MEMPHIS STONE AND GRAVEL CO.

ESTABLISHED 1910

HIGHWAY CONTRACTOR • AGGREGATE PRODUCER

GENERAL OFFICES
P.O. BOX 1683
MEMPHIS, TN 38101

May 21, 2007

Mr. Steven Turaski
TDEC Mining Section
3711 Middlebrook Pike, Suite 220
Knoxville, TN 37921

RE: NPDES Application
Memphis Stone and Gravel/ Atoka site
List of areas of concern for sediment control during initial site development From AFW 6-5-07

Dear Steven:

Memphis Stone and Gravel Company (MS&G) offers this letter in response to your comments dated June 5, 2007. As you know the large intermittent stream crossing the site (north to south) in the center of the property will be regulated as a stream, as will Bull Branch. MS&G plans to enhance the buffer (i.e., 50 feet on each side) by fencing the buffer sections and allowing existing vegetation to grow. This will also prevent live stock from entering the stream. In some areas we will enhance the buffer with new plantings. This action will be done approximately two years in advance of any proposed major site work. We believe this action along with the control measures cited below will create an effective strategy for erosion prevention and sediment control.

As a general rule we do plan to fully establish our sedimentation structures (i.e., basins) in the disturbed areas. As an interim measure we will install temporary BMPs, primarily silt fence, silt longs, and rock check dams in areas where basins are to be built. At any point where water flows into the regulated streams, MS&G will use heavy vegetation, turf reinforced matting, hard armor, or a combination of these to de-energize flow before it enters the stream. MS&G will certainly modify its plans for site specific conditions in order to optimize any of these proposed control measures. As part of our dust control process, we apply a dust suppression emulsion on our haul roads with water trucks. The dust suppression emulsion greatly reduces fines being mobilized in our stormwater run-off (see attached correspondence from Enviro-tek, Inc). Listed below are your specific comments (in bold) concerning our application and with them are our responses.

1. **Construction entrance**

   As part of our site conditions for the Town of Atoka, Memphis Stone and Gravel Company (MS&G) will construct a vehicle wheel wash system to

prevent dirt and debris from exiting the site onto public roadways. It is planned that this site will have only one ingress and egress for truck traffic. We anticipate the wheel wash system will be constructed very early in site development process and should remedy any track-out problems. As an interim measure, MS&G will build a construction entrance at all points of ingress/egress where heavy traffic occurs. The construction entrance pavement will consist of oversize washed gravel (1 ½ -3 in. size rock) overlaying a geotextile material. The entrance will be at least 50 ft. long.

2. **Haul road construction to MS&G area B. Protection is needed here and it crosses a wet weather conveyance.**

   The primary haul roads (i.e., roads that serve trucks entering and leaving the site) leading into the plant site will be capped with recycled asphalt pavement material, which compared to ordinary clay gravel, considerably reduces fines being mobilized in stormwater. During construction of these roads silt fence will be installed along contours until vegetation is established. Hyroseeding is typically done along our roadway ditches to quickly establish vegetative cover. A series of stone check dams will be installed near the wet weather conveyance that the haul road crosses to reduce slope length and aid in the deposition of fines. These check dams should remain for the life of the project.

3. **MS&G area B will need protection/management as it is being disturbed as a borrow area**

   Basin 1 and Basin 3 will be available relatively quick after construction begins to manage stormwater run-off from the nearby disturbed area. Temporary diversions will channel water into the basins to contain stormwater (note: this water will be needed for future production operations). Any excess water will be treated and be discharged at DMP-001. As an interim measure, silt fence will be installed along the contours down slope from the disturbed area. Silt logs will be installed in areas where concentrated flow is predicted. Outside slopes of the levees will be seeded and protected with turf-reinforced-matting (TRM). Water will be available to irrigate the newly seeded mats (if necessary) and vegetation should be quickly established.

4. **A temporary haul road will connect area B with the plant site. It will require protection and it includes a stream crossing.**

   As a point of clarification- this road will be a permanent fixture to the project. Initially it will serve as a connector from Area A to Area B for the movement of fill/base material to build the plant site. In the future it will act as a service road to access the western process basins and eventually as

conveyor road for the future mining of Smith Area C. The roadway will have a relatively steep grade and ditches draining the roadway will be lined with TRM and have stone check dams as permanent fixtures. Ditches will direct stormwater down along the road way then divert it parallel to the intermittent stream. The ditches will drain into an oversized swale lined with limestone rip-rap that will dissipate the energy from the water before it enters the stream.

5. **The plant site (30 acres) will need protection in place before it is filled.**

   The first construction element of the entire project will be to build stormwater retention basin 001 at the south end of the plant site. Ancillary structures (i.e., diversion berms and ditches, pumps, etc.) will follow. Temporary BMPs (primarily silt fence, silt logs, and sumps) will aid in the initial protection of the structure and prevent mass silting of the basin. If necessary, MS&G will clear the captured stormwater to regain acceptable free board during construction. The stormwater will be discharged at the basin's emergency spillway through a temporary DMP SW-00A. Note: this outfall was not requested during the initial application.

6. **The pump pond and process ponds 1&3 are to be built at this time also. Basin 3 needs on site erosion controls. Basin 1 fill will need extra controls as run-off from 12 acres will contact its base. The pump pond should be protected by the same controls in place for the plant area.**

   The comments made for item 3 above are applicable to this question too. Additionally, a permanent diversion will be created to re-route stormwater around Basin 1. The diversion will consist of a small berm directing flow into a drainage swale that will direct the drainage into the intermittent stream. The swale will be at a relatively shallow grade and densely vegetated. Temporary silt logs will be installed following construction and the inflow into the intermittent stream will be reinforced with TRM and/or hard armor based on observed site conditions at the time of construction.

7. **MS&G area A and Crum C are now disturbed. If runoff is captured at this point, it should be routed to stormwater pond 001 so this will control this problem.**

   This is correct. Additionally, stormwater storage capacity will be gained as mining of these areas progresses. Consequently, as much water as possible will be diverted to the mined out areas, thus reducing the amount that must be pumped.

8. **No controls are shown for construction of the conveyor road to Crum A. A wet weather conveyance will be crossed.**

   This crossing will be managed very similar to that described in item 4 above. However, this haul/conveyor road will be a temporary feature and will be reclaimed after mining Crum Area A.

9. **A haul road is shown on the map from plant area to the east end of stormwater basin 1. It crosses a wet weather conveyance and shows a stormwater structure at the area near a stream. No other haul roads are near stormwater basins 2&3. Haul roads should lead to these two ponds. Where will the excavated material be taken? What will be done to control sediment and erosion? Captured drainage is part of this basin building task?**

   The haul road may or may not be extended south of the stream (Bull Branch). This depends on the future haul route out of the proposed site. MS&G is in negotiations with the property owner to the south and may lease/purchase land to build a road way out to Miller Road. In any case, the haul road will definitely turn east and connect with a haul/conveyor road following the south side of the Crum Property (see Phase 2 map).

   Please note that most of the haul road will be sloped to deliver stormwater run-off into Stormwater basin 001. Flow that does not enter the basin will be directed down along the road way parallel to the stream. The ditches will drain into a swale lined with limestone rip-rap that will dissipate the energy from the water before it enters the stream. Temporary control measures (i.e., silt fence and silt logs) will be placed where appropriate to control erosion during the construction phase.

   Stormwater Basin 002 is an existing basin (built by our Lessor) that will serve as the primary sedimentation structure during the initial work on that part of the project area. Stormwater Basin 003 will be the first construction element at the end of Phase 1 (i.e., beginning of Crum Area A) and will be approached from the north. The haul road/conveyor road going from east to west (south side of Crum property) will be built toward the end of Phase 2. Similar temporary erosion controls as previously discussed will be employed.

10. **Crum area A will now be disturbed. Will stormwater basin 2&3 capture this or will fill go around these ponds?**

    Stormwater from disturbed areas along with pit dewatering will be directed to both of these Stormwater basins. It should be noted that as mined-out areas expand, so will our storage capacities for run-off and

dewatering. The first area mined on Crum will become part of our processing system and once established will receive as much stormwater as possible.

Please contact Bill Kelley or me if you have additional questions or comments at (901) 774-7874 or email at alan.parks@msgravel.com.

Sincerely,

Alan Parks
Memphis Stone and Gravel Company

cc: Steve Williams (one copy)

Enviro-tek, Inc.
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Bartlett TN 38135
901.626.5886 Fax 901.388.8121

June 25, 2007

Memphis Stone & Gravel Company
PO Box 1683
Memphis TN 38101

Attn: Mr. Alan Parks, Exploration & Planning
RE: Management of haul road storm water run-off & dust control-Tipton County

Dear Alan:

I really enjoyed our meeting on Thursday, 6/22/07, as we discussed your planned gravel mine in Tipton County. According to the earth samples that were extracted there during your initial drilling process, I am confident that one of our formulas can be utilized in your mine to significantly mitigate dust problems on your entire system of in-plant haul roads.

As you know when Memphis Stone & Gravel initially asked us for help in controlling the haul road dust at your North Plant in 1999, you were having to water the roads nonstop from 7 AM to plant closing at 6 PM & were utilizing from 12-13 water tanker loads per day. Over the first 9-12 months of using our Dust Suppressant Emulsion, we were able to decrease the watering loads down to 2-3 loads per day with very successful results in decreasing the in plant & haul road dust.

Also be assured that we can maintain whatever level of water clarity you need in all of your lakes at this facility, just as we do in all of your other mines. We are very proud of the fact that since we started managing your lakes and your haul road dust, your company has never been cited for any water issues or dust control violations.

Alan, we at Enviro-tek, Inc. sincerely appreciate the business that Memphis Stone & Gravel has given us over the past 10 years and we want you to know that we always strive to be deserving of your business.

If you have any questions, if you need any additional information, or if we can help you in any way, please do not hesitate to call.

Sincerely,

Fred N. Cooper
President