response:</b> The Permit requires CWM to comply with the regulations under 6 NYCRR 373-2.4 (Condition K.2 in Module I of the Permit). These regulations specifically obligate the CWM Emergency Coordinator (or Alternate) to assess whether a release could threaten human health or the environment outside of the facility (6 NYCRR 373-2.4(g)). Therefore, NYSDEC considers it appropriate for these CWM personnel to make such a determination.</p> <p><b>Revisions:</b> None</p>
233	Emergency Response	<p><b>Comment:</b> Please post copies of all emergency "coordination agreements"</p> <p><b>Response:</b> The "coordination agreements" (i.e., documentation of arrangements with local authorities) are contained in Attachment 1 of the CWM Contingency Plan located in Attachment G of the Permit. As such they appear in NYSDEC's web posting of the Draft Permit at <a href="http://www.dec.ny.gov/chemical/49051.html">http://www.dec.ny.gov/chemical/49051.html</a>.</p> <p><b>Revisions:</b> None</p>
234	Emergency Response	<p><b>Comment:</b> Please provide the assumptions for worst-case emergency response needs, and quantify the resources available at any time to address such a scenario.</p> <p><b>Response:</b> NYSDEC cannot and will not speculate on "worst-case emergency" scenarios or on the resources needed for such scenarios.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: NONE SPECIFIED <sup>1</sup>		
Com. No.	Topic	Comment / Response / Revisions
235	Emergency Response	<p><b>Comment:</b> Is it appropriate to coordinate emergency response exclusively through county and state police, given that the Town of Lewiston Police Dept. is located roughly 2 miles from the CWM gate?</p> <p><b>Response:</b> It is not clear to NYSDEC as to the specific document from which this comment pertains. However, the CWM Contingency Plan in Attachment G of the Permit does list the Town of Lewiston Police Department as one of the agencies to be contacted when an emergency incident has the potential to affect off-site areas. Also, this Contingency Plan does not appear to designate any particular outside agency with the duty to coordinate emergency response.</p> <p><b>Revisions:</b> None</p>
236	Emergency Response	<p><b>Comment:</b> Does the permit require the applicant promptly provide copies or reports of all communication with County Sheriff or State Police? If not, such a condition is recommended.</p> <p><b>Response:</b> The CWM Contingency Plan in Attachment G of the Permit and regulations under 6 NYCRR 373-2.4(g)(10) which are referenced by the Permit, require CWM to submit a report to the NYSDEC within 15 days of an emergency incident. In conjunction with this report, NYSDEC can request copies of communications if deemed necessary.</p> <p><b>Revisions:</b> None</p>
237	Emergency Response	<p><b>Comment:</b> When is the last time each "Local Emergency Agency" was contacted to review the Contingency Plan? Permit indicates the year, 2000 except 2005 in one case. Please provide date and documentation for each.</p> <p><b>Response:</b> To the best of NYSDEC's knowledge, CWM has not formally requested outside Agencies to review their Contingency Plan since the dates indicated on the coordination agreements. However, the plan was made available to the public for review and comment in conjunction with this Permit renewal process, and CWM is required by the Permit through the regulations to provide listed outside agencies with copies of all approved revisions to the plan.</p> <p><b>Revisions:</b> None</p>
238	Emergency Response	<p><b>Comment:</b> Some members of the emergency response team identified in CWM's applicant are no longer at CWM, and there is extensive duplication of personnel for the 9 functions identified, not including "scribes". Please explain why DEC considers this sufficient personnel, particularly because they would not all be expected to be on-site during all hours of operation.</p> <p><b>Response:</b> Attachment G of the Permit containing the Contingency Plan has been modified as indicated in the Draft Permit to update the CWM personnel on their emergency response team. See NYSDEC's Response to Comment #48-45 with respect to sufficiency of CWM personnel for emergency incidents.</p> <p><b>Revisions:</b> None</p>
239	Emergency Response	<p><b>Comment:</b> Given the limitations of on-site emergency personnel, how many drills or exercises have been conducted? With how many area emergency responders participating in each? On what dates?</p> <p><b>Response:</b> NYSDEC does not have records of CWM emergency drills or exercises conducted in the past and therefore cannot provide a specific response to the questions posed in this comment. However, the CWM Personnel Training Plan in Attachment H of the Permit requires CWM to conduct annual refresher training on responding to emergencies and at least one facility evacuation drill a year.</p> <p><b>Revisions:</b> None</p>

DOCUMENT: NONE SPECIFIED <sup>1</sup>		
Com. No.	Topic	Comment / Response / Revisions
240	Operations – Post-Closure	<p><b>Comment:</b> Post-closure landfill inspections of 12x/yr declining to 4x/yr in Year 2, 2x/yr in Year 3, and once a year in Year 11 and thereafter is inappropriate. The probability of problems increases, not decreases with the passage of time, and with the higher number and size of hazardous waste landfills at this site. Inspections should never decline below once per month.</p> <p><b>Response:</b> NYSDEC acknowledges the concerns expressed by this comment. If NYSDEC observations of closed landfill conditions suggest that more frequent inspections are warranted, NYSDEC will take steps to increase these CWM inspection frequencies.</p> <p><b>Revisions:</b> None</p>
241	Oversight	<p><b>Comment:</b> Does DEC retain full discretion to increase the frequency, type, sampling and analysis for post-closure environmental surveillance sampling? Where in the permit documents. If not, please clarify this in the permit.</p> <p><b>Response:</b> If deemed necessary by NYSDEC, NYSDEC can take steps to increase the frequency of sampling and analysis with respect to post-closure monitoring by initiating a Permit modification in accordance with 6 NYCRR 621.13.</p> <p><b>Revisions:</b> None</p>
242	Oversight	<p><b>Comment:</b> Given the enormous, permanent burden placed on the community, could the permit include conditions that provide for enforcement of certain conditions by local stakeholders? This is important not only because the permanent hazardous waste volume and therefore, degree of risk, has increased since RMU-1 was sited, but also because we have observed numerous problems not identified by DEC. Transportation problems and Niagara River discharges are among the numerous examples.</p> <p><b>Response:</b> NYSDEC considers it beyond our regulatory authority to grant local stakeholders the ability to enforce Permit conditions. Also, see NYSDEC's Response to Comment #48-15.</p> <p><b>Revisions:</b> None</p>
243	Public Access	<p><b>Comment:</b> Would DEC please "describe the existing environmental burden" on this community or alternatively, describe why this community if not the entire county is not an environmental justice area. Please indicate whether a member of EJ staff has reviewed this application and determined the screening or evaluation were adequate and appropriate.</p> <p><b>Response:</b> See NYSDEC's Responses to Comment #s 24, 32, 48-28 &amp; 48-56.</p> <p><b>Revisions:</b> None</p>
244	Public Access	<p><b>Comment:</b> The nature, extent and 30-year history of Corrective Actions and adds or modifications for CWM absent the kind of public participation typically conducted for brownfields is very disturbing. How will DEC cure the lack of information and public communication for most of the past two decades, (except for one event around 2000.)</p> <p><b>Response:</b> For RCRA (Part 373-2) Facilities, public participation with respect to additional or modified corrective action is based on whether such changes constitute "major" or "minor" modifications of the Facility's Permit as defined under 6 NYCRR 373-1.7 of the regulations. Modifications which are deemed "major" under these regulations require public notification and a public comment period lasting a minimum of 45 days. NYSDEC has and will continue to provide public involvement with respect to corrective action changes as required by the aforementioned regulations.</p> <p><b>Revisions:</b> None</p>

**FOOTNOTE:**

1. The specific comments in this table were not ascribed to any particular document by the submitter.

**Persons/Groups That Submitted This Comment:**

1. Witryol, Amy, Letter (dated March 29, 2013)

**NYSDEC  
RESPONSIVENESS  
SUMMARY**

**APPENDIX A OF SECTION I  
ACTUAL PUBLIC COMMENT  
DOCUMENTS  
&  
LEGISLATIVE PUBLIC  
HEARING TRANSCRIPT**

# WRITTEN COMMENT DOCUMENTS

NOTE: Due to DEC Public web site file size and accessibility constraints, the Written Comment Documents and Legislative Public Hearing Transcript in Section I, Appendix A are not available on the DEC Web site. An electronic copy can be made available to those interested by calling the DEC Albany Office at 518-402-9814, contact Matthew Mortefolio.



**WRITTEN COMMENT  
DOCUMENTS**

**TABLE OF CONTENTS  
(Alphabetical & Date Order)**

<b>List #</b>	<b>Commenter's Name and/or Organization</b>	<b>Date of Comments</b>	<b>Form of Comments</b>
1	Abraham, Gary A., Representing: Niagara County; Town of Lewiston; Village of Lewiston & Village of Youngstown	3/28/13	Letter
2	Acker, Garold B.	1/30/13	Letter
3	Agnello, Vincent	1/14/13	Letter
4	Aversa, Tony & Maria	2/3/13	Letter #1
5	Aversa, Tony & Maria	2/3/13	Letter #2
6	Beahan, Laurence T., Conservation Chair, Sierra Club – Niagara Group	7/18/12	Letter
7	Bittner, Jim, President, Niagara County Farm Bureau	3/28/13	Letter
8	Brabec, Duwayne	1/14/13 received	Form
9	Brennen, Deana A., President, Niagara USA Chamber	2/19/13 received	Letter
10	Brennen, Deborah	1/29/13	Letter
11	Brennen, Joseph	1/29/13	Letter
12	Bruening, Fred & Diane	1/28/13	Letter
13	Burnett, Gerald	12/20/13 received	Letter #1
14	Burnett, Gerald E.	12/20/13 received	Letter #2
15	Burnett, Marjorie S.	12/20/13 received	Letter
16	Chabue, Lois	2/13/13	E-mail
17	Chrisman, Trudy J.,	1/4/13	Letter
18	Clark, Tom	2/1/13	Letter
19	Craft, Ron	12/24/12 received	Letter
20	DiFranco, A.	2/3/13 received	Letter
21	Edwards, Annie	2/3/13 received	Letter

<b>List #</b>	<b>Commenter's Name and/or Organization</b>	<b>Date of Comments</b>	<b>Form of Comments</b>
22	Fideli, April, President, Residents for Responsible Government (RRG); Downs, Roger, Conservation Director, Sierra Club – Atlantic Chapter; Warren, Barbara, Executive Director, Citizens Environmental Coalition; Rabe, Anne, CHEJ Campaign Coordinator, Center for Health, Environment and Justice; Smith, Brian, Program and Communications Director, Citizens Campaign for the Environment; Haight, Laura, Senior Environmental Associate, New York Public Interest Research Group & Jedlicka, Jill, Executive Director, Buffalo-Niagara Riverkeeper	3/21/13	Letter (Note: Provided by Witryol E-mail on 3/21/13)
23	Figura, Joseph & Celia J.	12/28/12	Letter
24	Funk, Edwin & Lynn	2/3/13 received	Letter
25	Gregorski, Florence	12/20/12 received	Letter
26	Harrington, Sharon	2/16/13	Letter
27	Hastings, Phyllis B.	12/26/12 received	Letter
28	Hathaway, Barbara	2/20/13 received	Letter
29	Haven, Alvin R.	2/28/13 received	Letter
30	Helmich, Helen	12/20/12 received	Letter
31	Herbst, Mary	1/29/13	Letter
32	Horvath, Dennis D.	12/31/12 received	Letter
33	Ivey, Duaine	1/31/13	Letter
34	Jackson, Sandra	2/9/13	Letter
35	Jedlicka, Jill, Executive Director, Buffalo-Niagara Riverkeeper	12/4/12	Letter
36	Jedlicka, Jill, Executive Director, Buffalo-Niagara Riverkeeper	3/28/13	Letter
37	Kalaga, Ted	1/2/13 received	Letter #1
38	Kalaga, Ted	1/4/13 received	Letter #2
39	Kilmer, Daniel F.	1/7/13 received	Letter

<b>List #</b>	<b>Commenter's Name and/or Organization</b>	<b>Date of Comments</b>	<b>Form of Comments</b>
40	Kilmer, MaryAnn	12/21/12 received	Letter
41	Kuligowski, Andrew	12/31/12	Letter #1
42	Kuligowski, Andrew	12/31/12	Letter #2
43	Lamb, Charles, Vice President, Residents for Responsible Government (RRG)	12/4/12	Letter
44	Lamb, Charles	1/14/13 received	Letter #1
45	Lamb, Charles	1/17/13	Letter #2
46	Lloyd, Tracey L.	1/29/13	Letter
47	Lombardo, Tina	2/12/13 received	Letter #1
48	Lombardo, Tina	2/28/13 received	Letter #2
49	Maalouf, George	2/16/13	Letter
50	Mahar, MaryAnn	12/20/12	Letter
51	Martin, Shirley R.	3/19/13 received	Letter
52	Maziarz, George D., New York State Senator	3/21/13	Letter
53	Mazur, Patricia	1/10/13	Letter #1
54	Mazur, Patricia	1/30/13	Letter #2
55	McGhee, Louise, Niagara County Employment and Training	1/29/13	E-mail
56	Mirabelli, Sandra	1/30/13 received	Letter
57	Nichols, Janette H. & Gerard C.	12/21/12 received	Letter #1
58	Nichols, Janette H. & Gerard C.	12/21/12 received	Letter #2
59	Orsi, Nancy J.D.	2/7/13	Letter
60	Pavesi, Alexa	4/1/13	E-mail
61	Phoenix, Richard C., PhD	1/17/13	Letter
62	Riley, Barbara J.	3/15/13 received	Letter
63	Rolland, MaryAnn	1/23/13	Letter #1
64	Rolland, MaryAnn	1/27/13	Letter #2
65	Rosario, Stephan, CAE, Executive Director, New York State Chemical Alliance	1/3/13	Letter

<b>List #</b>	<b>Commenter's Name and/or Organization</b>	<b>Date of Comments</b>	<b>Form of Comments</b>
66	Sackman, Megan	1/30/13	E-mail
67	Schneekloth, Lynda, Chair, Sierra Club – Niagara Group	12/10/12	Letter
68	Schneekloth, Lynda, Chair, & Roger Downs, Sierra Club – Niagara Group	1/14/13	Letter
69	Schultz, Sara	1/27/13	Letter
70	Schultz, Sara	1/29/13	E-mail
71	Smith, Brian P., Program and Communications Director, Citizens Campaign for the Environment	12/13/12	Letter
72	Smith, Nancy	1/29/13	Letter
73	Snell, Susan R.	3/15/13 received	Letter
74	Spira, George	1/18/13 received	Form
75	Spira, Joan	1/14/13 received	Form
76	Stephens, Fred	3/24/13	Letter
77	Unsigned	1/7/13 received	Letter
78	Warren, Rose Mary	1/28/13	Letter
79	Weld, Marn	1/17/12 received	Letter
80	Williman, Charles F.	2/25/13	Letter
81	Witryol, Amy	3/29/13	Letter
82	Zohur, Anne	1/30/13	Letter #1
83	Zohur, Anne	1/30/13	Letter #2

# **LEGISLATIVE PUBLIC HEARING TRANSCRIPT**

**JANUARY 14, 2013**

NOTE: Due to DEC Public web site file size and accessibility constraints, the Written Comment Documents and Legislative Public Hearing Transcript in Section I, Appendix A are not available on the DEC Web site. An electronic copy can be made available to those interested by calling the DEC Albany Office at 518-402-9814, contact Matthew Mortefolio.

**NYSDEC  
RESPONSIVENESS  
SUMMARY**

**APPENDIX B OF SECTION I  
DOCUMENTS SUBMITTED  
IN SUPPORT OF  
COMMENTS 41 - 47**

## MEMORANDUM



TO: Gary Abraham

FR: K. Scott King, King Groundwater Science, Inc.

DATE: 26 July 2006

SUBJECT: COMMENTS ON GEOLOGY AND HYDROGEOLOGY  
RMU-2 SCOPING DOCUMENT, CWM MODEL CITY FACILITY

Per your request, I have prepared the following comments with regard to geologic and hydrogeologic issues associated with the DEIS Public Scoping Document prepared by CWM Chemical Services, LLC, dated November 30 2005, and revised March 2006.

1. Although the description of geology and soils (Section 3.3) is a summary, it conveys a simplicity of site conditions which does not exist. The reality is that the overburden deposits above the bedrock are the product of at least three glacial advances and erosional episodes. Site investigations for earlier landfill expansions such as Wehran Engineering Corporation (1977) and the most recent hydrogeologic characterization (Golder Associates Inc. 1993) recognize subsurface complexity of the overburden. This complexity is particularly significant with regard to understanding the movement of groundwater and the optimal placement of monitoring wells. The presence of bedrock valleys, till ridges, and the distribution of coarser and finer grained geologic materials require that the subsurface unconsolidated materials should be considered to be complex.
2. The Glaciolacustrine Clay layer in the RMU-2 area is noted by CWM to be between 1 and 25 feet thick. This suggests significant variability and perhaps discontinuous "windows" in the clay. In CWM's TSCA Disposal Approval Request, the presence of this Glaciolacustrine Clay layer is highlighted as protecting the uppermost aquifer, or as a third containment system.<sup>1</sup> This "protection" is unlikely to be the case everywhere under RMU-2, if the clay layer thins. Additional site characterization may be required to determine this.

Assessment of the natural protection that a clayey aquitard can provide to contaminant transport requires specific approaches. The topic of "aquitard integrity" in glacial overburden environments such as Model City has been the subject of much scientific research over the past 20 years. The integrity of the Glaciolacustrine Clay is not well-documented under the footprint of RMU-2. Aquitard integrity depends on three factors: i) hydraulic head distribution, ii) characteristics of the contaminant(s) and iii) hydrogeologic characteristics such as hydraulic conductivity, porosity and thickness. Specific methods and techniques are now available to hydrogeologists which can be applied to confirm that aquitards do actually have the degree of integrity required for groundwater protection.

The site conceptual hydrogeologic model at Model City assumes very low migration rates of groundwater horizontally and vertically through the Glaciolacustrine Clay and Upper Till units based on a large number of field and laboratory hydraulic conductivity tests. However remnant discontinuities in the Upper tills caused the bulk vertical hydraulic conductivity to be one order of magnitude greater than assumed from testing (Golder Associates Inc. 1993). Since it is

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<sup>1</sup> Toxic Substances Control Act (TSCA) Disposal Approval Request, Residual Management Unit 2, April 2003, p.6-1.

known that downward vertical hydraulic gradients exist over most of the site most of the time, the Glaciolacustrine Clay layer may be thin in places, vertical fractures exist in the upper tills, vertical hydraulic conductivity may be greater than expected from testing individual samples and the potential contaminants from a hazardous waste landfill are of concern and will be present for a very long time, then aquitard integrity beneath the RMU-2 area could be less than expected.

The hydrogeologic investigation in support of RMU-2 should include specific testing of aquitards such as continuous coring instead of split-spoon samples to log geologic features, depth-discrete multilevel head monitoring within and across the aquitard, and careful sampling for specific chemistry markers, noble gases and/or isotopes that can provide essential information regarding relative age or past contact with the atmosphere. If groundwater flow velocities are as low as calculated, then it should be reasonably possible to prove this or provide bounding calculations. I am not aware that any of these techniques have been attempted at Model City.

3. Most of the Upper Clay Till layer under RMU-2 would be excavated and removed during construction, and would not provide any additional natural groundwater protection.
4. There is no discussion concerning the presence of sandy lenses in the Upper Till. This issue has been recognized and investigated by the U.S. Army Corps of Engineers at the nearby Niagara Falls Storage Site. This issue may impact the path that shallow groundwater (potentially contaminated by leachate) might follow under or from the landfill, and should be included in the characterization process.
5. The water table will likely occur at an elevation that is above the base of the proposed RMU-2 (elevation 305 according to Permit Drawings). Previous groundwater level measurements and inferred contours indicate the potentiometric surface in the Upper Till unit of el. 314 to 316 (Golder Associates Inc. 1993) and el. 312 to 316 (Golder Associates Inc. 1995). The proposed top of Operations Layer Grades are in the range of approximately el. 312 at the edges, to el. 324 according to the Permit Drawings. Inward hydraulic gradients will occur only if levels of leachate within the landfill can be kept less than those outside the liner, and in this case, very low. I could not easily find the design height for leachate on the liner in the permit application, but it would need to be minimal in order to maintain an inward gradient.

The potentiometric surface in the Upper Tills is very irregular due to the existing landfills and ponds on the CWM property, causing groundwater to flow in many directions, even southward which is considered to be generally "upgradient" (Golder Associates Inc. 2006, Fig 4). This complicates the location of shallow monitoring wells and identification of surface water bodies where groundwater may discharge. There appear to be a lack of monitoring wells to the southeast and southwest that could provide additional lateral contouring support.

6. The proposed RMU-2 would occupy designated wetland areas which would require mitigation as appropriate.
7. Since the CWM property contains contaminated groundwater (known and perhaps unknown), any buried waterlines or other infrastructure should be constructed in such a manner as to minimize groundwater or vapor migration along the pipe or backfill.
8. Procedures for the proper abandonment of existing monitoring wells under the RMU-2 should be specified. In view of the large number of wells, boreholes and test pits from many previous investigations, it would seem reasonable to expect that not all were, or will be, sealed perfectly to



prevent downward migration of leachate. Therefore, an assessment of the consequences of multiple vertical preferential pathways to the lower aquifer should be included in the DEIS.

9. The site preparation list does not include the installation of new monitoring wells for RMU-2.
10. The low permeability soil at site does inhibit migration, but also makes remediation and monitoring difficult. The surficial till deposits contain vertical fractures which could make precise prediction of leachate migration and monitoring difficult. Although all areas impacted by RMU-2 were certified as "in compliance" by Department of Energy (DOE), there is some doubt that the DOE surface surveys were thorough enough to find all radioactive contamination, if present or buried, to meet current-day standards. An acceptable plan for excavating, handling and assessing soil in this area should be prepared by CWM to deal with potential radiation or other contamination if encountered. All excavated soil should be subjected to radiologic and chemical testing, and approved prior to use in the liner system. The source of materials to be used in construction should be defined, tested and approved to ensure that contaminated materials are not used in the landfill construction. This should apply to offsite sources as well.
11. The effect of the proposed cutoff wall on groundwater flow, and hence groundwater monitoring locations should be addressed. Since the wall is intended to be keyed into the Glaciolacustrine Clay, shallow groundwater flow in the Upper Tills will likely be diverted in some manner which should be determined to aid in proper monitor well placement.
12. Contrary to what is stated in the last sentence of Sec 6.5, the Model City area does not have a "low water table". It is actually near or at the surface during part of the year, and a depth range of 2 to 5 feet below grade is mentioned on P. 13 of the document.
13. Reference is made to the chemical resistance of the liner materials to chemical attack. I assume this refers to the HDPE geomembrane, which has been long accepted. But, there is no reference to leachate compatibility studies that have been performed with site leachate on the actual clayey materials that will be used at this site, or the bentonite slurry wall to surround the landfill.
14. Mean hydraulic conductivity values have been used to calculate low representative groundwater velocities. A probabilistic approach would be a much better way to include uncertainty and variability in the data, and recognize the role of thin highly permeable zones in groundwater movement. It should also be noted that the hydraulic conductivity (K) value often used as representative of the Glaciolacustrine Silt/Sand zone (an important monitoring target) does not include the highest values of K, which were estimated to be one to two orders of magnitude larger than the "representative" value (Golder Associates Inc. 1993, Tables 6 and 7). Some shallow "background" wells on the south side of SLF-6 and RMU-1 are actually downgradient of the waste due to the effect of the landfills on shallow groundwater.
15. The well spacing previously determined and justified in 1985 indicated that a 140 foot separation between monitor wells was suitable around RMU-1. A re-evaluation of this issue should be performed for the particular site circumstances of RMU-2 within the overall context of existing landfills. Any groundwater contaminant modeling should use more realistic values of dispersivity (i.e. lower), as plume dispersion in general is now known to be less than typically assumed twenty years ago.
16. The lengths of the well screens for monitoring wells were not specified in the Preliminary Groundwater Monitoring Plan Prepared in 2003. The maximum length should be restricted to 5 feet or less, and not be allowed to cover the entire thickness of the Glaciolacustrine Sand and Silt aquifer as currently proposed. Multi-level piezometers to measure potentiometric head within

and across the Glaciolacustrine Clay aquitard should be considered in order to confirm its integrity.

17. The issue of climate change has not been discussed and since the waste at this site will be in place "in perpetuity", an effort should be made to consider potential effects on the landfill using some assessment of variability. In particular, climate records were previously used to estimate a site water balance and resulting infiltration rates. Potential error, or sensitivity, of these calculations to future change should be addressed.

As a general comment, there has been considerable effort expended over the years at the CWM Facility to understand hydrogeologic conditions. Nevertheless, it is my opinion that a fresh perspective on site conditions is warranted and that the points made above should be considered in the assessment of the hydrogeologic suitability of the proposed RMU-2 landfill.

## REFERENCES

- Golder Associates Inc. (1993). 1993 Hydrogeologic Characterization Update, Model City TSDR Facility, Model City, New York, volume I to III.
- Golder Associates Inc. (1995). 1994 Ground Water Level Interpretation, Model City TSDR Facility, Model City, New York.
- Golder Associates Inc. (2006). 2005 Groundwater Interpretation, Model City, New York.
- Wehran Engineering Corporation (1977). Hydrogeologic Investigation, Chem-Trol Pollution Services, Inc., Township of Porter and Lewiston, Niagara County, New York, Prepared for Chem-Trol Pollution Services, Inc.



## K. Scott King

### EDUCATION

B.Sc. (Honours) Earth Sciences, University of Waterloo, 1980  
M.Sc. (Hydrogeology) Earth Sciences, University of Waterloo, 1983

### AFFILIATIONS

*Licensed Geologist and Hydrogeologist*, State of Washington (#368)  
*Professional Geologist*, State of Idaho (# 1023)  
*Professional Geoscientist*, Province of British Columbia (P.Geo #22872)  
*Professional Geoscientist*, Province of Ontario (P.Geo #1213)  
*Member*, International Association of Hydrogeologists  
*Member*, Association of Groundwater Scientists and Engineers (NGWA)  
*Member*, Buffalo Association of Professional Geologists  
*Member*, New York State Council of Professional Geologists  
*Member*, Air and Waste Management Association – Niagara Frontier Section

### PROFESSIONAL EXPERIENCE

1993 - Present

**President, King Groundwater Science, Inc.** Initially based in Pullman WA (1993-2003), then relocated to Buffalo NY. Provided specialist consulting services in hydrogeology and hydrogeochemistry in United States and Canada. Representative project experience includes expert review, fate and transport modeling, wellhead protection studies, litigation support, conducting training workshops in contaminant hydrogeology and geochemistry, contaminated site characterization, septic suitability study, and research into modeling transport of inorganic species and methods to determine rates of biodegradation of organic contaminants.

1990 - 1993

**Sr. Hydrogeologist, Associate, Office Manager, Golder Associates, Waterloo, Ontario.** Responsible as Project Manager for several contaminated site characterizations and remediation design studies. Managed a 13 person office with administrative, quality control and business promotion responsibilities. Involved in hydrogeologic investigations for watershed management planning, private water and waste disposal services for rural subdivisions, aquifer protection strategy for a large municipality, hydrogeochemical studies involving field and modeling efforts for the decommissioning and future environmental impact of acid drainage from mine tailings, a groundwater pump and treat containment scheme, Phase 1, 2 and 3 environmental sites assessments at a variety of industrial facilities, modeling of proposed tailings management facilities at two uranium mines in northern Saskatchewan with regard to potential effects on groundwater and surface water.

1988 - 1990

**Project Hydrogeologist, Golder Associates, Vancouver, British Columbia.** Developed and carried out site characterization and remedial design studies as part of consulting team for the Pacific Place development. The 200 acre waterfront site contained coal gasification plants, railway lands, wood treatment facilities, sawmills, a landfill and numerous industrial activities.

1983 - 1988

**Hydrogeologist, Golder Associates, Mississauga, Ontario.** Responsible for hydrogeological and hydrogeochemical investigations and assessments related to solid waste landfills, mine tailings, petroleum refineries, and bulk storage facilities.

## OTHER TRAINING

### *Short Courses:*

Environmental Forensics: Methods and Applications, 2004  
Practical Use of Statistics and Geostatistics to Help Solve Environmental Problems, 1995  
Environmental Geochemistry of Sulfide Mine Wastes, 1994  
Behavior of Dissolved Organic Contaminants in Groundwater, 1991  
DNAPLs in Porous and Fractured Media, 1990 & 1995  
Treatment Technology for Contaminated Groundwater, 1990  
HAZWOPER Safety Training, 1987

## ADVISORY COMMITTEES

*Member*, Expert Panel to Review Standards in the Contaminated Sites Regulation, Province of British Columbia, Canada, March 1996.

*Member*, Technical Advisory Committee on Capture of Surface Water by Wells, Washington Department of Ecology, USA, April – September 1998.

*Subject Matter Expert*, Focus Groups 2 and 3, Hydrogeologist licensing exam preparation, Washington Department of Licensing, February–March 2002.

## SELECTED PROJECT EXPERIENCE

### Site Characterization and Remediation

Niagara County Dept of Health, NY	Coordinator for Community LOOW Project involving the review and assessment of legacy contamination studies conducted at the Lake Ontario Ordnance Works. Provided technical assistance to water well sampling study and GIS mapping project.
Science Advisory Board, Victoria, BC	Prepared report on hydrogeologic assessment tools to determine the rate of biodegradation for organic contaminants in groundwater.
Science Advisory Board, Victoria, BC	Prepared report on hydrogeologic assessment tools for modeling the transport of metals and inorganic contaminants in groundwater.
Duke, Holzman, Yaeger & Photiadis, LLP Buffalo, NY	Preparation of opinion concerning hydrocarbon contamination at former auto repair facility.
Confidential Attorney, Vancouver, BC	Review of environmental site assessment and preparation of opinion regarding the appropriateness and adequacy of the investigation and conclusions.
Environment Canada, Pacific Region	Technical review services related to hydrologic issues in support of the National Contaminated Sites Remediation Program at a variety of industrial sites (>40) in British Columbia.
Marten & Brown LLP, Olympia WA	Technical expert concerning well contamination by an agricultural chemical in support of litigation. Prepared opinion regarding time of travel and arrival concentration of a toxic organic compound.



**K. Scott King**

The Boeing Company, Seattle, WA	Performance assessment of remedial action at former landfill and Superfund site.
The Boeing Company, Seattle, WA	Technical review, development of conceptual model framework and opinions regarding TCE fate and transport at several industrial facilities in Washington and California.
WESTON Solutions, Inc, Seattle, WA	Specialist sub-consultant assisting with interpretation of RCRA Facility site characterization data, and development of soil cleanup criteria. Fate and transport modeling in support of new cleanup criteria and RCRA corrective measures study.
CH2M Hill Inc., Spokane, WA	Hydrogeochemical assistance related to investigation of wastewater treatment lagoons at City of Colfax.
University/Industrial Consortium	Comparative analysis of remedial technologies for DNAPL source zone remediation. University of Waterloo Solvents-in-Groundwater Research consortium.
Environmental Technology Center Washington, DC	Use of EPACMTP code to evaluate and review USEPA proposed standards for the disposal of petroleum refining wastes.
WA Department of Ecology	Conducted training workshops in contaminant hydrogeology and geochemistry at five regional offices for Toxics Cleanup Program.
Golder Associates Ltd., BC	Specialist sub-consultant assisting with site investigation and evaluation of lead battery reprocessing plant in interior B. C.
Hillview-Porter site, Palo Alto, CA	Technical review of RI/FS documents for site contaminated with dissolved chlorinated VOCs in groundwater and surface water.
Pacific Place, Vancouver, BC	Site characterization and remedial design of a 200 acre waterfront site on former industrial land. Soil and groundwater sampling and delineation.
Gooderham & Worts, Toronto, ON	Hydrogeologic investigation and soil assessment for the purposes of decommissioning and re-developing a 150 year old distillery site.
Stelco Steel, Hamilton, ON	Investigation and installation of monitoring wells to assess impact from coke ovens on groundwater quality. A pump and treat groundwater control system was designed and installed.
Imperial Oil, Parry Sound, ON	Investigation and remediation of a marine terminal and bulk petroleum storage area. Excavation and disposal of 40,000 m <sup>3</sup> of affected soil.
Imperial Oil, Toronto, ON	Investigation and assessment of contaminated soil and groundwater at a bulk storage area in historic harborfront area.
Texaco, Nanticoke, ON	Investigation and remediation of caustic spill at a petroleum refinery.

Monsanto, Montreal, PQ	Field investigations to assess the presence and extent of soil and groundwater contamination at a chemical plant. Preparation of recommendations for remedial alternatives.
ICI, Cornwall, ON	Soil vapor survey to delineate the likely source areas of contamination by organic solvents at a chemical plant. Utilized on-site gas chromatograph analyses.
ICI, Lambton, ON	Phase 1 and 2 ESA of nitrogen chemical works as part of property transaction.
Sunoco, Toronto, ON	Assessment and delineation of contaminated soil and groundwater following accidental release of product from bulk storage tank area.
Sunoco, Waterloo, ON	Hydrogeological assessment, soil vapor survey, product recovery and remediation by excavation of contaminated materials at a gasoline service station.
Procter & Gamble, Hamilton, ON	Sampling and assessment of soil quality prior to excavation of trench for pipeline installation.
CP Rail, Kitchener, ON	Phase 2 ESA for a former rail yard.
CP Rail, Cambridge, ON	Phase 1 and 2 ESA of a former rail yard and maintenance shop.
CP Rail, Nelson, BC	Site characterization and evaluation of remedial alternatives for a rail yard and refueling depot.
Tibett & Britten, Cambridge, ON	Phase 1 ESA of a large warehouse located in a former manufacturing facility.
Price Waterhouse, Toronto, ON	Phase 1 ESA of animal transport trucking facility where trucks were maintained and cleaned.
ANZ Bank, Toronto, ON	Phase 1 ESA of a particle board manufacturing facility.
Comdev, Cambridge ON	Phase 1 ESA of an electronics manufacturer.

**Groundwater Resources and Development Issues**

Dawson & Meade, Spokane, WA	Expert opinion in support of litigation concerning water rights and development issues for a rural subdivision in eastern Washington.
Confederated Colville Tribe, WA	Development of a groundwater survey and management plan for the second largest Indian reservation in Washington. Also development of a wellhead protection program for 22 community well systems.
City of Colfax, WA	Development of a wellhead protection program for municipal wellfields.
Golder Associates Ltd., BC	Specialist sub-consultant assisting with septic suitability and wellhead protection study for village in interior B. C.

Region Municipality of Waterloo , ON	Development of a water protection strategy for the largest municipality in Canada dependent on groundwater.
Region Municipality of Waterloo , ON	Review of development proposals for subdivisions using private services. Development of guidelines for hydrogeologic investigations in support of subdivisions using septic tanks and private wells.
Doon Creek Study, Kitchener, ON	Hydrogeologic investigations and assessment as part of development of a sub-watershed management plan.
Blue Springs Cr., Rockwood ON	Evaluation of septic suitability and water supply potential for a proposed 30 acre development in a rural area.

**Solid Waste Landfills**

Twp of Woolwich, ON	Plume delineation and monitoring of leachate groundwater plume as part of research program.
City of North Bay, ON	Drilling, monitoring well installation and geochemical sampling of groundwater as part of graduate research program.
Keele Valley Landfill, Toronto	Development and installation of unique instrumentation to monitor the performance of a clay liner, liner leachate compatibility studies, evaluation of monitoring data.
Twp. of Moonbeam , ON	Field investigation to determine impacts on groundwater quality and establish monitoring network.
Town of Cochrane , ON	Field investigation to determine impacts on groundwater and establish monitoring network.
City of Timmins (Deloro), ON	Field investigation to determine impact on groundwater and establish monitoring network
Brock South Landfill, Pickering, ON	Site characterization studies for proposed landfill siting.
Ontario Hydro, Nanticoke, ON	Site characterization for proposed flue gas desulfurization waste on fractured clay till plain.
NENT Landfill, Hong Kong	Site characterization and feasibility study for proposed 60 million tonne landfill in New Territories.
Stelco No. 3 Landfill, Hamilton, ON	Site characterization and impact assessment for groundwater plume from waterfront solid waste disposal site.
Malette Paper, Smooth Rock Falls, ON	Field investigation to determine impact on groundwater and establish monitoring network.
Kimberly-Clark, Terrace Bay, ON	Hydrogeologic studies for siting of 60 ha. stabilization lagoon for treatment of pulp mill effluent.

**Mining**

Attorney General of New York	Hydrogeologic review concerning impact of brine release following roof collapse of large salt mine.
Key Lake Mine, Saskatchewan	Hydrogeologic modeling studies to assess the impact of proposed uranium tailings management facility in open-pit mine, transport of dissolved metals, and potential impact on surface water.
Cigar Lake Mine, Saskatchewan	Hydrogeologic studies to assess the design, siting and impact of a uranium tailings management facility for a proposed uranium mine.
INCO, Sudbury Basin	Site investigation and decommissioning studies for two abandoned mine sites with acid generating waste rock piles.
Denison Mines, Elliot Lake, ON	Hydrogeologic investigation and modeling to assess decommissioning options for the Denison and Stanrock uranium mine tailings facilities which produced acid mine drainage.
Rio Algom, Elliot Lake, ON	Hydrogeologic modeling study to assess decommissioning options for the Quirke Lake uranium mine tailings facility.
SENES Consultants, Toronto	Hydrogeologic assessment of impact from phosphogypsum tailings stacks at selected mine locations in Canada.
SENES Consultants, Toronto	Development of a probabilistic transport model to simulate the transport of dissolved contaminants from uranium tailings.
ICI, Lambton, ON	Hydrogeologic and geochemical assessment of phosphogypsum stack to determine quality and volume of leachate drainage to be treated.
Eldorado Nuclear, Pt. Granby, ON	Groundwater modeling studies for the assessment of subsurface cavern disposal concept of low-level nuclear waste.



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March 18, 2013

Gary A. Abraham, Esq.  
Law Office of Gary A. Abraham  
170 No. Second Street  
Allegany, NY14706



**Re: Comments on Groundwater Issues of Site-Wide Permit Renewal  
CWM Chemical Services Model City Site, Model City, New York**

Dear Mr. Abraham:

At your request, I have reviewed various documents related to site-wide permit renewal for CWM Chemical Services Model City Site located in Model City, New York. Below are my comments on groundwater issues of the permit renewal.

**HYDROGEOLOGIC CONCEPTUAL MODEL UTILIZED BY THE APPLICANT IS OBSOLETE**

The conceptual hydrostratigraphic model of the site is based on a 27-year-old interpolation of conditions encountered in two boreholes located more than one mile apart. The model, presented in Figure 3 in Groundwater Sampling and Analysis Plan (Golder Assoc., 2009a) and attached herewith as Exhibit 1, was originally proposed by Golder Associates (1985), and was only slightly modified by Golder Associates (1993). Subsequent boring and well data have indicated substantial variability in thickness of the Upper Till Sequence, the Glaciolacustrine Clay, and the Middle Silt Units, and in the depth of the top of bedrock within the project area. However, these new data are not reflected on structural maps of individual hydrostratigraphic units of the model, and no updated cross-sections have been provided. Therefore, the presentation of site hydrogeologic conditions is overly simplistic and obsolete.

The thickness of the Glaciolacustrine Clay unit, the main aquitard unit in the study area, can be less than one (1) foot. Out of eight geotechnical borings with measured thickness of various units at the proposed RMU-2 western expansion perimeter, two showed the Upper Glaciolacustrine Clay to be only 0.7 ft thick. In the third boring this unit was 1.9 ft thick and the fourth 4.0 ft (Golder Assoc., 2002, Table 1). See Exhibit 2.

A much more detailed and robust graphical representation of site hydrological conditions is required under Part 360-2.11. CWM must provide maps depicting actual elevations of the top and bottom surfaces of the various units identified; the thickness of these units, or site cross-

sections depicting the units; the relationship between groundwater and surface water; and relation of the operating landfill to other waste management units.

The current site-wide permit, issued in 2005, fails to adequately inform the public about the presence of all known groundwater contamination areas. For example, two key maps intended to show the site-wide distribution of volatile organic chemicals in groundwater are unreadable. See NYSDEC 2005, Appendix E-4 (Corrective Action), Figs. III-1, III-2. Also, in a table provided in the Operation and Maintenance Manual for the Groundwater Extraction System, information on individual wells/sumps in the Process Area intended to indicate the presence or absence of Dense Non-Aqueous Phase Liquid (DNAPL) (Y or N option) is blacked out (See CWM 2012, page 16). Presumably, the blackened cells in the table stand for "Y". Similarly, the current Groundwater Sampling and Analysis Plan provides well ID charts that merely indicate whether a given well is "Clean" or "Dirty," without providing any information quantifying the nature and degree to which each well is "Dirty." See Golder Assoc., 2009a, Appendix D.

THE PERMEABILITY OF SUBSURFACE SOILS IS SUBSTANTIALLY GREATER THAN ASSERTED BY THE APPLICANT.

The Applicant calculated a very long travel time across the site's aquitard, on the order of hundreds of years, based on average hydraulic conductivity values that are contradicted by the results of permeability (slug) tests conducted in monitoring wells. This contradiction becomes apparent by comparing the average/typical values reported for the various units in Table 1 of the current Groundwater Sampling and Analysis Plan against actual values measured in monitoring wells listed in Table 4; See Golder Assoc., 2009a Tables 1 and 4. The latter tests show much larger hydraulic conductivity values and the reported averages. H. 24

The Applicant failed to indicate that the Upper Till unit contains joints/fractures that increase vertical permeability of this unit and can provide potential downward migration pathways. The presence of such joints in the till unit is indicated by onsite boring logs. Example of such a log for Boring No. 34 is attached (Exhibit 3). It shows that the till is "(J)ointed, joints filled with gray silt and fine roots." It is well-documented in technical literature from Canada and the U.S. that fractures/joints provide preferential flow and contaminant migration pathways across the tills.

Because the Glaciolacustrine Clay unit is thin to the West of RMU-1, the likelihood of downward migration of contaminants across this unit is high. This is confirmed by detections of VOCs and acetone in some lower aquifer/deep wells on the Model City Site.

AN INVESTIGATION OF THE SOURCE OF VOCs IN WELL MW10-2S INDICATES VERTICAL GROUNDWATER FLOW IS ORDERS OF MAGNITUDE GREATER THAN ASSERTED BY THE APPLICANT.

In December 1987, approximately 15 years after the start-up of hazardous waste disposal operations by CWM, Golder completed a soil boring and sampling program in the vicinity of well MW10-2S located between SFL10 and Facultative Pond 3. The program was designed to

investigate the source of VOCs detected in this well; see Golder (1993). In soil boring MW10-2S-1E, VOCs were detected at a depth of 26 to 28 ft. See Exhibit 4 (from id.).

One of the VOCs detected in this boring was 1,1,1 Trichloroethane (TCA). Between 1970 and 1980, U.S. production of this solvent increased rapidly, as production of TCE declined (Pankow and Cherry, 1996). Thus, it is likely that the detected TCA was discharged at or after the start of CWM operations.

Assuming conservatively that the discharge of VOCs detected at the 26-28 ft depth range in MW10-2S-1E occurred at the start of the CWM operations, or 15 years prior to the sampling event, the vertical migration rate for the VOCs in the Upper Till unit is calculated to be at least 1.8 ft/year. This velocity is 45 times faster than the vertical groundwater velocity of 0.04 ft/year claimed by the Applicant (Figure 4 of Groundwater Sampling and Analysis Plan).

#### THE PRESENCE OF ACETONE IN THE LOWER AQUIFER WELLS INDICATES VOC MIGRATION INTO THE LOWER AQUIFER

The Applicant's assertion, that subsurface soils are characterized by very low hydraulic conductivity resulting in a very long travel time into the Lower Aquifer unit, is contradicted by detections of VOCs, such as acetone, in some lower aquifer monitoring wells, as presented in documents prepared for the RMU-2 permit application.

Acetone can be viewed as a groundwater tracer in an inadvertent experiment that took place beneath the site. Analytical results of well sampling conducted in 2008 within the proposed RMU-2 area showed acetone detections, as reported in Table 7 of Golder (2010) RMU-2, at the following concentrations: R201D (at 790 ug/L), R202D (at 650 ug/L), R209D (at 820 ug/L) and R210D (at 55 ug/L). See also Exhibit 5, attached hereto (id., Fig. 5). On this Exhibit, locations of these four deep monitoring wells are marked with red circles.

Acetone was not detected in any adjacent shallow wells of these four well clusters, indicating a distant origin of the acetone detected in the those deeper wells. Acetone was detected in two shallow wells: R208S (42 ug/L) and R213S (150 ug/L) (marked with "X" on Exhibit 5). The latter well is located near the northwestern corner of Fac Pond 8 where acetone was detected in soil/sediment sample F8-G1 during pond closure sampling conducted in 2005 (Golder, 2009). Exhibit 5 also shows the location of the Fac Pond 8 sample on the original sampling location map from Golder (2009). See Exhibit 5, marked letter "A". This general area appears to be a source area of acetone that migrated across the aquitard and then within the lower aquifer for a distance of some 1,500 ft. Id. This extensive westward migration of acetone occurred within a time span of less than 35 years.

#### THE UPPER AND LOWER AQUIFERS ARE HYDRAULICALLY CONNECTED, CONTRARY TO THE APPLICANT'S CLAIM.

In addition to the detection of man-made chemicals in the Lower Unit, potentiometric data provide another indicator of a significant hydraulic connection between the Upper and Lower Aquifer units - rather than their hydraulic isolation as asserted by the Applicant. The difference



between the potentiometric levels of the upper and lower aquifer units is generally small, as low as 0.72 ft in well cluster R210S/R210D. This small difference implies a significant degree of vertical hydraulic connection between the units. The connection is more likely in areas of permeability windows at locations where the intervening glaciolacustrine clay is thin or missing. As stated earlier, out of eight geotechnical borings completed at the RMU-2 western expansion perimeter, two showed the Upper Glaciolacustrine Clay to be only 0.7 ft. thick (Exhibit 2).

**BENEATH THE MOST CONTAMINATED AREAS, GROUNDWATER IN THE LOWER AQUIFER FLOWS TO THE WEST, NOT TO THE NORTH AS ASSERTED BY THE APPLICANT.**

The Lower Aquifer unit, which the Applicant refers to as "Glaciolacustrine Silts/Sand," constitutes the main aquifer unit at the site. It is the only unit that is called an "aquifer" in Table 1 of Applicant's Groundwater Sampling and Analysis Plan (Golder Assoc., 2009a). All other overlying units are called "aquitards".

In hydrogeological reports prepared for the adjacent NFSS site, the Lower Aquifer unit is called "Alluvial Sand and Gravel" (e.g. RI Report prepared by SAIC and Tetra Tech in December 2007). The latter name implies that the Lower Aquifer unit was deposited by an ancient river flowing westward along a channel controlled by the bedrock surface. The Lower Aquifer provides the fastest potential horizontal contaminant migration pathway. Whereas the importance of this aquifer unit appears to be recognized by the Applicant, the groundwater flow direction in this unit is misrepresented, which makes the proposed monitoring network for this unit inadequate and ineffective.

The Process Area and nearby Lagoon Area include several areas of severe groundwater contamination by VOCs (Golder Assoc., 1993). For example, LNAPL and DNAPL product was observed in a number of soil borings in the former West Drum Area; DNAPL was found in the Lagoon Area (Lagoons 1, 2, 5, 6 and 7); and the area located immediately south of SF-3 is contaminated with DNAPL. Id.

The Applicant proposes to utilize the existing monitoring well network for the Lower Aquifer that is based on an assumed northerly to northwesterly groundwater flow direction. However, the dominant groundwater flow direction within the middle and southern portion of the study area of this aquifer is westward. This determination is based on two potentiometric maps for the Lower Unit (Glaciolacustrine Silt/Sand), which the Applicant made available: one map for February 1988 (Appendix C of Engineering Report, Golder (2012)) and the other for October 2008 (Figure 5 in Golder 2010). Both maps are included in Exhibit 6.

Both maps show a close spacing of the potentiometric contours in the northern portion of the study area, and a wide spacing of the contours within its central portion. The wide spacing of the contours reflects a greater permeability and transmissivity of the ancient river deposits occurring within the central portion of the area. On the other hand, the area of closely-spaced potentiometric contours in the northern portion of the study area is associated with low-permeability deposits overlying a bedrock ridge there, which creates a hydrogeologic barrier forcing the bulk of groundwater flow in the westerly direction, the direction of greater transmissivity of the Lower Aquifer unit, which is toward the Fourmile Creek.

It is thus evident from both available maps that the westerly flow direction prevails below the heavily contaminated former Process Area (Exhibit 6). One can ascertain this by drawing groundwater flow lines perpendicular (orthogonal) to the potentiometric contours over the Process Area on both maps.

**NO EFFECTIVE MONITORING EXISTS, OR IS PROPOSED, FOR THE LOWER AQUIFER DOWNGRAIENT OF KNOWN DNAPL AREAS.**

There is site-specific evidence of downward migration of DNAPLs and/or dissolved contamination into the Lower Aquifer. In the Process Area, DNAPL was encountered in the Upper Tills and "target compounds were detected in samples collected from the Glaciolacustrine Silt/Sand and the Basal Red Tills units" (Golder Assoc., 1993, p. 16). Whereas the text of that report merely mentioned that two borings (PRO-21 and PRO-5), which were advanced into the Lower Aquifer, "contained target compounds other than trace levels of TCE and toluene", the analytical data tables for these borings show that the detected concentrations of chlorinated solvents in groundwater and deep soils were high enough to indicate a likely presence of DNAPL product phase in the Lower Aquifer (See pages 5 and 23 in Table 5.24-4 of Golder Assoc., 1993). As discussed earlier, acetone was also detected in some Lower Aquifer wells upgradient of the West Drum area.

Because groundwater in the Lower Aquifer flows west, enhanced monitoring of DNAPL areas, including the West Drum Area, is warranted. While a number of shallow extraction wells/sumps and performance piezometers operate in the West Drum Area, not a single Lower Aquifer (Glaciolacustrine Silt/Sand) monitoring well is found truly downgradient (i.e., west) of the line of DNAPL sumps DS01 through DS07. As shown on Figure 5 of Groundwater Sampling and Analysis Plan (2009) and attached as Exhibit 7, the nearest and the only deeper monitoring well in this area, WDA01D, is located more than 300 ft north-northeast of DS01, which is hydraulically cross-gradient and slightly upgradient relative to the line of DNAPL sumps, given the westerly groundwater flow direction in the Lower Aquifer at that location.

The seven "dirty" sumps (DS01 through DS07) extend to depths between 24.5 ft and 28.5 ft, which is a depth range close to the Glaciolacustrine Silt/Sand unit. (In WDA01D the top of screen is at 29.4 ft; see Table 3 of Groundwater Sampling and Analysis Plan (Golder Assoc., 2009a). As stated earlier, the Upper Till unit is not an effective barrier, as it contains joints/fractures that can provide potential downward migration pathways for DNAPL, and the Glaciolacustrine Clay unit is thin in this area.

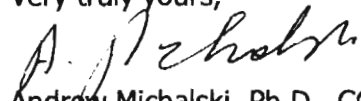
In spite of this evidence of contaminant penetration into the Lower Aquifer unit and the role of this unit as a principal horizontal contaminant migration pathway, no attempt was made to assess actual impacts of the West Drum area on the Lower/Deep Aquifer (Glaciolacustrine Silt/Sand). Presently, it's not possible to determine the effectiveness of on-going DNAPL removal and corrective action pumping, as there are no Lower Aquifer monitoring wells installed downgradient of the West Drum area. In the absence of such monitoring wells, the extent of this migration is yet to be defined.

Gary A. Abraham  
March 18, 2013  
Page 6

Given the deficiencies and the findings stated above, the Permit should require installation of additional detection/delineation monitoring wells into the lower unit (Glaciolacustrine Silt/Sand) at the West Drum Area and other DNAPL areas.

Please call me at (908) 757-8867 with any questions on the above comments.

Very truly yours,

A handwritten signature in black ink, appearing to read "A. Michalski", written over the typed name.

Andrew Michalski, Ph.D., CGWP, LSRP  
Principal Consultant

Attachments:

References  
Exhibits

## REFERENCES

CWM Chemical Svcs., LLC 2012a. 6 NYCRR Part 373 Sitewide Permit Renewal Application, July 31, 2012; available at <<http://modelcity.wm.com/>>.

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NYSDEC 2005. 6 NYCRR Part 373 Hazardous Waste Management - Model City Facility Draft Permit, DEC No. 9-2934-00022/00097, EPA ID No. NYD049836679, available at <<http://www.dec.ny.gov/chemical/49051.html>>.

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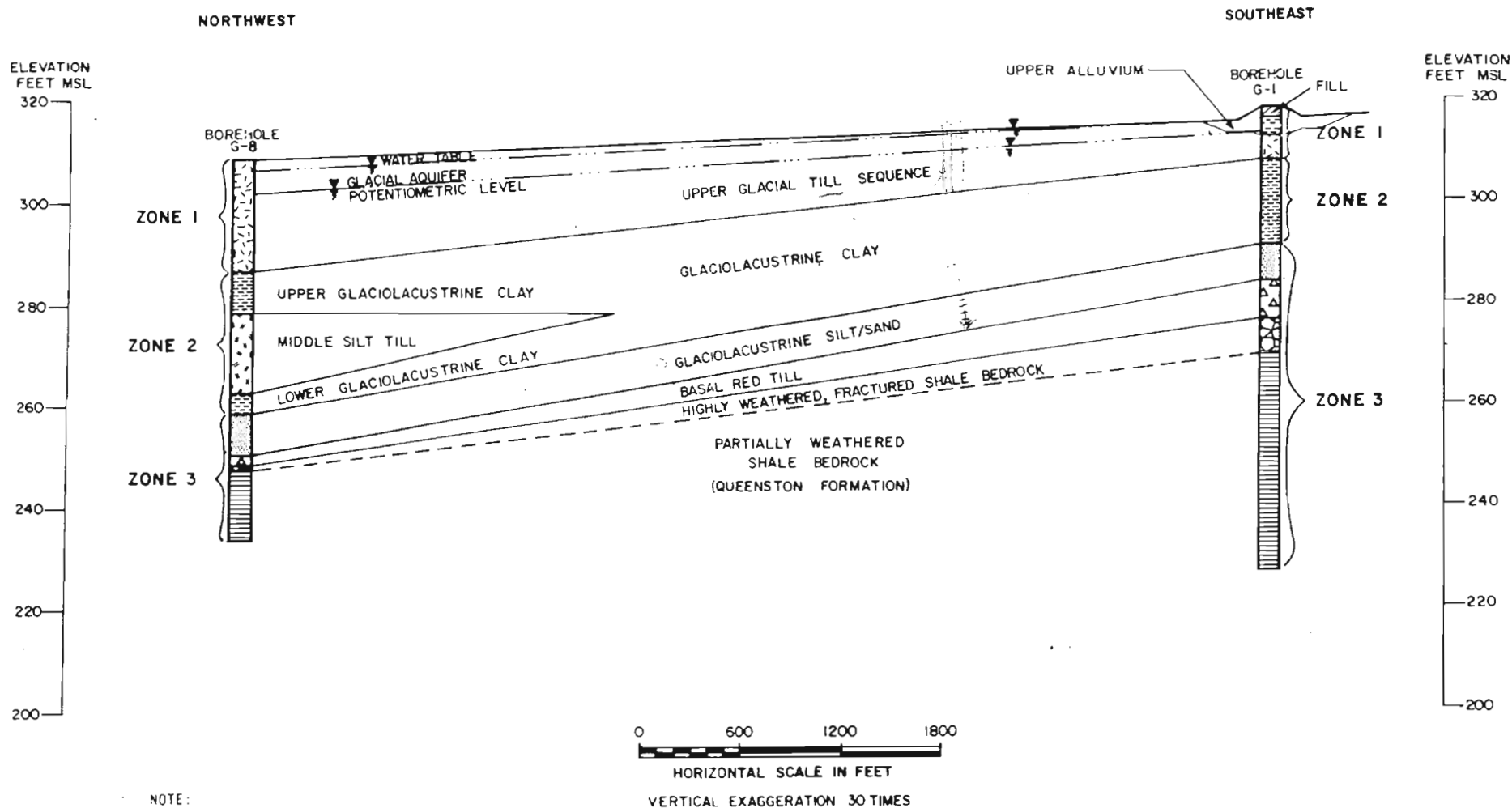
Wehran Engineering Corp. 1977. Hydrogeologic Investigation, ChemTrol Pollution Services, Townships of Porter and Lewiston, Niagara County, New York, October 14, 1977.

## **EXHIBIT 1**

### **GENERAL SITE STRATIGRAPHY**

**(Golder Assoc., 2009a, Figure 3)**





**NOTE:**

This figure is a schematic representation of the geologic stratigraphy made by straight line interpolation between boreholes G-1 and G-8. Some of the strata shown are discontinuous.

FILE NUMBER 853-3047

NO.	853-3055	SCALE	AS SHOWN	GENERAL SITE STRATIGRAPHY	
DRAWN	SKB	DATE	3/2/85		
CHECKED	DTM	DWG NO.	19		
Golder Associates				CHEMICAL WASTE MANAGEMENT, INC.	FIGURE 3

## **EXHIBIT 2**

### **THICKNESS OF THE UPPER GALCIOLACUSTRINE CLAY UNIT IN TEN GEOTECHNICAL BORINGS COMPLETED AT RMU-2**

**(Golder Assoc., 2002, Table 1)**

**TABLE 1**  
**BOREHOLE SUMMARY**  
**GEOTECHNICAL INVESTIGATION - PROPOSED RMU-2 WESTERN EXPANSION AREA**  
**MODEL CITY TSD FACILITY**  
**MODEL CITY, NEW YORK**

BOREHOLE NUMBER	COORDINATES		GROUND ELEVATION (ft vsd)	TOP OF UCT ELEVATION (ft vsd)	TOP OF UST ELEVATION (ft vsd)	TOP OF UGC ELEVATION (ft vsd) (1)	THICKNESS OF UGC (ft) (1)	TOP OF MST ELEVATION (ft vsd)	THICKNESS OF MST (ft)	TOP OF LGC ELEVATION (ft vsd)	TOP OF GSS ELEVATION (ft vsd)	THICKNESS OF LGC (ft)	TOP OF BRT ELEVATION (ft vsd)	THICKNESS OF GSS (ft)
	NORTHING	EASTING												
B-02-01	9,950.62	10,169.11	316.35	316.3	300.3	293.0	0.7	n/a	n/a	n/a	292.3	n/a	280.2	12.1
B-02-02	8,764.22	10,505.74	321.07	319.1	n/a	307.1	4.0	303.1	4.5	298.6	288.0	10.6	n/a	>7.3
B-02-2A	8,772.16	10,504.81	320.99	-	-	-	-	-	-	-	-	-	-	-
B-02-3	9,600.00	10,570.73	321.83	321.8	n/a	307.8	4.0	303.8	6.0	297.8	289.8	8.0	n/a	>4
B-02-3A	9,588.43	10,561.50	321.20	-	-	-	-	-	-	-	-	-	-	-
B-02-4	10,001.91	11,015.36	319.76	315.8	n/a	310.9	8.1	302.8	5.4	297.4	285.8	11.6	276.8	9.0
B-02-5	9,881.80	10,249.01	317.37	317.4	n/a	307.4	17.1	n/a	n/a	n/a	290.3	n/a	n/a	>2.9
B-02-6	9,950.73	10,255.52	315.02	315.0	n/a	305.0	0.7	304.3	5.3	299.0	291.0	8.0	n/a	>6.0
B-02-7	9,920.30	10,334.07	316.06	316.1	n/a	303.6	14.2	n/a	n/a	n/a	289.4	n/a	278.1	11.3
B-02-8	9,945.35	10,430.85	315.54	315.5	309.5	304.9	1.9	303.0	11.5	291.5	289.7	1.8	277.5	12.2

Notes:

- na = Not applicable/not available
- UCT = Upper Clay Till Unit
- UST = Upper Silt Till Unit
- UGC = Upper Glaciolacustrine Clay Unit
- MST = Middle Silt Till Unit
- LGC = Lower Glaciolacustrine Clay Unit
- GSS = Glaciolacustrine Silt/Sand Unit
- BRT = Basal Red Till Unit
- (1) = Also refers to the top of the Glaciolacustrine Clay unit when the LGC is not present.
- ft = Feet
- ft vsd = Feet CWM Vertical Site Datum
- = Stratigraphic breaks were not logged during drilling.

Table By:	JPR
Reviewed:	FTA
Date:	12/18/02

### **EXHIBIT 3**

#### **LOG OF BORING NO. 34**

**(from Wehran, 1997)**





Project No. C-77213 Client SCA SERVICES, INC.

Boring No. 34

Project CHEM-TROL POLLUTION SERVICES, INC.

Date Start 8/2/77

Location NIAGARA COUNTY, NEW YORK

Date Finish 8/3/77

Type of Rig CME AUGER

Driller EMPIRE SOILS

Inspector WSP

Depth	Elev- ation	Casing Blows/ft	Sample				Average Blows/ft	Log	Classification "0" Elev. = 319.9	Remarks
			No.	Type	Spoon blows 6" Penetr.					
5			1	SS	13	23	21.5	UGT 5.5-14'	ALLUVIAL DEPOSIT! lt. brown SILT, trace fine Sand, trace fine Gravel Becoming @ 2': Brown & green Clayey SILT to CLAY & SILT in irregular laminations 5'-6"	Very dense dry  bec. slightly moist
			2	SS	17	17	18.0			
					23	19				
10			3	SS	10	14		UGT 5.5-14'	GLACIAL TILL Red-brown CLAY & SILT little Sand, little Gravel Jointed, joints filled with grey silt and fine roots Becoming "marbled" with fine Sand, Clay @ 9' 14" 0"	Very stiff, slightly moist bec. water 10'-6"
					21					
					18'	REC.				
15			4		10	9		UGT 5.5-14'	GLACIAL TILL Red-brown CLAY & SILT little Sand, little Gravel Jointed, joints filled with grey silt and fine roots Becoming "marbled" with fine Sand, Clay @ 9' 14" 0"	Very stiff, slightly moist bec. water 10'-6"
					10					
					12'	REC.				
20			5	SS	1	2		UGT 5.5-14'	GLACIAL TILL Red-brown CLAY & SILT little Sand, little Gravel Jointed, joints filled with grey silt and fine roots Becoming "marbled" with fine Sand, Clay @ 9' 14" 0"	Very stiff, slightly moist bec. water 10'-6"
					1					
					14"	REC.				
25			6	SS	8	11	2-18'	UGT 5.5-14'	GLACIAL TILL Red-brown CLAY & SILT little Sand, little Gravel Jointed, joints filled with grey silt and fine roots Becoming "marbled" with fine Sand, Clay @ 9' 14" 0"	Very stiff, slightly moist bec. water 10'-6"
					11					
			7	SS	U.H.	2				
30					2			UGT 5.5-14'	GLACIAL TILL Red-brown CLAY & SILT little Sand, little Gravel Jointed, joints filled with grey silt and fine roots Becoming "marbled" with fine Sand, Clay @ 9' 14" 0"	Very stiff, slightly moist bec. water 10'-6"
			8	SS	REC. SAND					
					24'	REC.				
35								UGT 5.5-14'	GLACIAL TILL Red-brown CLAY & SILT little Sand, little Gravel Jointed, joints filled with grey silt and fine roots Becoming "marbled" with fine Sand, Clay @ 9' 14" 0"	Very stiff, slightly moist bec. water 10'-6"
			9	SS	2	3				
					3					
40					18'	REC.		UGT 5.5-14'	GLACIAL TILL Red-brown CLAY & SILT little Sand, little Gravel Jointed, joints filled with grey silt and fine roots Becoming "marbled" with fine Sand, Clay @ 9' 14" 0"	Very stiff, slightly moist bec. water 10'-6"
			10	SS	10	15				
					30					
45					18'	REC.		UGT 5.5-14'	GLACIAL TILL Red-brown CLAY & SILT little Sand, little Gravel Jointed, joints filled with grey silt and fine roots Becoming "marbled" with fine Sand, Clay @ 9' 14" 0"	Very stiff, slightly moist bec. water 10'-6"

P. 77 of Eng. Report

## **EXHIBIT 4**

### **SUMMARY OF HEADSPACE ANALYSIS RESULTS FOR SOIL SAMPLES FROM BOREHOLE MW10-2S-1E**

**(Golder Assoc., 1993, Table 5.6-1)**



JANUARY 1993

TABLE 5.6-1  
SUMMARY OF HEADSPACE ANALYSIS RESULTS  
(1 of 3)

913-9024

Borehole No.	Date Analyzed	OVA Scale Setting	GC Run No.(1)	Volume Injected(2) (uL)	Sample Depth(3)	Column Type	Peak No.) Area of Peak(4) (sq.in.)	Peak No.) Distance from Injection Point(5) (in.)	Peak No.) Elution Time (secs)	Concentration(6) (ppm)	Identification of Compound
MW10-25-1E	12-08-87	X1	1	2000	26-28	T-24	1) 0.05 2) 0.22	1) 2.75 2) 3.40	1) 242.0 2) 299.2	--	VOLATILE COMPOUND(7)
MW10-25-1E	12-08-87	X1	2	2000	26-28	T-24	1) 0.15 2) 0.065	1) 3.30 2) 4.00	1) 290.4 2) 352.0	--	VOLATILE COMPOUND
MW10-25-1E	12-08-87	X1	3	2000	32-34	T-24	1) 0.01	1) 0.30	1) 26.4	N/A	RECOVERY PEAK(8)
MW10-25-1E	12-12-87	X1	11	2000	26-28	T-24	1) 0.008 2) 0.15	1) 0.65 2) 3.15	1) 57.2 2) 277.2	-- 0.2	VOLATILE COMPOUND CHCL3
MW10-25-2W	12-09-87	X1	4	500	12-13	T-24	1) 0.023 2) 0.008 3) 1.14 4) 0.45	1) 0.55 2) 1.65 3) 2.65 4) 3.80	1) 48.4 2) 145.2 3) 233.2 4) 334.4	-- 0.05 -- --	VOLATILE COMPOUND 1,1,1-TCE VOLATILE COMPOUND
MW10-25-2W	12-09-87	X1	5	500	13-14	T-24	1) 0.008 2) 1.68 3) 0.063 4) 1.40	1) 0.50 2) 1.80 3) 2.75 4) 4.00	1) 44.0 2) 158.4 3) 242.0 4) 352.0	-- -- -- --	VOLATILE COMPOUND -- -- --
MW10-25-2W	12-09-87	X1	6	-	14-15	T-24	1) 1.83 2) 2.15	1) 1.60 2) 3.70	1) 140.8 2) 325.6	-- --	VOLATILE COMPOUND --
MW10-25-2W	12-09-87	X1	7	500	14-15	T-24	1) 0.019 2) 0.025 3) 2.22 4) 0.05 5) 3.90 6) 0.22	1) 0.35 2) 0.55 3) 1.75 4) 2.70 5) 4.00 6) 7.30	1) 30.8 2) 48.4 3) 154.0 4) 237.6 5) 352.0 6) 642.4	-- -- 12 -- -- --	VOLATILE COMPOUND -- 1,1,1-TCE VOLATILE COMPOUND -- --
MW10-25-2W	12-09-87	X1	8	250	14-15	T-24	1) 0.03 2) 0.61 3) 1.95 4) 0.038 5) 3.25 6) 0.128	1) 0.35 2) 0.55 3) 1.75 4) 2.75 5) 4.10 6) 7.55	1) 30.8 2) 48.4 3) 154.0 4) 242.0 5) 360.8 6) 664.4	-- -- 12 -- -- --	VOLATILE COMPOUND -- 1,1,1-TCE VOLATILE COMPOUND -- --
MW10-25-2W	12-09-87	X1	9	500	15-16	T-24	1) 0.02 2) 0.33 3) 0.315 4) 0.04 5) 6.23 6) 0.125	1) 0.50 2) 1.50 3) 1.80 4) 2.60 5) 3.90 6) 7.05	1) 44.0 2) 132.0 3) 158.4 4) 226.8 5) 343.2 6) 620.4	-- -- -- -- -- --	VOLATILE COMPOUND -- -- -- -- --

## **EXHIBIT 5**

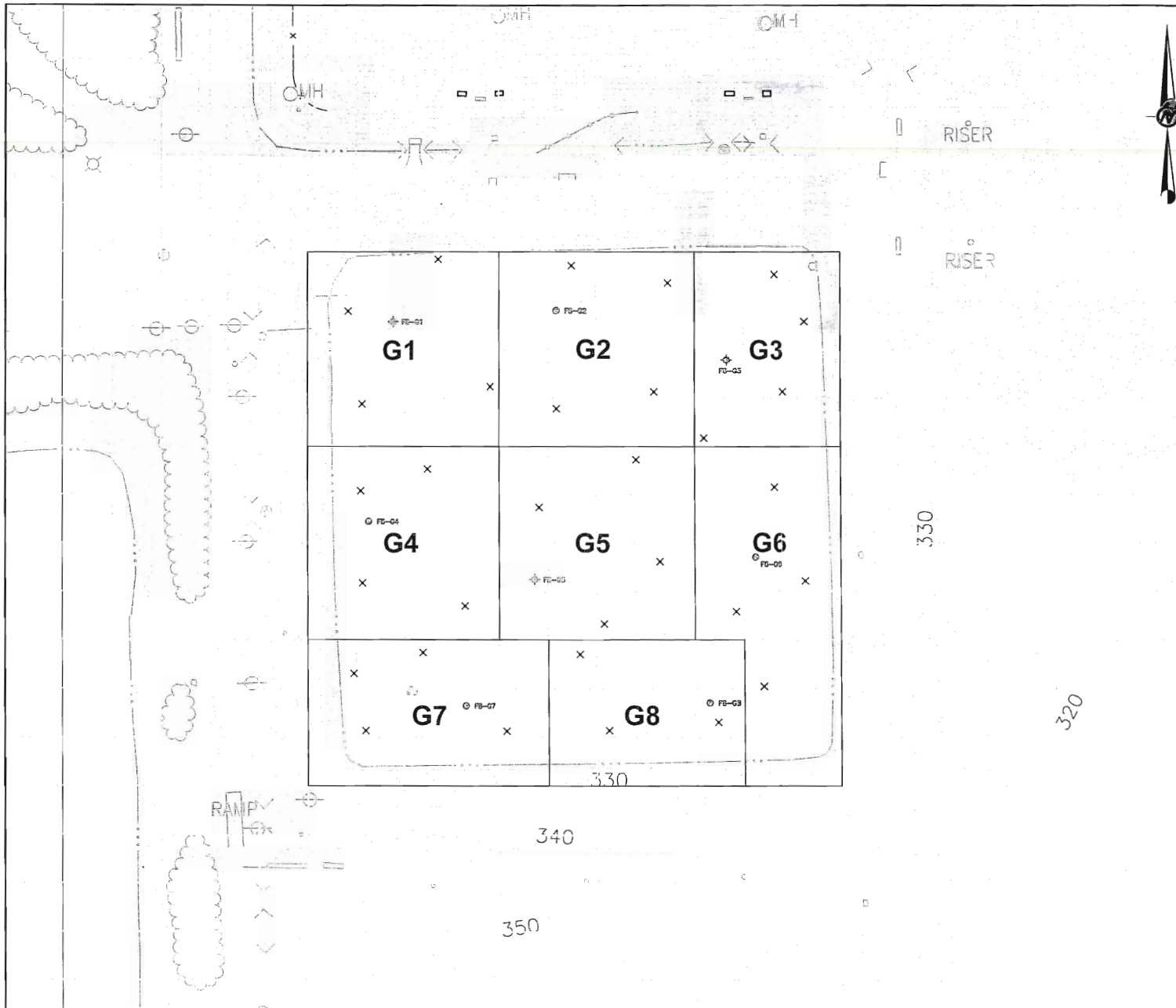
### **ACETONE DETECTIONS IN DEEP AND SHALLOW MONITORING WELLS AND SOIL/SEDIMENT SAMPLE IN POND NO.8**

**(Golder Assoc., 2010, Fig.5)**









## LEGEND

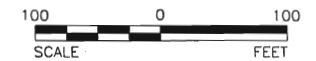
- COMPOSITE SUB-SAMPLE LOCATION  
(COLLECTED 0"-1" AND 6"-7" BELOW  
GROUND SURFACE)
- PRIORITY POLLUTANT ORGANICS (PPO) AND  
METALS GRAB SAMPLE LOCATION (COLLECTED  
6"-7" BELOW GROUND SURFACE)
- MODIFIED APPENDIX 33 LIST AND METALS  
GRAB SAMPLE LOCATION (COLLECTED 6"-7"  
BELOW GROUND SURFACE)
- G1** GRID DESIGNATION

## NOTES

- 1.) ALL SAMPLE LOCATIONS ARE APPROXIMATE.

## REFERENCES

- 1.) BASE MAP COMPILED BY PHOTOGRAMMETRIC METHODS  
FROM AERIAL PHOTOGRAPHY DATED MAY 31, 2001 BY AIR  
SURVEY CORP., DULLES, VIRGINIA.

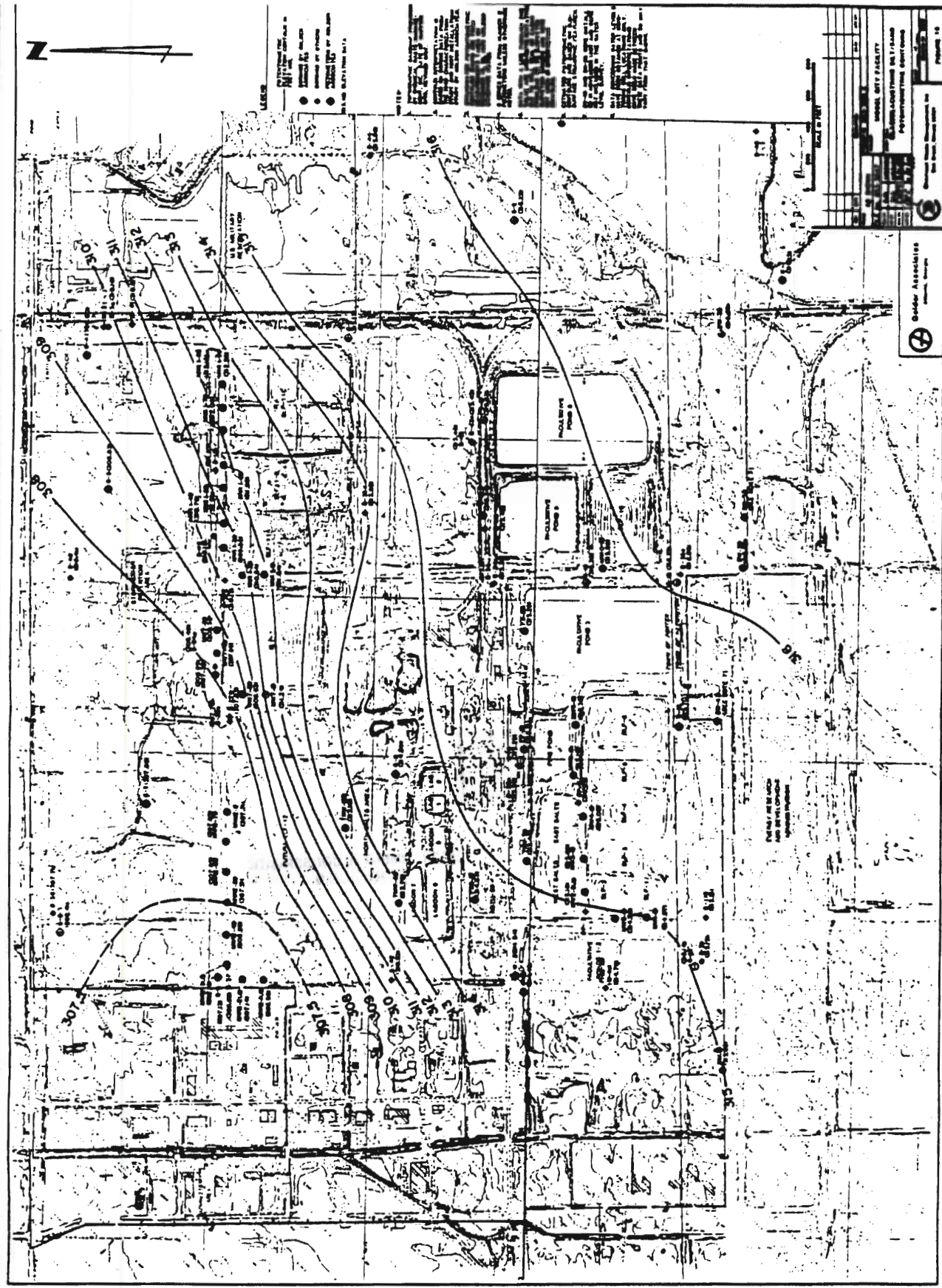


REV	DATE	BY	CHK	REV	DATE	BY	CHK	REV
1	01/01/01	XXX						
PROJECT				CWM CHEMICAL SERVICES, L.L.C. FACULTATIVE POND 8 CLOSURE MODEL CITY, NEW YORK				
TITLE				FACULTATIVE POND 8 GRID LAYOUT AND SAMPLE LOCATIONS				
PROJECT No.		053-3442		FILE No.		05394424257		
DESIGN	JPR	9/7/05	SCALE	AS SHOWN	REV.	0		
CADD	RJM	5/8/09						
CHECK	EC	01/06/11						
REVIEW	WIS	11/13/11						

**FIGURE 3**

## **EXHIBIT 6**

### **POTENTIOMETRIC MAPS OF THE GLACIOLACUSTRINE SILT/SAND UNIT**



Golden Associates  
Map, Inc.



Scale: 1 inch = 100 feet

Scale: 1 inch = 100 meters

Scale: 1 inch = 1000 feet

Scale: 1 inch = 1000 meters

Scale: 1 inch = 10000 feet

Scale: 1 inch = 10000 meters

Scale: 1 inch = 100000 feet

Scale: 1 inch = 100000 meters

Scale: 1 inch = 1000000 feet

Scale: 1 inch = 1000000 meters

Scale: 1 inch = 10000000 feet

Scale: 1 inch = 10000000 meters

Scale: 1 inch = 100000000 feet

Scale: 1 inch = 100000000 meters

Scale: 1 inch = 1000000000 feet

Scale: 1 inch = 1000000000 meters

Scale: 1 inch = 10000000000 feet

Scale: 1 inch = 10000000000 meters

Scale: 1 inch = 100000000000 feet

Scale: 1 inch = 100000000000 meters

Scale: 1 inch = 1000000000000 feet

Scale: 1 inch = 1000000000000 meters

Scale: 1 inch = 10000000000000 feet

Scale: 1 inch = 10000000000000 meters

Scale: 1 inch = 100000000000000 feet

Scale: 1 inch = 100000000000000 meters

Scale: 1 inch = 1000000000000000 feet

Scale: 1 inch = 1000000000000000 meters



[illegible]

NOTES

**REFERENCES**

1.) BASE MAP COMPILED BY PHOTOGRAMMETRIC METHODS FROM AERIAL PHOTOGRAPHY DATED MAY 31, 2001 BY AN SURVEY CORP., DALLAS, VIRGINIA.

2.) FIGURE ORIGINALLY PRESENTED IN THE REPORT ENTITLED "2008 CINCINNATI WATER LEVEL INTERPRETATION, OHIO CHEMICAL SERVICES, L.L.C. MODEL CITY, NEW YORK", DATED FEBRUARY, 2004 BY COLDER ASSOCIATES.

**LEGEND**

GLASS/CASTORNE 30/70 SAND UNIT MONITORING WELL  
GLASS/CASTORNE 30/70 SAND UNIT PNEUMATIC  
GLASS/CASTORNE 30/70 SAND UNIT MONITORING  
WELL/PNEUMATIC DESIGNATION

GROUNDWATER ELEVATION

GROUNDWATER ELEVATION NOT USED FOR INTERPOLATION

LINE OF EQUAL POTENTIAL

310

FLOW DIRECTION

14-0.003

HYDRAULIC GRADIENT

## **EXHIBIT 7**

### **FACILITY WELLS**

**(Golder Assoc., 2009A, Fig.5)**



