Prepared for:

Talen Energy
835 Hamilton St., Suite 150
Allentown, PA 18101

POST-CLOSURE PLAN

Per Requirements of 40 CFR §257.104

Montour SES Ash Landfill 3

Washingtonville, Pennsylvania

Prepared by:

Geosyntec consultants

10211 Wincopin Circle, Floor 4
Columbia, Maryland 21044

Project Number ME1207A

October 2016

ABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

1. INTRODUCTION

1.1 Organization and Terms of Reference

Geosyntec Consultants (Geosyntec) has prepared this Post-Closure Plan for Talen Generation, LLC (Talen) to demonstrate compliance of the existing Montour SES Ash Landfill 3 (Ash Landfill 3) in Washingtonville, Pennsylvania with the post-closure care requirements of the Federal Coal Combustion Residuals (CCR) Rule. On 17 April 2015, the USEPA published the final rule for disposal of CCR from electric power utilities under Subtitle D of the Resource Conservation and Recovery Act (RCRA), contained in Section 257 of Title 40 of the Code of Federal Regulations (40 CFR 257 Subpart D), referred to here as the CCR Rule. Section 257.104 contains the requirements for conducting post-closure care of CCR landfills. In this Post-Closure Plan, the specific requirements of §257.104 are identified and addressed.

This Post-Closure Plan was prepared by Mr. Mike Nolden, E.I.T., and it was reviewed in accordance with Geosyntec's internal review policy by Mr. Michael Houlihan, P.E. and Mr. Thomas Ramsey, P.E., all of Geosyntec. Mr. Ramsey is a registered Professional Engineer in the Commonwealth of Pennsylvania.

1.2 Site Location

Montour SES is located in Washingtonville, Montour County, Pennsylvania. The site can be found on a United State Geological Survey 7.5-minute topographic map for the Washingtonville Quadrangle (Figure 1). Ash Landfill 3 is located within the Montour SES site, southeast of the generating station.

1.3 Landfill Description

Ash Landfill 3, also called Ash Area 3 or Ash Storage Area 3, is a CCR landfill constructed in 1990 to accept coal combustion residuals produced by the Montour SES, as described by Form R of the Pennsylvania Department of Environmental Protection (PADEP) Class II Residual Waste Disposal Facility permit renewal (PADEP Permit) application package (PPL 2007). Ash Landfill 3 has been in service since 1991 (Attachment 1 to Form 1R of PPL 2007).

Ash Landfill 3 is regulated under the Pennsylvania Residual Waste Regulations of Title 25 PA Code, Chapters 287 and 288. The unit is permitted as a PADEP Residual Waste Disposal Facility. Ash Landfill 3 was constructed and is operated under a renewal of Permit No. 300987 for a Landfill—Class II (PADEP 2007), which was issued in August 2007.

Ash Landfill 3 was designed as a two-phase landfill with each phase comprising three levels, as shown in cross-section on Figure 2. Currently, landfilling operations have only been performed in Phase I. The portion of the permit area designated for Phase II remains undeveloped. Ash Landfill 3 is lined with a liner system that includes a 30-mil polyvinyl chloride geomembrane (Attachment 1 to Form 1R of PPL 2007).

A closure plan was submitted to and approved by PADEP as part of the residual waste disposal permit. It is included as Attachment 1 of Form 18R of PPL (2007) and is appended to this Post-Closure Plan as Appendix A. The approved closure plan is for closure in place. As such, the post-closure requirements of CCR Rule §257.104 are applicable.

2. CCR RULE REQUIREMENTS FOR WRITTEN POST-CLOSURE PLAN (§257.104(D))

2.1 Written Post-Closure Plan (§257.104(d)) Requirements

As described in §257.104(d) of the CCR Rule, a written post-closure plan must be prepared for Ash Landfill 3 that describes the activities to be performed as part of the post-closure care of the CCR unit. The written post-closure plan must include, at a minimum, the information specified in paragraphs (d)(1)(i) through (iii) of §257.104, including:

(i) A description of the monitoring and maintenance activities required in paragraph (b) of this section for the CCR unit, and the frequency at which these activities will be performed;

(ii) The name, address, telephone number, and email address of the person or office to contact about the facility during the post-closure care period; and

(iii) A description of the planned uses of the property during the post-closure period. Post-closure uses of the property shall not disturb the integrity of the final cover, liner(s), or any other component of the containment system, or the function of the monitoring systems unless necessary to comply with the requirements in this subpart. Any other disturbance is allowed if the owner or operator of the CCR unit demonstrates that the disturbance of the final cover, liner, or other component of the containment system, including any removal of CCR, will not increase the potential threat to human health or the environment. The demonstration must be certified by a qualified professional engineer, and notification shall be provided to the State Director that the demonstration has bene placed in the operating record and on the owner's or operator's publicly accessible Internet site.

In addition, the owner or operator of the CCR landfill must comply with the requirements of §257.104(d)(2), (3), and (4), which describe the requirements for the preparation, revision, and certification of the plan, as well as §257.104 (e) and (f), which pertain to the notification of the conclusion of the post-closure period and recordkeeping requirements, respectively.

2.2 Compliance with Post-Closure Care Requirements

Part 3 of this document presents the written post-closure plan required by the CCR Rule. The table below summarizes where the CCR Rule requirements are addressed in this document.

RULE SECTION	RULE REQUIREMENT	LOCATION WHERE ADDRESSED IN THIS DOCUMENT
§257.104(d)(1)(i)	Description and Frequency of Monitoring and Maintenance Activities Required by §257.104(b)	Section 3.1
§257.104(d)(1)(ii)	Post-Closure Period Contact Information	Section 3.2
§257.104(d)(1)(iii)	Property Uses During Post-Closure Period	Section 3.3
§257.104(d)(4)	Written Certification from qualified professional engineer that initial Post-Closure Plan meets the	Section 4

3. POST-CLOSURE PLAN

3.1 Description and Frequency of Monitoring and Maintenance Activities

As required by §257.104(d)(1)(i), this section provides a description of the monitoring and maintenance activities required by §257.104(b) and the frequency at which these activities are performed. Monitoring and maintenance activities to be performed during the post-closure period are described in Part 5 of the approved closure plan (Appendix A).

Ash Landfill 3 will require minimal maintenance following closure (PPL 2007). The unit will be inspected as part of an existing formalized inspection program. Inspections will be performed by qualified personnel twice per year and following heavy rain events (PPL 2007).

3.1.1 Final Cover System Maintenance

Section 257.104(b)(1) requires the owner or operator to maintain the integrity and effectiveness of the final cover system, including making repairs to the final cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover.

An erosion and sedimentation control plan will be prepared and submitted to state and county authorities prior to commencing closure activities of Ash Landfill 3 (PPL 2007). The plan will primarily address non-vegetated portions of the unit, as a majority of the unit will be vegetated at the time closure activities begin (PPL 2007).

As part of the inspections described in Section 3.1, the top and side slopes of Ash Landfill 3 will be inspected for damage to the final cover including subsidence, erosion, cracking, sliding, and damage to or lack of vegetation (PPL 2007).

PPL (2007) summarizes the proposed maintenance activities to be performed if inspection of the final cover indicates maintenance is necessary. Proposed maintenance activities include the following:

- Reseed areas with inadequate vegetation;
- Fill, grade, and re-vegetate eroded areas; and
- Control and repair, as needed, damage caused by burrowing animals.

To the extent possible, repairs will be performed in a manner that minimizes disturbance of existing vegetation (PPL 2007). If weather is inappropriate for re-establishing vegetation, measures will be taken to reduce erosion of repaired areas until weather allows successful re-vegetation (PPL 2007).

The run-on and run-off control features of Ash Landfill 3 are described in the unit's run-on and run-off control system plan (Geosyntec 2016b). The run-on and run-off control system is designed and constructed to minimize erosion and other damage to the final cover. As stated in the Ash Landfill 3 CCR closure plan (Geosyntec 2016a), the run-on and run-off control system is expected to maintain its effectiveness following closure and settlement of Ash Landfill 3. Drainage ditches and culverts constructed as part of the run-on and run-off control system will be inspected for

erosion, blockages, and sedimentation during the semi-annual inspection described in Section 3.1 (PPL 2007).

3.1.2 Leachate Collection and Removal System Maintenance

Section 257.104(b)(2) requires the owner or operator to maintain the integrity and effectiveness of the leachate collection and removal system and operate the leachate collection and removal system in accordance with the requirements of §257.70. However, Ash Landfill 3 is an existing CCR landfill and, as such, the design, construction, maintenance, and operation requirements for leachate collection and removal system of §257.70 are not applicable. Therefore, the post-closure operation and maintenance provisions for the Ash landfill 3 leachate collection and removal system do not specifically address those requirements.

Operation and maintenance of the leachate system following closure of Ash Landfill 3 is addressed in the approved closure plan (PPL 2007). Following closure of Ash Landfill 3, leachate will continue to flow to the existing leachate pumping facility sump where it will be pumped to the plant's Waste Water Detention basin for treatment. Leachate pumps will be inspected for proper operation twice annually under the inspection program described above.

3.1.3 Groundwater Monitoring System Maintenance and Groundwater Monitoring

Section 257.104(b)(3) requires the owner or operator to maintain the groundwater monitoring system and monitor the groundwater in accordance with the requirements of §§257.90 through 257.98.

As required by §257.90(b)(1), prior to the 17 October 2017 deadline, Talen will install a groundwater monitoring system, develop a sampling and analysis program, initiate a detection monitoring program, and begin evaluating groundwater monitoring data in accordance with §§257.91, 257.93, and 257.94. During the post-closure period, groundwater monitoring, and system maintenance, as necessary, will continue semiannually under the established program as required by §257.94(b). The monitoring will likely be performed in coincidence with the quarterly 2

groundwater sampling events required by PADEP.

Transition to an assessment monitoring program and selection and implementation of corrective measures will be performed in accordance with §§257.95 through 257.98, if necessary.

3.2 Post-Closure Period Contact Information

As required by §257.104(d)(1)(ii), this section provides the name, address, telephone number, and email address of the person or office to contact about the facility during the post-closure care period.

Day-to-day access to Ash Landfill 3 is controlled by the Montour SES facility personnel. Facility personnel can be reached using the contact information below.

John Weeks, Jr
Plant Manager – Fossil Generation
Montour, LLC
18 McMichael Road
Washingtonville, PA 17884
Telephone: 570-437-1201
John.weeks.jr@talenenergy.com

3.3 Property Uses During Post-Closure Period

As required by §257.104(d)(1)(iii), this section describes the planned uses of the property during the post-closure period. The post-closure uses of the property are described in the approved closure plan (Attachment 1 to Form 18R of PPL 2007).

Following the closure of Ash Landfill 3, the top of the unit will be maintained as no-till agriculture growing warm-season grass and switchgrass to mitigate the loss of farmland caused by the construction of the unit and provide habitat for small game (PPL 2007). The side slopes of Ash Landfill 3 are too steep for agriculture and will, therefore, be maintained as open space (PPL 2007). The post-closure use is no-till to preclude the possibility of damage to the final cover.

The planned use of the property during the post-closure period is not expected to disturb the integrity or effectiveness of any portion of the containment system. As such, no further demonstration or certification is required under §257.104(d)(1)(iii).

4. CERTIFICATION BY QUALIFIED PROFESSIONAL ENGINEER

Per §257.104(d)(4), the owner or operator of the unit must obtain a written certification from a qualified professional engineer that written post-closure plan meets the requirements of the CCR Rule.

Certification for Written Post-Closure Plan

CCR Unit: Montour SES Ash Landfill 3

Certification

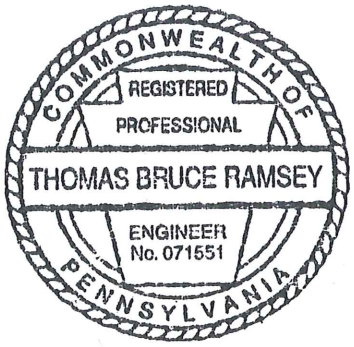
I, **Thomas B. Ramsey**, a registered professional engineer in the Commonwealth of Pennsylvania certify that the Written Post-Closure Plan for the Montour SES Ash Landfill 3 is in compliance with requirements of 40 CFR §257.104(d). This certification is based on my review of information described in this certification report.

Printed Name Thomas B. Ramsey

PE License Number PA071551 **State** Pennsylvania

Signature _____ **Date** 12 OCTOBER 2016

Seal



5. REFERENCES

Geosyntec (2016a). "Closure Plan Per Requirements of 40 CFR §257.102; Montour SES Ash Landfill 3." Geosyntec Consultants. August 2016.

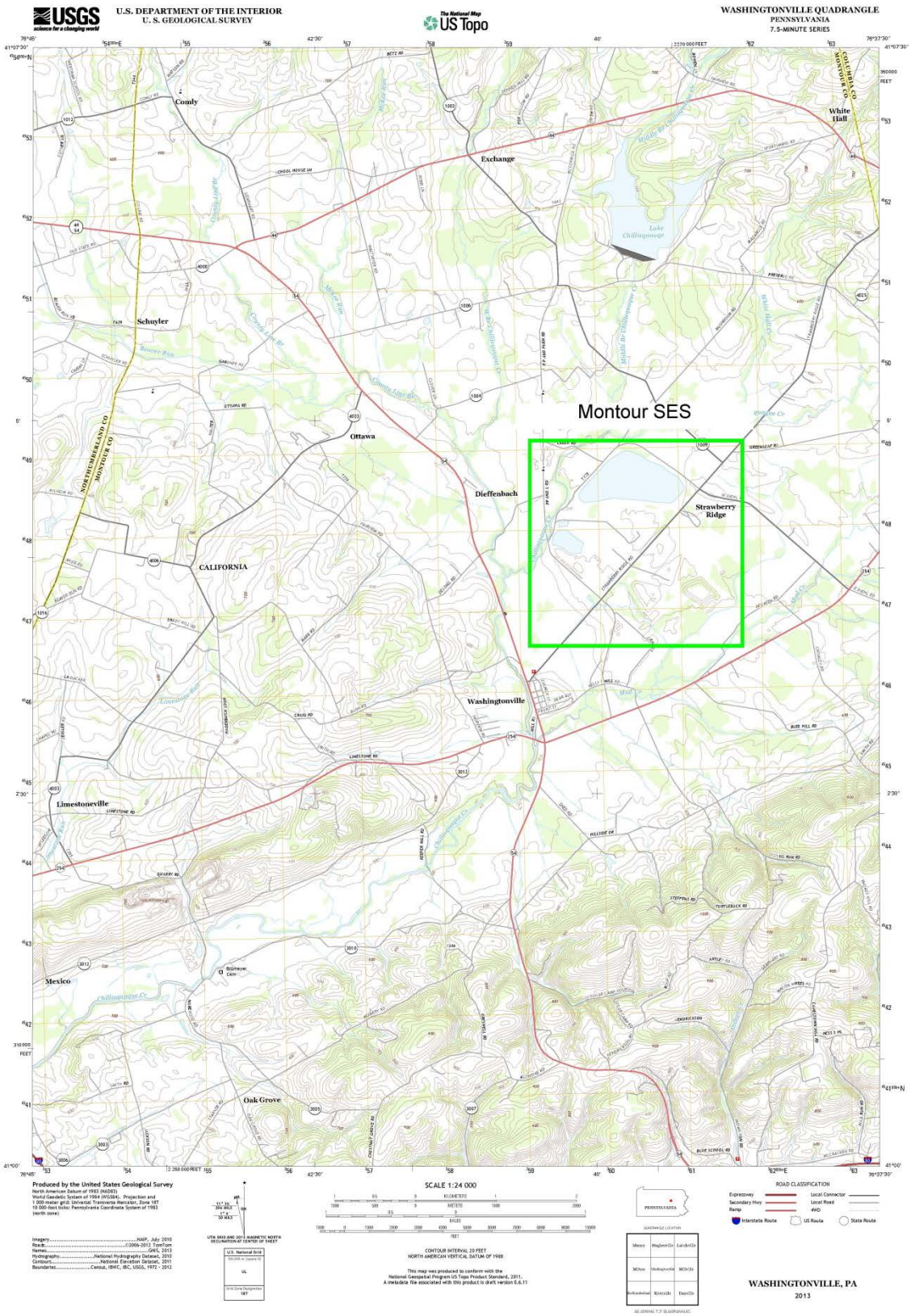
Geosyntec (2016b). "Run-On and Run-Off Control Per Requirements of 40 CFR §257.81; Montour SES Ash Landfill 3." Geosyntec Consultants. August 2016.

PADEP (2007). "Permit for Solid Waste Disposal and/or Processing Facility FORM NO. 8." Pennsylvania Department of Environmental Protection, Bureau of Land Recycling and Waste Management. August 2007.

PPL (2007). "PPL Montour, LLC – Ash Area #3 Permit Renewal Application – SWP 300987." PPL Services Corporation. Allentown, PA. March 2007.

United States Environmental Protection Agency (USEPA) (2015). "Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule." Chapter 40 Code of Federal Regulations, Parts 257 and 261. 17 April 2015.

FIGURES



SITE LOCATION
MONTOUR SES

WASHINGTONVILLE, PA

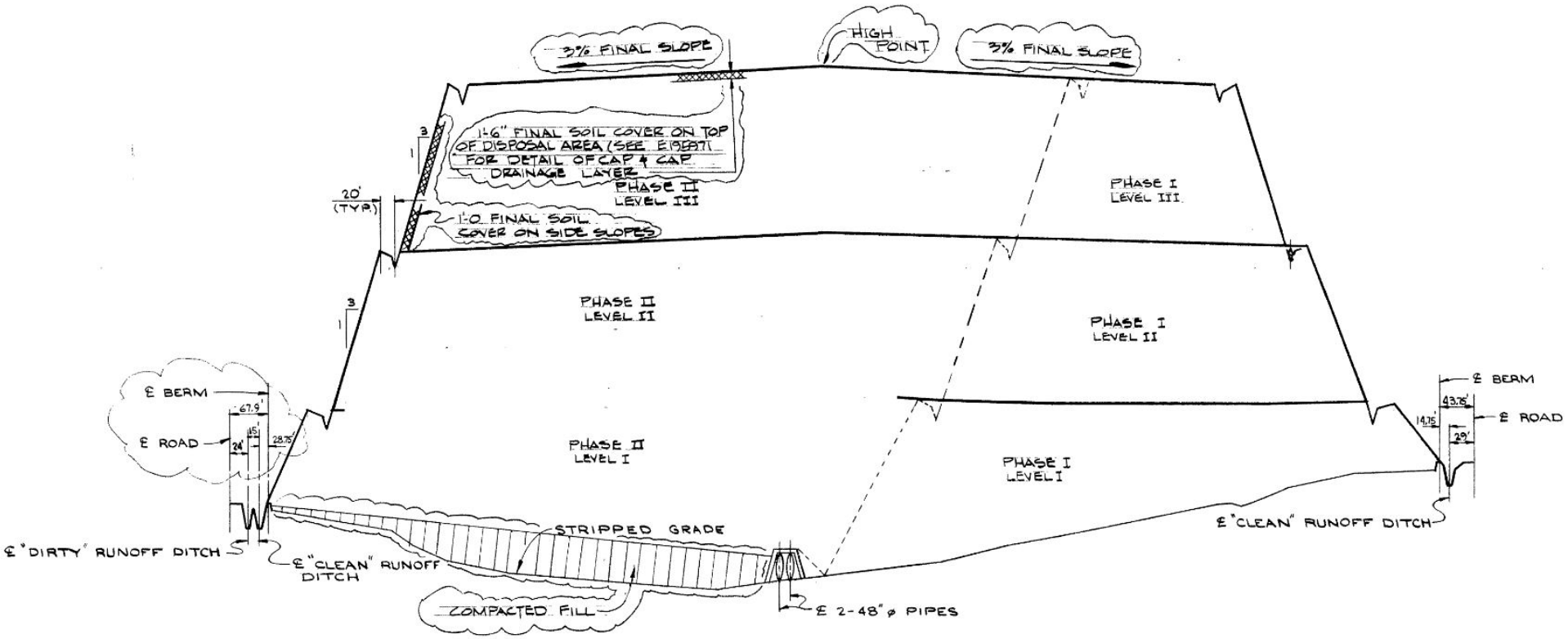
Geosyntec consultants

FIGURE

1

Columbia, MD

12 April 2016



Note
Figure is taken from Section 8-8 of Drawing E-195972-3 *Montour SES Ash Disposal Area No. 3 Intermediate Cell Development – Slope Pipe Sections and Details*, Revised 4-18-97.

ASH LANDFILL 3 CELL PHASING
MONTOUR SES

WASHINGTONVILLE, PA

Geosyntec consultants

Columbia, MD | 12 April 2016

FIGURE
2

APPENDIX A

Approved Closure Plan

(Attachment 1 To From 18R of PPL 2007)

2540-PM-BWM0385 6/2005

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

Date Prepared/Revised See Attachment
DEP USE ONLY
Date Received

FORM 18R
CLOSURE/POST-CLOSURE LAND USE PLAN

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 18R, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: **287.117, 288.181-2, 288.291-2, 289.171-2, 289.311-2, 295.142**

SECTION A. SITE IDENTIFIER

Applicant/permittee: PPL Montour, LLC

Site Name: Montour Steam Electric Station - Ash Area #3

Facility ID (as issued by DEP):

SECTION B. CLOSURE PLAN

Identify location of the closure plan in Application: See Attachment 1 to Form R

Instructions: Narrative shall be submitted describing the activities that are proposed to occur during the post-closure period. Attach appropriate documentation referencing "Form 18R; Closure." The plan shall include:

☒ 1. Plan for decontamination and removal of equipment, structures, and related materials from the facility.

☒ 2. An estimate of the year in which final closure will occur, including an explanation of the basis for the estimate.

☒ 3. If the facility will close in stages, a description of how and when the facility will begin and implement partial closure (schedule for closure).

☒ 4. A description of the steps necessary for closure if the facility closes prematurely.

☒ 5. A narrative description, including a schedule, of measures that are proposed to be carried out after closure at the facility, including measures relating to:

- a. Water quality monitoring.
- b. Gas control and monitoring.
- c. Leachate collection, treatment, and pumping.
- d. Erosion and sedimentation control.
- e. Revegetation including maintenance of the final cover.
- f. Access control.
- g. Other maintenance activities.

☒ 6. Description of means by which funds will be made available to cover cost of post closure operations, which shall include an assessment of projected post-closure maintenance costs, a description of how the necessary funds will be raised, a description of relevant legal documents, and a description of how the funds will be managed prior to closure.

☒ 7. The name, address, and telephone number at which the operator can be reached during the post-closure period.

SECTION C. POST-CLOSURE LAND USE PLAN

Identify location of post-closure land use plan in Application: See Attachment 1 to Form 18R

Instructions: Narrative shall be submitted which contains a detailed description of the proposed use of the proposed facility following closure, including a discussion of the utility and capacity of the revegetated land to support a variety of alternative uses, and the relationship of the use to existing land use policies and plans. Attach appropriate documentation referencing "Form 18R; Closure."

☒ 1. How the proposed post-closure land use is to be achieved and the necessary support activities which may be needed to achieve the proposed land use.

☒ 2. The consideration which has been given to making the proposed post-closure land use consistent with landowner plans and applicable State and local land use plans and programs.

Form 18R
NARRATIVE

Section B. CLOSURE PLAN

General Description of Landfill Development

Ash Disposal Area No. 3 is an existing captive residual waste disposal facility for the Montour Steam Electric Station of PPL Montour, LLC. Montour SES is a coal fired electrical generating station located in Derry Township, Montour County Pennsylvania. Ash Area No. 3 is located south of the power plant. It is a lined landfill covering approximately 51 acres that is used primarily for the disposal of fly ash and other combustion wastes produced from burning coal at the plant along with smaller quantities of other plant residual wastes. The site is divided into eastern and western segments by a small stream that flows across the site. This stream is now carried in twin 4- foot diameter pipes that were installed as part of the site development.

The disposal area will have three levels each approximately 25 feet in height with three horizontal to one vertical side slopes. Each level will have a 20-foot-wide bench. The first level covers 50.6 acres and will be divided into four disposal cells of approximately the same size. The A and B disposal cells totaling 28.9 acres are on the east side of the stream enclosure pipes and the C and D disposal cells totaling 21.7 acres are on the west side. At this time (June 1996) only the A and B cells have been developed and used for disposal. The C and D cells will not be developed until the A and B cells have reached their design capacity.

Topsoil from the A and B cells were stripped from each cell prior to preparing the subgrade and constructing the liner system. Stripped topsoil was stockpiled at the site and is used for final cover. The final cover is placed on the landfill slopes as disposal progresses and the fill expands vertically.

A Leachate/Runoff Basin approximately three acres in size was constructed for the disposal area. All runoff from the active A and B cells and from intermediate construction activities is directed to the basin for sediment removal as will be construction runoff from the future C and D cells when developed. All leachate collected in the underdrain system is also directed to the basin, but directly into the basin sump.

The Leachate/Runoff Basin is divided into two sections. The larger portion is designed primarily for sediment removal and control of storm water flows. The smaller section contains the pumping station and sump into which the larger section discharges. A ramp

permits excavating equipment to enter the larger section and remove any accumulations of fly ash sediment. The sediment removed from the basin is redeposited on the ash pile. Runoff and leachate which have entered the Leachate/Runoff Basin is pumped to the Detention Basin at the power plant for treatment in existing waste water treatment facilities.

The silos, administration building, maintenance buildings and other facilities needed to support the operation of Ash Area No. 3 existed at the time the landfill was constructed. Located at the ash silo area to the east of the landfill are two 2,500 ton capacity steel silos that store the fly ash until it is unloaded for beneficial use or disposal. Located near the silos are two buildings. The 62' x 42' building adjacent to the silos houses the silo auxiliary equipment and silo electrical switchgear. Across the road from this building is the 142' x 58' crew and maintenance building. This building contains three vehicular bays for storage and maintenance of construction equipment used for waste disposal operations as well as offices and washroom facilities for the disposal contractor and the PPL MONTOUR, LLC Ash Site Coordinator. Both buildings are of steel- framed, metal- sided construction.

A scale is located off of the entrance road to the silo area. The scale has a capacity of 60 tons and is used to weigh both the waste sent to the disposal area as well as fly ash and bottom ash that is sold for beneficial use.

1. ***Plan for decontamination and removal of equipment, structures and related material from the facility.***

It is not known if Ash Area No. 3 will last the life of the Montour Steam Electric Station. If it does not, the fly ash silos, silo area buildings and the weigh scale will remain as part of ash disposal operations supporting a future waste disposal landfill site. This future landfill may be on adjacent power plant property or may be at an off-site location. If it does last the life of the power plant, the silos, buildings and scale will be demolished along with the other power plant structures.

Site roadways will remain indefinitely to provide access to the landfill and the leachate pumping facility for maintenance purposes. The leachate pumping system will remain in place and be maintained until leachate quality improves to the point where it can be discharged directly from the landfill without treatment and agency approval is obtained to do so.

Ash Area No. 3 does not accept waste streams that would necessitate having to decontaminate disposal equipment or structures, hence, no decontamination procedures will need to be implemented upon closure.

It is anticipated that the site will be returned to no-till agricultural use after the landfill reaches its design capacity. All ash surfaces will have a soil and vegetative cover. Clean runoff from the site will be discharged to the stream via the clean runoff ditches, while all leachate will continue to be directed to the sump and then pumped to the power plant for treatment. The Leachate/Runoff Basin and the remaining dirty runoff ditches will be filled in, topsoiled, and seeded. The sediment, the PVC liner, and liner bedding and cover material will all be removed from the L/R Basin and sent to a landfill prior to filling in the basin.

2. ***An estimate of the year in which final closure will occur, including an explanation of the basis for the estimate.***

The landfill capacity calculations are Attachment 2 to form 1R. For the capacities calculated the expected lives of the various cells and levels were derived and are shown below. The calculations assume a fly ash density of 91 pounds per cubic foot and an average disposal rate of 225,000 tons per year at 15% moisture content or about 160,000 cubic yards per year. The fly ash disposal rate is very dependent on beneficial use demand in addition to being dependent on the amount of coal burned and the ash content of the coal.

	A and B Cells	C and D Cells
Level 1	40 Months	54 Months
Level 2	44 Months	55 Months
Level 3	25 Months	48 Months
Total	109 Months	157 Months

Total Landfill 266 Months or 22 Years and 2 Months
(assumes complete beneficial use of Fly Ash)

Approximately 756,000 cubic yards of capacity have been used through the end of 2005. Only Level 1 of the A and B Cells has been completely filled. Approximately 50% of Level 2 capacity has been used. The most recent capacity report (for 2005 report year) lists a remaining capacity of 3,928,000 tons and an indefinite remaining life because of the small, actual annual disposal volumes.

The synthetic gypsum temporary storage facilities will not impact the disposal of wastes from PPL generating station operations because the area that will be utilized is inactive and not needed for the small volume of wastes being disposed of in the landfill.

If approved for disposal starting in 2008 and if beneficial use of the fly ash continues, wastewater treatment plant sludge will be the largest waste stream (up to 36,000 cubic yards per year) taken to Ash Area No. 3. This annual disposal volume will accelerate the filling of the A and B cells over current rates but the total volume of all wastes will only be about 25% of the originally expected fly ash disposal rate. Level 2 may be filled within 8 years. Level 3 disposal will then have to be reconfigured so that the necessary area is still reserved for the temporary storage of gypsum while providing for continued disposal of approved wastes in the A and B Cells.

On the basis of the above projections, Ash Area No. 3 - A & B Cells should be filled to capacity around the end of the year 2015. and then cells C & D would have an indefinite life. Again, this is very dependent on the continued use of fly ash beneficially. Post-closure work will likely begin at the end of plant life in 2035.

3. ***If the facility will close in stages, a description of how and when the facility will begin and implement partial closure. (Schedule for closure)***

Ash Area No. 3 is a landfill that is being developed in stages. The A and B cells have been constructed and are used for disposal. The C and D cells have not been developed and will not be constructed until the A and B cells have reached their design capacity. Cover soil is placed on the landfill slopes as disposal progresses and the fill expands vertically to its design limits. In this sense, the A and B cells will be closed and covered before the C and D cells. Under the assumptions described in Item 2 above, the A and B cells will reach their design capacity approximately at the end of the year 1999 while the C and D cells will not be filled until the year 2012.

4. ***A description of steps necessary for closure if the facility closes prematurely.***

If the facility closes prematurely, very little extra work will be necessary for closure. Cover soil is placed on the landfill slopes as disposal progresses and the fill expands vertically to its design limits. Upon premature closure, all that will be needed is to grade the top level of ash to achieve positive drainage to the slope pipe drains and construct the cap and cap drainage layer. Cover soil will then be placed over the drainage layer and vegetated in the usual manner. Other closure steps will remain as described for non-premature closure.

5. ***A narrative description, including a schedule, of measures that are proposed to be carried out after closure of facility, including measures relating to:***

A. Water quality monitoring.

Water quality monitoring will continue for the facility's monitoring wells, monitoring points and storm water outfall in accordance with the residual waste regulations and NPDES storm water regulations. Water quality monitoring procedures after closure will be the same as those implemented while the facility was in operation. The quarterly groundwater sampling schedule will be maintained. The Ash Disposal Area No. 3 Ground Water Sampling and Analysis Plan attached to Form 13R describes the sampling locations, sampling procedures, sampling schedule, laboratory procedures and QAQC procedures in detail.

B. Gas control monitoring.

The wastes disposed in this landfill do not generate gasses. Gas control monitoring is not required for this facility.

C. Leachate collection treatment and pumping.

Leachate will flow directly to the existing leachate pumping facility sump. It will then be pumped to the power plant for treatment along with other waste water at the power plant's Waste Water Detention Basin which is equipped with pH control equipment.

D. Erosion and Sedimentation Control.

An erosion and sedimentation control plan will be prepared for facility closure. It will be prepared and submitted to the DEP and the Montour County Conservation District for

approval prior to the start of post-closure work. Since final cover soil is placed on the landfill slopes as disposal progresses, the E&S control plan will primarily address the filling in of the Leachate/Runoff Basin.

The permanent erosion and sedimentation control measure for the facility will be the establishment of permanent vegetation on the cover soil that is placed over the ash and over the L/R Basin.

E. Re-vegetation and regrading, including maintenance of final cover.

Grading to Manage Runoff

To reduce storm water handling requirements during operation, runoff is segregated into "clean" runoff and "dirty" runoff. Clean runoff is runoff from undisturbed areas and from disturbed areas which have been covered with topsoil and revegetated. Dirty runoff is runoff from unvegetated areas (including the stripped subgrade during construction), from the active ash cells on the ash disposal pile, and from inactive cells which have been covered with topsoil and seeded, but on which the vegetation has not yet been established.

Clean and dirty runoff ditches are constructed in parallel around the landfill during operations. The dirty runoff ditch is constructed first and intercepts dirty runoff from the ash pile and conveys it to the Leachate/Runoff Basin for treatment. After vegetation has been established on the completed ash cells, a clean runoff ditch is constructed between the pile and the dirty runoff ditch. This ditch intercepts the clean runoff before it enters the dirty runoff ditch and diverts it around the Leachate/Runoff Basin to the natural stream at the south end of the site.

Between perimeter access road stations 40+00 and 63+00 on the north side of the landfill, the dirty runoff ditch will be cleaned and then converted to a clean runoff ditch. Clean runoff will be discharged beneath the access road to the inlet end of the stream enclosure.

The landfill will have three levels each approximately 25 feet in height. The working surface of active cells will be sloped at approximately one percent towards dirty runoff ditches at the south end of the ash pile. The final vegetated soil cover surface of Level 3 will have a 3% slope. When a level reaches its 25-foot height, the permanent bench and bench drainage ditch is established by sloping the outer 20 feet of the ash cell away from the edge. The bench and ditch are then covered with shale or some other nonerodible material. The bench drainage ditch intercepts runoff from the top of the pile preventing erosion of the landfill slopes. The outside slopes of the completed cell are then covered with soil and seeded. Discharge from the bench drainage ditches is through slope pipes which discharge into either the clean or dirty runoff ditches, as applicable, at the base of the pile. Runoff is considered to be dirty until vegetation is established on the slopes of the cell on the above level. Slope pipes will discharge on concrete splash pads to prevent scouring of the ditch.

At the time of closure the only unvegetated surfaces will be the top of Level 3 of the C and D cells and a portion of the Level 3 slopes. Runoff from all other landfill surfaces

will have been directed to the clean runoff ditches and diverted around the Leachate/Runoff Basin to the natural stream at the south end of the site.

Final grades of the closed facility, if utilized to its maximum design capacity, will be as shown on the drawing E-195971.

Soil Cover and Vegetation

The soil cover over the landfill slopes will be 12" thick. The soil cover on the top surface of Level 3 will be 18" thick so that the land can be returned to no-till agriculture. Cover soils will be obtained from the site and from a soil borrow area on company owned property located west of the landfill. The seed mixture and methods used to establish the permanent vegetation are detailed in Form H and its Attachments.

Maintenance of Final Cover

Areas with inadequate vegetation cover will be reseeded. If necessary, eroded soil will be replaced, surfaces regraded and soil amendments, seed and/or mulch will be applied. To the extent possible, and if practical, remedial vegetation work will be done in a manner that avoids disturbance of existing vegetation. If weather is prohibitive to establishment of vegetation, soils will be mulched to reduce erosion until successful seeding can be done. Damage to cover by burrowing animals will be controlled and repaired as needed.

F. Access control.

The access control measures currently in force for the active landfill will be continued after this basin is closed. There are locked gates at the entrances to the facility. The silo area is fenced and gated to prevent access from public highway LR 414. Access to the landfill and leachate/runoff collection basin from the silo area is also controlled via a gate in the silo area fence on the west side. The temporary ends of the loop road around the landfill have also been gated. All gates are padlocked to prevent unauthorized access when the site is unattended.

G. Other maintenance activities.

The landfill will require little maintenance after closure; however, inspections of the completed fill will be made and the necessary maintenance performed. The landfill inspections will be covered under an existing formalized inspection program. Inspections will be performed twice per year by qualified personnel. They will also be made after unusually heavy rainfalls. The top of the pile and slopes will be inspected for sinkholes, erosion, cracking, slumping, sliding and the condition of the vegetation. Drainage ditches and culverts will be checked for erosion, pipe blockages, sediment and other debris. The leachate pumps will be inspected to ensure that they are in operating condition.

Routine maintenance may include repairing erosion damage and cleaning debris from inlets, pipes and ditches as well as maintenance of the vegetative cover as described in Item 1.E above.

6. ***Description of means by which funds will be made available to cover cost of post closure operations, which shall include an assessment of projected post-closure maintenance costs, a description of how the funds will be raised, a description of relevant legal documents , and a description how the funds will be managed prior to closure.***

PPL Montour, LLC will continue to own its closed residual waste disposal facilities. The Power Plant associated with each facility will include budgeted money for maintenance of the facility each year. It is expected that maintenance costs will be less for the facility after it is closed then when it was in service. Current maintenance costs budgeted is approximately $50,000 per year. Operating costs, primarily related to monitoring ground water wells and leachate pumping, will continue to be PPL MONTOUR, LLC's responsibility.

7. ***The name, address, and telephone number at which operator can be reached during post closure period.***

Mr. Michael Munroe
Manager - Generation Assets
PPL MONTOUR, LLC - Montour SES
P.O. Box 128
Washingtonville, PA 17884
Telephone 570-437-1201

B. POST-CLOSURE LAND USE PLAN

1. ***How the proposed post-closure land use is to be achieved and the necessary support activities which may be needed to achieve the proposed land use.***

The proposed post-closure land use is no-till agriculture on the top of the final lift of the landfill. This will be the end result of placing sufficient soil cover on the surface during post-closure work. No other support activities are necessary to achieve this use. The side slopes of the landfill are too steep for agriculture and will be open space. Agriculture will be no-till to avoid the possibility of damaging the cap and cap drainage layer.

2. ***The consideration which has been given to making the proposed post-closure land use consistent with landowner plans and applicable state and local land use plans and programs.***

The landfill is a captive landfill owned and operated by PPL MONTOUR, LLC for power plant ash disposal. After closure it will be owned and maintained by PPL MONTOUR, LLC. PPL MONTOUR, LLC discussed the post-closure use of the land with the PA Department of Agriculture. This has led to a decision to return the land to no-till agricultural production. The Department has recommended that warm season grasses and switchgrass in particular, be grown on the landfill. This use will accomplish two things: it will mitigate the loss of farmland that resulted from the construction of the facility and the switchgrass will provide small game habitat desired by the Game Commission.