



NORTH CAROLINA  
*Environmental Quality*

Asheville Steam Electric Plant  
Permit to Construct / Operate  
**INSERT DATE**  
FID 1360595  
Page 1 of 13

**ROY COOPER**  
*Governor*

**MICHAEL S. REGAN**  
*Secretary*

**MICHAEL SCOTT**  
*Director*

STATE OF NORTH CAROLINA  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
DIVISION OF WASTE MANAGEMENT  
SOLID WASTE SECTION

**SOLID WASTE MANAGEMENT FACILITY**  
**Permit No. 1119**

DUKE ENERGY PROGRESS LLC  
is hereby issued a

**PERMIT APPROVAL TO CONSTRUCT**  
1119-INDUS-2020, DUKE ENERGY ASHEVILLE STEAM ELECTRIC PLANT

**PERMIT APPROVAL TO OPERATE**  
1119-INDUS-2020, DUKE ENERGY ASHEVILLE STEAM ELECTRIC PLANT

**PERMIT FOR CLOSURE**  
*Not Applicable*

Located at *Asheville Steam Electric Plant, 200 CP&L Drive, City of Asheville, Buncombe County, North Carolina*, in accordance with Article 9, Chapter 130A, of the General Statutes of North Carolina and all rules promulgated thereunder and subject to the conditions set forth in this permit. The legal description of the site is identified on the deeds recorded for this property listed in Attachment No. 1 of this permit.

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Ed Mussler, III, P.E., Chief  
Solid Waste Section  
Division of Waste Management



**ATTACHMENT 1**

Permit Approval to Operate Data Table

Permit	Status	Issuance	Expiration	FID
1119-INDUS-2020	Proposed	<i>INSERT DATE</i>	<i>INSERT DATE</i>	1360595

**PART I: GENERAL PERMIT CONDITIONS**

1. This permit is issued by the North Carolina Department of Environmental Quality, Division of Waste Management, Solid Waste Section (Section). In accordance with North Carolina General Statute 130A-294(a2), Permits for sanitary landfills and transfer stations shall be issued for the life-of-site of the facility unless revoked. In accordance with North Carolina Solid Waste Management Rule 15A NCAC 13B.0201(d), a solid waste management facility permit shall have two parts: a Permit Approval to Construct and a Permit Approval to Operate. The Permit Approval to Construct must be implemented in accordance with Attachment 2 of this permit. The Permit Approval to Operate must be implemented in accordance with Attachment 3 of this permit.
  - a. In accordance with NCGS 130A-294(a2), this Permit is for the life-of-site of the facility, which is defined as the period from the initial receipt of solid waste at the facility until the facility reaches its final permitted elevations, which period shall not exceed 60 years.
2. The persons to whom this permit is issued (“Permittee”) are the owners and operators of the solid waste management facility.
3. The permit shall not be effective until the certified copy of this permit, which shows current ownership and references legal descriptions for all land within the solid waste management facility boundary, is recorded in the Register of Deeds office and indexed in the grantor index under the name of the owner of the land in the county or counties in which the land is located. The certified copy of the permit affixed with the Register's seal and the date, book, and page number of recording must be returned to the Section within thirty (30) calendar days of issuance of this permit. If the Section does not receive the certified copy of the recorded permit within 30 calendar days of issuance of the permit, then and in that event, the permit is suspended and of no effect until the date the Section receives the certified copy of the recorded permit.
4. When this property is sold, leased, conveyed, or transferred in any manner, the deed or other instrument of transfer shall contain in the description section, in no smaller type than that used in the body of the deed or instrument, a statement that the property has been used as for solid waste management facility and a reference by book and page to the recordation of the permit.

5. By initiating construction or receiving waste at this facility the Permittee shall be considered to have accepted the terms and conditions of this permit.
6. Construction and operation of this solid waste management facility must be in accordance with: the Solid Waste Management Rules, 15A NCAC 13B; Article 9 of the Chapter 130A of the North Carolina General Statutes (NCGS 130A-290, *et seq.*), the conditions contained in this permit; and the approved plan. Should the approved plan and the rules conflict, the Solid Waste Management Rules shall take precedence unless specifically addressed by permit condition. Failure to comply may result in compliance action or permit revocation.
7. This permit is issued based on the documents submitted in support of the application for permitting the facility including those identified in Attachment 1, “List of Documents for Approved Plan” and which constitute the approved plan for the facility. Where discrepancies exist, the most recent submittals and the Conditions of Permit shall govern.
8. This permit may be transferred only with the approval of the Section, through the issuance of a new or substantially amended permit in accordance with applicable statutes and rules. In accordance with NCGS 130A-295.2(g), the Permittee must notify the Section thirty (30) days prior to any significant change in the identity or business structure of either the owner or the operator including, but not limited to, a proposed transfer of ownership of the facility or a change in the parent company of the owner or operator of the facility.
9. The Permittee is responsible for obtaining all permits and approvals necessary for the development of this project including approval from appropriate agencies for a General or Individual NPDES Stormwater Discharge Permit. Issuance of this permit does not remove the Permittee’s responsibilities for compliance with any other local, state or federal rule, regulation or statute.

Properties Approved for the Solid Waste Facility

Buncombe County, N.C. Register of Deeds			
Book	Page	Property Owner	Acreage
828	0221-0224	Carolina Power and Light Co.	±4,320
4223	1706-1708	Carolina Power and Light Co.	±5.6
<b>Total Facility Property Acreage:</b>			<b>±4,325.6</b>

**PART II: MUNICIPAL SOLID WASTE LANDFILL UNIT(S)**

*Not Applicable*

**PART III: CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL UNIT(S)**

*Not Applicable*

**PART IV: INDUSTRIAL LANDFILL UNIT(S)**

*1119-INDUS-2020, Duke Energy Asheville Steam Electric Plant*

**Permitting History**

Permit Type	Date Issued	FID
Permit Approval to Construct and Permit to Operate, Original Issuance	<b>INSERT DATE</b>	1360595

**List of Documents for the Approved Plan**

FID	Description
1360676	<i>Permit to Construct Application, Rev1, Asheville Steam Electric Plant, CCR Landfill, Buncombe County, North Carolina. Prepared for Duke Energy Progress, LLC. Prepared by Geosyntec Consultants. Revised October 2019.</i>
1360800	<i>Operations Plan, Rev 1, Asheville Steam Electric Plant, CCR Landfill, Buncombe County, North Carolina. Prepared for Duke Energy Progress, LLC. Prepared by Geosyntec Consultants. Revised October 2019. (Extracted from FID 1360676).</i>
1360718	<i>Water Quality Monitoring Plan, Rev 2, Asheville Steam Electric Plant, CCR Landfill, Buncombe County, North Carolina. Prepared for Duke Energy Progress, LLC. Prepared by Geosyntec Consultants. Revised October 2019. (Extracted from FID 1360676).</i>

**PART V: LAND CLEARING AND INERT DEBRIS LANDFILL UNIT(S)**

*Not Applicable*

**PART VI: TRANSFER STATION/TREATMENT & PROCESSING UNIT(S)**

*Not Applicable*

**PART VII: MISCELLANEOUS SOLID WASTE MANAGEMENT**

*Not Applicable*

- End of Section -

## ATTACHMENT 2

### CONDITIONS OF PERMIT APPROVAL TO CONSTRUCT

#### PART I: GENERAL FACILITY

1. The issuance date of the Permit to Construct is **INSERT DATE**. The initial, substantial, construction authorized by this Permit to Construct must commence within 18 months from the issuance date of this permit. If substantial construction does not begin within 18 months from the issuance date of this permit, then the permit to construct shall expire. Substantial construction includes, but is not limited to, issuance of construction contracts, mobilization of equipment on site, and construction activities including installation of sedimentation and erosion control structures.
2. Construction of all solid waste management units within this facility must be in accordance with the pertinent approved plans and only for those phases of development approved for construction as described in Attachment 1, List of Documents for the Approved Plan.
3. The Permittee must conduct a preconstruction meeting at the facility prior to initiating construction of any unit/cell and must notify the Section at least 10 days prior to the meeting.
4. Modifications or revisions of the approved documents or changes during construction of any landfill unit/cell require approval by the Section.
5. Pursuant to Rule 15A NCAC 13B .1626(5)(b), burning of land-clearing debris generated on site as a result of construction activities requires approval by the Section prior to initiating the burn. In addition, the Division of Air Quality and local fire department must approve the activity prior to burning.

#### Geologic, Groundwater, Surface water and Monitoring Requirements

6. Prior to construction of the phase or cell(s) within the phase, all piezometers, borings, probes and groundwater monitoring wells within the footprint must be properly abandoned in accordance with 15A NCAC 2C.0113(b)(1), entitled "Abandonment of Wells."
7. In areas where soil is to be undercut, abandoned piezometers, monitoring wells and borings must not be grouted to pre-grade land surface, but to the proposed base grade surface to prevent having to cut excess grout and possibly damage the wells.
8. A Licensed Geologist must report any pertinent geological feature(s) exposed during phase or cell excavation. Prior to placing any landfill liner, the geologist must submit to the Section's Hydrogeologist a written report that includes an accurate description of the exposed geological feature(s), subsurface soil condition, and effect of the geological feature(s) on the design, construction, and operation of the cell, phase, or unit.
9. A Licensed Geologist must supervise installation of groundwater monitoring wells and surface water sampling stations. The exact locations, screened intervals, and nesting of the wells must be established after consultation with the Section's Hydrogeologist at the time of well installation. Each groundwater monitoring well must be surveyed for location and

elevation. Each groundwater monitoring well must have an identification plate permanently attached to the well, in accordance with 15A NCAC 2C .0108(o).

10. Any modification to the approved Water Quality Monitoring Plan must be submitted to the Section Hydrogeologist for review.
11. Within 30 days of completed construction of any new groundwater monitoring well, a well construction record (Division of Water Resources Form GW-1), typical well schematic, boring log, field log and notes, and description of well development activities must be submitted to the Section in electronic format (pdf).
12. The Permittee must submit a legible plan sheet-sized, scaled topographical map with a legend, showing the location and identification of all new, existing, and abandoned groundwater monitoring wells, probes, and piezometers to the Section Hydrogeologist in electronic format (pdf).
13. Within thirty (30) days of the completed permanent abandonment of a groundwater monitoring well, the well abandonment record (Division of Water Resources Form GW-30 and any additional information included in the abandonment record must be submitted to the Section. The well abandonment records must be submitted to the Solid Waste Section in accordance with 15A NCAC 2C .0114(b) and be certified by a Licensed Geologist.

#### Erosion and Sedimentation Control Requirements

14. All required sedimentation and erosion control measures must be installed and operable to mitigate excessive on-site erosion and to prevent silt from leaving the area of the landfill unit during the service life of the facility.
15. All earth disturbing activities must be conducted in accordance with the Sedimentation Pollution Control Act of 1973 (15 NCAC 4) and consistent with any other local, state or federal requirements.
16. Facility construction, operations or practices must not cause or result in a discharge of pollution, dredged material, and/or fill material into waters of the State in violation of the requirements under Sections 401 and 404 of the Clean Water Act, as amended.
17. Modifications to the approved sedimentation and erosion control activities require approval by the North Carolina Land Quality Section. The Section must be notified of any sedimentation and erosion control plan modifications.

#### PART II: MUNICIPAL SOLID WASTE LANDFILL UNIT(S)

*Not Applicable*

#### PART III: CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL UNIT(S)

*Not Applicable*

PART IV: INDUSTRIAL LANDFILL UNIT(S)

*1119-INDUS-2020, Duke Energy Asheville Steam Electric Plant*

18. Pursuant to the N.C. Solid Waste Management Rules (Rule) 15A NCAC 13B .0201(c) and (d)(1), this permit approves construction of the Duke Energy, Asheville Steam Electric Plant industrial landfill.
19. The following conditions must be met prior to operation of the constructed unit of the solid waste management facility:
  - a. The Permittee must obtain a written approval for Phase(s) or Cell(s) from the Section in accordance with 15A NCAC 13B .0201(d).
  - b. Construction quality assurance (CQA) documentation as well as a certification by the project engineer that the landfill was built in accordance with approved plans and the conditions of the permit, must be submitted to the Section for review and approval.
  - c. The Permittee must contact the appropriate Section Environmental Senior Specialist and Permitting Engineer to determine whether the Section chooses to hold a pre-operative meeting with key landfill personnel and representatives of the Section.
  - d. The edge of the waste footprint must be identified with permanent physical markers.
  - e. A leachate disposal permit must be provided, in electronic format (pdf).
  - f. Financial assurance must be updated, approved by the Section, and an appropriate mechanism be in place for each unit.
20. Prior to construction of any leachate storage facility the Permittee must provide construction plans and specifications for Section to review and approval.

PART V: LAND CLEARING AND INERT DEBRIS LANDFILL UNIT(S)

*Not Applicable*

PART VI: TRANSFER STATION/TREATMENT & PROCESSING UNIT(S)

*Not Applicable*

PART VII: MISCELLANEOUS SOLID WASTE MANAGEMENT

*Not Applicable*

- End of Section -

## ATTACHMENT 3

### CONDITIONS OF PERMIT APPROVAL TO OPERATE

#### PART I: GENERAL FACILITY

1. All sedimentation and erosion control activities must be conducted in accordance with the Sedimentation Control Act NCGS 113A-50, *et seq.*, and the rules promulgated under 15A NCAC 4. All required sedimentation and erosion control measures must be installed and operable to mitigate excessive on-site erosion and prevent silt from leaving the area of the landfill boundary during the service life of the facility.
2. The edge of the waste footprint must be identified with permanent physical markers for all disposal units.
3. Copies of this permit, the approved plans, and all records required to be maintained by the Permittee must be maintained at the facility and made available to the Section upon request during normal business hours.
4. All forms, reports, maps, plans, and data submitted to the Section must include an electronic (pdf) copy.
5. The facility must be adequately secured by means of gates, chains, berms, fences, or other security measures approved by the Section to prevent unauthorized entry.
6. Interior roadways must be of all-weather construction and maintained in good condition.
7. Financial assurance as required by state rules and statutes must be continuously maintained for the duration of the facility in accordance with applicable rules and statutes. Closure and Post-Closure cost estimates and financial instruments must be updated annually.
8. Closure or partial closure of any unit must be in accordance with the Closure Plans described in the approved plans and applicable rules and statutes. Any revisions to the Closure Plans must be submitted to the Section for approval at least ninety (90) days prior to implementation.
9. The facility operator must complete an approved operator training course in compliance with NCGS 130A-309.25.
  - a. A responsible individual certified in landfill operations must be on site during all operating hours of the facility at all times while open to ensure compliance with operational requirements.
  - b. All pertinent landfill-operating personnel must receive training and supervision necessary to properly operate the landfill.
10. The owner or operator must maintain a record of the amount of solid waste received at the landfill unit, compiled on a monthly basis using installed and well-maintained truck scales. Any alternative methods for establishing truckload weights must be approved in writing by the Section.



11. The following, at a minimum, must not be accepted for disposal at the facility: hazardous waste, yard trash, liquid wastes, regulated medical waste, sharps not properly packaged, PCB waste as defined in 40 CFR 761, and wastes banned from disposal by NCGS 130A-309.10(f).

#### Monitoring and Reporting Requirements

12. Groundwater and surface water monitoring locations must be established and monitored as identified in the List of Documents for Approved Plan. Any proposed modification to an approved plan must be submitted to the Section and approved prior to implementation.
13. A licensed geologist must be present to supervise the installation of groundwater monitoring wells. The exact locations, screened intervals, and nesting of the wells must be established after consultation with the Section Hydrogeologist at the time of well installation. Each groundwater monitoring well must be surveyed for location and elevation. Each groundwater monitoring well must have an identification plate permanently attached to the well, in accordance with 15A NCAC 2C .0108(o). The Permittee must maintain the integrity of all groundwater monitoring wells, including making repairs to well heads, covers, and surface pads and make sure all wells are locked.
14. Groundwater monitoring wells and surface water sampling locations must be sampled for the constituents listed in the approved Water Quality Monitoring Plan at least semi-annually according to the specifications outlined in the approved Water Quality Monitoring Plan and the current policies and guidelines of the Section in effect at the time of sampling.
15. Reports of the analytical data for each monitoring event must be submitted to the Section within 120 days of the sample collection date. Analytical data must be submitted in a manner prescribed by the Section. Records of all groundwater, surface water, and leachate analytical data must be kept as part of the permanent facility record. The monitoring report and the laboratory report must be submitted in electronic format (pdf) and the analytical data must be submitted in a spreadsheet format in an Electronic Data Deliverable (EDD) Template. All monitoring reports at a minimum must contain:
  - a. A USGS topographic map,
  - b. A potentiometric surface map for the current sampling event that also includes surface water sampling locations,
  - c. NC certified analytical laboratory reports with QA/QC information and summary tables,
  - d. A completed Solid Waste Environmental Monitoring Data Form,
  - e. Laboratory data and field data submitted in accordance with the EDD Template.
16. Groundwater quality is subject to 15A NCAC 2L – Groundwater Classifications Standards and the Groundwater Protection Standards (GPS). Surface water is subject to 15A NCAC 2B – Surface Water and Wetlands Standards.

17. Untreated leachate must be sampled and analyzed at least semi-annually concurrently with the groundwater water and surface water sampling, one sample per event. The leachate must be analyzed for all Appendix I constituents, pH, specific conductance, BOD, COD, nitrates, sulfates, and phosphates. Test results must be submitted to the Section along with groundwater and surface water test results. In the event leachate is recirculated, additional leachate sampling may be required.
18. A readily accessible unobstructed path must be cleared and maintained so that groundwater monitoring well locations may be accessed at all times.
19. A field log book which details all development, sampling, repair, and all other pertinent activities associated with each monitoring well and all sampling activities associated with each surface water and leachate sampling location must be kept as part of the permanent facility record.
20. All well construction records and soil boring logs for new wells must be submitted to the Section Hydrogeologist for review within 30 days of completion. All well abandonment forms for abandoned wells must be submitted to the Section Hydrogeologist within 30 days of well abandonment.
21. If constituents in groundwater migrate beyond the landfill property boundary, or it is suspected to have occurred based on sampling results near the property boundary, the Permittee must immediately notify all persons in writing who own land or reside on land that directly overlies any part of the contaminant plume with details of the migration. Any proposed modification to an approved plan must be submitted to the Section Hydrogeologist for a review and approved prior to implementation.

PART II: MUNICIPAL SOLID WASTE LANDFILL UNIT(S)

*Not Applicable*

PART III: CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL UNIT(S)

*Not Applicable*

PART IV: INDUSTRIAL LANDFILL UNIT(S)

*1119-INDUS-2020, Duke Energy Asheville Steam Electric Plant*

22. This permit approval is for the operation of the solid waste landfill unit, as well as the on-site environmental management and protection facilities as described in the approved plans.
23. This facility is permitted to receive solid waste generated by or at the Duke Energy Asheville Steam Electric Plant property, including: coal combustion residuals (CCR) fly and bottom ash, CCR pyrites and coal mill rejects, CCR boiler slag; waste water treatment sludge; petroleum contaminated soils and other waste soils; small quantities of co-mingled vegetation and CCR, waste limestone or abrasive blast material; inert debris from CCR unit decommissioning activities; vacuum truck waste; and soil that contains any of the previously mentioned material or used as cover and as defined in NCGS 130A-290 (a)(2b), except where prohibited by NCGS 130A and the rules adopted by the N.C. Environmental Management Commission.

24. Annually, on or before August 1, the Permittee must submit an annual facility report to the Section, on forms prescribed by the Section.
  - a. The reporting period shall be for the previous year beginning July 1 and ending June 30.
  - b. The report must list the amount in tons of waste received and landfilled and be compiled:
    - i) On a monthly basis.
    - ii) By specific waste type.
    - iii) By disposal location within the facility.
  - c. A measurement of volume utilized in the landfill cells must be performed during the second quarter of the calendar year. The date and volumes, in cubic yards, must be included in the report.
  - d. The amount of waste, in tons from scale records, disposed in the landfill from the initial receipt of waste through the date of the annual volume survey must be included in the report.
  - e. The completed report must be forwarded to the Section’s Regional Waste Management Specialist for the facility by the date due on the prescribed annual facility report form.
  - f. A copy of the completed report must be forwarded to each county manager for each county from which waste was received at the facility. Documentation that a copy of the report has been forwarded to the county managers must be sent to the Regional Waste Management Specialist by the date due on the prescribed annual facility report form.

25. The following table lists the estimated acreage, gross capacity, and status details for the landfill unit(s). Gross capacity is defined as the calculated volume from the elevation of initial waste placement to the top of the final cover.

Unit	Acreage	Gross Capacity (cubic yards)	Status
Landfill	12.5	±1,100,000	Proposed

26. The use of leachate recirculation as a leachate management tool requires approval by the Section prior to implementation. Requests for leachate recirculation approval must include a comprehensive management plan developed according to Section guidelines and consistent with the approved Operations Plan. Plans which are approved by the Section will be incorporated into, and made a part of, the approved documents listed in Attachment 1.
27. The leachate collection system must be maintained in accordance with 15A NCAC 13B .1626(12)(a) and the approved plan. The plan shall include provisions for periodic cleaning and visual inspection. Documentation of the inspections, and cleaning and monitoring must be included in the operating records of the facility and provided to the Section upon request.

PART V: LAND CLEARING AND INERT DEBRIS LANDFILL UNIT(S)

*Not Applicable*

PART VI: TRANSFER STATION/TREATMENT & PROCESSING UNIT(S)

*Not Applicable*

PART VII: MISCELLANEOUS SOLID WASTE MANAGEMENT

*Not Applicable*

- End of Section -

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## ATTACHMENT 4

### CONDITIONS FOR CLOSURE

#### PART I: GENERAL FACILITY

1. Closure or partial closure of any landfill unit must be in accordance with the closure plans described in the approved plans. Proposed changes to the approved closure plans must be submitted to the Section at least 90 days prior to implementation.
2. Closure construction quality assurance reports must be submitted to the Section at least annually and maintained in the operating record of the facility.
3. Final closure of the landfill and initiation of the 30-year post-closure period commences upon the engineer's certification that the closure of the fill is complete.
4. Post-closure use of the property must not disturb the integrity of the cap system, base liner system, or any other components of the containment system or the function of the monitoring systems. The Section may approve disturbance if the constructor or operator demonstrates that disturbance of the cap system, base liner system, or other component of the containment system will not increase the potential threat to public health, safety, and welfare; the environment; and natural resources.

#### PART II: MUNICIPAL SOLID WASTE LANDFILL UNIT(S)

*Not Applicable*

#### PART III: CONSTRUCTION & DEMOLITION DEBRIS LANDFILL UNIT(S)

*Not Applicable*

#### PART IV: INDUSTRIAL LANDFILL UNIT(S)

*Not Applicable*

#### PART V: LAND CLEARING & INERT DEBRIS LANDFILL UNIT(S)

*Not Applicable*

#### PART VI: TRANSFER STATION/TREATMENT & PROCESSING UNIT(S)

*Not Applicable*

#### PART VII: MISCELLANEOUS SOLID WASTE MANAGEMENT

*Not Applicable*

– End of Permit Conditions –