



14 June 2007

Todd M. Mathes
Whiteman Osterman & Hanna LLP
One Commerce Plaza
Albany, NY 12260

Re: Archer Mine DEIS Review Comments on Traffic Sections

Dear Mr. Mathes,

Resource Systems Group was asked to review traffic issues in the Draft Environmental Impact Statement (DEIS) for Archer Mine. In conjunction with a site visit on 7 May 2007, RSG is providing this summary of identified issues with the DEIS:

- 1) The AASHTO-recommended minimum corner sight distances (CSD) were calculated using the 51 mph 85th percentile speed from the tube count instead of the 55 mph posted speed. Thus, the AASHTO-recommended minimum CSDs are about 60 feet shorter than they should be.
- 2) RSG field-measured CSDs are 80-120 feet shorter than the existing CSDs presented in the DEIS. However, the difference in field-measured CSDs do not change which CSDs are deficient.
- 3) There is no mention of the 12% grade on the hill between Hapeman Hill Road and Parker State along CR 56 (Turkey Hill Rd). CR 56 is likely classified as a rural arterial but it may be classified as a rural collector. In either case, the 12% grade exceeds the design standard.
 - a) For rural arterials, the maximum grade for a 55 mph roadway (~90 km/h) is 4% for level terrain, 5% for rolling terrain, and 6% for mountainous terrain.
 - b) For rural collectors, the maximum grade is 6%, 7%, and 9% respectively. Grades on low-volume (<1500 vpd) collector roadways may be up to 2% steeper. However, the 12% still exceeds the design criteria.
- 4) At the site driveway, field measurements indicate the traveled way is 22.5 feet wide and there are 1-foot paved shoulders.¹ Whether CR 56 is classified as a rural arterial or a rural collector, the shoulder widths appear to be deficient:

¹ Shoulders along Turkey Hill Road from the proposed mine's driveway to US 9 vary in width. However, it does not appear that the paved shoulder exceeds 1-2 feet for any significant length along that route.

- a) For rural collectors with a design speed of 55 mph and volumes from 400-1500 vehicles/day, the traveled way should be a minimum of 22 feet and the shoulders should be 5 feet wide.
 - b) For rural arterials with a design speed of 55 mph and volumes from 400-1500 vehicles/day, the traveled way should be a minimum of 22 feet and the shoulders should be 6 feet wide.
- 5) The DEIS does not list stopping sight distances (SSD) at other points along Route 56. SSDs are deficient at the horizontal curve at Warackamac Lake, the vertical curve by Hapeman Hill Road, the horizontal curve at Parker State, and the two horizontal curves west of CR 55.
- 6) The DEIS mentions school buses are prohibited from using the US 9/CR 56 intersection because it is dangerous and that sight distances to the south are limited by vegetation. It does not state whether appropriate sight distances can be achieved or just improved with the removal of some vegetation. It also does not state whether the lack of sight distance to the south is the only reason why the intersection is considered unsafe. Given the fact that the sight distance is unsafe for buses, it would also be unsafe for loaded dump trucks with equal or lower weight to horsepower ratios.
- 7) The truck route along CR 56 is part of Scenic Drive Tour 1 on the Dutchess County Tourism website. Thus, a significant number of vehicles traveling along CR 56 may be drivers unfamiliar with the area.
- 8) In the fifth bullet of Section 4.6.3 and Section 4.9.3.6, there should be clarification of how many one-way trips there will be out of Archer Mine. The bullet and Section 4.9.3.6 imply there will only be 50 one-way trips out of Archer Mine but Section 4.6.4 states there will be 50 inbound trips and 50 outbound trips.
- 9) The scoping document says the DEIS will discuss project impacts at the intersections of Hapeman Road, Spring Lake Road, and US 9 with CR 56. The DEIS does not specifically mention impacts at the CR 56/Hapeman Road and CR 56/Spring Lakes Road intersections.
- 10) In a letter from Lawrence Biegel with the NYSDEC dated 28 September 2004, he requests that traffic counts include a breakdown of trucks vs. cars. The table presented on Page 36 of the DEIS does not break down existing traffic volumes between trucks and cars.
- 11) In a letter from the NYSDEC dated 29 September 2004, it states that the Town of Milan requested analysis of other alternative truck travel routes. While the Roe-Jan plant has an alternative route, an alternative route for the Archer Mine is not discussed.
- 12) From the speed data presented in the DEIS, the average speed of traffic on Turkey Hill Road is 44 miles per hour although the posted speed limit is 55 mph. This implies that traffic conditions



are unsafe, given the sight distance limitations and condition of the road, when vehicles are traveling at the posted speed limit.

- 13) The traffic counts presented in the DEIS were conducted from Thursday, 18 October 2002, through Tuesday, 22 October 2002. However, the Thursday and Tuesday counts are not full day counts. Thus, the study does not present complete typical weekday conditions, which would be on a Tuesday, Wednesday, or Thursday.

Overall, we find that the DEIS is incomplete in that it ignores off-site impacts along CR 56 through to US 9. Were it to have included those impacts, it would have found unsafe conditions for the trucks proposed for the mine, including insufficient shoulder widths, steep grades, and limited corner and stopping sight distances.

Please contact me if you have any questions.

Respectfully Submitted,
Resource Systems Group, Inc.

Janet Choi
Senior Associate

