



The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner



October 31, 2019

CERTIFIED MAIL
7018 2290 0001 5884 7390
RETURN RECEIPT REQUESTED

LETTER OF DEFICIENCY
No. WMD LOD 19-132

North Country Environmental Services, Inc.
1855 Route 100
Hyde Park, VT 05655
Email: john.gay@casella.com

ATTN: John Gay, E.I., Engineering Manager

SUBJECT: North Country Environmental Services, Inc. Landfill
581 Trudeau Road, Bethlehem, NH
Solid Waste Permit No. DES-SW-SP-03-002

Inadequate Daily Cover

Dear Mr. Gay:

The New Hampshire Department of Environmental Services (NHDES) issues this Letter of Deficiency (LOD) to notify North Country Environmental Services, Inc. (NCES) that NHDES has identified a compliance deficiency concerning operation of the NCES landfill in Bethlehem, NH, and to request that NCES take specific action to address the deficiency. The deficiency was identified during a focused inspection of the facility on August 15, 2019, as described in the attached inspection report. The purpose of the inspection was to determine the facility's compliance status relative to select provisions of the New Hampshire Solid Waste Rules, Env-Sw 100 et seq., (Rules) related to working face cover requirements, specifically the requirements in Env-Sw 806.03, as well as the Approved Operating Plan of Record (dated October 2016).

NHDES hereby requests that NCES address the deficiency identified below, in the manner specified below.

(1) Failure to apply and maintain cover materials as required

At the time of the inspection on August 15, 2019, which began prior to the commencement of daily operations at the facility, NHDES personnel observed exposed waste at two separate working faces.

Env-Sw 806.03(a) requires that an approved cover material be applied over all sides and working faces of a landfill in a manner and at a frequency required to achieve the performance objectives specified in Env-Sw 806.03(a)(1) through (7). In addition, landfills receiving municipal solid waste (MSW) are required to place cover material over all exposed waste no less frequently than at the end of each operating day, pursuant to Env-Sw 806.03(c). Further, Section 3.7.3, *Landfill Cover*, of the Approved Operating Plan of Record also requires that soil or a NHDES approved Alternative Daily Cover (ADC) material be applied to the working face at the conclusion of each working day.

NHDES notes that NCES personnel stated that nuisance wildlife was responsible for much of the exposed waste observed on August 15, 2019. While NHDES agrees that wildlife may be responsible for some of the exposed waste observed at the time of inspection, Env-Sw 806.03(a)(2) also requires cover material be applied in a manner and at a frequency required to minimize the potential to attract and harbor vectors.

Requested Response Actions:

NHDES requests that NCES ensure that adequate and compliant cover materials are applied and maintained at the facility at all times, in compliance with the Rules and the facility's Approved Operating Plan of Record.

NHDES requests that within 30 days of this letter of deficiency, NCES provide to its landfill operators training on the cover requirements in Env-Sw 806.03 and the Approved Operating Plan of Record. Within 7 days after the training, provide to NHDES documentation of attendees, training agenda, and the date and length of the training.

In addition, NCES personnel stated that they are working with various state and federal agencies to address nuisance wildlife (i.e., vectors). NHDES requests that within 30 days of this letter of deficiency, NCES submit to NHDES a plan identifying specific measures that NCES will take to control vectors to the greatest extent practicable, and an associated implementation schedule.

Please address all matters related to this Letter of Deficiency to:

Tyler J. Davidson, Waste Management Specialist
NHDES/WMD
P.O. Box 95, Concord, NH 03302-0095
Telephone: 603-271-2927
Email: tyler.davidson@des.nh.gov

A copy of the New Hampshire Solid Waste Rules, Env-Sw 100 et seq., is available on the NHDES website at <http://des.nh.gov/organization/commissioner/legal/rules/index.htm> or by

contacting the Public Information Center at (603) 271-2975. Statutes are available via the State of NH website, www.nh.gov.

We appreciate NCEs' cooperation in addressing the deficiency noted herein. Issuance of this LOD and your response to the requested corrective actions does not limit or otherwise preclude NHDES from taking enforcement action pursuant to RSA 149-M with regards to the noted deficiency.

Thank you for your prompt attention to this matter.

Sincerely,




Pamela Hoyt-Denison, P.E., Administrator
Waste Programs
Waste Management Division
Tel: (603) 271-2945
Email: pamela.hoyt-denison@des.nh.gov

encl. Solid Waste Facility Inspection Report, dated August 15, 2019

cc: NHDES Legal Unit

ec: Kevin Roy, NCEs, email: kevin.roy@casella.com
Gabe Boisseau, Chair-Board of Selectmen, Town of Bethlehem, Email: selectman3@bethlehemnh.org
Town Clerk, Town of Bethlehem, Email: townclerk@bethlehemnh.org
April Hibberd, Administrative Assistant, Town of Bethlehem, Email: admin@bethlehemnh.org

	SOLID WASTE FACILITY INSPECTION REPORT	New Hampshire Department of Environmental Services Waste Management Division P.O. Box 95, 29 Hazen Drive Concord, NH 03302-0095 Phone: 603-271-2925 Fax: 603-271-2456
---	---	--

Facility/ Site Information			
Facility Permit No.	DES-SW-SP-03-002		
Name	North Country Environmental Services, Inc. (NCES) Landfill		
Physical Address	581 Trudeau Road, Bethlehem, NH 03574		
Mailing Address	1855 VT Route 100, Hyde Park, VT 05655		
Contact	Name	Title	Telephone
Unannounced	N/A	N/A	N/A
Facility Type / Waste Accepted	Other Permit No. / Date Issued		
Landfill (see permit for waste types accepted)	N/A		

Visit Information			
Date of Inspection	August 15, 2019	NHDES Staff Conducting Site Inspection	Robert Bishop, NHDES Tyler Davidson, NHDES Don Watson, NHDES
Time Arrival / Departure	5:45 a.m. – 8:15 a.m.	Weather	Partly cloudy, 50s – 60s°F
Purpose of Inspection	Assess compliance with select Solid Waste Rules, specifically Env-Sw 806.03, <u>Landfill Cover During Operations</u> , and NCES' Approved Operating Plan of Record, dated October 2016.		
Photos Taken: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes, see photo log, Attachment A)			
Samples Collected: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, see sample collection log)			

PARTICIPANTS (Name/Title of others present)

Bruce Grover, Operations Manager, NCES
Stephen Allen, Environmental Technician, NCES

FACILITY/ SITE DESCRIPTION

NCES Landfill is an active commercial municipal solid waste landfill. The landfill was operating (receiving waste) on the day of the inspection.

ACTIVITIES AND OBSERVATIONS

The following is a summary of activities and general observations made by NHDES staff during inspection of the NCES landfill on August 15, 2019. Additional observations related to NHDES' assessment of compliance for select Solid Waste Rules and Approved Operating Plan of Record are provided in attachments to this report. A log of photographs taken by NHDES, as well as copies of select photographs referenced in this report, are included in Attachment B.

NHDES staff Robert Bishop, Tyler Davidson, and Don Watson arrived at the facility at 5:45 a.m., before the

facility opened. The gate was opened by the first arriving NCES staff person shortly after NHDES's arrival, at which time NHDES staff entered the facility. NCES personnel informed NHDES that the NCES Operations Manager would arrive on-site shortly.

NCES Operations Manager Bruce Grover arrived on-site at approximately 6:00 a.m. NHDES personnel introduced themselves and explained that the purpose of the visit was to inspect the facility for compliance with select Solid Waste Rules, specifically those rules related to daily cover. NHDES requested to see all working faces at the site prior to the commencement of daily operations. Mr. Grover stated that there were two working faces at the site: one in Stage IV/Phase II, and one in Stage V/Phase II. Mr. Grover then escorted NHDES personnel to the working face located in Stage IV/Phase II.

NHDES personnel arrived at the working face located in the southern portion of Stage IV/Phase II at approximately 6:05 a.m. Photographs P8150001 through P8150008 reflect the conditions associated with the working face at the time of inspection. NHDES personnel noted that daily cover at this working face comprised two (2) temporary tarps placed directly over waste. On the northern edge of the tarps, NHDES personnel observed a mixture of soil and exposed waste (see Photograph P8150005). Mr. Bishop notified Mr. Grover that the daily cover in this area was inadequate. Mr. Grover noted that the facility has been having problems with wildlife, in particular bears, scavenging the working faces at night and compromising the integrity of the daily cover. Mr. Grover then briefly discussed some of the wildlife control measures in place at the facility, which include wildlife propane cannons.

At approximately 6:27 a.m., NHDES personnel detected a distinct landfill gas-type odor while standing in the vicinity of Stage IV/Phase II. Mr. Grover attributed the odor to the landfill gas flaring system, which led to a brief discussion of the facility's landfill gas system maintenance procedures. Mr. Grover stated that the landfill gas collection system was without vacuum on the previous day (August 14, 2019). Mr. Bishop inquired as to how often landfill gas extraction wells were monitored and adjusted, and Mr. Grover stated that landfill gas extraction well monitoring and adjustment rounds are ideally conducted two times per month. Mr. Bishop inquired further as to the frequency of odor complaints to the facility in recent days; Mr. Grover stated that a resident of Main Street (U.S. Route 302) complained of a sludge odor the week prior to the inspection. Mr. Grover stated that the sludge odor complaint was likely legitimate, but was unable to be confirmed by NCES personnel when they responded to the site of the complaint.

At approximately 6:30 a.m., NCES personnel removed the daily cover tarps from the working face in the southern portion of Stage IV/Phase II. Photographs P8150017 through P8150019 depict the condition of the working face following removal of the daily cover tarps. NHDES noted an overt odor upon removal of the daily cover tarps.

At approximately 6:45 a.m., NCES and NHDES personnel traveled to the working face located in the southern portion of Stage V/Phase II. The conditions of this working face at the time of inspection are shown in Photographs P8150021 through P8150025. Mr. Grover stated that the last filling at this working face occurred approximately one week prior to the date of inspection, but that it had been approximately one month since filling in this area had occurred on a regular basis. Mr. Grover stated that a combination of daily and intermediate cover was being used in this area. During inspection of the working face in Stage V/Phase II, NHDES personnel observed exposed waste throughout the area.

At approximately 6:50 a.m., NCES personnel removed a layer of cover material on the southern edge of the Stage V/Phase II working face to create room in which to deposit a load of sludge, as seen in Photograph P8150025. An overt odor was noted at this time, and was attributed by NHDES personnel to the disturbance of cover material and waste. Following the inspection of both working faces, NHDES personnel traveled the perimeter road of the landfill, and returned to the facility office at approximately 7:15 a.m.

At the facility office, NHDES personnel met with Mr. Grover and Environmental Technician Stephen Allen.

NHDES personnel requested to review odor complaint logs from the past calendar year, and NCES personnel produced the requested records. During the review of odor complaint logs, NHDES personnel noted that, for many of the odor complaints, the NCES Facility Odor and Noise Complaint Forms indicated that there were no contemporaneous waste excavations, and that the odor control misting system was in operation.

During the records review, NHDES personnel simultaneously interviewed NCES personnel regarding their odor complaint response procedures and odor control measures at the facility. Mr. Allen reported that he conducts routine odor surveillance loops on the way to the facility in the morning. Mr. Allen stated that when conducting the odor surveillance loops, he drives a route that includes most of the locations of repeated odor complaints (Swazey Lane, Peppersass Lane) with a vehicle window down to detect odors, and stops at a few select locations to further assess whether odors are present. Mr. Allen stated that, when responding to odor complaints, only occasionally are NCES personnel able to confirm that an odor is present at the reporting location, and that verified odor complaints are rarely connected to work taking place at the facility. Mr. Allen mentioned that a couple of previous complaints originating on Main Street (U.S. Route 302) were attributed to a sludge load that had been dumped at the facility. Mr. Allen further noted that the vague nature of some of the odor complaints makes it difficult to attribute odors to any particular landfill activity. Mr. Grover then described some of the odor control measures in place at the facility. Specifically, Mr. Grover noted that the odor control misting system is used almost daily, and particularly when construction activities expose waste. When asked about odor control pellets, Mr. Grover stated that they are used in really strong odor situations, for example when a leachate seep is being repaired. Mr. Grover also described the bar sprayer at the facility that is used on an as-needed basis, which sprays a deodorizing solution on the empty bed of trucks following the tipping of a load containing sludge.

At approximately 8:15 a.m., NHDES personnel concluded the records review and departed the site. After leaving the site, NHDES personnel traveled area roads to assess the presence of landfill odors, the results of which are outlined below:

- 8:15 a.m.: Traversed Trudeau Road – No Odors Detected
- 8:19 a.m.: Traversed Swazey Lane to Peppersass Lane – No Odors Detected
- 8:24 a.m.: Traversed Peppersass Lane – No Odors Detected
- 8:28 a.m.: Departed Peppersass Lane – Traversed U.S. Route 302 East – No Odors Detected
- 8:40 a.m.: Stopped at 3738 Main Street (Wayside Inn) – No Odors Detected

At approximately 8:45 a.m., NHDES personnel departed the site vicinity.

COMPLIANCE ASSESSMENT

NHDES performed an assessment of NCES' compliance with select requirements of the New Hampshire Solid Waste Rules, specifically Env-Sw 806, as well as the Approved Operating Plan (dated October 2016). This assessment is based on NHDES' observations during an on-site inspection on August 15, 2019, and discussions with NCES personnel during the on-site inspection on August 15, 2019.

NHDES' assessment and determination of compliance relative to selected Solid Waste Rules is provided in Attachment B. NHDES' assessment and determination of compliance relative to selected sections of the Approved Operating Plan of Record is provided in Attachment C.

In summary, NHDES determined that, on the date of the visit, NCES was not in compliance with the selected Solid Waste Rules or the Approved Operating Plan of Record that relate to landfill cover during operations.

ATTACHMENTS

Attachment A – Photograph Log

Attachment B – Assessment of Compliance: Env-Sw 806

Attachment C – Assessment of Compliance: Approved Operating Plan of Record



Waste Management Division
Solid Waste Management Bureau

29 Hazen Drive, Concord, NH 03301 (603) 271-2925 Fax (603) 271-2456

Attachment A - Photograph Log

Facility Information	
Facility Permit No.	DES-SW-SP-03-002
Name	North Country Environmental Services, Inc. (NCES) Landfill
Physical Address Inspected	581 Trudeau Road, Bethlehem, NH 03574

Photograph Information			
Date of Photographs	August 15, 2019	Photographer	Tyler Davidson
Camera Used	Olympus Stylus TG-870		
Photograph Number	Description		
P8150001	Overview of the southern portion of Stage IV/Phase II, prior to the working face being uncovered. Looking west. The tarps present in the center of the photograph are the approximate location of a working face.		
P8150002	Working face in the southern portion of Stage IV/Phase II, prior to the working face being uncovered. Looking west. Exposed waste is visible along the northern edge of the daily cover tarp.		
P8150003	Working face in the southern portion of Stage IV/Phase II, prior to the working face being uncovered. Looking west.		
P8150004	Working face in the southern portion of Stage IV/Phase II, prior to the working face being uncovered. Looking north.		
P8150005	Southern portion of Stage IV/Phase II, prior to the working face being uncovered. Looking west. Exposed waste is visible beyond the northern edge of the daily cover tarp.		

Photograph Number	Description
P8150006	Southern portion of Stage IV/Phase II, prior to the working face being uncovered. Looking south. Pile of soil cover mixed with debris present in the center of the photograph; pile of soil cover present in the background of the photograph.
P8150007	Representative photograph of the tarp used as daily cover in the southern portion of Stage IV/Phase II, as viewed from the west and looking upslope in an easterly direction.
P8150008	Working face in the southern portion of Stage IV/Phase II, prior to the working face being uncovered, as viewed from the west and looking upslope in an easterly direction. Pile of soil cover mixed with debris present in the center of the photograph; pile of soil cover present on the right of the photograph.
P8150009	Southern slope of Stage IV/Phase II, as viewed from the north and looking downslope in a southerly direction.
P8150010	Southern slope of Stage IV/Phase II. Looking west.
P8150011	Southern slope of Stage IV/Phase II, as viewed from the south and looking upslope in a northerly direction. A pile of soil cover is present on the right of the photograph.
P8150012	Working face in the southern portion of Stage IV/Phase II, prior to the working face being uncovered, as viewed from the south and looking upslope in a northerly direction. The western and southern edges of a tarp being used as daily cover are visible in the photograph.
P8150013	Working face in the southern portion of Stage IV/Phase II, prior to the working face being uncovered, as viewed from the south and looking upslope in a northerly direction. The eastern edge of a tarp being used as daily cover is visible in the photograph.

Photograph Number	Description
P8150014	Southern portion of Stage IV/Phase II, as viewed from the east and looking in a westerly direction.
P8150015	Overview of the Stage V/Phase II construction area, as viewed from the south and looking in a northerly direction.
P8150016	Overview of the Stage V/Phase II construction area, as viewed from the south and looking in a northeasterly direction.
P8150017	Overview of the working face in the southern portion of Stage IV/Phase II following the removal of the daily cover tarps, as viewed from the north and looking in a southerly direction.
P8150018	Working face in the southern portion of Stage IV/Phase II following the removal of the daily cover tarps, as viewed from the north and looking in a southerly direction.
P8150019	Working face in the southern portion of Stage IV/Phase II following the removal of the daily cover tarps, as viewed from the north and looking in a southwesterly direction.
P8150020	Photograph showing a representative sample of a soil/processed C&D mixture.
P8150021	Working face located in the western portion of Stage V/Phase II, as viewed from the south and looking in a northerly direction.
P8150022	Overview of the working face in the western portion of Stage V/Phase II, as viewed from the west and looking in an easterly direction.
P8150023	Working face located in the western portion of Stage V/Phase II, as viewed from the west and looking upslope in an easterly direction.

Photograph Number	Description
P8150024	Working face in the western portion of Stage V/Phase II, as viewed from the west and looking upslope in an easterly direction.
P8150025	Working face in the western portion of Stage V/Phase II, as viewed from the south. NCES personnel removed a limited layer of cover material on the southern edge of the Stage V/Phase II working face to create room in which to deposit a load of sludge.
P8150026	Leachate pump house located in the northwestern portion of the landfill site (adjacent to Stage IV/Phase I), as viewed from the north.
P8150027	Overview of the working face located in the southern portion of Stage IV/Phase II, as viewed from the southernmost access road, looking upslope in a northerly direction.



P8150001: Overview of the southern portion of Stage IV/Phase II, prior to the working face being uncovered. Looking west. The tarps present in the center of the photograph are the approximate location of a working face.



P8150002: Working face in the southern portion of Stage IV/Phase II, prior to the working face being uncovered. Looking west. Exposed waste is visible along the northern edge of the daily cover tarp.



P8150003: Working face in the southern portion of Stage IV/Phase II, prior to the working face being uncovered. Looking west.



P8150004: Working face in the southern portion of Stage IV/Phase II, prior to the working face being uncovered. Looking north.



P8150005: Southern portion of Stage IV/Phase II, prior to the working face being uncovered. Looking west. Exposed waste is visible beyond the northern edge of the tarp.



P8150006: Southern portion of Stage IV/Phase II, prior to the working face being uncovered. Looking south. Pile of soil cover mixed with debris present in the center of the photograph; pile of soil cover present in the background of the photograph.



P8150007: Representative photograph of the tarp used as daily cover in the southern portion of Stage IV/Phase II, as viewed from the west and looking upslope in an easterly direction.



P8150008: Working face in the southern portion of Stage IV/Phase II, prior to the working face being uncovered, as viewed from the west and looking upslope in an easterly direction. Pile of soil cover mixed with debris present in the center of the photograph; pile of soil cover present on the right of the photograph.



P8150017: Overview of the working face in the southern portion of Stage IV/Phase II following the removal of the daily cover tarps, as viewed from the north and looking in a southerly direction.



P8150018: Working face in the southern portion of Stage IV/Phase II following the removal of the daily cover tarps, as viewed from the north and looking in a southerly direction.



P8150019: Working face in the southern portion of Stage IV/Phase II following the removal of the daily cover tarps, as viewed from the north and looking in a southwesterly direction.



P8150021: Working face located in the western portion of Stage V/Phase II, as viewed from the south and looking in a northerly direction.



P8150022: Overview of the working face in the western portion of Stage V/Phase II, as viewed from the west and looking in an easterly direction.



P8150023: Working face located in the western portion of Stage V/Phase II, as viewed from the west and looking upslope in an easterly direction.



P8150024: Working face in the western portion of Stage V/Phase II, as viewed from the west and looking upslope in an easterly direction.



P8150025: Working face in the western portion of Stage V/Phase II, as viewed from the south. Prior to this photograph, NCES personnel removed a limited layer of cover material on the southern edge of the Stage V/Phase II working face to create room in which to deposit a load of sludge.



Waste Management Division
Solid Waste Management Bureau

29 Hazen Drive, Concord, NH 03301 (603) 271-2925 Fax (603) 271-2456

Attachment B
Assessment of Compliance:
Env-Sw 806 – Operating Requirements

North Country Environmental Services, Inc. Landfill
581 Trudeau Rd, Bethlehem, NH
Solid Waste Permit #DES-SW-SP-03-002
August 15, 2019

This document presents NHDES' assessment and determination of North Country Environmental Services, Inc.'s (NCES') compliance with selected provisions of the New Hampshire Solid Waste Rules, Part Env-Sw 806, *Operating Requirements*, specifically Env-Sw 806.03, Landfill Cover During Operations, for its landfill located at 581 Trudeau Road in Bethlehem, New Hampshire. This assessment was performed in conjunction with an assessment of compliance with select portions of the facility's Approved Operating Plan of Record (see Attachment C). This assessment is based on NHDES' observations during an on-site inspection on August 15, 2019, and discussions with NCES personnel during the on-site inspection on August 15, 2019.

NHDES assessed compliance with selected provisions of the New Hampshire Code of Administrative Rules, Part Env-Sw 806. The provisions assessed are provided herein for reference in *italic* type.

PART Env-Sw 806 OPERATING REQUIREMENTS

Env-Sw 806.01 Applicability

(a) The operating requirements in this part shall apply to all landfills, except:

- (1) Existing landfills which ceased operating prior to October 29, 1997 and do not resume operations on or after October 29, 1997;*
- (2) Permit-exempt landfills identified in Env-Sw 302.03 or Env-Sw 810;*
- (3) Permit-by-notification landfills having an active life of 90 days or less;*
- (4) Research and development permit facilities as provided by Env-Sw 312.02(b); and*
- (5) Emergency permit facilities as provided by Env-Sw 313.02(b).*

Assessment: NCES' solid waste permit #DES-SW-SP-03-002 requires that the facility be operated in compliance with the NH Solid Waste Rules Env-Sw 100-2000, as applicable. Part Env-Sw 806 applies to landfills, with certain exceptions listed in Env-Sw 806.01(a). The NCES

facility is a landfill and does not meet one of the listed exceptions. Therefore, Env-Sw 806 applies to the NCES facility. No compliance determination required.

Env-Sw 806.03 Landfill Cover During Operations

(a) An approved cover material shall be applied over all sides and working faces of the landfill in a manner and at a frequency required to achieve the following performance objectives:

- (1) Minimize the dispersal of offensive odors;*
- (2) Minimize the potential to attract and harbor vectors;*
- (3) Control drainage in accordance with Env-Sw 805.06, Env-Sw 805.09, Env-Sw 806.05, and Env-Sw 806.06;*
- (4) Control unsightly conditions and windblown waste;*
- (5) Reduce the potential for fire;*
- (6) Provide stability; and*
- (7) Assist in the proper development of final grades, as set forth in the facility's approved fill sequencing plans.*

Assessment: NHDES staff visited the two working faces of the landfill prior to the commencement of daily operations at the site. One working face was located in the southern portion of Stage IV/Phase II, and the other was located in the southern portion of Stage V/Phase II.

Upon inspection of the working face located in the southern portion of Stage IV/Phase II, NHDES personnel noted that daily cover at this working face comprised two (2) temporary tarps placed over the working face. NHDES notes that the tarps are an approved alternate daily cover (ADC) material pursuant to Env-Sw 806.03(d)(2), and the facility's Approved Operating Plan. On the northern edge of the tarps, NHDES personnel observed a mixture of soil and exposed waste, as depicted in Photograph P8150005. NCES personnel stated that the facility has been having problems with wildlife, in particular bears, scavenging the working faces at night and compromising the integrity of the daily cover.

NHDES personnel also inspected the working face located in the southern portion of Stage V/Phase II. NCES staff stated that the last filling at this working face occurred approximately one week prior to the inspection, but that it had been approximately one month since filling in this area had occurred on a regular basis. As such, NCES personnel stated that a combination of daily and intermediate cover was being used in this area. During the inspection, NHDES personnel observed that soil, an approved cover material, was being used as daily/intermediate cover in this area. Additionally, NHDES personnel observed exposed waste throughout the area, as shown in Photographs P8150021 through P8150025.

Based on the information and observations gathered during the August 15, 2019 inspection, NHDES confirmed that approved cover materials are being applied to working faces of the

landfill, but observed that the cover materials are not being applied in a manner required to achieve the performance objectives outlined in Env-Sw 806.03(a).

Determination: Not in compliance with Env-Sw 806.03(a).

Env-Sw 806.03 Landfill Cover During Operations

(c) At landfills receiving MSW¹, cover material shall be placed over all exposed waste no less frequently than at the end of each operating day.

Assessment: NHDES personnel observed exposed waste during inspection of the working face located in the southern portion of Stage IV/Phase II (see Photographs P8150001 through P8150008), as well as the working face located in the southern portion of Stage V/Phase II (see Photographs P8150021 through P8150025).

Determination: Not in Compliance with Env-Sw 806.03(c).

¹ Municipal Solid Waste



Waste Management Division
Solid Waste Management Bureau

29 Hazen Drive, Concord, NH 03301 (603) 271-2925 Fax (603) 271-2456

Attachment C
Assessment of Compliance:
Approved Operating Plan of Record

North Country Environmental Services, Inc. Landfill
581 Trudeau Rd, Bethlehem, NH
Solid Waste Permit #DES-SW-SP-03-002
August 15, 2019

This document presents NHDES' assessment and determination of North Country Environmental Services, Inc.'s (NCES') compliance with selected provisions of its Approved Operating Plan of Record – specifically Section 3.7.3, *Landfill Cover* – for its landfill located at 581 Trudeau Road in Bethlehem, New Hampshire. This assessment was performed in conjunction with an assessment of compliance with select provisions of the New Hampshire Solid Waste Rules (see Attachment B). This assessment is based on NHDES' observations during an on-site inspection on August 15, 2019, and discussions with NCES staff during the on-site inspection on August 15, 2019.

NCES' solid waste permit #DES-SW-SP-03-002 requires that the facility be operated in compliance with the approved operating plan of record. NHDES assessed compliance with selected provisions of the Approved Operating Plan of Record. The provisions of the Approved Operating Plan of Record that were assessed are provided herein for reference in *italic* type.

3.7 Waste Management Following Receipt (Fill Sequence Plan)

Assessment of compliance with Section 3.7 of the Approved Operating Plan was limited to the following provisions for daily cover:

3.7.3 Landfill Cover

Daily cover consisting of soil or a NHDES approved Alternative Daily Cover (ADC) material is to be applied to the working face at the conclusion of each working day. Twelve inches of intermediate cover soil or NHDES approved alternative is to be applied in areas where active filling will not occur for a period of one month or more.

The purpose of the daily and intermediate cover is to limit odors from the site, limit the potential to attract vectors, promote drainage of surface water, limit windblown

litter, reduce the potential for fire, provide stability, and to serve as subgrade for the capping system. Soil cover material is to be applied and graded to direct runoff away from the filled area and limit leachate production. Silt fences and/or hay bales, or stone check dams are to be used as necessary to filter suspended soil particles from within the runoff from areas which have received soil cover.

ADC is often superior to soil covers as they eliminate the use of natural resources. ADC must serve all the cover material functions identified above and may be used only after gaining approval from the NHDES.

Assessment and Determination: (Daily Cover)

See assessment and determination for daily cover in Attachment B.