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VIA HAND DELIVERY

Ms. Victoria Rutson
Chief
Section of Environmental Analysis
Surface Transportation Board
1925 K Street, N.W.
Washington, D.C. 20423

**Re: STB Finance Docket No. 34284, Southwest Gulf Railroad Company –
Construction and Operation Exemption – Medina County, TX**

Dear Ms. Rutson:

This will respond to your July 8, 2005 letter posing a series of questions to applicant Southwest Gulf Railroad ("SGR") in connection with the environmental review of SGR's proposed rail line.

- 1. SEA recognizes that SGR may not have the detailed information requested in Numbers 2-8 for MCEAA's Modified Medina Dam Route, since information previously submitted by SGR did not provide the cut and fill numbers for this route, and this route has been proposed by MCEAA, not SGR. Therefore, if the information provided in response to Numbers 2-8 does not include information regarding MCEAA's Modified Medina Dam Route, SEA requests SGR to provide a discussion of SGR's assessment of this route in general terms.**

This question correctly assumes that SGR does not have any detailed information concerning "MCEAA's Modified Medina Dam Route." Nonetheless, SGR can offer the following observations. MCEAA submitted a map with alternative routes to SEA on January 9, 2005 as part of its comments on the Draft EIS. MCEAA's map set forth two "eastern" routes, one with an orientation that is further east and more faithful to at least a portion of the route followed by the early twentieth century Medina Dam rail line than the other. This more eastern of the two routes is described as the "Medina Dam route" and is generally similar (but not identical) to the modified Medina Dam route described by SGR in its June

6, 2005 submission to SEA.

The more westerly of the two MCEAA routes, described by MCEAA as the "Medina Dam Alternative" is generally similar (but not identical) to the "Eastern Route" route that SGR has described in its June 6, 2005 submission to SEA. In that regard, we note that MCEAA's Alternative Medina Dam route exits the escarpment (on which these routes commence at their southern terminus) at about the same point as SGR's Eastern Route. From the point of exit of the escarpment traveling north, MCEAA's route follows a more northerly and then westerly orientation than does SGR's Eastern Route, which by contrast follows a generally shorter (northwesterly) orientation from the point of exit from the escarpment to the quarry.

MCEAA has not explained the criteria that it used to arrive at either of its routes or how the routes would traverse the flood plain areas, and has not provided cut/fill data relevant to either of its proposed routes. SGR does not have such information, but given the general similarity described above between the MCEAA alternatives and the comparable Medina Dam and Eastern Routes described by SGR, SGR believes that the cut/fill data relative to the MCEAA routes would be generally similar to those of the respective comparable routes described by SGR. Thus, the MCEAA Medina Dam route could be expected to cause the largest volume of cut/fill, while the MCEAA Medina Dam Alternative (like the Eastern Route has SGR has described) would result in somewhat less cut/fill, but still significantly more than any of the alternatives previously proposed by and analyzed in the Draft EIS.

As SGR has explained previously, there are several reasons why the Eastern Route is less attractive, and indeed suffers from substantial infirmities, in comparison to any of the routes considered in the Draft EIS. These are as follows:

(1) Following the receipt of SEA's July 8 letter, SGR reviewed the estimated cut/fill volumes for each of the routes for which SGR had previously supplied estimates with its June 6, 2005 letter to SEA. In its initial presentation of cut/fill data in that letter, SGR had assumed that all excavation would be in rock or a consolidated material capable of supporting vertical benches 10 feet wide by 20 feet high, resulting in a slope calculation of 0.5:1 (the equivalent of a 63° slope). Upon further review of this assumption and discussion with qualified engineers who reviewed surface geological maps of the area, SGR has now concluded that somewhat more refined data on the cut volumes would be generated by assuming side slopes of 1.5:1 (the equivalent of a 33° slope). Accordingly, cut volumes have been recalculated based on this revised assumption. See Exhibit 1 to this letter, which shows the previously estimated cut/fill volumes in cubic yards, the revised cut/fill volumes in cubic yards, and the differences between the previous and revised estimates for the cut volumes for each alignment discussed in the Draft EIS and for the Eastern and Modified Medina Dam Routes. These revised calculations were based in part upon a typical roadbed cross-section template as shown in accompanying Exhibit 2. The fill calculations previously presented by SGR (which assume stopping fill at the flood plain and using

trestles to cross streams) were not affected by this change in the underlying slope assumption for cut areas as no revision was deemed warranted to the 2:1 (26.5°) slope assumed for the fill calculations.¹

As shown in Exhibit 1, for each of the alignments the estimated cut volume has increased as a result of the change in slope stability assumptions used in the cut calculations, i.e., the assumed wider cut areas result in a higher volume of cut material. The differences between the previous and revised cut estimates are greater for the Eastern and Medina Dam alternatives due to the greater depth of the cuts required as one moves east, a reflection of the steeper escarpment that needs to be traversed by the more eastern alignments. Accordingly, the revisions to the cut/fill data presented here do not alter SGR's original conclusion that the Eastern Route and the Medina Dam Route would entail much more cut/fill than the Proposed Route and the three other alternatives assessed in the Draft EIS, rendering the eastern routes less attractive. As Exhibit 1 shows, the cut volumes for the Proposed Route would approximate 317,000 cubic yards compared to 834,000 cubic yards for the Eastern Route. The fill volume for the Proposed Route is estimated to be 102,000 cubic yards compared to a much greater 446,000 cubic yards for the Eastern Route. Increased cut and fill volume will necessarily result in more adverse impacts to the area from a visual/aesthetic standpoint. It will also result in more land use impacts because more land surface will be disturbed during construction and as a result of the embankments that will be needed for the right-of-way. Greater disruption to agricultural and other land uses in the area can thus be expected. Were reduced slope criteria employed in place of the criteria assumed here, the land use impacts would be even greater due to the resulting larger footprint of the right-of-way.

As SGR has discussed above and in previous correspondence, one of the key disadvantages of shifting the alignment to the east is the need to traverse steeper grades, requiring significantly more cut and fill, as well as higher operational costs for SGR to the extent that either of the eastern routes will have somewhat steeper grades than the generally flatter Proposed Route even after the described significant cut and fill work is completed. In this regard, it bears note that the SGR line will be used to transport unit trains that will often consist of approximately 100 loaded cars up the escarpment from the quarry to the UP line. To accommodate these trains, the line will have to meet the grade (no more than 1%) and curve criteria that SGR has previously described. See design criteria spelled out in TRAX Report, reprinted at page G-20 of the DEIS. By contrast, the early twentieth century railroad that was built to facilitate the construction of the Medina Dam was designed to carry construction materials only downhill off the escarpment to the Dam site and to return empty cars. The engineering considerations for that railroad were drastically different than those that would confront SGR with respect to transporting much longer and heavier loaded unit trains up the escarpment.

(2) The Eastern Route is considerably longer (about 1.5 miles) than the Proposed Route -- 9.01 miles versus 7.5 miles. It is also longer than alternatives 2 (7.23) and 3 (7.9). The increased

¹ SGR is of course aware of proposed mitigation measure 32 in the Draft EIS, which contemplates that graded embankments in wetlands areas will not exceed a 4:1 slope. SGR has previously commented on this measure, suggesting that it retain the flexibility to use a modified slope in wetlands areas upon consultations with the Texas Department of Parks and Wildlife.

length means a longer construction period, substantially greater cost, greater noise and air quality impacts, more fuel usage, less efficient operations, and additional land use and visual impacts. Alternatives 1 (10.6 miles) and the Medina Dam route suffer from the same infirmity (11.24 miles).² See attached Exhibit 3, which shows the length of the Proposed Route and each alternative.

(3) Based on its review of relevant land ownership records, SGR has determined that the Eastern Route will traverse at least 17 separate properties. In contrast, the Proposed Route would traverse 10 properties. Some of the 17 property owners are persons who have signed a covenant in which they have agreed with others not to sell property to SGR, evidencing that their would be opposition to any Eastern Route by persons in the area of that Route. Further, the Eastern Route will also traverse a subdivision under development known as Castroville West, which is identified on the USGS map attached as Exhibit 4 and the FEMA floodplain map attached as Exhibit 5. According to public plat records that SGR has reviewed and that are available at the Medina County Courthouse, approximately 20 separate tracts of land have been surveyed and sold in this subdivision and 13 to 15 homes have been constructed and are presently occupied in that subdivision. (SGR would be pleased to supply a copy of these records should SEA be interested in reviewing them.)

(4) The Eastern Route traverses significantly more prime, irrigated farmland which lies between stations 130 + 00 and 220 + 00, as shown on the maps of that route which are attached as part of the booklet of maps and materials which constitute Exhibit 6 to this letter.

(5) The Eastern Route crosses one more county road than the Proposed Route (CR 4643) and several private roads and driveways. The number of private roads and driveways is not known because of access limitations but a review of aerial photographs reveals at least four and possibly five. Further, the Eastern Route crosses FM 2676 (the most heavily traveled road crossed) at a less optimal place than the proposed route. Specifically, there is a shorter sight line for drivers approaching the crossing than in the case of the proposed alignment.

(6) The Eastern Route has a generally diagonal alignment whereas property boundaries in the area are generally north/south and east/west oriented. Thus, the Eastern Route is much more likely to disrupt land use, including prime farmland, because it will cut directly through many properties. This is in contrast to the proposed route, which was carefully aligned to traverse along property boundaries as much as possible and thus not disrupt land use.

² In its June 6, 2005 letter to SEA, SGR stated that the Eastern Route was approximately 1.6 miles longer than the proposed or alternative routes considered in the DEIS. That statement should have noted that Alternative 1 (which SEA has tentatively determined in the Draft EIS suffers from several infirmities) is in fact longer than the Eastern Route. The data provided here offers a more precise view of the length of each alternative, reflecting further analysis undertaken by SGR. SGR does not favor either Alternative 1 or the Eastern Route due in part to their length and associated higher operating costs and greater impacts.

(7) The Eastern Route will also have cultural resources impacts. In a report that SGR will submit to SEA under separate cover, SGR's cultural resources consultant identifies several historic structures in or adjacent to the APE of the Eastern Route. Further, there are also areas along the Eastern Route where there is a heightened likelihood of archeological sites.

(8) The Eastern Route, which would cross Quihi Creek at a wider point on the Creek and thus cross more floodplain, sacrifices the benefits of crossing Quihi Creek at the narrow point at which it would be crossed by the Proposed Route. The Proposed Route's would cross the Creek at a point of minimal flow, upstream from a point where the Creek intersects with other creeks. SGR has previously described the advantages of the crossing at the point in its August 4, 2003 letter to SEA. Further, in the DEIS, SEA concluded "that there would be fewer impacts to wetlands from the Proposed Route than the other rail alternatives" that were assessed in the DEIS.

2. **Please provide the back up calculations that SGR used to support the cut and fill volumes provided in the April 4, 2005 and June 6, 2005 letters to SEA. Please include any drawings showing cross-sections with stationing, from which end areas would have been determined for use in calculating volumes.**

The methodology used to determine cut and fill volumes previously reported by SGR was described at page 6 of SGR's April 4, 2005 letter to SEA. As noted in that letter, the cut/fill volumes reported by SGR are based on preliminary engineering data, as final engineering will not be undertaken until a route has been approved by the STB. While actual cut/fill volumes may thus be somewhat different from those reported by SGR, the data offered by SGR nonetheless was based on a sophisticated modeling technique and provides a sound basis for comparing the cut/fill volumes as between the different routes under consideration. It should be noted, however, that these data are subject to refinement based on final engineering design.

SGR is prepared to provide SEA with a full set of the calculations underlying its cut/fill analyses and to work with SEA's contractor to set forth in detail how the analyses were done. Given that there is a huge volume of data underlying its calculations, SGR is (by pre-agreement with SEA staff) providing a sampling of such data for verification by SEA. See Exhibit 7 to this letter, which shows cut/fill data at specific stations drawn from SGR's analysis of the Proposed Route and sets forth a description of the process by which the cut/fill data was derived, using a civil engineering computer program.

3. **Please provide the typical roadbed cross-section template SGR used in modeling the proposed roadbeds showing roadbed widths, side slopes, ditches, and berms. If more than one typical template was used, please provide all templates and the corresponding station limits along which the templates were applied to determine the cut and fill quantities. Please specify the type of material(s) that were used for the rail bed (soil, rock, etc).**

In its preliminary engineering analysis of the Proposed Route and the alternatives, and in the absence of subgrade material data that will not be available until the final engineering stage, SGR

applied widely accepted engineering practices in assuming a suitable, consolidated formation, with sufficient bearing capacity for the intended tracks. SGR has utilized a typical cross-section of an industry track as a template for modeling the proposed roadbed. The cross section appears in Exhibit 2.

SGR intends to utilize crushed limestone base for the rail bed and a combination of trap rock and limestone aggregate for the ballast material.

4. **Please provide any plans showing areas anticipated to be undercut along with the extent of undercutting to be done and the source material used to determine those areas requiring undercutting.**

We understand this question to be inquiring about areas that SGR has identified that may need to be cut either for grading or other rail engineering purposes, i.e., due to any inadequacy of bearing capacity of the existing soil for supporting the rail bed and track. The profiles set forth on the USGS maps provided for each route in Exhibit 6 show those areas that SGR believes will require cutting for grade purposes. SGR does not have more detailed plans showing areas anticipated to be undercut and does not know the precise extent of any undercutting to be done. These are determinations that can only be made once final engineering is accomplished utilizing data from geotechnical studies. Such work will be undertaken only after a final route has been chosen at the end of the environmental review and STB exemption processes. At this stage of the regulatory process, SGR has presented the best information reasonably available to it based on preliminary engineering. It has done so, and will continue to do so, consistent with its obligations under NEPA so that SEA can make an informed assessment of impacts. However, for the reasons stated, the data requested by this question is simply not available at this time.

5. **Please provide grade profiles of each of the alternative rail routes. The profiles should show the existing grade (ground elevations at the present time) and where SGR plans for the sub grade (roadbed elevation at the earth and sub-ballast interface) of the rail line to be (proposed construction grade). Please indicate on these profiles the locations where cut and fill would be needed.**

See Exhibit 6, which includes aerial photos of each route, as well as USGS maps displaying each route. The USGS maps also set forth grade profiles for the Proposed Route and the alternatives considered in the Draft EIS, as well as for the Medina Dam route and the Eastern Route described by SGR. The charts attached to each set of maps/profiles in that Exhibit show the extent of the cut or fill that would be required at each station identified on the accompanying maps.

6. **Please provide one map with the following features: existing and proposed topography (using five foot contours and a 1:24000 scale map or larger (1 inch = 1000 feet scale is preferable); 100-year floodplain; streams; proposed alternatives; and limits of grading/disturbance. Each alternative rail route should be clearly marked and stationed, and contour lines clearly visible and legibly annotated. Please also provide the most recent**

aerial photograph (with map scale) showing the rail alignments.

See attached USGS map (Exhibit 4), which depicts the various alternative routes with 10 foot contours. SGR does not have a map that shows five foot contour information for "spot elevations." Also see attached map (Exhibit 5) which shows 100 year floodplains based on FEMA data. The floodplain data shown on Exhibit 5 is the only official data in the public domain available at this time.

- 7. Please provide the top of rail bed elevation at the point where the proposed track would leave the existing UP track and the proposed top of rail bed elevations for the track as it would enter the quarry, using the location of the assumed gate over the tracks as the entry point. Also, please provide the length of the rail for each alignment so that the average gradient change can be determined throughout each alignment. We note that SGR has previously provided information indicating that the Proposed Route and Alternative 2 would each be approximately seven miles in length, Alternative 1 would be nine miles in length, and Alternative 3 would be 7.5 miles in length.**

See Exhibit 3, which shows the top of the rail bed elevation at the point of connection with the UP line and at the quarry entrance, as well as the length of the Proposed Route, the alternatives assessed in the Draft EIS, as well as the Eastern Route and the Medina Dam route.

- 8. In addition to the berms called for in the typical cross section requested in item 2, please provide information regarding the proposed location of any earthen berms that would be used for storm water runoff or flood control and their height relative to the existing elevation at their points of construction along the various alignments.**

SGR does not have this information and will not have it until the final engineering stage for the route ultimately approved by STB and as to which SGR decides to build its rail line. However, SGR can state at this point that it will design its rail bed, and any earthen berms, using best practices so as to control erosion, storm water runoff and reduce any risk of flooding caused by the location of the rail line.

Details Regarding Construction and Operation of SGR's Proposed Rail Line:

Numbers 9-22 raise specific questions regarding the construction and operation of SGR's proposed rail line. Please provide the requested information for all alternatives identified to date (i.e. the proposed route, Alternative 1, Alternative 2, Alternative 3, SGR's Modified Medina Dam Route, MCEAA's Modified Medina Dam Route, and the Eastern Bypass Route) to the extent available.

- 9. Has SGR developed more detailed engineering plans regarding the proposed stream crossings for the various alternative rail routes, such as the location and design of bridges and culverts for each crossing? If so, please provide this information as well as the existing 100-year water surface elevations for all crossings.**

SGR has not developed detailed engineering plans at this stage, and will not do so until a specific route is chosen. In all cases, however, SGR will use best practices to minimize the volume of fill in flood plain crossings and the placement of structures in the floodplain, to the extent possible. Please note, however, that SGR cannot commit to avoid placing fill or structures in the floodplains. Accordingly, the fact that SGR's preliminary cut/fill data provided to SEA assumes that fill would not be placed in floodplains reflects SGR's intentions, but should not be viewed as a commitment. Further, SGR notes that waterways (river, streams, creeks), wetlands and flood plains are regularly crossed by roadways and rail lines having properly designed structures which do not negatively impact the flow of water. SGR is proposing nothing exceptional relative to the type of good, standard engineering design and construction practices that have been in use for decades. To any extent that fill is placed in the floodplains, SGR commits that it would consult with, and seek appropriate permits from, the Corps of Engineers or any other agency that might have jurisdiction over the matter. See SGR Comments on the Draft EIS, submitted on January 10, 2005 at 3.

10. **Comments have indicated concern regarding the potential for rail operations to block emergency evacuation routes during flooding events. If SGR has developed any plans to address these concerns, please provide this information.**

SGR has not yet developed such plans and will not do so until a final route is chosen since the plans will be geared to the specific route. SGR is prepared, as a matter of voluntary mitigation, to develop emergency evacuation plans prior to constructing the railroad, following the completion of final engineering on whatever route is chosen for construction. SGR would include in its operational plans for the line language that requires the routine monitoring of weather reports and conditions so that it will be in a position to temporarily cease operations along the line as may be warranted by weather conditions. The plan will also provide that rail operations would not resume until any flooding has ceased and an inspection made of the rail line to ensure that it is safe to resume operations. Further, trains using the SGR line will not be parked so as to block emergency evacuation routes.

11. **Please provide copies of any written correspondence from Duke Energy and Koch Pipeline regarding the pipeline crossings. Please provide the width of the Duke Energy pipeline. Does SGR have any additional information on the allegedly ruptured pipeline discussed on Page 3-3 of the Draft EIS?**

The Proposed Route and alternatives considered in the Draft EIS cross two pipeline right of ways. The pipeline nearest the south end of the route (previously operated by Koch Pipeline) was removed in 2004. The pipeline right of way on the north end of the route, originally owned by Duke Energy has recently been sold to Texas Field Services ("TFS"). That pipeline right of way is 30 feet wide and the pipeline is 10" diameter. Prior to the sale, all contact with Duke Energy relating to this project had been verbal, and thus there is no correspondence that can be shared with SEA. In recent discussions with representatives of TFS, SGR has requested specifications for construction requirements for crossing the pipeline right of way with the rail line. SGR has been advised that such specifications are under development by TFS and will be supplied when they are completed. SGR does not have any information on the allegedly ruptured pipeline.

12. Does SGR have any information on the location of existing water lines, sewer lines, and electrical utility lines potentially crossed by each alternative?

SGR does not have any information on existing water, sewer or utility lines potentially crossed by each alternative. Such information would be gathered at the time of final engineering. SGR does not perceive any problems with crossing these utility lines. SGR is prepared to accept as voluntary mitigation a requirement that it work with local utilities, and review crossing protocols that may already be in place for each such utility, to ensure that its rail line does not interfere with the operation of any utility line that might be crossed.

13. Has a Spill Containment and Countermeasures Plan (SPCC) been developed for the proposed rail line or the fueling and maintenance area? If so, please provide a copy of the SPCC Plan. As indicated in the comments of the U.S. Environmental Protection Agency (#EI-1313), any SPCC Plan should include a map showing recharge features in the Edwards Aquifer Recharge Zone (EARZ) in the vicinity of the proposed rail line, and indicate measures to protect groundwater from contamination through those features.

An SPCC for the fueling and maintenance area has not yet been developed and will not be developed until the project moves into the final engineering stage. Once developed, the SPCC will address spill prevention and countermeasures to protect groundwater from contamination. The SPCC will be prepared and implemented in compliance with the EPA's regulations at 40 CFR Part 112, including the map requested by EPA in its comments noted above. Neither the rail line (except for the loading area near the quarry) nor the fueling/maintenance facility are located on the Edwards Aquifer Recharge Zone. See SGR September 2, 2003 letter to SEA and Exhibit 1 attached to that letter.

14. In the Draft EIS, SEA recommended mitigation that would require SGR to utilize Best Management Practices to minimize the impacts of construction and operation to groundwater and surface water resources. Comments have requested specific information regarding the Best Management Practices that would be taken. If SGR has developed specific measures and Best Management Practices that would be taken to minimize impacts to groundwater and surface water resources, particularly for operations on and off the EARZ, please provide this information.

SGR has not yet developed specific Best Management Practices ("BMPs") to minimize impacts to groundwater and surface water resources. These best practices will be developed as part of the storm water protection plan and permitting process, and can only be developed once final engineering has been completed on the approved rail line since the BMPs will take into account the specifics of the route to be constructed. When BMPs are developed, SGR will first assess the risks of contamination of groundwater and surface water resources to determine necessary controls and safeguards, as well as the actions to be taken if there is a spill. As the rail line (other than the loading loop in the vicinity of the quarry) will be south of the Edwards Aquifer Recharge Zone (EARZ) these BMPs will only deal with SGR's operations off of the EARZ. The Water Pollution Abatement Plan (WPAP) that will be submitted by Vulcan with respect to the quarry (see response to question 25, below) will address

practices to be undertaken on the EARZ. This application is currently in the process of being formulated.

15. **Please provide more detailed information on how the planned fueling facility would operate (e.g. storage and management of fuel, the thickness of the confining layer in the area, and safeguards against drainage of spills onto the recharge zone).**

As SGR has previously reported, the fuel maintenance area will not be located on the recharge zone. Above ground fuel and oil storage tanks will be utilized and located in concrete containments of adequate height, volume and thickness to prevent leakage into the ground should the tanks integrity be breached.

In addition, a Spill Prevention and Countermeasures Plan to be developed by SGR and Vulcan will address containment of fuel consistent with applicable regulations governing the storage of fuel, as discussed above. There will be fencing and/or other security measures for the containment area as required by the SPCC rules. The tanks will have fill gauges to prevent overfilling and procedures will be in place to clean up incidental spills. The WPAP permit that Vulcan will seek to obtain will address the BMPs to be applied and drainage matters.

16. **Based on oral representations from SGR, SEA has assumed that SGR's rail operations would take place during daytime hours (7 a.m. to 10 p.m.) for the purposes of SEA's noise analysis in the Draft EIS. Please verify that these operations would take place during daytime hours.**

SGR plans to operate its rail line during daytime hours (7 am to 10 pm) to the extent possible, and anticipates that most rail movements will take place during these hours. However, SGR is not prepared to represent that all rail movements will occur during these hours. In that regard, SGR has determined that there may be times when, to satisfy the operational needs of the Class I railroads and Vulcan's customer needs, including any emergency needs, trains may need to move over the SGR line during nighttime hours. SGR cannot at this point quantify the number or percent of train operations that may be conducted during nighttime hours

17. **Would the water that SGR plans to use for construction, operation, and maintenance activities be obtained from local or other sources? Are there any applicable water appropriations requirements?**

SGR will obtain water for construction, operation and maintenance from the most economical and environmentally safe source. This could be from local water authorities or private land owners. Also, Vulcan owns Edwards Aquifer water rights and other water rights that can be transferred from Bexar County operations and other Vulcan operations in Medina County to adequately supply the needs for construction, operation, and maintenance of the SGR rail line.

18. **Please provide a description of how the proposed rail loading operations would take place**

at the rail loading track on the quarry site.

The rail cars would be loaded in one of two ways. Rubber tired, front end loaders will load material directly into the cars from finished product stockpiles in the vicinity of the loading track or the rail cars will be loaded from an elevated loading bin filled by a conveyor(s) located under large finished product stockpiles. It is anticipated that loading of each train will be a continuous process taking about eight (8) hours and that locomotive power will be used to "spot" the railcars for loading.

19. Has SGR determined whether the rail loading track on the quarry site would be a series of straight parallel tracks or a loop?

While SGR is leaning toward the loading loop that has been depicted on maps of its proposed line, there is still the possibility that it may use a system of straight tracks in lieu of a loading loop. A final decision will be made in the final design process after a route has been chosen for construction.

20. Would construction activities for the proposed rail loading track differ from construction activities for the construction of the rest of the rail line? If so, please describe how.

Construction activities for the proposed loading track would not differ in comparison to those for the rest of the rail line.

21. Please provide information regarding the number of private roadways and driveway crossings for each alignment and whether SGR has developed specific plans for these crossings.

SGR is aware that its Proposed Route would not cross any private roadways or driveways. The modified Medina Dam Route and the Eastern Route would each cross about four to five private roadways and driveways, but due to access limitations a definitive number cannot be determined. SGR does not have specific information on the number of private roadway or driveway crossings for Alternatives 1, 2 or 3. To the extent that SGR were to build its railroad on an alignment that would cross private roads or driveways, SGR has not to date developed specific plans for addressing such crossings, but would take reasonable steps consistent with any applicable regulatory requirements to ensure safety.

22. Additional information regarding the proposed rail operations would be helpful in responding to comments. Commenters have requested the following information:

How long would loaded rail cars stand idle? As it would be impossible to anticipate weather, scheduling and mechanical issues impacting the idle time, SGR is designing the system to load a 100 car unit train in 8 hours from the time it arrives at the quarry loading area. SGR does not know the answer to this question relative to other traffic it may handle for shippers that might locate on its line.

How many cars would accumulate before shipment? With respect to the Vulcan shipments, SGR plans to ship approximately 100 loaded cars per unit train. Maximum number? SGR's plans include a loop loading system that could hold up to approximately 200 loaded cars for Vulcan. SGR does not know the answer to this question relative to other traffic it may handle for shippers that might locate on its line.

Where would these unattended, loaded cars be parked? SGR currently plans that the cars handling Vulcan shipments will be parked on the loop track in the loading area and that these cars would be attended by SGR's load out crew. SGR does not know the answer to this question relative to other traffic it may handle for shippers that might locate on its line.

How would dust be controlled in this area? We assume that this question refers to the quarry area. Best Available Control Technology (BACT) will be utilized by Vulcan to control dust emissions at the facility. The BACT practices used are derived from the TCEQ Technical Guidance for Rock Crushing Plants (RG 058, February 2002).

Emissions from the first section of the plant will be controlled by operating water sprays at the inlet and outlet of the crushers, screens, and conveyors. Partial enclosures will also be used at the locations where material is transferred from crushers to conveyors to reduce emissions from cross winds.

The second section of the plant consists of wash screens, conveyors, and processes where the material is drenched with or submerged in water. This method of processing the material inherently controls emissions well beyond BACT requirements because it is saturated. The crushers in this section will be equipped with water sprays at the inlet and outlet points.

Emissions from the roads, active work areas, and stockpiles will be controlled by the use of an 8000 gallon water truck. The water truck will apply water to the road and work areas; a side cannon on the truck will be used to water stockpiles as needed. In addition, the entry/exit road will be paved, watered, and washed to control dust. A wheel wash will be installed at the location where trucks enter the paved road from the unpaved area, minimizing track out onto the paved road. In addition, signs will be posted, limiting product trucks to 15 mph on the facility property.

Would the diesel locomotives be idling during loading? We assume that this question refers to loading Vulcan shipments. Locomotives will be utilized to position the railcars when being loaded and their engines will not be stopped during this process. If so, for how long? SGR has not developed an estimate of the length of time that the engines of the locomotives would be at idle speed during the loading process.

If SGR plans to operate trains at speeds ranging from 12 to 25 miles per hour, why does the track design need to accommodate speeds of 40 miles per hour? If SGR could use speeds of 12 miles per hour going up one-degree grades, why could not speeds of 12 miles per hour be used to round curves? The track design is based on safety considerations. SGR expects that the average speed of trains

operating on the line may be 25 miles per hour and therefore top speeds are expected to exceed 25 miles per hour. The speed to be used on curves will vary based on the degree of curvature and grade considerations.

How long would a train sit on the rail line waiting to be transferred to the Union Pacific Railroad Company (UP) rail line? How would operations be coordinated with UP? Would cars be marshaled? How many trains would be on the rail line at one time? The amount of time a train will sit on the SGR line awaiting interchange to the UP line will vary based on the schedules of trains operating on the UP line. SGR personnel will coordinate regularly with UP personnel regarding train interchange with respect to scheduling and other operational considerations. SGR cannot estimate how many trains will be on the rail line at any given time however, it is highly unlikely that there will be more than one train in transit on the SGR line at any one time due to the fact that it will be a single track line. As stated in the DEIS, SGR anticipates that there will be two movements of empty trains and two movements of loaded trains on a daily basis when the quarry is operating at design capacity. SGR will coordinate its operations with the UP or other Class I railroads to provide for the most efficient handling of cars on the SGR line.

How would SGR connect to and move trains to and from the UP line? These details will be worked out with the Class I railroads in the future.

Would SGR move directly from the quarry to the main line without pausing? It is currently anticipated the unit trains would move directly between the main line and loading area without stopping. SGR does not know the answer to this question relative to other traffic it may handle for shippers that might locate on its line.

What would be the average speed of the train entering or exiting the quarry at County Road 353? This would be determined after final engineering of the crossings and the development of an operating plan for the line after a final route has been chosen and the grades and lines of sight have been determined. However, SGR does not anticipate that speed of trains at this point would exceed 10 mph.

What would be the estimated speed of the train entering or exiting the UP line? This has not yet been determined because the type of switch (manual or automatic) and the design of the line at the point of intersection has not yet been engineered.

How much time would be required for a loaded train to accelerate from rest to 20 miles per hour? This would depend on the number of and type of engines and the grade and curvature of the track.

What would be the average speed of the train as it crosses County Road 353 from the quarry? This will be determined after final engineering of the crossing and the development of an operating plan for the line, after a final route has been chosen and the grades and lines of sight determined. As noted above, SGR does not anticipate that the speed of the trains at this point will exceed 10 mph.

What would be the days and hours of the train movements? SGR plans to operate 7 days per week. The exact hours of train movements are subject to several factors, which include the schedules established by the Class I Railroads and the needs of any other shippers that might locate on the SGR line.

Would UP's "fall peak" period affect the quarry movements? Based on SGR's consultations with UP, UP does not believe that the fall peak period will have any impact on traffic originating on the SGR line. It is possible that the "fall peak" period may have some short term impact on SGR operations, but SGR believes that this will diminish over time as the UP increases its system efficiency.

Would crossings near the loading area experience very slow or stopped cars? We assume that the reference is to the loading area near the quarry. The speed of SGR trains will be subject to a variety of considerations noted above, e.g., grade, curvature, operating demands. SGR's operating plan will be developed once a final route is chosen and final engineering completed. SGR does not intend to block crossings for any longer than is needed for the trains to pass. As noted, cars will be located on the loading tracks during loading operations, not on the portion of the SGR line that crosses any public roads.

Trucks: Numbers 23-24 refer to the use of trucks being analyzed by SEA as part of the "no action" alternative.

23. **How long would it take to construct the truck-to-rail remote loading facility proposed as part of trucking operations if SGR's rail line were not built? How many workers would be needed for the construction and operation of this facility?**

It will take approximately six months to construct this facility were it needed. Approximately fifteen to twenty workers would be needed for this project.

24. **SEA has assumed that the truck traffic to local markets, assessed as part of SEA's analysis of cumulative noise impacts in the Draft EIS, would take place during daytime hours (7 a.m. to 10 p.m.). Please verify that this is correct.**

This is correct. However; it is possible that customers such as the State of Texas, Medina and surrounding counties as well as contractors working for these agencies can have emergencies that could from time to time require truck shipments on a 24 hour basis.

Proposed Quarry: Numbers 25 — 31 refer to specific questions that have been raised regarding VCM's proposed quarry, which SEA is assessing, at a minimum, as part of the cumulative impacts analysis.

Vulcan is providing answers to these quarry-related questions in connection with the cumulative impacts analysis that SEA is undertaking in connection with the SGR rail line.

25. **In a letter dated February 15, 2005, you submitted information regarding several**

permitting processes for Vulcan Construction Materials, LP's (VCM) new quarry. You stated that VCM had received an air quality permit for a temporary rock crusher from the Texas Commission on Environmental Quality (TCEQ), was in the process of applying for a water pollution abatement plan (WPAP) from TCEQ, and would be applying for a storm water permit from TCEQ. Please provide an update on the permitting processes for the quarry.

Vulcan submitted an air quality permit for quarry operations to the TCEQ on July 7, 2005, and that application is pending before the TCEQ. That submission was independent of the portable rock crusher operations application previously described in a letter to SEA dated February 15, 2005. That July 7 application conservatively assumes, for purposes of air emissions projections, the use of truck transport of the aggregate extracted from the quarry. The application also notes, however, that the rail option (which is the option favored by Vulcan for safety, efficiency, environmental and other reasons) remains under regulatory review.

Vulcan is working on the hydrological and floodplain studies to support a WPAP application, which accordingly has not yet been submitted. Vulcan has not yet submitted an application for a storm water permit, but will do so prior to initiating quarry operations.

26. **According to information provided by the Medina County Floodplain Administrator, Medina County's floodplain permitting process follows the requirements of the Federal Emergency Management Agency's National Flood Insurance Program, set forth at 44 CFR 60.3, which was developed to implement the National Flood Insurance Act of 1968, as amended, and the Flood Disaster Protection Act of 1973, as amended, 42 U.S.C. 4001 *et. seq.* Has VCM begun consultation with the Floodplain Administrator to determine whether a floodplain permit would be required for the quarry? According to our review of the applicable regulations and a recent telephone conversation with the Floodplain Administrator, it appears that the Floodplain Administrator would need to make a determination that no permit is needed or would need to issue a permit prior to VCM beginning construction activities at the quarry.**

Vulcan has not to date consulted with the Medina County Floodplain Administrator concerning whether a floodplain permit would be required for the quarry. Vulcan does not believe that a permit will be required since it does not intend to construct any structures in the floodplain. If that situation were to change, Vulcan will take appropriate regulatory action. Accordingly, at the appropriate time, and to the extent warranted by the circumstances and the relevant legal requirements, Vulcan will conduct such consultations relative to the quarry.

MCEAA has alleged that the Vulcan quarry will increase flood risks by (1) removing all vegetation from the quarry site near Polecat and Elm Creeks, (2) altering hydrological characteristics of the area by excavating, blasting into ledges, and piling debris; (3) paving or rendering impermeable large portions of the site and (4) pumping significant amounts of groundwater for site use and dust control upgradient and then redepositing that water in a concentrated fashion to the groundwater table

downgradient.

MCEAA's flooding concerns are not well grounded. As to point 1, Vulcan will only remove vegetation in the quarry area at the site of the quarry pit and as necessary for quarry operations. Vulcan intends in fact to retain as much vegetation as reasonably possible as a best management practice, and has no current intention to remove all vegetation in the area of Polecat or Elm Creeks. Further, Vulcan expects that its storm water permit will impose conditions designed to reduce erosion, including the retention of vegetation.

As to point 2, while it is true that there will be some changes to the hydrological characteristics of the area as a result of excavation, the impact should not be adverse relative to the flooding concern since the pit that will be excavated will not reduce the level of recharge into the Aquifer. The Water Pollution Abatement Plan will ensure that Vulcan's activities do not result in undue runoff from the quarry area. Vulcan will maintain retention and/or detention ponds into which excess rainwater will drain and will follow other best management practices, the nature of which will be determined following further hydrological studies, now ongoing. The impact of any debris piles will be taken into account in the WPAP process.

As to point 3, Vulcan intends to pave only the entrance/exit road to/from the quarry. Doing so will improve air quality by controlling dust from truck operations. The remaining quarry area will not be paved.

As to point 4, Vulcan does not understand MCEAA's concern. All water extracted from wells for use at the quarry will be recycled. Thus, there will be no discharge of water used in quarry operations. The only water that will exit the quarry site will be excess rainwater and that water will leave only after being filtered and sediment has been removed. Further, such water will be discharged in a controlled manner so as to eliminate any flooding risk.

It also bears reiteration that, in response to MCEAA's concerns about quarry-induced flooding, that Vulcan will be subject to the conditions imposed on it by the WPAP permit for which it will be applying. Further, as noted Vulcan will consult as appropriate with the Medina County Floodplain Administrator should it take actions requiring that it do so.

Further, as Vulcan observed in its March 22, 2005 letter to SEA (at page 7), SEA determined based on its consultations with FEMA, Corps of Engineers and Medina County Floodplain Administrator that any of the alternative routes could give rise to some impacts on flooding and stream sedimentation. See DEIS 4-29 through 4-41. SEA then determined that a combination of the extensive mitigation volunteered by SGR (in the form of hydrological testing and design studies), and the extensive additional mitigation proposed by SEA (proposed mitigation measures 13-29), would adequately address these impacts. These proposed mitigation measures require, among other actions, that SGR comply with FEMA requirements prior to commencing construction activities in the 100 year floodplain; that SGR conduct a floodplain study and coordinate with the Medina County Floodplain Administrator; that SGR obtain any required Section 404 permits from the Corps of Engineers and that

SGR use best management practices to minimize erosion and reduce the potential for oil and fuel spills. SGR intends to adhere to all reasonable mitigation measures ultimately imposed by SEA.³

27. **Please provide a georeferenced digital map of the footprint of the quarry as well as a drainage plan for the quarry. This plan should show how flows that would enter the pit would be diverted, and where these diverted flows would be discharged downstream or adjacent to the quarry. Please provide the design capacities of the diversion structures.**

Vulcan has not yet developed the information called for by this question. Should such a map become available during the course of this proceeding, Vulcan will advise SEA. In connection with the preparation of its WPAP permit, Vulcan is in the process of developing the drainage data needed to prepare the information called for by this question.

28. **Please provide specific information about blasting activities at the quarry, including the approximate frequency and duration of blasting activities. This should include information about how blasting activities would be regulated and information about the distances at which blasting effects could affect sensitive structures (e.g. historic structures, wells). Please provide any information about the specific location of sensitive structures in relation to the quarry site. Any methodology used or information provided should be clearly explained and referenced.**

Blasting at the quarry will occur approximately five times per week when the quarry facility is operating at its design capacity. The duration of any given blast will be from 350 milliseconds to 1,500 milliseconds.

Vulcan will design all blasts using best available control technology, as it does at all of its quarries across the country. Further, Vulcan will design its blasts so as to comply with the widely applied blast-induced vibration guidelines set forth in report RI 8507 issued in 1980 by the U.S. Bureau of Mines. These guidelines take into account distances to the nearest sensitive structures, to ensure that vibrations and corresponding frequencies do not exceed the threshold for damage criteria as defined by the U.S. Bureau of Mines. Vulcan is not aware of any local regulations governing blasting activities in Medina County.

Beyond the information on historic structures set forth in the Draft EIS, Vulcan at this time has no information on the location of any historic structures near its quarry. Vulcan will take into account the information on historic structures (of which there are a very limited number in the area of the quarry) in designing its blasts. Vulcan also has no information on the location of wells that may be near its quarry. However, one of the proposed mitigation measures in the DEIS would require SGR to consult

³ In a January 10, 2005 submission to SEA, SGR offered some modest comments on Mitigation Measure No. 24, concerning coordination with the Medina County Floodplain Administrator.

with property owners located adjacent to the rail right of way to identify the location of any wells in order to ensure that the railroad is constructed so as to retain the integrity of those wells. Vulcan will have access to information developed through that means and will take that information into account in designing its blasts. Vulcan will of course take into account the location of all other structures in the area as well in designing its blasts.

29. **Will the quarry be dewatered during mining operations? If so, how will storm water and wastewater be treated? Please provide an update on the WPAP application process. Also, please provide all technical reports and supporting documents and maps used for the WPAP application, as well as agency and consultant contact information.**

Normally, the quarry will not be dewatered as the quarry is on a recharge zone and is not expected to hold any significant amount of water. Vulcan operates several quarries on this Aquifer and does not normally dewater them. The quarry will be dewatered only after an unusually large rain event and only in the exceptional circumstances in which such action is needed to continue quarry operations. Any such dewatering will occur slowly and serve, in effect, as a flood control mechanism preventing a sudden or instantaneous surge of water in the event of a heavy rain. The outfall or location where water will be discharged in the event pit dewatering takes place will be identified in the storm water pollution prevention plan when developed.

There will be no discharge of wastewater as no wastewater will be discharged from the quarry. All such wastewater will be recycled within quarry boundaries. Under the storm water permit that it will seek and presumably receive, Vulcan will be permitted to discharge rainwater without treatment as long as the water meets required quality standards. Samples will be taken, as required by the permit. These samples will be inspected and tested according to the permit to ensure that the water meets applicable quality requirements. Vulcan is not yet in a position to share any technical reports or supporting documents relative to its WPAP application. That application is still in process, but Vulcan will advise the SEA when it is filed if that happens during the course of this proceeding.

30. **SEA's analysis of cumulative transportation and traffic safety impacts in the Draft EIS estimated that about 100 quarry employee cars would use roadways in the project area each workday, based on information provided by SGR. Please verify that this is correct.**

This is correct.

31. **Please provide information on the purpose and design of the proposed buffer zones around the quarry site.**

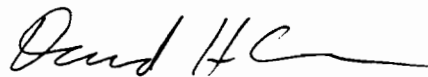
While a buffer zone surrounding the quarry site is not required by any regulations, Vulcan will maintain a minimum 100 foot buffer zone (set back) between the area to be quarried and the boundaries of all adjoining properties for safety and aesthetic purposes. Vegetation will be retained in the buffer zones as a BMP for storm water quality and to prevent erosion. Because the quarry pit will only advance at approximately 50 acres per year, the 1800 acre site will have significant unutilized area for

Ms. Victoria Rutson
September 7, 2005
Page 19

many years to come. Those areas not being utilized for quarrying purposes will likely serve as a wildlife habitat.

We would be pleased to respond to any questions that you might have concerning the above.

Respectfully,

A handwritten signature in black ink, appearing to read "David H. Coburn", with a long horizontal flourish extending to the right.

David H. Coburn
Attorney for Southwest Gulf Railroad Company

cc: Ms. Rini Ghosh
Ms. Jaya Zyman-Ponebshek

SGR - Proposed & Alternate Routes
 Cut/Fill Volumes Comparison
 (assumes stopping fill at flood plain and using trestles to cross streams)
 August, 2005

Route	New Volumes (Cubic Yards)		Original Volumes (Cubic Yards)		Difference in volumes between New and Original Calculations	
	1.5 : 1 Slope	2 : 1 Slope	0.5 : 1 Slope	2: 1 Slope	(Cubic Yards)	
	Cut	Fill	Cut	Fill	Cut	Fill
Proposed	316,721	101,973	167,683	101,973	149,038	-
Alternate 1	27,126	187,430	22,456	187,430	4,670	-
Alternate 2	101,613	123,775	69,562	123,775	32,051	-
Alternate 3	176,696	425,865	109,882	425,865	66,814	-
Mod. Medina Dam	1,333,112	928,248	729,778	928,248	603,334	-
Eastern Route	834,106	445,533	336,566	445,533	497,540	-

EXHIBIT 2

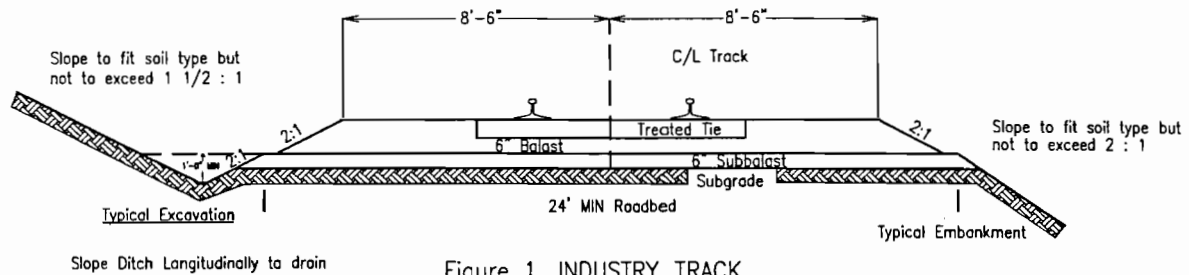


Figure 1. INDUSTRY TRACK

Notes:

1. 6" Min. Granular subballast or as required per local subgrade conditions
2. For Industry Track Ballast section to be level with top of tie where walking required, 8'-6" Min. from center line

[illegible]

Southwest Gulf Railroad Company
Preliminary Proposed and Alternative Rail Routes Data

Description	Approx. top of rail bed elevation		Length of Rail (miles)
	UPRR Track	Quarry Entry	
Proposed Route	980.50	931.20	7.50
Alternative 1	959.50	931.20	10.60
Alternative 2	933.20	931.20	7.23
Alternative 3	979.80	931.20	7.90
Modified Medina Dam Route	981.10	931.20	11.24
Eastern Route	981.00	931.20	9.01

Exhibits 4, 5, and 6 are oversized and in color. Please contact the Section of Environmental Analysis to view a copy.

Southwest Gulf Railroad Company
Proposed and Alternate Railroad Routes

Sample Cut/Fill volume calculations¹

Station	Areas Square Feet		Volumes Cubic Yards		Cumulative Cubic Yards	
	Cut	Fill	Cut	Fill	Cut	Fill
0+00	0.00	0.00	0.00	0.00	0.00	0.00
0+50	2.00	1.25	34.32	1.15	34.32	1.15
1+00	35.06	0.00	137.90	0.00	172.22	1.15
1+50	113.87	0.00	243.24	0.00	415.46	1.15
2+00	148.84	0.00	261.80	0.00	677.26	1.15
2+50	133.91	0.00	178.07	0.00	855.33	1.15
3+00	58.41	0.00	110.62	0.00	965.95	1.15
3+50	61.07	0.00	123.34	0.00	1089.29	1.15
4+00	72.14	0.00	128.41	0.00	1217.70	1.15
4+50	66.54	0.00	125.67	0.00	1343.37	1.15
5+00	69.18	0.00	136.19	0.00	1479.56	1.15

The preliminary Cut/Fill volumes calculations were developed utilizing a civil engineering computer software program (Land Development Desktop). The application calculates the areas by establishing the extents of the areas to be developed (i.e., length and width)². The depth of the cuts and/or height of fill is determined by comparing the existing contours with the proposed elevations of the area(s) being considered for development.

This iterative process is based on the simple mathematical equation:

$$V = (L \times W \times D) \div 27$$

Where:

V = Volume in Cubic Yards

L = Length in Feet

W = Width in Feet

D = Depth or Height in Feet

-
1. Actual volume calculations from the proposed route alignment
 2. Average End Area method