

**REQUEST:**

Refer to the responses to the previous question and to WPB-5.1h which contains the dollar balances of diesel fuel inventory by month in account 151140 (A). Refer also to the Direct Testimony of James M. Mosely ("Mosely Direct"), at pages 12–13.

- a. Explain how the target level of diesel fuel inventory has been determined since the new ULSD Fuel System for Woodsdale became operational.
- b. Describe how the diesel fuel is transported for use at the Woodsdale station and how it is stored for later utilization.
- c. Provide the number of gallons and cost per gallon assumed in the 13 month average diesel fuel inventory amount of \$5,162,494 included in the filing.
- d. Provide the amount of diesel fuel burned by month to date since the new ULSD Fuel System became fully operational.
- e. Provide the estimated amount of burn of diesel fuel required if the new ULSD Fuel System has to run 72 hours of continuous operation at full burn in order to meet the design specifications indicated in the application in Case No. 2017-00186 at page 9.
- f. If the target level of diesel fuel is higher or lower than the 72-hour level as indicated in the previous subpart to this question, explain why.

**RESPONSE:**

- a. Duke Energy Kentucky targets to keep the Fuel Oil tanks at Woodsdale filled with enough inventory to sustain 72 full load burn hours in accordance with the design basis of the project. This level was determined to be the amount that could reliably fuel the units in the case of an extended PJM capacity performance event when both the delivery of the primary fuel to the plant and the ability to replenish fuel oil are both limited. As burns occur, Duke will refill to the 72 full load burn hour level.
- b. Ultra-low sulfur diesel fuel is delivered to Woodsdale Station by truck and stored onsite in above ground storage tanks.
- c. The diesel fuel inventory amount of \$5,162,494 represents an average of the monthly balances for April - June 2019. Since the Company does not project inventory balances these months were determined to be representative of the expected ongoing diesel fuel inventory.

	<u>April</u>	<u>May</u>	<u>June</u>	<u>Average</u>
<u>Ending Inventory</u>				
East Bend	\$ 757,555	\$ 775,024	\$ 631,908	
Woodsdale	<u>4,838,394</u>	<u>4,412,065</u>	<u>4,072,535</u>	
Total	\$ 5,595,949	\$ 5,187,089	\$ 4,704,443	\$ 5,162,494
<u>Gallons</u>				
East Bend	345,126	352,233	288,386	328,582
Woodsdale	2,215,985	2,018,277	1,897,199	2,043,820
<u>\$/Gallon</u>				
East Bend	\$ 2.20	2.20	\$ 2.19	
Woodsdale	\$ 2.18	2.19	\$ 2.15	

d.

<u>Month</u>	<u>Gallons</u>	<u>Dollars</u>
March	20	\$ 43
April	156,202	\$ 341,053
May	617,451	\$ 1,349,782
June	481,594	\$ 1,033,793
July	-	\$ -
August	6,843	\$ 14,584
September	370,050	\$ 785,508
October	N/A	N/A
November	N/A	N/A

e. The estimated amount of burn of diesel fuel required for 72 hours of continuous operation at full load is 3.4 million gallons. To account for volume below required Net Positive Suction Head (NPSHr) of the systems pumps, a total tank inventory of 4 million gallons is required.

f. See response to item (e).

**PERSON RESPONSIBLE:**

Michael Mosley – a., b., d., e., f.

John Verderame – e.

Christopher M. Jacobi – c.