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August 28, 2015

A Response to GCC's Compatibility Assessment and Mitigation Document

As a group of CR120N property owners (the Group) we still believe that a modified Loop (a modified version of Option 3 in the GCC Energy LLC Traffic Impact Study) is the best long-term solution to the traffic issues posed by King Coal II. This option was described in detail in our July 13, 2015 letter to you ("An Alternative Approach to King Coal II Truck Traffic") a copy of which is attached as Appendix I.

Nevertheless, GCC Energy LLC has elected to pursue Option I of the Traffic Impact Study in its current Class II Land Use Permit submittal to the County. For clarity, in what follows, the term "truck" means a vehicle for transporting coal of 1.087 ESAL (Equivalent Single Axle Load) *or less* making one trip to and from the mine.

Traffic Compatibility- Section 82-193(c)(2)(a)

Coal mining has been conducted in Hay Gulch since 1938. From 1938 until 1982 these operations were very small with around 40,000 tons of coal being mined per year. When National King Coal acquired King Coal I production increased to about 100,000 tons per year. After GCC Energy's acquisition of King Coal I production was increased to about 300,000 tons per year. This level of production required 60 trucks per day and these trucks used CR120S and CR119 (particularly in the winter) as well as CR120N. The Environmental Assessment which the BLM did in 2001 presumed that operations at the King Coal II lease would continue at the 60 truck per day/300,000 ton per year level. The BLM Environmental Assessment was presumably based on representations made to them by GCC Energy. In their 2012 Class II Land Use Permit submittal (now withdrawn) they asked for 120 trucks per day. The actual 2014 average was 144 trucks per day, and the instant Class II Land Use Permit submittal asks for 155 trucks/day. It is difficult to see how GCC Energy can assert that a 158% increase in traffic has not been "a substantial increase over existing traffic."

It is also obvious that safety hazards have increased on CR120N because the exposure risk has increased. There are three kinds of exposures (and associated accident risk probabilities) that have increased with GCC's sole use of CR120N:

1. Inadequate visibility (in both directions) of trucks from driveways for vehicles entering CR120N .
2. Truck travel density on CR120N – increased frequency increases the accident probability. The following table illustrates the increase in frequency over historical levels:

Trucks/Week (7 Day)	Trucks/day (7 Day)	Trucks/Day (5 Day)	Minutes Between Trucks (24 /7)	Minutes Between Trucks (24/5)	Minutes Between Trucks (18/5)	Minutes Between Trucks (16/5)	
300	43	60	16.8	12.0	9.0	8.0	2001 EA/Historical Level
500	71	100	10.1	7.2	5.4	4.8	
600	86	120	8.4	6.0	4.5	4.0	2012 Submittal (withdrawn)
720	103	144	7.0	5.0	3.8	3.3	2014 Actual
775	111	155	6.5	4.6	3.5	3.1	2015 Submittal

3. Truck size - length increases the accident probability.

The approach of concentrating all truck traffic with the associated accident risks is contrary to modern traffic models and research. The common approach is to disperse traffic to decrease exposure and reduce the probability of an accident.

Furthermore, that increase has resulted in reduced access to emergency services for all the property owners on CR120N. An overturned truck at each end of CR120N would completely block emergency service access. Such a scenario was used by the FLMFD as justification for closing CR119 to truck traffic in 2011 (page 16 of the Traffic Impact Study).

CR120N has, in effect, become a *private* haul road for GCC Energy (99% of ESALS and 60+% of the traffic) on which they make and enforce the rules and determine when or if the road is available for pedestrians or bicycles. UPS, FedEx, and propane delivery drivers regularly complain about dodging coal trucks to make deliveries. Collecting the mail or the newspaper has become a sprint between coal trucks for residents who live on the north side of the road.

Noise, Dust and Vibration Compatibility – Section 82-193(c) (2)(b)

Noise nuisance is described by the World Health Organization as “a feeling of displeasure evoked by a sound that is loud, unpleasant, unexpected, and undesired”.

GCC's truck traffic, measuring well above 80 dB, has moved CR120 N into the EPA classification of a noisy, industrial, low socioeconomic area. GCC claims, "Neither noise, nor dust, nor vibration from the facility or its traffic will disturb neighbors to the facility or to CR 120". Currently, noise created by GCC's trucks reaches the equivalence of standing 3 feet from your sink's garbage disposal every 5 minutes, 24 hours a day. This recorded level of noise has been proven to have detrimental effects on residents' personal health.

Noise from Truck Traffic - The 8.8% grade is the most problematic area for noise. GCC Energy and the County should evaluate the possibility of placing sound walls or baffles along the north side of this grade to limit noise transmission to Hidden Ridge, Cougar Mesa, and the other residences on the hill. Truck traffic noise levels along this stretch of CR120 N should be monitored by an independent, unbiased, certified individual. Not an affiliate of GCC Energy. We would request data collection at designated measuring points and enforcement of 80 dB(A) along this 8.8% grade. There may be other areas along CR120 N where berms, landscaping, and/or a privacy fence would reduce noise impacts: for example, but without limitation, directly in front of the McCue and Hunzeker residences. Evergreens would be preferable for landscaping, as noise appears to be more intrusive in the winter when the deciduous trees have lost their leaves.

Water Compatibility – Section 82-193(c) (2)(d)

GCC's statement that "the project will have no impact on domestic water supplies in the area" is an assertion that has yet to be analyzed or proven. The acquisition of more Class A water rights will impact Character Compatibility (see below).

Character Compatibility - Section 82-193(c) (2)(e)

Contrary to GCC 's assertion, we believe that King Coal II has already adversely changed the character of the neighborhood since obtaining the surface lease in 2004 and while the County maintained that no Land Use Permit was required. While we do not dispute that Hay Gulch has historically been a ranching and coal mining area, we have no previous experience with a corporate operation of this magnitude, nor the consequent side effects. Given GCC's growth over the past five years, our rural residential area has become an industrial zone, our quality of life has diminished, and our rural, agricultural area has been violated. The proposals in their current Class II Land Use Permit submittal will only *exacerbate* these trends. GCC's proposed mitigation will not "elevate the rural character of the current county road," it will simply introduce a wider, straighter path for industrial blight. As previously stated, GCC Energy treats CR120N exactly like a private haul road. Furthermore, GCC's intent to acquire even more Class A water rights will dry up large portions of the Hay Gulch alluvium and permanently alter the character of the area adjacent to the mine.

Mitigation

Traffic - We believe that 100 trucks per day is a reasonable compromise between the 60 trucks per day promised to the BLM in the 2001 Environmental Assessment and the 155 trucks per day demanded in GCC's submittal. Our experience indicates that this level, although still intrusive, is tolerable when coupled with reduced speed and noise reduction and will retain the small percentage of quality of life that still remains. Since the current truck traffic that GCC generates is beyond the capacity of the current road, and the Traffic Impact Study does not provide any details on what is supposed to happen to the traffic while improvements are being made, we offer the following suggestions:

- Trucks shall be limited to 60 per day until the full depth reclamation of the first 2.6 miles from SH140 is completed and pavement is applied in front of the McCue and Hunzeker residences. During this time GCC Energy shall have the option to use CR119 for up to 40 trucks per day.
 - Dust particulates shall be monitored and controlled until all the gravel sections are paved. Continuous air monitors should be installed at the McCue and Hunzeker residences to ensure the health and safety of each family.
 - At mile marker 0.3 from SH 140, all existing culverts for the Big Stick Ditch shall be replaced, due to age, not merely extended.
 - The new pavement texture/composition shall meet quieter pavement standards to assist with the mitigation of truck noise [the most common is Open Graded Friction Courses (OGFC)].
 - No “rumble strips” shall be installed in the new pavement along CR120N.
- Trucks shall be limited to 80 per day until paving, widening, and straightening is completed all the way to the mine. During this period GCC Energy shall have the option to use CR119 for up to 20 trucks per day.
- 100 trucks per day shall be allowed (our livable cap) once the paving, widening and straightening is complete all the way to the mine. No further use of CR119 would be allowed. The County Engineer has indicated that easements would be required for much of this work to be completed. The Traffic Impact Study does not address the question of easements. **We would like clarity on when, how, and by whom, these easements would be acquired.**
- If GCC Energy feels it requires more than 100 trucks per day, then truck traffic should be dispersed; either by implementing a Loop or by utilizing CR119 and/or CR120S in addition to CR120N once these roads are brought up to the same standards as CR120N. The County should impose the same 100 trucks per day limit on these additional routes.

- Snow days - Additional trucks would be allowed on make-up days so long as trucks did not exceed 500 in any five-day period.
- Hours of Operation - As the frequency table above illustrates, reduced hours of operation are a trade-off between Health (noise and sleep deprivation) and Safety (risk exposure). GCC is currently operating on a 24/6 schedule. We are willing to accept a reduced safety level, but only if all hauling occurs between 6 am - 10 pm Monday through Friday with no hauling on Saturdays and Sundays.

Speed Limits and Signage

- Reduced speed limits are desirable, but they need to be enforced. We believe that installing GPS systems on the haul trucks for monitoring and documenting speed and trip timing would be preferable to the measures GCC has proposed.
- Signage is useful for informing drivers who rarely travel a road of potential problems. However, they have little impact on drivers who make multiple trips on the same road day after day. We believe that an active warning system should be installed on the hill so that drivers attempting to enter CR120N from Hidden Ranch, Cougar Mesa, and the other residences on the hill would have warning of an approaching truck that it is impossible to see. Signage may include, but is not limited to, lower truck speed limits, 9% grade, hidden driveways, jake brakes strictly prohibited, no passing zone, curve, bus stop.
- GCC Energy's "How's My Driving" phone number should be posted on the haul trucks as well as on road signs. Employees should be encouraged to carpool.

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 Mark and Angela Shultz
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 W. T. Williams
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Appendix 1

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July 13, 2015

An Alternative Approach to King Coal II Truck Traffic

We are a group of CR120N property owners (the Group) who have had numerous meetings over the past 6 months on how to mitigate the impacts of King Coal II truck traffic. The Group identified various alternatives in December 2014 and after further discussions narrowed the recommendation to an interim loop route using CR120N/CR120S or CR120N/CR116/CR119 which would be used until a haul route/conveyor could be built across the Old Fort Lewis site. This recommendation was presented in April 2015 (refer to slide deck and MS Word documents that you received about April 6, 2015).

In conducting its traffic study (June, 2015), GCC Energy approached the State Land Board and Fort Lewis College about accessing the Old Fort Lewis site and was informed that bisecting the site with a haul road or conveyor would conflict with the FLC Steering Committee's Mission Statement for the site. As a result GCC Energy's traffic report identified three alternatives that closely parallel CR120N to the South:

- Option 4 – Dedicated haul road
 - A newly-constructed haul road approximately 5.5 miles in length connects to CR120 near King I mine and near 120/140 intersection.
- Option 5 – Dedicated haul road, conveyor to mesa top
 - Approximately 0.7 mile conveyor delivers coal to a loading facility on or near the mesa top.
 - A haul route approximately 5.3 miles in length would connect to CR 120 near CR120/SH140 intersection.
- Option 6 – Conveyor to highway
 - Approximately 6 miles of conveyor connects to a loadout facility near the CR120/SH140 intersection

The Group feels that all of these options are too close to CR120N to significantly mitigate any of the current impacts; for property owners on the South side of CR120N all they do is move the impacts to the opposite side of their properties. The Group cannot support any of these options from a cost/benefit perspective.

The Group also ***does not*** support the traffic recommendation (essentially GCC Energy Option 1) submitted by the so-called "HGCAP" (Hay Gulch Community Advisory Panel). In the absence of any viable private haul options, the major impact of King Coal II is the sheer volume of trucks necessary to move 1.3MM tons of coal per year on County roads. The HGCAP recommendation/Option 1 does nothing to mitigate that impact. Much has been made of the economic benefits GCC Energy provides to the entire Community, and we agree that there are economic benefits. However, seven months of meetings have made it clear that those benefits also come with costs for those directly impacted by truck traffic. **It is unfair and unreasonable for one group of property owners in the Community to accept all the benefits while refusing to shoulder any of the associated costs. We have consistently indicated that we are willing to accept our share of the burden.**

The Group does endorse a modified form of Option 3 in the GCC Energy traffic report:

- **CR119/116/120 Loop**
 - **Inbound coal trucks travel via CR 119/116 segment**
 - **Outbound coal trucks travel via CR 120 North segment**

as the sole mitigation solution.

The Group has analyzed the GCC Energy traffic study and associated spreadsheets to provide recommendations that take into consideration safety and quality of life along the CR119/116/120 corridor as well as addressing population growth and the impact of improved water availability on Southwest La Plata County. Since the Group had no input on the design of the GCC Energy traffic study, it is unclear how well Option 3 in that study aligns with our desired modifications (see the following Overview), hence our endorsement of this Option is qualified. We believe that a much better balance of costs and benefits than what is in the GCC Energy Option 3 cost estimate is possible.

Overview of Modified CR119/116/120 Loop

- **Truck Volume**
 - The Class II Land Permit should be contingent upon KC II's maximum permitted volume (currently 1.3MM tons/yr). Any increase in maximum permitted volume should require a new application.
 - 1.3MM tons/year is the maximum capacity of the loop as described in this proposal. Any increase would require significant modifications with respect to improvements and further dispersal [e.g., use of CR120S, two-way traffic and associated upgrades on multiple routes, etc.].
- **Travel Direction**
 - A loop route can clearly operate in either direction. Since the bulk of the traffic approaches from the South, Option 3 uses CR119/116 as the inbound route. However, there are complications. Outbound trucks for Pueblo travel North on SH140 to US 160

and return empty the same way. At current production levels this amounts to 78 trucks per week. The D&SNGRR truck (a tandem axle bobtail, not a semi) also enters and leaves from the North. The D&SNGRR truck averages 4-5 trips per week over the year, but there is seasonal variation. There is also a small number of Cortez-based Gallup trucks that return empty from the North as well as a few Hi-Country trucks that go through the Cortez shop for scheduled maintenance (we don't have exact numbers on either). So something like 12-15 trucks per day are currently inbound from the North. Limited two-way travel on CR120N could be allowed to accommodate these trucks, but the Group feels the public safety benefits to the Community of a strict one-way route outweigh the convenience and cost savings of limited two-way traffic to GCC Energy.

- **Speed Limits**

- Truck speed limit should be reduced to 25 mph on unpaved sections and on paved sections where noise is a problem.
- Truck speed limit of 35 mph may be appropriate in certain sections - such as the paved portion of CR119 and the first 1.5 miles of the paved portion of CR120N.

- **CR120N/SH140 Intersection Modifications**

- An acceleration lane for Southbound trucks that would merge into SH140 about 400 yards South of the existing intersection (see also CR120N and CR119 Upgrades and Modifications for an alternative).
- This acceleration lane could include a turn out/chain down area (See Discretionary Costs).
- Northbound trucks would turn at the existing intersection.

- **CR119/SH140 Intersection Modifications**

- Turn lanes on both sides in both directions.
- Traffic light with turn signals.
- Entrance to FLMES from Kline side of CR119. Close existing SH140 entrance.
- Sound/dust wall along SH140 at FLMES
- School zone speed limit from traffic light to CR130 intersection

- **CR120N and CR119 Upgrades and Modification**

- "Full Depth Reclamation" on CR120N for fully loaded trucks.
- "Full Depth Reclamation" on CR119 and extensive widening/paving included in GCC Energy traffic study Option 3 are unnecessary on a one-way segment with only empty trucks (see Discretionary Costs).
- Turnout/chain up area on CR119 may be unnecessary (see Discretionary Costs).

- Alternatives to modifying the 0.3 mile corner on CR120N should be considered [One possibility, suggested by Doug Roark, would be to bypass the corner with a short haul road that would run behind the existing retail coal yard (from around mile 0.65) and merge with SH140 about 400 yards South of the existing intersection. GCC Energy trucks would turn both North and South from this intersection and the existing CR120N ("Hay Gulch") intersection would not be used by GCC Energy transports.]
- **Hours of Operation**
 - 24/6 (Sundays off)with reduction of traffic by 50% between 10pm and 6am.
 - GCC Energy has indicated that Saturdays and Sundays off may be possible in the future. The Group is willing to accept a 24/5 schedule with reduction of traffic by 50% between 10pm and 6am.
- **Highly Impacted Properties**
 - Site-specific mitigation measures and/or compensation should be considered for properties where the primary dwelling is within 200 feet of the centerline of the Loop.

Benefits of the Modified Option 3

- **Equitable and acceptable sharing of benefits and costs along the entire trucking corridor.**
- No reduction in production or job losses for GCC Energy.
- CR119 rework – Fort Lewis Mesa Elementary School safety
 - The school will be isolated from the heavy, and (formerly) fast moving SH140 traffic and noise. This is a major win/long term solution for the Community.
 - In-town school zone speed limits at the school.
 - Traffic light at intersection allows trucks, school buses, and parents to turn safely.
 - Improved safety and traffic flow should be reflected in improved property values.
 - Since it is a school intersection Federal or State grant money may be available to offset cost.
 - Population expansion and improved water availability on the Dryside will result in higher enrollments at FLMES, so the traffic safety issues around the school will need to be addressed in the near future, mine or no mine.
- Emergency response
 - The loop will always have one lane free from truck traffic.

Currently two-way truck traffic with no turnouts or shoulders on the first 3 miles of CR120N means that emergency responders may find their route to the mine or other private property impeded by trucks unable to move out of the way.

CR120N would be the preferred route from Durango for responding to an emergency at the mine (no meaningful response can be expected from FLMFD from either CR120N or CR119).

- Accident reduction

Intersection upgrades, road modifications, and traffic dispersal should result in fewer traffic accidents and fatalities. Significant safety upgrades will be made on CR119 that would never occur without the loop route. This is a win for the entire Community along the trucking corridor.

Discretionary Costs - Cost versus Benefit

Since economics will be a key factor in route selection, discretionary costs need to be reviewed. The big cost differentiator between Option 1 (\$10,790,947) and Option 3 (\$23,536,248), is paving: Option 1 - \$3,866,000; Option 3 - \$9,851,000. The primary benefit of Option 3 is dispersing the traffic volume which we believe is the major impact to be mitigated. Paving addresses dust, but at a very high cost.

The "Full Depth Reclamation" clearly has to be done on CR120N since it will handle all of the fully loaded trucks and has already been badly damaged by years of two-way traffic. "Full Depth Reclamation" may not be necessary on CR119 since only empty trucks will travel that segment and none (either loaded or empty) have been on it since 2008. The additional paving (CR120N and CR119) and widening CR119 (total = \$7,457,500) included in Option 3 is unnecessary on a one-way route. This reduces the cost of Option 3 to \$15,028,148 (\$23,536,248 – \$7,457,500 -1,050,000.), and the cost difference between Option 1 and Option 3 is reduced to \$4,237,801. We believe the benefits of Option 3 as outlined above more than justify this modest additional expense.

Similarly, the cost of chain up/down locations is significant for Option 3 (\$856,000). Neither road (particularly CR119) is ever snow packed for long. Suspending truck traffic on snow days and using make up days could eliminate the need for these areas.

Public and grant money for the CR119 intersection could impact the cost of Option 3 (Our desired modifications for this intersection go well beyond what is included in the GCC Energy Option 3 estimate).

Staging - Short/Long Term Priorities

The primary obstacle to implementing the one-way loop is the CR119/SH140 intersection. The minimum requirement is re-alignment with a left turn deceleration lane for trucks approaching from the South. This modification should be the top short term priority. Other modifications at the intersection are long term and may be contingent on sources of funding. Safety modifications on CR119 should be pursued while the intersection changes are being made.

Since CR120N will have to maintain two-way traffic until CR119 is ready, safety modifications to CR120N should also be a top short term priority. The acceleration lane at the CR120N/SH140 intersection should be completed prior to loop implementation.

Safety upgrades on CR120N and CR119 should be prioritized based on a traffic exposure/risk analysis that should be added to the GCC Energy traffic study.

Full depth reclamation and other paving should wait until the one-way loop is implemented.

Speed limit changes (including those at the school) should be put in place immediately.

Revision of the Land Use Code to specifically include mining should be a long term priority.

Sincerely,

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