UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

MAR 30 2017

Lawrence McShea, P.E.
Project Manager
Arconic Remediation
Arconic Technical Center
New Kensington, PA 15069-0001

Re.: Arconic, Inc. Massena, New York Facility, EPA I.D. No. NYD002232304 (formerly Alcoa, Inc.) Conditional Approval to Commence Construction of Secure Landfill Cell 3 Expansion

Dear Mr. McShea,

In response to your March 20, 2017 letter requesting that the Environmental Protection Agency (EPA) Region 2 provide approval of the proposed Cell 3 expansion design at the above-referenced facility and to begin the construction of the Cell 3 expansion, EPA hereby provides approval to Arconic to commence construction of the Cell 3 expansion, as explained below.

The New York State Department of Environmental Conservation (NYSDEC) granted conditional approval of the design of the Cell 3 expansion in its letter to Alcoa dated July 25, 2016. EPA has no additional comments on the design of the Cell 3 expansion. NYSDEC conditionally approved the Cell 3 expansion construction in a letter dated March 16, 2017.

EPA is enclosing a copy of comments on Arconic's February 2017 Draft Final Construction Work Plan (CWP) and the January 2017 Construction Quality Assurance Plan (CQAP), which were transmitted electronically to EPA on February 3, 2017. Arconic must provide a written response to EPA's comments by May 1, 2017. Arconic may immediately commence construction activities for the Cell 3 expansion at its own risk, i.e., prior to providing a response to EPA's comments.

EPA is also enclosing a copy of comments on Arconic's February 2017 Draft Final Operation and Maintenance (O&M) Manual and February 2017 Draft Final Work Plan for Cell 3 O&M that were also transmitted electronically to EPA on February 3, 2017. Arconic must also provide a written response to EPA's comments on the draft O&M documents by May 1, 2017.

Please note that prior to accepting waste at the Cell 3 expansion, Arconic must receive a separate EPA approval of the completed construction and an operations plan for the Cell 3 expansion, in accordance with 40 CFR 761.75. Toward this end, EPA requests that documentation to be provided to NYSDEC in accordance with its March 16, 2017 conditional approval letter also be provided to EPA, including but not limited to the construction certification report identified in Item 10 of the letter, and a copy of NYSDEC's approval of that report.

A public comment period was held prior to EPA's approval of the re-opening of the existing Cell 3. EPA will also hold a public comment period on the Cell 3 expansion, including its operations plan, prior to issuing an approval for Arconic to accept waste in the Cell 3 expansion.

If you have any questions, please contact Nidal Azzam, Chief of EPA Region 2's Base Program Management Section, at (212) 637-3748 or via email at azzam.nidal@epa.gov.

Sincerely,

John Filippelli
Director
Clean Air and Sustainability Division

Enclosures

cc (w/encl.): Peter R. Taylor, NYSDEC Region 6 Headquarters

TECHNICAL REVIEW

DRAFT FINAL CONSTRUCTION WORK PLAN AND CONSTRUCTION QUALITY ASSURANCE PLAN FOR SECURE LANDFILL CELL 3 EXPANSION

ARCONIC INC., MASSENA, NEW YORK

EPA contractor Booz Allen Hamilton (Booz Allen) has completed a technical review of the February 2017 Draft Final Construction Work Plan (CWP) for expansion of Secure Landfill Cell 3 at the Arconic Inc. (Arconic) facility in Massena, New York. Arconic plans to increase capacity of Cell 3 by raising the height of the eastern berm of the existing cell. A temporary berm will be installed within the cell to physically separate the construction area from the western portion of the cell, which will continue to receive wastes for disposal. The CWP and its appendices provide detail on site work to be completed, engineering drawings and specifications, contractor quality control, test fill activities, stormwater pollution prevention plans (SWPPP), and a project schedule for the expansion effort. Booz Allen has also completed a technical review of the January 13, 2017 Construction Quality Assurance Plan (CQAP) for the Cell 3 expansion effort.

Arconic's draft final submittals were reviewed for technical adequacy, potential impacts on concurrent Cell 3 operational activities, and compliance with regulations pertaining to the Resource Conservation and Recovery Act (RCRA) and the Toxic Substance Control Act (TSCA). Comments developed during the review of expansion documentation are provided below. Documents detailing ongoing Cell 3 operations and maintenance were provided to EPA under separate cover, were reviewed and addressed by Booz Allen in a separate comments letter, and are not further discussed below.

I. GENERAL COMMENT ON THE CWP

1. The second paragraph in CWP Section 1.0, Introduction, states that the proposed efforts will provide increased Cell 3 landfill capacity primarily by "expanding the height of the eastern and southern berms." This scope of work is reiterated several times in various appendices to the CWP. However, a comparison between Drawings B-203351-JM (existing conditions) and B-203352-JM (proposed east berm grading plan) suggests that only the eastern berm will be significantly altered. Additionally, Section 1.0 of the CWP and the Summary of Work Specification in Appendix A (Section 01010, paragraph 1.02(B)(5)) both support alterations only to the eastern berm of existing Cell 3. Although some grading will be conducted on the northeastern and southeastern corners of the expanded landfill, these efforts will largely be focused on integrating the raised eastern berm into existing berms on the north and south sides of Cell 3 berms. Revise the CWP and appendices to consistently and accurately present the scope of expansion work to be conducted.

II. SPECIFIC COMMENTS ON THE CWP

Section 1.0, Introduction

1. Revise the bulleted list at the bottom of page 1 to refer to installation of a sliding gate at Entrance 5, as shown on Figure 4-1. This same correction should be made throughout the CWP (e.g., Section 4.4) and its appendices (e.g., Section 3.1 of Appendix D).

Section 3.1, Work Plan Documents

2. This section refers to the Test Fill Site Plan and Material Management Area Site Plan, which is reportedly provided as Appendix C to the CWP. However, that appendix only presents details on the program to be used to establish methods and procedures to be used during construction of the expanded cell's low permeability soil (LPS) liner. Appendix C does not provide details on what materials will be managed within the proposed staging area (beyond the southwestern corner where test fill activities will occur). Revise the text of Section 3.1 to delete erroneous references to material management details in Appendix C, and expand CWP Section 4.5 to outline storage plans for this area. Will this area be used for temporary management of purchased product only, or will it also be used for temporary management of topsoil and clay removed during various construction steps? Will this area be used for equipment laydown and maintenance activities?

Section 4.2, Office Facilities and Work Zones

3. This section outlines provision of mobile office facilities, electrical service, and utilities to the Cell 3 area at the beginning of the proposed effort. This activity appears to overlap with support needs for ongoing operation and maintenance (O&M) of existing Cell 3. Clarify that these efforts will be conducted in coordination with the Final O&M Manual for Cell 3, and that the activities will not be duplicated.

4. This section states that work zones will be established, including exclusion zones, pursuant to the Final O&M Manual for Cell 3. However, that manual does not include such details. Expand relevant figures and drawings to provide a clear map of Cell 3 work zones.

Section 4.5, Test Fill and Material Management Area Construction

5. Expand this section to clarify whether test fill results and recommendations will be provided to the New York State Department of Environmental Conservation (NYSDEC) and EPA for review and approval prior to implementation across the footprint of the Cell 3 expansion. The CWP (Section 6.0) currently only provides for transmittal of test fill findings to the Agencies as part of the Final Post-Construction Report for this effort. It is noted that the project schedule provided as Appendix E to the CWP includes line item

2.3.8.3 which requires approval of the test fill report before installing the compacted clay liner, but no indication is provided as to from whom that approval must come.

Section 4.8, Erosion Control

6. The third sentence in this section notes that work areas within the landfill will be bermed to minimize run-on and prevent run-off of contaminated water. Given that wastes within the eastern portion of existing Cell 3 will be relocated, the liner surface will be decontaminated, and a temporary berm will be constructed to physically separate the clean construction zone from ongoing waste operations, it is unclear how run-off from the eastern expansion area could become contaminated during work covered by this CWP. Clarify the source of this contamination, and clarify whether the text refers to chemical contamination or entrainment of sediment.

Section 4.13, Install Compacted Clay Liner

7. Expand this section to clarify whether clay removed from the crest of existing berms (as noted in CWP Section 4.12) will be reused during construction of the compacted clay liner, and what testing will be performed to ensure that all clay used for this purpose meets stated moisture content specifications.

Section 4.14, Liner System Installation

8. This section notes that the expanded liner will "tie-in with the existing liner system (including geosynthetic clay liner, geomembrane, and geotextile layers)." Drawing B-203356-JM provides a limited amount of detail on integration of the existing liner system with that proposed for the expansion, but Note 1 from that detail states that the contractor will provide detailed shop drawings and a work plan, including measures to limit and control leachate migration during this construction component. No detail is provided with regard to any tilling, scarification, compaction, or other procedures to ensure that these areas of overlap are completely integrated (as mandated with regard to integration of clay lifts during LPS liner installation in Specification 02201, paragraph 3.01E). Furthermore, no detail is provided in the CWP as to the means by which manufactured components will be tied together (e.g., width of overlap, sealing of joints, welding). Revise the CWP to include such detail in the text, or directly reference pertinent sections in Appendix A specifications (e.g., Section 02272, paragraph 3.02C). The referenced detailed shop drawings and work plan should be made available for review as soon as possible and prior to initiating liner placement in the Cell 3 expansion area.

Section 4.17, Site Restoration and Vegetation Maintenance

9. Clarify that the specified topsoil replacement and seeding activities will occur on berms and other disturbed areas *around and outside of* waste placement areas of expanded Cell 3.

In addition, because the stipulated 10-week maintenance period may be insufficient for achievement of an appropriately robust vegetative layer (particularly if erosional damage occurs during the growing period), Arconic should expand the last paragraph in this section to allow for the possibility that an extended maintenance period may be necessary if relevant criteria (stipulated in the SWPPP) are not met within the initial 10 weeks.

Section 4.18, Demobilization

10. Prior to demobilization, it is necessary to survey and prepare as-built drawings of the completed Cell 3 expansion. Expand the CWP accordingly.

Section 6.0, Post-Construction Reporting

11. Clarify this section to indicate what "post-construction monitoring" is proposed for the Cell 3 expansion and what specific monitoring data will be provided in the Final Report.

III. COMMENTS ON CWP APPENDIX A, CELL 3 EXPANSION DESIGN DRAWINGS AND SPECIFICATIONS

1. Design drawings in this appendix are stamped to indicate that they are for bid purposes only, rather than actual construction. The CWP must be updated to include construction drawings for the cell substructure, liner system, and related features.

2. Drawings B-203358-JM and B-203359-JM in Appendix A, respectively, refer to the minimum and maximum build-out configurations for the Cell 3 expansion. The CWP should clarify that details, drawings, and specifications regarding the final landfill cover and revegetation of the landfill footprint will be provided formally as part of the closure plan for this unit (taking final waste elevations into account).

3. Although the SWPPP provided in Appendix D to the CWP refers to an "intermediate cover" to be installed at the end of each field season, no construction detail, diagrams, specifications, or schedules have been provided to address construction of this field component. Maintenance requirements for the "winter stabilization" features are shown on SWPPP Sheet 3, but nowhere else in the documents. Expand the CWP and its appendices (specifically Appendix A) accordingly. If no such temporary covers or other winter stabilization components will be provided at the end of the operating season, affected sections of the SWPPP (e.g., Sections 4.2 and 4.3, Sheet 2) will require revision to remove such suggestions.

4. Section 01010, Summary of Work. Expand paragraph 1.02B(11) to identify surveys to be performed prior to, during, and upon completion of the Cell 3 expansion effort.

5. Section 01300, Submittals. Numerous consistency issues have been identified between Table 1 in Section 01300 and other detailed specifications in Appendix A:

- Sections cited in this table, listing requisition items for the Cell 3 expansion project, are inconsistent with specifications provided. For example, select fill specifications are outlined in paragraph 2.01D of Section 02200, not paragraph 2.01C. Review the specifications and correct all erroneous references in Table 1.
- Although not listed in the table, paragraphs 2.01J and 2.01E of Section 02200 should be referenced for discussion of erosion control blanket and rip rap material requirements. Tackifier is discussed in paragraph 3.01B of Section 02930 (although not product requirements are noted), and erosion control blankets/staples are addressed in paragraph 3.02I of that same section. Review all project requirements, and ensure that each item to be procured is properly identified in Table 1.
- Sections 02277 (Geogrid Material) and 26020 (Electrical) are provided in the appendix, but are not listed in Table 1. Expand the table accordingly.
- Although referenced in the table, Sections 02605, 02638, 11319, and 16191 are not included in the appendix for review. Revise Appendix A to include all relevant specifications.

6. Section 01301, Design Change Order Procedures. Paragraph 1.05 should be modified to also require EPA review and concurrence of design changes.

7. Section 02200, Earthwork. Paragraph 3.16B states that the contractor "shall conform to all applicable specifications *not* in Section 02272, Geotextile Fabric" (emphasis added). Clarify whether this is statement is a typographical error, or identify the range and source of addition specifications to be followed during placement of the drainage layer.

8. Section 02272, Geotextile Fabrics. Revise the title for ASTM Method D3776 in paragraph 1.04A to delete the qualifier "woven".

9. Section 02272, Geotextile Fabrics. Expand paragraph 3.06 to require that the installed fabric be inspected for proper installation and/or damage both before and after placement of the soil cover pursuant to paragraph 3.03 of this specification.

10. Section 02273, HDPE Membrane Liner. Revise the title for ASTM Method D882 in paragraph 1.03A (*sic*) to replace "this" with "thin." Revise the title for ASTM Method D1204 of this same paragraph to replace "elevation" with "elevated."

11. Section 02273, HDPE Membrane Liner. Expand paragraph 3.06 to require that the installed liner be inspected for proper installation and/or damage prior to placement of additional, overlying cover layer components.

12. Section 02274, Geonet. Expand paragraph 3.01A(4) to require that the installed geonet be inspected for proper installation and/or excessive dust prior to placement of additional, overlying cover layer components.

13. Section 02275, Geosynthetic Clay Liner. Expand paragraph 3.04 to require that the installed geosynthetic clay liner be inspected for proper installation and/or damage prior to placement of additional, overlying cover layer components.

14. Section 02930, Loaming and Hydroseeding. Paragraph 3.03C identifies criteria to be used to confirm achievement of a satisfactory turf layers in revegetated areas. However, these criteria differ significantly from the 80% coverage requirement listed in the SWPPP. Paragraph 3.03D also discusses soil testing that will be conducted to determine if additional fertilization is needed; such soil testing was not mentioned elsewhere in the CWP or its appendices. Revise the documentation to be consistent with Specification 02930 on these issues.

IV. COMMENTS ON CWP APPENDIX B, CONSTRUCTION QUALITY CONTROL PLAN

Section 2.1, CQC Personnel

1. The first paragraph on page 2 of the states that "the Project Manager is responsible for coordinating the development, approval, and implementation of design changes with the Design Engineer, Project Engineer, Owner, and NYSDEC." This statement should be modified to also require EPA review and concurrence of design changes.

Section 4.0, Earthwork Construction

2. This section details earthwork components to be conducted as part of the Cell 3 expansion effort. Accordingly, the list should be clarified to note that installation of the temporary berm will be conducted pursuant to details provided in the separately submitted documentation on ongoing operation and maintenance of existing Cell 3. Similarly, the last two bullets should be modified to reflect only restoration and revegetation of berms and other disturbed areas *outside* the limits of waste placement (prior to initiation of landfill closure activities).

V. COMMENTS ON CWP APPENDIX C, TEST FILL WORK PLAN

General Comment

1. Expand this plan to clarify whether test fill results and recommendations will be provided to NYSDEC and EPA for review and approval prior to implementation across the footprint of the Cell 3 expansion. The CWP (Section 6.0) currently only provides for transmittal of

test fill findings to the Agencies as part of the Final Post-Construction Report for this effort. It is noted that the project schedule provided as Appendix E to the CWP includes line item 2.3.8.3 which requires approval of the test fill report before installing the compacted clay liner, but no indication is provided as to from whom that approval must come.

Section 1.0, Introduction

2. This section states that construction of the test fill will simulate construction of the LPS liner using "representative worst case low permeability soils." Clarify why the soils proposed for use represent the "worst case" conditions, and what construction material/method modifications may be needed in the event that these "worst case" conditions are unsuitable for construction or inadequate to achieve compliance with RCRA and/or TSCA regulations for liner systems.

Section 2.0, Construction Materials

3. The second sentence in this section states that at least one sample will be collected from each of the proposed borrow sources for geotechnical analyses. Clarify the protocol for soil sample collection, specifically noting that the samples will be composited from various locations within the borrow area or soil stockpile. Any soil within the stockpile or borrow area that appears substantially different from surrounding soil should be specifically targeted for discrete sampling. These clarification should also be made in the first bullet on page 5 of the Test Fill Work Plan.

4. The second paragraph in this section states that the selected borrow material will be retested prior to construction of the test fill. The borrow soil should be tested at intervals during construction of both the test fill and the actual LPS liner. Clarify how frequently such samples will be collected, document that they will be reanalyzed for all five parameters listed in this section, and discuss acceptance criteria for the soil (i.e., how widely can soil characteristics vary and still be suitable for use).

Section 3.0, Inspection and Testing

5. This section refers to the construction control grid, which will be used to define various locations across the test fill area. The second sentence specifically notes that the grid will help to identify location of "tops and toes of slope," but nothing in the Test Fill Work Plan mentions sloped placement of fill in the test plot. Revise the plan to discuss the means by which test fill activities will simulate construction of the LPS liner on the internal side slopes of the expanded landfill cell.

Section 3.2, Test Fill Construction

6. The second bullet at the top of page 5 states that at least two soil moisture and density measurements will be obtained from the test fill soil after each pass of the compactor (between lifts and at the final design thickness). However, Steps 4 and 5 in Section 2.5.2 indicate that testing will be conducted after two passes using the compaction equipment. Clarify the actual protocol to be used for this sampling.

Section 3.4, Post-Construction Monitoring

7. Expand this section to note that, after precipitation events, the contractor will specifically evaluate the test fill area and report on any incidents of erosion, soil saturation, ponding, or excessive settlement.

Section 5.0, Reporting

8. Expand this section to note that upon receipt of results from the Test Fill Contractor, the Arconic team will evaluate results to ensure that the constructed LPS liner will satisfactorily achieve all technical specifications and regulatory requirements established pursuant to RCRA and TSCA. As stated in Comment V.1 above, these findings (and documentation of acceptability) must be provided to NYSDEC and EPA prior to initiation of LPS liner construction within the expanded portion of Cell 3.

VI. COMMENTS ON CWP APPENDIX D, STORMWATER POLLUTION PREVENTION PLAN

General Comment

1. The SWPPP is highly inconsistent with regard to inspection schedules. A partial inspection chart is provided on Sheet 3, but does not match schedules discussed elsewhere in the document. For example, whereas the chart calls for daily inspections of the stabilized construction entrances, Detail 3 on Sheet 2 calls for only weekly inspections of such features. Other sections of the SWPP are vague on inspection frequencies. As an example, Detail 7 on Sheet 3 refers to "periodic" inspections. Section 4.5.6 of the SWPPP must be expanded to include a complete and detailed inspection schedule and checklist to ensure that all stormwater management components are properly inspected and adequately maintained; the chart on Sheet 3 may serve as a good basis for an expanded checklist. The SWPPP should then be revised for consistency throughout.

Section 3.1, Project Construction Activities for Cell 3 Operation and Expansion Mobilization

2. This section states that work zones, including exclusion zones, will be established across the footprint of the existing landfill cell and expansion area. Expand figures and drawings in the SWPPP to provide a clear map of Cell 3 work zones.

Section 3.3, Project Construction Activities for Cell 3 Expansion

3. The second item in this list calls for construction of a western stormwater diversion berm in the Cell 3 expansion area. Clarify whether this construction feature differs from the temporary separation berm to be constructed per Item 5 of Section 3.2. The CWP does not clearly refer to construction of a second berm on the western side of the expansion area. Language in the second paragraph of the CWP (page 6) that refers to a "west berm" had been thought to mean the temporary separation berm. Revise the CWP and SWPPP (and related figures/drawings) to clearly and consistently detail construction components on the western side of the expansion area.

4. Item 11 should be clarified to note that the expansion activity only includes restoration and revegetation of berms and other disturbed areas outside the limits of waste placement. The full landfill footprint will be capped and revegetation as part of final cell closure activities.

Section 4.0, Erosion and Sediment Controls

5. The third paragraph in this section notes that the sediment basin may be needed during construction, landfill operation, and capping. Accordingly, the text should be corrected to note that the sediment basin will not be converted into a retention basin until closure (rather than construction) is completed at Cell 3.

Section 4.1, Erosion and Sediment Control Measures

6. The sequential list of tasks at the top of page 7 calls for establishment of stormwater management basins (Step 7) after soil disturbance and stabilization of external landfill features (e.g., exterior berm slopes, perimeter access roads). It is unclear why stormwater management basins would not be constructed immediately after excavation of drainage channel and implementation of other stormwater controls (Step 4). Provide additional detail to clarify the proposed sequence of activity in this section of the SWPPP.

7. Clarify the last sentence in this section to note that any significant updates or revisions to the SWPPP will require NYSDEC and EPA approval prior to implementation.

Section 4.2, Erosion and Sediment Control Measures

8. Regulatory citations presented in paragraphs 4 through 7 of this section contain minor errors. Rather than referring to 6 NYCRR Sections 373-2.14(c)(6) through (8), the paragraphs should respectively refer to 6 NYCRR Sections 373-2.14(c)(7) through (9). Correct the SWPPP accordingly.

Section 4.3, Temporary Erosion and Sediment Control Measures

9. Clarify Item 8 on page 9 to indicate whether erosion control blankets will be installed within 14 days after slope construction is complete, consistent with the stabilization timeline presented with regard to Item 5. In addition, Arconic may wish to consider use of commercially available flexible growth media in addition to or in lieu of traditional seeding, mulching, and erosion control blankets at this site.

Section 4.4.1, Establishment of Permanent Vegetation

10. This section identifies criteria to be used in determining that site stabilization effort are complete. Specifically, this determination requires establishment of a uniform perennial vegetative cover with a density of 80% of surface area coverage, or employment of equivalent stabilization measures (e.g., mulch, geotextile) on all unpaved areas not covered by permanent structures. Placement of a short-term, interim product such as mulch should not be used to document that the site has been stabilized. Only proper revegetation or placement of permanent covers is appropriate to ensure long-term stabilization. Modify the text in this SWPPP section and at the top of page 16 accordingly.

11. The SWPPP should be expanded to indicate how frequently and when inspections will be conducted to determine if repairs are needed or confirm that revegetation has been satisfactorily implemented. Because inspections of revegetated areas will need to continue after expansion efforts are complete, it may be appropriate to transfer such inspections to the landfill O&M program.

Section 4.4.4, Permanent Turf Reinforcement

12. This section calls for placement of permanent turf reinforcement mats (TRMs) on all slopes exceeding 30 percent. However, Section 4.3 (page 9) already calls for erosion control blankets on such slopes. Provide clarification on the distinction between these two types of erosion control, and specifically identify where each will be implemented during the Cell 3 expansion effort.

Section 4.5.1, Solid and Liquid Waste Disposal

13. Expand the third paragraph in this section to discuss any secondary containment to be provided for vehicles and fuel lines at the refueling station on the edge of the Cell 3 exclusion zone.

Section 4.5.3, Water Source

14. Expand the third sentence in this section to clarify whether Arconic anticipates using water that does not originate from an approved public water supply during expansion of Cell 3. If so, the need for and source of such water should be discussed.

Section 4.5.5, Construction Housekeeping Practices

15. Expand Item 2 in this section to note that all areas designated for equipment cleaning, maintenance, and repair will be protected by both a temporary perimeter berm and plastic sheeting as described in Detail 10 from SWPPP Sheet 3. Under no circumstances should such activities occur directly on the bare ground surface, so as to minimize potential for environmental contamination. Depending on the materials being stored, this caveat may also apply to storage areas listed in the third bullet at the bottom of page 15.

Sheet 2, Soil Erosion and Sediment Control Details

16. Detail 1 on Sheet 2 presents schematics and specifications for catch basins with inlet protection. However, this feature is not identified for use on Figure 2 or Sheet 1 of the SWPPP. Revise those drawings to show the proposed catch basin location(s).

17. Detail 5 on Sheet 2 is not intuitively understood, primarily because the profile appears to differ from the Section B-B diagram in shape and angle along the downgradient slope of the dam. Provision of a top view and/or isometric drawing of the stone check dams would be useful to enhance clarity in the construction of this feature.

Sheet 3, Soil Erosion and Sediment Control Details

18. Item 5 in the Project Construction Sequencing Notes should be clarified to call for establishment of permanent vegetation after Cell 3 expansion efforts are complete, but only temporary vegetation upon winter suspension of landfilling operations.

19. Detail 10 on Sheet 3 presents schematics and specifications for concrete truck washout areas. However, this feature is not identified for use on Figure 2 or Sheet 1 of the SWPPP. Revise those drawings to show the proposed truck washout location(s).

VII. COMMENT ON CWP APPENDIX E, PROJECT SCHEDULE

1. The Test Fill Work Plan (Appendix C) and Specification 02201A (paragraph 3.03B) call for a 14-day post-construction monitoring period and a 7-day period for Agency review. However, the project schedule in Appendix E (line items 2.3.8.1 and 2.3.8.3) currently

stipulates only 10 and 5 days, respectively, for these tasks. Revise the project schedule to account for the full test fill area monitoring and report review timelines.

VIII. COMMENTS ON THE CQAP

Section 2.1.1, Project Organization and Responsibilities

1. This section states that the Construction Quality Assurance (CQA) Officer reports its quality assurance (QA) results to the CDM Smith design engineer, the construction contractor, and Arconic. However, Figure 2-1 shows the CQA Officer reporting only to Arconic. Revise the figure to show direct reporting of QA results to Arconic, with concurrent release of findings to the CDM Smith design engineer and construction contractor.

Section 2.1.1.2, Arconic

2. Revise the second sentence in this section to also refer to Federal approval and permission to operate. For the same reason, Sections 2.1.2 should also be modified to include advance notification to EPA of CQAP-required meetings.

Section 2.3, Inspection Activities

3. Numbering of specific work items listed in this section are duplicative and inconsistent with that provided in Tables 2-3 through 2-6. Revise the text and tables to use a standard numbering scheme to facilitate tracking of testing and observation requirements during the pre-construction, construction, and post-construction periods.

Section 2.3.3, Removal of Existing Waste and Liner from East Berm

4. Expand this section to discuss wipe sampling activities to be conducted to ensure that the liner has been adequately decontaminated during temporary removal. Similarly, expand Table 2-6 to document CQA team responsibilities regarding oversight and/or verification of this component of decontamination testing.

Table 2-3, Secure Landfill CQA Preconstruction Activities

5. Expand actions under Work Item II (Dikes/Berms) to require the CQA team to review the test fill report to ensure that the test fill effort was properly completed and consistent with recommendations for full scale implementation during LPS liner construction.

6. Activities under Work Item III (LPS Liner Bottom) include confirmation of on-site borrow source test fill acceptance. Clarify this section to indicate whether the test fill construction will be limited to material obtained on site, or if an off-site source of borrow soil may be

tapped to provide this material. It is expected that the same borrow sources will be used to obtain material for liner construction.

Table 2-4, Secure Landfill CQA Construction Activities

7. Activities listed under Work Item I (Subgrade) include confirmation that herbicide was properly applied to the subgrade within the Cell 3 expansion area. However, the CWP makes no mention of herbicidal application. Revise the expansion documentation to fully discuss the purpose of this step and to outline expectations for its implementation.

8. Revise activities and comments under Work Item II (Removal of Existing Waste and Primary/ Secondary Liner from East Berm of Cell 3) to clarify that the upper liner layers will be removed across the entire footprint of the Cell 3 expansion (including beneath the temporary berm location), and that the base LPS will *not* be removed during site preparation. Expand the second work activity to discuss observation of required wipe sampling to ensure adequate decontamination of liner components, and indicate whether the CQA team will collect their own wipe samples for confirmation.

9. Properly align activities, comments, and actions in the first row at the top of page 2 of this table to ensure that additives are not employed during expansion of Cell 3 and that received loads of clay are properly evaluated for the presence of objectionable material.

10. Clarify the first comment under Work Item V (LPS Liner) to note that the lift thickness is not to exceed nine inches *after compaction*. Expand the third activity in this row (bottom of page 2) to address integration of new and existing liner components at Cell 3. Clarify the last activity under this Work Item (top of page 3) to call, not only for documentation of all instances of desiccation and clay soil layer penetration, but also monitoring and confirmation of associated repairs.

11. Revise comments in the first row on page 4 of this table to refer to CQAP Tables 2-8 through 2-12. Also expand this row to document the amount of entrained soil that would cause the geotextile to be rejected and replaced.

12. Modify the activities listed under Work Item VII (Leachate Collection Systems [LCS]) for consistency with Section 2.3.7 of the CQAP. As noted in that section and Table 2-5, the LCS for Cell 3 was installed when the unit was first constructed in 2005. Thus, the only necessary actions for the expansion involve installation of the granular soil drainage layer and tie in to the existing drainage system. Accordingly, the referenced row in Table 2-4 need not address bedding layer placement, pipe installation, sumps and structures, or mechanical/electrical equipment installation. Related discussion under Work Item V on Table 2-5 should also be updated to note that mechanical and electrical components of the LCS will not be needed. Nevertheless, the CQA team should confirm that drainage from

the expansion is being properly routed to the existing LCS before construction is formally complete; this last step should be incorporated into Section 2.3.7 of the CQAP.

Table 2-6, Secure Landfill CQA Summary of QA Testing

13. Inspection items listed under Work Item III (LPS Liners) should be expanded to note that the CQA team is also responsible for observing and ensuring integration of existing and new liner components. The frequency of organic content testing for borrow sources should be changed to once for every 1,000 cubic yards of incoming material for consistency with those presented in Table 2-7.

Section 2.3.6, Geosynthetic Liners

14. Revise the second and third paragraphs in this section to refer to Appendices C and D, respectively.

Table 2-7, Secure Landfill CQA Low-Permeability Material QA Clay Characteristics and Screening

15. For consistency with Table 2-6, expand the first row to include testing of borrow source material for susceptibility to frost damage per ASTM Method 560.

16. Revise testing frequencies specified in the last row of this table for consistency with the text of Section 2.4.1 (page 2-34) and Table 2-6.

Table 2-8, Secure Landfill CQA Geosynthetic QA Testing/Inspection Matrix

17. Expand this table to specify responsibilities and frequencies for thermogravimetric analysis and differential scanning calorimetry, peel adhesion, and bonded shear strength.

18. Laboratory testing details currently listed for vacuum testing actually apply to destructive testing, as per Table 2-12; correct this column accordingly.

Table 2-10, Secure Landfill CQA Geosynthetic Liner – General Seaming Procedures

19. Revise the last bullet in this table to replace the word "coot" with "cool".

Section 2.4.1, Low-Permeability Soil Liners

20. Clarify the first paragraph to note that, as specified in Table 2-6, field permeability testing will be conducted at a rate of one per acre (consisting of nine cells) *per lift*.

21. The third paragraph in this section notes that the results of field permeability testing will be averaged to determine the average permeability of the full thickness of the clay liner (comprised of four separate lifts). However, it is unclear whether these lift-specific measurements will be obtained in the same location within each acre. Averaging lift-specific data in the same location is acceptable to document achievement of sufficiently low permeability in that portion of the liner. However, if different sampling locations will be evaluated upon completion of each lift, there will be no way to confirm that any unacceptably low lift-specific permeability results have been adequately addressed by prior or subsequent lift placement in that area. Clarify the procedures to be followed for making these field permeability measurements, or revise the CQAP to indicate that the results will not be averaged and that any lifts not meeting the minimum required permeability objectives will require corrective action..

Section 2.4.5.3, Problem Identification and Corrective Measures Reports (PICRs)

22. According to this section, the CQA officer is responsible for preparing PICRs when material or workmanship does not meet the specified design. Although the CQAP directs these reports to be directed to Arconic, the construction contractor, and the project engineer, the CQAP does not specify *when* the PCIRs will actually be transmitted to their intended recipients. If details in the PCIRs may impact ongoing work, the CQA officer should ensure that they are sent prior to submittal of final documentation pursuant to Section 2.4.9. Revise the document to call for timely submittal of all PCIRs.

Appendix A, Control, Inspection, Measurement, and Testing Matrix, page A-1

23. The qualifier "CQA/CONT" is not used in the matrix. Clarify in what cases the contractor is expected to collect samples for the CQA inspector, and clarify whether the inspector is expected to observe those activities.

TECHNICAL REVIEW

DRAFT FINAL SECURE LANDFILL OPERATIONS AND MAINTENANCE MANUAL AND DRAFT FINAL WORK PLAN FOR CELL 3 OPERATION AND MAINTENANCE FEBRUARY 2017

ARCONIC INC., MASSENA, NEW YORK

EPA contractor Booz Allen Hamilton (Booz Allen) has completed a technical review of two documents pertaining to operation and maintenance (O&M) of existing Secure Landfill Cell 3 at the Arconic Inc. (Arconic) facility in Massena, New York. Specifically, these documents include the February 2017 Draft Final O&M Manual for Cell 3 and the February 2017 Draft Final Work Plan for Cell 3 O&M. These documents address continued use of the existing landfill cell, and each was reviewed for compliance with regulations pertaining to the Resource Conservation and Recovery Act (RCRA) and the Toxic Substance Control Act (TSCA). Comments developed during the review are provided below.

Although these ongoing landfilling operations will be conducted concurrently with expansion of the cell to the east, construction documents detailing the expansion were provided to EPA under separate cover and are not addressed below.

I. COMMENTS ON THE DRAFT FINAL O&M MANUAL FOR CELL 3

Section 1.2, Secure Landfill Description, page 3

1. This section presents combined design capacities and disposed waste volumes for the three landfill cells at the Massena facility. However, the volumes listed appear to be inconsistent with those provided in Table 1-1. Clarify the manual (and all supporting or related documents) to provide cell-specific design capacities, wastes previously placed into each cell, and remaining capacities as currently built. The proposed capacity of the Cell 3 expansion should also be noted.

Section 1.3, Waste Quantities and Description, page 3

2. The second sentence in this section states that Table 1-1 lists descriptions of and major contaminants associated with waste materials previously disposed in the three landfill cells. Because the table provided only generic information on waste sources, the above-referenced sentence should be deleted or modified for accuracy.

Section 2.1.1, Cell 3 Preparation, pages 8 and 9

3. Step 4 in the Cell 3 re-opening process refers to removal of the existing white high density polyethylene textured geomembrane liner, followed by disposal of that liner within the cell. The manual must be revised to clarify that the liner will not be removed within Cell 3. Only the interim cap used during temporary closure of Cell 3 will be removed and disposed during the cell re-opening process. This same correction must be made in the second paragraph of Section 2.1.2.

Section 2.1.3, Subsequent Waste Lifts, page 9

4. This section describes precautions to be implemented to protect the cell's liner system when disposing of sharp objects. Expand this section to discuss the means by which and by whom such wastes and waste loads will be identified prior to disposal at the landfill.

Section 2.2, Cell 3, page 9

5. The second paragraph in this section indicates that water will be used for dust control, if needed. The manual should be expanded to clarify whether a specific standard will be used to determine that water application is needed, or if visible dust will be sufficient to warrant control measures. Sections 2.2 and 4.10 of the manual should specify that the smallest volume of water will be used during dust control measures to avoid overly straining the Cell 3 liner and leak collection system.

Section 3.1, Method of Operation, page 10

6. Section 1.1.1 of the February 2017 Preparedness, Prevention, and Contingency (PPC) Plan notes that decontamination of vehicles that do enter the landfill cell will occur within a steel-floored decontamination pad located just below the crown of the landfill berm. Expand the sixth bullet on page 10 of the manual to include this information and amend figures in the plan to show the proposed location of the decontamination pad. Figure 2 from the February 2017 Draft Final Contractor Stormwater Pollution Prevention Plan (SWPPP) indicates that the pad will be located within the berm on the south side of Cell 3, but the only ramps into and out of the cell are shown on the east side of the cell and separated from the proposed decontamination pad location by the temporary berm. Expand the bullet to provide details on how the decontamination pad is to be accessed without damaging the berm or crossing the temporary berm, and how regularly waste placement vehicles will need to undergo such decontamination.

7. Expand the last bullet on page 10 to discuss decontamination procedures and location for vehicles that are used to haul wastes to, but do not enter, Cell 3. Simple visual inspection of the box and tires prior to departure from the landfill is not acceptable unless (1) the truck is returning directly to the loading area to pick up additional wastes and (2) there is no

possibility that loading personnel will come into contact with residual wastes or contaminants in the truck bed.

Section 3.3.2.2, Waste Placement, page 13

8. The first bullet in this section states that demolition debris will only be placed in Cell 3 in locations where at least three feet of material exists between that waste and the bottom clay liner, and at least five feet of material is in place between the waste and cell side slopes. According to the text, the minimum three-foot buffer on the cell floor may include the two-foot thick drainage layer of sand. However, this allowance creates an unexplained inconsistency between protections to be afforded to the different liner areas (i.e., three feet on the bottom versus five feet on the sides). If the three-foot buffer requirement was applied ***in addition to*** the two-foot drainage layer, the full buffer would be five feet on the bottom of the unit, consistent with the requirement for buffering along the cell's side slopes. Present additional justification for the proposed buffer differences, or modify them for consistency. Sections 3.3.2.2 and 2.1.3 may both need to be revised in accordance with this comment.

Section 3.3.3, Waste Volume, page 13

9. This section indicates that roughly 15,000 cubic yards of stockpiled steel in Building 120 will be stacked, organized, and compacted to approximately 640 cubic yards during placement in Cell 3. These estimates will reduce the volume of wastes to less than 5% of its current configuration, but the photographs in Appendix B suggest that the waste pile is already relatively tightly packed and such significant additional compression may not be feasible. Provide additional justification for the maximum disposed volume of 640 cubic yards for waste coming from the Building 120 area. Furthermore, the discussion in this section should account for all currently anticipated Cell 3 wastes listed in Table 2-1, not solely those wastes considered most urgent for disposal at this time.

Section 3.4, Decontamination, page 13

10. This section of the manual must be expanded with specific detail on decontamination procedures and protocols to be used at Cell 3. This discussion should identify which items will require decontamination (e.g., the newly exposed liner beneath and east of the temporary berm area, heavy equipment that enters the cell, the beds and tires of heavy equipment that does not enter the cell, hand tools, sampling equipment, gas vents removed from the existing waste area). The decontamination process (including wipe sampling) for each should be specified, along with criteria to be used in determining that decontamination was successful. Regulations in 40 CFR 761.79 and 40 CFR Part 761, Subpart P should be cited, as appropriate. Because the Contractor's Health and Safety Plan is not subject to New York State Department of Environmental Conservation (NYSDEC) or EPA review and approval, provision of decontamination details only in that document (as currently

proposed) is insufficient to ensure that applicable TSCA requirements will be met and decontamination will be completed to acceptable levels.

Section 3.5, Physical Criteria of Waste, pages 13 and 14

11. The fourth bullet on page 14 states that wastes placed in the cell must achieve a minimum long-term bearing strength of 16 pounds per square inch. Expand this bullet to specify the time frame within which this criterion must be achieved and the means by which the landfill operator will verify required performance.

12. The fifth bullet on page 14 states that compaction of waste material will be achieved with up to five passes of a bulldozer, but that these compaction efforts can be lessened under certain conditions. However, the fifth bullet in Section 3.3.2.2 specifies waste compaction above the steel debris deposits with a ***minimum*** of five passes with a smooth drum roller. Revise the manual to provide clarification on minimum compaction requirements and to specify that testing of in-place strength testing will be conducted as outlined in Section 4.2.2 of the plan.

Section 4.1, Waste Hauling Procedures, pages 15 through 17

13. The first paragraph in this section states that dredge sediment and other waste from the Grasse River sediment processing area will be hauled to the landfill via County Road 42 and Dennison Cross Road. Figure 4-1 should be revised to show both on-site and off-site haul routes.

14. For consistency with Table 2-1, clarify the fifth paragraph to note that wastes being transported from off-site include polychlorinated biphenyl (PCB)-impacted sediments from the Unnamed Tributary and Grasses River Staging Area, and PCB-impacted materials generated during remediation of Outfalls 001 and 004. The Grasse River sediments currently listed comprise only a small percentage of the wastes to be disposed within Cell 3. Transportation of off-site wastes to the landfill will trigger transporter permitting and waste manifesting requirements under both RCRA and TSCA. Moreover, the requirements of 49 CFR 172.205 *do* apply to several wastes streams to be disposed at Cell 3. Sections 4.4 and 4.6 of the plan must also be revised to discuss manifesting and/or waste surveying requirements for these off-site wastes in accordance with all applicable RCRA and TSCA regulations.

15. Revise the second paragraph at the top of page 17 to note that the landfill gate-keeper will monitor incoming waste loads, ensure that waste acceptance criteria are met, perform receiving facility manifest requirements, and maintain the waste receipt and disposal log.

16. Revise the last paragraph in this section to refer to Section 5 and 6 of the PPC Plan for emergency response guidelines.

Section 4.2.1, Operations and Maintenance, pages 17 and 18

17. Expand this section to clarify that the owner-selected contractor will also be responsible for ***conducting*** inspections as outlined in Section 4.17 of the plan.

Section 4.3, Access Roads and Traffic Control, page 19

18. Expand the last paragraph of this section to indicate the number of vehicles anticipated to be in use at any given time during the on-site transfer of waste and receipt of wastes from off-site sources. Figure 4-1 currently indicates only one way traffic between Building 120 and the Cell 3 landfill; unless only one truck is anticipated for use during that effort, the potential for two-way traffic exists and wider roadways or traffic controls will be needed.

Section 4.4, Waste Identification and Manifesting, page 19

19. Expand the first paragraph of this section to indicate whether and when the wastes identified in Table 2-1 have been fully characterized for hazardous waste disposal purposes. A summary of analytical results and waste composition should be provided to ensure that the proposed groundwater monitoring program and plans for leachate analysis will be adequate.

Section 4.8, Stormwater Management, page 22

20. Regulatory citations presented in paragraphs 5 through 7 of this section contain minor errors. Rather than referring to 6 NYCRR Sections 373-2.14(c)(6) through (8), the paragraphs should respectively refer to 6 NYCRR Sections 373-2.14(c)(7) through (9). Correct the manual accordingly.

Section 4.9, Soil Erosion and Sediment Control, page 23

21. The second paragraph in this section notes that the sediment basin may be needed during construction, landfill operation, and capping. Accordingly, the second paragraph should be corrected to note that the sediment basin will not be converted into a retention basin until closure (rather than construction) is completed at Cell 3.

Section 4.10, Particulate Matter and Dust Control, page 23

22. The second sentence in this section states that the daily cover requirements in 6 NYCRR Section 373-2.14(c)(10) do not apply to Cell 3. Limiting the use of internal cover materials to the stacked steel and debris area (and as needed to control particulate matter) is acceptable. However, the citation is incorrect. Revise the text to refer instead to 6 NYCRR Section 360-2.17(c).

Section 4.11, Emergency Procedures, page 23

23. For clarity, revise this section to refer to 6 NYCRR Sections 373-1.5(a)(2)(vi) and (vii).

Section 4.16, Site Security, page 24

24. Expand this section to document security procedures and equipment in use at the larger Arconic West Plant property, within which the landfill is located. This information is needed to confirm that the current proposal satisfies TSCA regulations in 40 CFR Section 761.75(b)(9) relating to unauthorized access by site visitors and animals. In addition, the manual must document the means by which the landfill owner/operator will ensure that authorized site visitors do not gain unauthorized access to the landfill. Furthermore, it is expected that Arconic will assess any changes that reduce security for the plant property as a whole to determine whether additional landfill-specific security measures are needed to compensate.

Section 4.17, Site Inspection, page 24

25. Revise the first sentence in this section to refer to 6 NYCRR Sections 373-2.14(e)(2)(i) through (iii).

26. Expand the list of inspection items at the bottom of page 24 to include evaluation of the condition of access/haul roads, ramps, and the equipment listed in Sections 5.1 through 5.3 of the plan.

Section 5.4, Equipment Maintenance Requirements, page 29

27. Expand the two bullets on this page to clarify which equipment maintenance and repair tasks will be performed by heavy equipment suppliers, and which are the responsibility of the landfill operator. Without this clarification, critical equipment maintenance tasks may be overlooked, potentially resulting in unanticipated problems on site.

Section 6.1, Leachate Collection System Sampling and Analysis, page 30

28. Expand this section to indicate whether there are specific acceptance criteria for transfer of leachate to the on-site wastewater treatment plant (WWTP). The plan currently proposes analysis of leachate only for PCBs before transfer to the WWTP. However, analytical results for the anticipated wastes may suggest that additional parameters would be appropriate. The groundwater monitoring summary in Appendix E includes two tables (Tables 4-2 and 4-3) presenting typical leachate composition. If that information remains accurate given the currently anticipated waste types for Cell 3, the leachate analyses may also need to include volatile and semivolatile organic compounds and metals.

Section 6.1.1, Primary Leachate, page 30

29. Clarify the last sentence of the first paragraph to note that any changes to groundwater and/or landfill leachate sampling parameters will require NYSDEC and EPA approval prior to implementation.

Section 6.1.2, Secondary Leachate, page 30

30. The second paragraph in this section states that any liquid captured by the leak detection and collection system will be analyzed to determine whether it is leachate or trapped stormwater. However, PCBs are the only analytical constituents currently proposed for this purpose. Evaluation of additional parameters (including those listed in Table 4-2 and 4-3 of Appendix E) may prove helpful in distinguishing leachate from stormwater. Conventional parameters such as specific conductance, pH, alkalinity, cyanide, sulfate, ammonia, fluoride, and dissolved oxygen may be beneficial. Revise the plan or provide additional rationale for the proposed analytical program.

Section 6.1.3, Response Action Plan and Action Leakage Rate, page 35

31. The third paragraph on page 35 should be revised to clarify that, in accordance with 40 CFR Section 264.302(b), the average daily flow rate for each sump will be calculated weekly during the active life of the cell ***and*** the associated closure period. More infrequent evaluation may be appropriate during the post-closure care period.

Section 6.2, Groundwater Sampling and Analysis, page 36

32. Expand the plan to include a map of current groundwater monitoring well locations.

Section 6.3, Surface Water and Stormwater Sampling and Analysis, page 36

33. Expand the plan to include a map of drainage areas and stormwater management infrastructure (e.g., retention ponds, outfalls) in relation to the existing and proposed footprints of Cell 3.

Section 6.4, Landfill Gas Monitoring, page 38

34. Expand this section to discuss the potential for methane generation after sediments are placed into Cell 3. Also, correct the citation in this section to refer to 6 NYCRR Section 360-2.17(f)(1) through (3).

Section 7, Administrative Procedures, pages 39 through 41

35. Regulatory citations through Section 7 (and its subsections) include numerous errors. Confirm the appropriate citations, and correct the plan accordingly.

Section 7.1.4, Records and Results of Waste Analyses, page 39

36. Expand this section to specify recordkeeping requirements for generator determinations and/or analytical results used to determine hazardous waste characteristics of, and PCB concentrations in, anticipated wastes to be disposed at Cell 3. Although such analyses may not have been undertaken specifically pursuant to the landfill O&M Plan, those records must be maintained at the facility to document that the wastes were properly managed and disposed. Additionally, this section should discuss records required pursuant to RCRA's land disposal restrictions, as codified in 6 NYCRR Sections 373-2.5(c)(2)(xiii) and (xiv).

Section 7.1.13, Annual Report, page 41

37. The first full paragraph on page 41 states that "it has been assumed" that Arconic makes a waste minimization certification pursuant to its ongoing production program and, for this reason, such a declaration is not required specifically with regard to the landfill cell. Confirm whether Arconic does, in fact, make such a certification and revise the plan accordingly. The plan already includes more compelling justification for the waiver request because the cell will receive already existing waste materials pursuant to a formal Record of Decision.

Appendix A, Cross-References

38. Contrary to the information provided in this table, Section 4.18 of the Operations and Maintenance Plan does not discuss special precautions for ignitable or reactive wastes, incompatible wastes, liquid wastes, containers, lab packs, or dioxin wastes. The plan should be expanded to address these issues or to note that they are not anticipated to be of concern throughout the life of Cell 3 (including its expansion). Then the cross-referencing should be corrected with regard to these topics.

39. Regulatory citations throughout this table include numerous errors. Confirm the appropriate citations, and correct the appendix accordingly.

40. Expand this completeness check to include the full suite of applicable requirements including weekly removal of collected liquids in the leachate collection system [373-2.14(e)(3)(i)], determination of the action leakage rate [373-2.14(n)], development of a response action plan [373-2.14(o)], and retention of information related to land disposal restriction determinations [373-2.5(c)(2)(xiii) and (xiv)]. Each of these topics has been discussed in the body of the plan and can be properly referenced in Appendix A.

41. This table (and related sections of submitted documentation) must be expanded to include references to applicable regulations pertaining to TSCA, according to which EPA is providing oversight for the secure landfill at Arconic. The most pertinent regulations addressing operation of PCB landfills and PCB waste disposal (including manifesting) are predominantly, but not exclusively, found in 40 CFR Part 761, Subparts D and K.

Appendix C, PPC Plan, Section 2.7, Accumulation of Excess Leachate, page 8

42. This section discusses normal transport of leachate from sumps to the on-site WWTP. However, the PPC is intended to consider impacts of and responses to unusual site conditions. For example, pump failure or pipe blockages may result in the presence of excess leachate at Cell 3, which could then be inadvertently released to the environment. Revise this section of the PPC to focus on problematic conditions that may occur.

Appendix C, PPC Plan, Section 3.2, Landfill and RWG Employees, page 9

43. Clarify the second sentence in this section, explaining why "RWG does not expect employees to remain in this classification for long." Will all landfill operations employees be trained and transition to also serve on the emergency response team?

Appendix C, PPC Plan, Section 3.4, Facility Emergency Response Team, page 10

44. Clarify when the PPC will be updated to include a complete list of emergency contacts and phone numbers.

Appendix C, PPC Plan, Section 5.2, Order of Response Actions by the Emergency Coordinator, pages 16 and 17

45. Delete the statement in the fifth bullet on page 16 to "Advance to Step 14." Revise the last bullet in this section (on page 17) to note that all changes to the contingency plan will be reviewed and approved by Arconic, NYSDEC, and EPA prior to implementation.

Appendix C, PPC Plan, Section 5.3.1, Right to Not Respond, page 17

46. Clarify the first paragraph of this section to state that, in the event that the emergency coordinator opts not to respond to a spill due to unacceptable risks to the team, he or she is responsible for notifying other appropriate emergency responders.

Appendix C, PPC Plan, Section 5.3.3, Medical Surveillance, page 17

47. Correct the first sentence in this section to require completion of a baseline medical examination no ***more*** than one year prior to an individual's being named to the emergency

response team. An evaluation conducted earlier than that time may not accurately reflect that individual's current medical status or fitness for work as an emergency responder.

Appendix C, PPC Plan, Section 6.4, Spills to Waters of New York State, page 21

48. References throughout this discussion to releases that do not need to be reported to the NYS Spill Hotline should be deleted. All spills that reach the State's water must be reported. However, spills addressed in Sections 6.2 and 6.3 of the PPC may satisfy the bulleted conditions in this section and, therefore, be excluded from the requirement to report to the NYS Spill Hotline. Revise those sections accordingly.

Appendix C, PPC Plan, Section 6.6, Release of Airborne Hazardous Material, pages 23 and 24

49. Much of the discussion in this section is simply a repeat of details provided in Section 6.5 on fires and explosions. Revise Section 6.6 to delete unneeded discussion and clarify actions to be taken when hazardous materials subject to RCRA and/or TSCA become airborne at the landfill.

Appendix C, PPC Plan, Section 8.1.1, Cell Phones, page 26

50. This section should be expanded to identify a backup method of emergency communication in the event that cellular telephone service is interrupted during an emergency on- or off-site.

Appendix D, Stormwater Management Plan

51. Given the age of the Stormwater Management Plan (January 8, 1993) provided as Appendix D, Arconic must confirm that plans for expansion of Cell 3 will not impact stormwater management capacity or operations. Arconic should also confirm that the cited 24-hour, 25-year storm sizing details are still accurate for the Massena area.

52. Because it addresses activities related to both ongoing operation of Cell 3 and expansion of that cell, the February 2017 Draft Final Contractor SWPPP should also be provided in this appendix and referenced in the manual.

II. COMMENTS ON THE DRAFT FINAL WORK PLAN FOR CELL 3 O&M

General Comments

1. The second paragraph in Section 1.0 states that the Work Plan addresses only O&M activities proposed for 2017 within the existing portion of Cell 3. O&M efforts planned for 2018 and 2019, which will presumably include activities in the Cell 3 expansion area, are not detailed in this Work Plan. Although the Work Plan describes placement of material

from the Remediation Operations Pilot Study (ROPS) pad and steel waste stockpiled at Building 120, unforeseen changes to the schedule may occur. Consequently, Arconic should consider expanding the Work Plan to include details on placement of sediment, concrete, and other materials identified in Table 4-1 in existing Cell 3. For example, Section 4.9.7 could be revised to include details on placement of sediment in the unit from south to north after placement of steel is complete, and before removal of the temporary berm. This modification would forestall the need to update the Work Plan at a later date if the landfill is required for disposal of these additional wastes in 2017. Moreover, the plan should discuss contingencies to be implemented if expansion of the cell cannot be completed in (and the temporary berm cannot be removed as scheduled).

2. As noted above, this Work Plan addresses only those activities planned for 2017. Waste disposal is expected to continue in subsequent years, beyond the duration of the current Work Plan. Because the plan does not detail the full suite of waste disposal activities, some of the listed surveying and demobilization tasks are inappropriate. The Work Plan must be modified to clarify the interim nature of such tasks at the end of 2017. The project schedule in Appendix A should also be revised to include line items for these tasks, clarifying whether waste disposal activities will continue year-round or come to a close at the end of the typical "field season" in upstate New York.

3. This Work Plan must be expanded to specifically document how Arconic will meet TSCA requirements for PCB waste manifesting, disposal, and landfill operation (including decontamination). The regulations most pertinent to this facility are predominantly, but not exclusively, found in 40 CFR Part 761, Subparts D and K.

<u>Section 4.2, Office Facilities and Work Zones, page 4</u>

4. This section states that work zones will be established, including exclusion zones, pursuant to the Final O&M Manual for Cell 3. However, that manual does not include such details. Expand the documents to include a detailed description and clear map of work zones, staging areas, access roads to the trailer/test pad/staging/tipping areas, ramps (and roads thereto), tipping areas, decontamination stations, load inspection points, and other key areas specific to existing Cell 3 (and accessible to areas west of the proposed temporary berm). Figure 2 from the February 2017 Draft Final SWPPP may serve as a good basis for such maps.

<u>Section 4.4, Traffic and Access Control, page 5</u>

5. This section details anticipated improvements to existing Cell 3 access roads to the trailer area and between the landfill and Dennison Cross Road. Expand this section to also require evaluation of, and implementation of necessary repairs to, the haul road between Cell 3 and Building 120. This section should also document plans for construction of new heavy equipment entry ramps and repairs to existing ramps into the cell.

6. Correct the first paragraph to refer to Dennison Cross Road and the second paragraph to the Gate #5 entrance, as shown on Figure 4-1.

Section 4.7, Erosion Control, pages 5 and 6

7. The second sentence in this section refers to a "stockpile area," and a soil pile is shown on Figure 4-2. Confirm that this pile consists of clean soil, and provide additional detail on why this soil has been stockpiled in the area. Specifically, identify intended uses of the soil, at what point it will be disturbed, and where it will be relocated. References to other documents can be provided as appropriate.

Section 4.9.1, Interim Cover Removal/Disposal, pages 6 and 7

8. This section repeatedly refers to removal of the temporary high density polyethylene (HDPE) liner, followed by disposal of that liner within the cell. However, only the interim cover used during temporary closure of Cell 3 will be removed and disposed during the cell re-opening process. Although the liner beneath the eastern portion of the cell will be exposed and pressure-washed prior to installation of the temporary berm, the liner will not be removed from the existing footprint of Cell 3. Revise the Work Plan for clarity on this issue. This same correction must be made in the third paragraph of Section 4.8.

9. Expand the last paragraph in this section to indicate whether the two gas vents to be removed have come into contact with wastes in Cell 3, whether they will require decontamination, and where they will be stored on site for reuse at a later date.

Section 4.9.2, Exposure of Underlying Primary HDPE Liner, page 7

10. The description of this field task is unclear. The text currently suggests that waste material and drainage sand layer will be removed from east to west within Cell 3. Then, the underlying geotextile will be pulled back, with any accumulating residual material being moved to the east. The Geonet will then be cut and rolled up for storage, or will be draped (along with the geotextile) other the slope of remaining waste in the cell. The text specifically states that "this process will be repeated moving to the east until the liner is exposed under the temporary berm location".. However, this description suggests that some waste will remain in place east of the proposed temporary berm. Figures 4-3 and 4-4 appear to corroborate this scenario, despite the fact that areas east of the temporary berm are supposed to be "clean" for RCRA and TSCA purposes, facilitating expansion of Cell 3. To resolve this concern, it would seem that all wastes should be drawn westward, such that none remain in place beneath or east of the temporary berm. Clarify planned action under this task. References to other documents can be provided along with the requested clarifications.

Section 4.9.3, Cleaning of Primary HDPE Liner, page 7

11. The scope of this field task is unclear. Because waste will remain in place (although relocated within) existing Cell 3, it will not be possible or necessary to pressure-wash the entire liner footprint. It appears that the intent of this field task is to clean the liner beneath and east of the proposed location of the temporary berm, which will allow for unimpeded expansion of the cell to the east. Clarify which grid locations on Figure 4-2 will be subject to washing and wipe sampling as part of this effort.

12. The plan must detail the wipe sampling process, along with criteria to be used in determining that decontamination of the liner was successful. Regulations in 40 CFR 761.79 and 40 CFR Part 761, Subpart P should be cited, as appropriate. Similar details should be provided throughout the plan wherever decontamination of heavy equipment and vehicles is discussed.

13. This section states that soils and/or waste materials remaining on the HDPE liner after removal the geotextile and Geonet will be pressure-washed from south to north toward the leachate collection system. Describe the means by which the contractor will prevent siltation and clogging within the leachate collection basins, or how accumulated material will be managed.

Section 4.9.6, Removal of ROPS Pad Material, Transportation, and Disposal, page 8

14. This section states that a 50-foot by 50-foot grid will be established over the ROPS pad area prior to excavation and loading for disposal. Given that the ROPS pad area is roughly 200 feet by 300 feet, there would appear to be a total of 24 grid squares – not 12 grid squares as currently stated. Confirm proposed grid spacing and revise the text for accuracy on this point.

15. The last paragraph in this section states that sharp objects will only be placed in Cell 3 in locations where at least three feet of material exists between that waste and the bottom clay liner. In accordance with the comment on the Cell 3 O&M Manual, clarify that the required three-foot buffer is ***in addition to*** the two-foot drainage layer of sand along the cell floor.

Section 4.9.10, Decontamination, page 11

16. Expand this section to discuss decontamination procedures and location for vehicles that are used to haul wastes to, but do not enter, Cell 3. Simple visual inspection of the box and tires prior to departure from the landfill is not acceptable unless (1) the truck is returning directly to the loading area to pick up additional wastes and (2) there is no possibility that loading personnel will come into contact with residual wastes or contaminants in the truck bed.

Section 6.0, Post-Construction Reporting, page 12

17. Correct the citation provided in this section to instead reference construction certification requirements required by 6 NYCRR Section 373-2.2(k)(4).