

**GEC GENESIS ENVIRONMENTAL CONSULTING, INC.**

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JUN 10 1996

June 7, 1996

Mr. Jorge Cirnigliaro, PE  
Solid Waste Division  
Arkansas Department of Pollution Control & Ecology  
P.O. Box 8913  
Little Rock, AR 72219-8913

3426 & 342

**Subject:** Initial Design Capacity Report for the Tontitown Landfill (Permits S-0162, #0123-SR-1/2 & #0162-SR-1/2) - New Source Performance Standards and Emission Guidelines for Municipal Solid Waste Landfills;

Dear Mr. Cirnigliaro:

Genesis Environmental Consulting, Inc. (GEC) is pleased to submit the *Initial Design Capacity Report* for the Tontitown Landfill (Current Permits #123-SR-2 & #162-SR-2) on behalf of USA Waste Services, Inc. This report is presented to the ADPC&E in accordance with the provisions detailed in 40 CFR 60.757 (Subpart WWW - Standards of Performance for Municipal Solid Waste Landfills).

The Tontitown Landfill is located in Washington County, Arkansas in Section 23, Township 17N, Range 31W. The design capacity calculations and a plot of the landfill are included with this letter of notification. Based on these calculations, there is a combined capacity (in-situ and remaining) of approximately 2,791,300 cubic yards that has been authorized under the following permits (#S-0146, #123-SR-1/2 & #162-SR-1/2).

On the basis of this estimation, the Tontitown landfill is considered exempt from the NSPS rule due to the fact that the total capacity is below 3.27 million cubic yards. A Non-Methane Organic Compound (NMOC) emission rate calculation is, therefore, not required for this report (40 CFR 60.752(b)). This landfill may, in the future, increase its design capacity by submitting a permit modification for an expansion to the Solid Waste Division at the ADPC&E. An amended design capacity report will be submitted to the ADPC&E upon the approval of any future permit modifications that will increase the design capacity of the landfill (40 CFR 752 (a)(3)). This letter and enclosures will be kept in the Landfill's Permanent Operating Record to document compliance with the Subpart WWW and Cc (Reg 22.612 - Air Criteria.)

If you should have any questions concerning this submittal, please feel free to call us at your convenience.

Sincerely,  
GENESIS ENVIRONMENTAL CONSULTING, INC.

  
David Neal Taylor, E.I.  
*Chemical Engineer*

  
Ken Bown, P.E.  
*Senior Engineer*

enclosures: Tontitown County Design Capacity Calculations (2 Pages)  
FIGURE 1 - Tontitown Landfill Plot Map

cc: Mr. Kevin Hodges (USA Waste Services, Inc.)  
Mrs. Krista Story (ADPC&E Air Division)

**TONTITOWN LANDFILL DESIGN CAPACITY CALCULATIONS**

The Tontitown Landfill was initially permitted in 1979 under permit number S-0162. The entire landfill is now comprised of two Class I landfills designated as Site 3 and Site 4. Permit Number 123-SR-2 corresponds to Site 3 and Permit Number 162-SR-2 corresponds to Site 4. The estimated total volume of air space that has been consumed in Site 3 is 1,018,300 cubic yards (cy<sup>3</sup>). The estimated total volume of air space that has been consumed in Site 4 is 1,613,000 cubic yards (cy<sup>3</sup>). A total of 2,631,300 cy<sup>3</sup> of air space has been utilized at the landfill for Class I solid waste. The volume of waste in the landfill was estimated based on the contours from a December 1995 aerial survey and the estimated depth of waste in the landfill.

A minor permit modification for the Site 3 (Permit #123-SR-2) was approved by the ADPC&E in May 1996 for an additional 160,000 cy<sup>3</sup> of air space. Therefore, the current permitted disposal capacity of the Landfill is estimated to be 2,791,300 cy<sup>3</sup> as shown below.

TONTITOWN LANDFILL			
PERMIT #	AREA	DATES OF OPERATION	DESIGN CAPACITY
#S-0162	SITE 1	1979-Permit Mod (1991)	(INCORPORATED INTO 3&4)
#123-SR-1/2	SITE 3	1991-1996	1,018,300 cy <sup>3</sup> (IN-PLACE)
#162-SR-1/2	SITE 4	1991-1996	1,613,000 cy <sup>3</sup> (IN-PLACE)
#123-SR-2	SITE 3	1996-Present (Minor Mod)	160,000 cy <sup>3</sup> (PERMITTED)
<b>TOTAL</b>			<b>2,791,300 CY<sup>3</sup></b>

The total volume of waste was calculated by the summation of surface grids using the latest aerial survey and conservative estimations for the bottom landfill elevations. A copy of the summations is also included in this submittal. It is to be noted that all volumes within the waste mass were assumed to be waste, although interior roads, and cover occupy some of this volume. It is estimated that the interior roads and cover materials occupy 20 percent of the total capacity.

**Summary of Waste  
Sunray Tontitown Landfill (June 1996)**

Site 3 Estimated In Place Waste Volume

<u>Row</u>	<u>Column</u>	<u>Volume</u>
B	1	50,000
B	2	66,667
B	3	5,000
C	1	66,667
C	2	100,000
C	3	5,000
D	1	166,667
D	2	166,667
D	3	26,667
E	1	133,333
E	2	153,333
E	3	20,000
F	1	25,000
F	2	33,333
	<b>TOTAL</b>	<b>1,018,334</b>

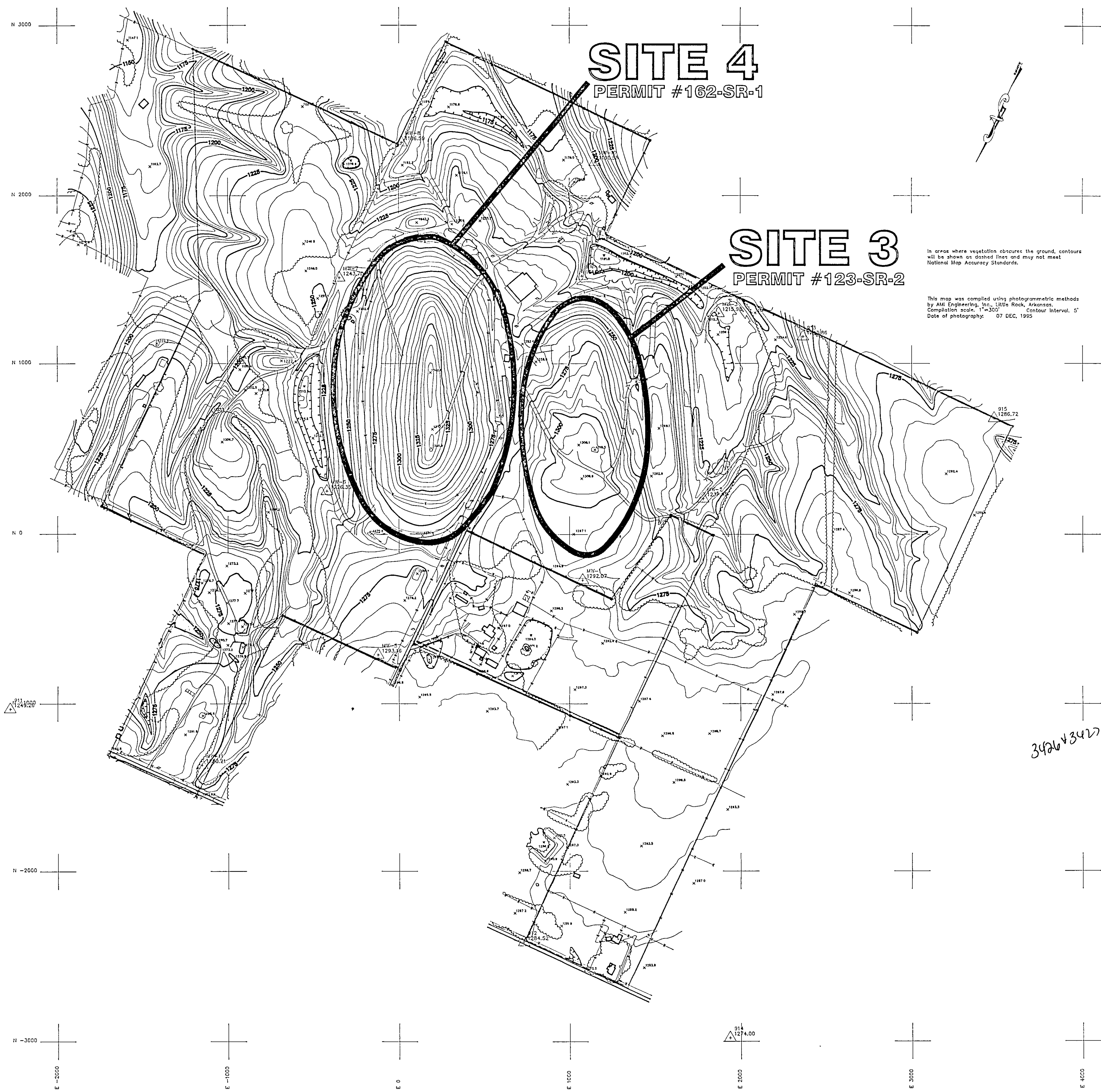
Site 3 Estimated In Place Waste Volume

<u>Row</u>	<u>Column</u>	<u>Volume</u>
A	2	10,000
B	1	10,000
B	2	83,333
B	3	46,300
C	1	40,000
C	2	166,667
C	3	150,000
C	4	10,000
D	1	66,667
D	2	166,667
D	3	166,667
D	4	16,667
E	1	60,000
E	2	183,333
E	3	216,667
E	4	16,667
F	1	53,334
F	2	150,000
F	3	166,667
G	1	20,883
G	2	80,000
G	3	35,000

**TOTAL 1,612,969**

Total Site 3 and Site 4 estimated air space consumed

**2,631,303**



<b>FIGURE 1</b>		
TONTITOWN LANDFILL USA WASTE SERVICES, INC. NEW SOURCE PERFORMANCE STANDARDS FOR LANDFILL GAS DESIGN CAPACITY PLOT PLAN		
Design by: MR	<b>GEC</b>	GENESIS ENVIRONMENTAL CONSULTING, INC.
Checked by: KEB/DT		11400 West Baseline Road Little Rock, AR 72209
Drawn by: JFH		Project No.: 9541 Date: JUNE 1996 Scale: 1"=300'

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