

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 2148-AOP-R4 AFIN: 23-00010

1. PERMITTING AUTHORITY:

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

2. APPLICANT:

City of Conway Sanitary Landfill
4550 Highway 64 West
Conway, Arkansas 72033

3. PERMIT WRITER:

Ann Sudmeyer

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Solid Waste Landfill
NAICS Code: 562212

5. ALL SUBMITTALS:

The following is a list of ALL permit applications included in this permit revision.

Date of Application	Type of Application (New, Renewal, Modification, Deminimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
3/13/2019	Minor Mod	N/A

6. REVIEWER'S NOTES:

The City of Conway owns and operates a municipal solid waste landfill (NAICS 562212) located at 4550 Highway 64 West, Conway, Faulkner County, Arkansas. This permitting action is necessary to update the total waste design capacity. There are no permitted emission rate changes associated with this minor modification.

The total in-place waste limit does not sufficiently limit the annual emissions; therefore, the annual waste acceptance rate was added to demonstrate compliance with the annual emissions.

The highest single HAP is toluene at with 3.76 tpy at SN-01 and 0.1 tpy at SN-03.

The gasoline tank was previously permitted based on RVP 6 gasoline. It is now based on RVP 15 gasoline.

7. COMPLIANCE STATUS:

The following summarizes the current compliance of the facility including active/pending enforcement actions and recent compliance activities and issues.

This facility was inspected on 6/29/2017. The facility was noted as in compliance at the time of the inspection. This permitting action updates the capacity of Plantwide Condition #7.

8. PSD/GHG APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N
If yes, were GHG emission increases significant? N/A

b) Is the facility categorized as a major source for PSD? N

- *Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list*

If yes for 8(b), explain why this permit modification is not PSD.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
Facility	VOC (NMOC)	40 C.F.R. § 60 WWW
Facility	Asbestos	40 C.F.R. § 61 Subpart M
03	HAP	40 C.F.R. § 63 Subpart CCCCCC

10. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? N

(Note - permit shields are not allowed to be added, but existing ones can remain, for minor modification applications or any Regulation 18 requirement.)

If yes, are applicable requirements included and specifically identified in the permit? N/A
If not, explain why.

For any requested inapplicable regulation in the permit shield, explain the reason why it is not applicable in the table below.

Source	Inapplicable Regulation	Reason
N/A	N/A	N/A

11. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

12. AMBIENT AIR EVALUATIONS:

The following are results for ambient air evaluations or modeling.

a) NAAQS

A NAAQS evaluation is not required under the Arkansas State Implementation Plan, National Ambient Air Quality Standards, Infrastructure SIPs and NAAQS SIP per Ark. Code Ann. § 8-4-318, dated March 2017 and the ADEQ Air Permit Screening Modeling Instructions.

b) Non-Criteria Pollutants:

The non-criteria pollutants listed below were evaluated. Based on Department procedures for review of non-criteria pollutants, emissions of all other non-criteria pollutants are below thresholds of concern. The facility emits HAPs from the decomposition of waste and evaporation of gasoline from the gasoline tank.

1st Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The Department has deemed the PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m^3), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = $0.11 \times \text{TLV}$	Proposed lb/hr	Pass?
Mercury	0.01	0.0011	0.000014	Y

2nd Tier Screening (PAIL)

AERMOD air dispersion modeling was performed on the estimated hourly emissions from the following sources, in order to predict ambient concentrations beyond the property boundary. The Presumptively Acceptable Impact Level (PAIL) for each

compound has been deemed by the Department to be one one-hundredth of the Threshold Limit Value as listed by the ACGIH.

Pollutant	PAIL ($\mu\text{g}/\text{m}^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Pass?
N/A			

c) H₂S Modeling:

A.C.A. §8-3-103 requires hydrogen sulfide emissions to meet specific ambient standards. Many sources are exempt from this regulation, refer to the Arkansas Code for details.

Is the facility exempt from the H₂S Standards

N

If exempt, explain: _____

Pollutant	Threshold value	Modeled Concentration (ppb)	Pass?
H ₂ S	20 parts per million (5-minute average*)	0.19 ppm	Y
	80 parts per billion (8-hour average) residential area	79.5 ppb	Y
	100 parts per billion (8-hour average) nonresidential area	79.5 ppb	Y

*To determine the 5-minute average use the following equation

$$C_p = C_m (t_m/t_p)^{0.2} \text{ where}$$

C_p = 5-minute average concentration

C_m = 1-hour average concentration

t_m = 60 minutes

t_p = 5 minutes

13. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01	LandGEM	---	N/A	N/A	k = 0.05/year

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
	Year 2022				$Lo = 170 \text{ m}^3/\text{Mg}$ NMOC = 192 ppmv Methane = 50% by volume No or unknown co-disposal
02	Vehicle Travel: AP-42 Section 13.2.2 Equation 1a	PM: 7.411 lb/VMT PM ₁₀ : 2.00055 lb/VMT	Water Truck	50%	Silt = 6.4% Truck Weight = 20 tons 145 trucks/day 1.5 VMT/truck 8 hrs/day 250 days/yr
	Aggregate Handling: AP-42 Section 13.2.4-1 Equation 1	PM: 0.0003551 lb/ton PM ₁₀ : 0.000168 lb/ton	N/A	N/A	Wind Speed = 8 mph Material Moisture = 12% 12,000 tons/yr material 6,000 tons/yr compost
03	Tanks 4.0.9d		N/A	N/A	

14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
01	NMOC	25 or 25C	5 years	NSPS Subpart WWW

15. MONITORING OR CEMS:

The permittee must monitor the following parameters with CEMS or other monitoring equipment (temperature, pressure differential, etc.)

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
N/A				

16. RECORDKEEPING REQUIREMENTS:

The following are items (such as throughput, fuel usage, VOC content, etc.) that must be tracked and recorded.

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
02	Dust Control Plan Recordkeeping	N/A	N/A	N
03	Gasoline Throughput	10,000 gallons per month for compliance with NESHAP Subpart CCCCCC	Monthly	N
Facility	Weight of Each Truck Load, Total In-place Waste, and Monthly and 12-month Rolling Waste Acceptance Rates	8.282 million in-place tons (by mass) or 9,869,500 CY (by volume) 81,599 tons per rolling 12-month period	Monthly	Y
Facility	NMOC Emissions	<50 Mg/yr	Annually	Y
Facility	Design Capacity Report	N/A	As Needed	Y
Facility	Waste Shipment Record	N/A	As Needed	Y to generator
Facility	Location, Depth and Area, and Quantity of Asbestos-containing Waste Material	N/A	As Needed	Y upon closure of facility

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
02	5% Off-site	Reg.18.501 and Ark. Code Ann.	Inspector Observation

18. DELETED CONDITIONS:

Former SC	Justification for removal
	N/A

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19. GROUP A INSIGNIFICANT ACTIVITIES:

The following is a list of Insignificant Activities including revisions by this permit.

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Diesel Storage Tank (2,500 Gallons Each)	A-3			0.0105			0.0105	0.0105
Three Leachate Tanks (5,000 Gallons Each)	A-13			0.00194			0.00194	0.00194

20. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

The following is a list of all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
2148-AOP-R3

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

City of Conway Sanitary Landfill
Permit #: 2148-AOP-R4
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\$/ton factor	23.93	Annual Chargeable Emissions (tpy)	124.38
Permit Type	Minor Mod	Permit Fee \$	500

Minor Modification Fee \$	500
Minimum Modification Fee \$	1000
Renewal with Minor Modification \$	500

Check if Facility Holds an Active Minor Source or Minor Source General Permit

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If Hold Active Permit, Amt of Last Annual Air Permit Invoice \$	0
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Total Permit Fee Chargeable Emissions (tpy)	0
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Initial Title V Permit Fee Chargeable Emissions (tpy)

HAPs not included in VOC or PM:

Chlorine, Hydrazine, HCl, HF, Methyl Chloroform, Methylene Chloride, Phosphine, Tetrachloroethylene, Titanium Tetrachloride

Air Contaminants:

All air contaminants are chargeable unless they are included in other totals (e.g., H2SO4 in condensible PM, H2S in TRS, etc.)

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
PM		100.8	100.8	0	0	100.8
PM ₁₀		27.3	27.3	0		
PM _{2.5}		0	0	0		
SO ₂		0	0	0	0	0
VOC		17.8	17.8	0	0	17.8
CO		4.1	4.1	0		
NO _x		0	0	0	0	0
Single HAP	<input type="checkbox"/>	3.86	3.86	0		

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Total HAPs	<input type="checkbox"/>	10.77	10.77	0		
Total Other Pollutants	<input type="checkbox"/>	3.84	3.84	0		
Total Chargeable Non-Criteria Pollutants	<input checked="" type="checkbox"/>	5.78	5.78	0	0	5.78