



**FAX COVER**

**Send To:** DAN SMITH Date: 3-28-03

Name: \_\_\_\_\_  
Company: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: 266-0922

Verification Number: \_\_\_\_\_

Number of pages (including cover): 6

Subject: KINGSTON

**From:** Tennessee Valley Authority

Name: LYNN PETTY

Organization: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Verification Number: \_\_\_\_\_

Comments: \_\_\_\_\_

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Sent By: \_\_\_\_\_ Time Sent: \_\_\_\_\_ Date Sent: \_\_\_\_\_

**Important! If you do not receive all pages, call us back immediately.**

**Petty, Harold L.**

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**From:** Petty, Harold L.  
**Sent:** Friday, March 28, 2003 11:16 AM  
**To:** Smith, Daniel R.  
**Cc:** Hedgecoth, Melissa A.; Bowers, Larry C  
**Subject:** FAX

Dan:

I am faxing to your 266-0922 number the sheets that Missy had that show the Free Water Volume required that we discussing before the cell phone connection got too bad to use.

Thanks,  
Lynn

03/28/2003

TVA-00003728

December 18, 2002

Mr. Sims Crownover, Manager  
Enforcement and Compliance Division of Water Pollution Control  
Tennessee Department of Environment  
and Conservation  
Sixth Floor, L&C Annex  
401 Church Street  
Nashville, Tennessee 37243

Dear Mr. Crownover:

TENNESSEE VALLEY AUTHORITY (TVA) - KINGSTON FOSSIL PLANT (KIF) - NPDES PERMIT  
NO. TN0005452 - ASH POND FREE WATER VOLUME

As required by Part III of the NPDES permit, listed below is the calculated free water volume for the  
subject facility:

Outfall Serial Number	Volume Required by Permit (gallons)	Volume Calculated by TVA (gallons)
001	102.00 x 10 <sup>6</sup>	131.55 x 10 <sup>6</sup>

Enclosure 1 demonstrates the manner in which the reported free water volume was calculated as of  
November 30, 2002. Enclosure 2 is the most recent volume data collected during the May 21, 2002  
survey. If you have any questions concerning this report, please call Linda Campbell at 865-717-2157.

*I certify, under penalty of law, that I have personally examined and am familiar with the information  
submitted herein; and based on my inquiry of those individuals immediately responsible for obtaining the  
information, I believe the submitted information is true, accurate, and complete. I am aware that there  
are significant penalties for submitting false information, including the possibility of fine and  
imprisonment. See 18 U.S.C. 1001 and 33 U.S.C. 1319. (Penalties under these statutes may include fines  
up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.)*

E. L. Deskins  
Plant Manager  
Kingston Fossil Plant

MAH  
Enclosures  
cc: J. W. Shipp, Jr., MR 2T-C  
R. E. Johnson, LP 2L-C  
B. B. Walton, ET 10A-K  
J. K. Watts, LP 5C-C  
G. R. MacDonald, LP 5E-C  
EDMS, WR 4Q-C

TVA-00003729

## Enclosure 1

### Kingston Fossil Plant Calculation of Remaining Ash Pond Free Water Volume

Main ash pond	300,590 c.y.
Stilling pond	<u>224,122 c.y.</u>
Remaining capacity at time of survey (5/21/02)	524,712 c.y.
Fly ash sluiced to pond from 5/21/02 to 11/30/02	(183,999) c.y.
Bottom ash sluiced to pond from 5/21/02 to 11/30/02	(4,017) c.y.
Fly ash dredged from pond from 5/21/02 to 11/30/02	<u>314,687 c.y.</u>
Remaining capacity at 11/30/02	651,384 c.y.
Conversion from cubic yards to gallons	<u>201.96 gal/c.y.</u>
<b>Free water volume at 11/30/02</b>	<b>131,553,472 gallons</b>

#### Assumptions:

1. Percentage of ash in coal burned is 11.16% plus 4.23% unburned carbon.
2. Fly ash is 80% of the total ash content, the remaining 20% is bottom ash.
3. Density of fly ash is 81 lb/cf.
4. Density of bottom ash is 89 lb/cf.
5. 100% of the fly ash is sluiced to the main ash pond.
6. 10% of the bottom ash is sluiced to the pond, the remaining 90% is retrieved and used to raise the fly ash dredge cell dikes.
7. Pond survey used through 5/21/02.
8. Actual ash production calculated from 5/21/02 to 11/30/02.

## Enclosure 2

Project: Kingston Fossil Plant  
Main Ash Pond  
Incremental Volumes

Survey Date: May 15-21, 2002  
Project: KI000031.PRO

	Elevation (US Survey Feet)	Volume (Cubic Yards)	Volume (US Gallons)
*	770.32	2,152,124	434,642,923
	770.00	2,099,359	423,986,544
	769.00	1,933,506	390,490,892
	768.00	1,768,245	357,114,700
	767.00	1,603,580	323,858,976
	766.00	1,439,560	290,733,618
	765.00	1,276,408	257,783,440
	764.00	1,115,752	225,337,294
**	763.34	1,012,110	204,405,695
	763.00	959,558	193,792,374
	762.00	808,292	163,242,652
	761.00	662,674	133,833,641
	760.00	528,078	106,650,693
	759.00	412,924	83,394,030
	758.00	312,570	63,126,657
***	<b>757.87</b>	<b>300,590</b>	<b>60,707,116</b>
	757.00	229,799	46,410,267
	756.00	171,759	34,688,367
	755.00	130,667	26,389,467
	754.00	100,965	20,390,831
	753.00	77,933	15,739,389
	752.00	60,247	12,167,424
	751.00	47,431	9,579,246
	750.00	37,609	7,595,554
	749.00	29,384	5,934,292
	748.00	22,234	4,490,298
	747.00	15,964	3,224,089
	746.00	10,593	2,139,382
	745.00	6,066	1,225,009
	744.00	2,431	491,046
	743.00	509	102,777
	742.00	71	14,420
****	741.41	0	0

Note: 201.96 gallons/cubic yard

- \* = Average top of dike
- \*\* = Elevation at lowest top of dike
- \*\*\* = Free Standing Water Volume
- \*\*\*\* = Lowest elevation at time of survey

Water surface elevation on 5-21-02 = 759.91 ft. containing 75.36 acres.

## Enclosure 2

Project: Kingston Fossil Plant  
 Main Ash Stilling Pond  
 Incremental Volumes

Survey Date: May 15-21, 2002  
 Project: KI000031.PRO

	Elevation (US Survey Feet)	Volume (Cubic Yards)	Volume (US Gallons)
*	764.70	652,937	131,867,116
	764.00	621,875	125,593,915
**	763.50	599,997	121,175,354
	763.00	578,396	116,812,917
	762.00	535,630	108,175,895
	761.00	493,306	99,627,999
	760.00	451,461	91,177,144
	759.00	410,040	82,811,618
	758.00	369,027	74,528,713
	757.00	328,446	66,332,914
	756.00	288,338	58,232,662
	755.00	248,751	50,237,712
***	<b>754.37</b>	<b>224,122</b>	<b>45,263,639</b>
	754.00	209,805	42,372,177
	753.00	171,684	34,673,321
	752.00	134,425	27,148,412
	751.00	98,163	19,825,040
	750.00	63,402	12,804,729
	749.00	30,847	6,229,820
	748.00	5,643	1,139,640
	747.00	785	158,498
	746.00	243	49,056
	745.00	98	19,832
	744.00	49	9,815
	743.00	21	4,221
	742.00	6	1,272
	741.00	1	162
	740.00	0	0
****	739.96	0	0

Note: 201.96 gallons/cubic yard

- \* = Average top of dike
- \*\* = Elevation at lowest top of dike
- \*\*\* = Free Standing Water Volume
- \*\*\*\* = Lowest elevation at time of survey

Water surface elevation on 5-21-02 = 754.66 ft. containing 24.23 acres.