

## Brian Lusher

---

**From:** Landreth, Peter [Peter.Landreth@mirant.com]  
**Sent:** Friday, May 28, 2010 11:44 AM  
**To:** Brian Lusher  
**Cc:** 'John\_Lague@URSCorp.com'; David R. Farabee (david.farabee@pillsburylaw.com)  
**Subject:** MLGS: Responses to questions

Brian,

Following up on yesterday's call:

- (1) Regarding dilution air:
  - a. The ratio of dilution air to the total volume of air in the exhaust is approximately 1:2 – see the Air Quality Modeling Calculations in Revised Appendix J3 in the September 2009 AFC for the exact figures under various ambient conditions.
  - b. As discussed in our responses to comments, we do not believe it would be feasible to implement a dilution air filter, nor practical given the small proportion of total PM emissions (~0.5 lbs/hr) attributable to the introduction of dilution air. One of the principal concerns with a dilution air filter would be the increase in auxiliary power needed for the dilution air fan due to the drop in pressure that would result from the filter. This would decrease the overall energy-efficiency of the MLGS (which in turn would increase GHG emissions), as well as increase the risk that the MLGS could fall below its net power output guarantee in our PPA with PG&E. In response to your question about whether some filtration exists to protect the SCR catalyst face, we note that PM is small enough to simply pass through the catalyst face, so there is a negligible risk of damage and no need for filtration for this purpose.
- (2) Regarding ammonia slip: As we discussed in our responses to comment, we estimated the incremental cost of reducing ammonia slip emissions at \$40,000-95,000 per ton, based on information provided to us by Kiewit, the EPC contractor for the MLGS project (see Attachment 3 to our Responses to Comments). Kiewit notes that the lower end of this range (\$40,000) is based on an assumption of zero incremental catalyst changes needed due to the lower ammonia limit, while the upper end assumes two incremental changes (see point (d) in the Kiewit letter). However, Kiewit states earlier in point (b) that **“at least one** additional catalyst change and possibly two additional catalyst changes [would be required] by going to the 5ppm slip rate during first 30 years of the project life cycle.” Thus, the lower end of the estimated cost range represents the least likely scenario, in which zero incremental catalyst changes are required, and a more reasonable estimate would assume at least one catalyst change, as Kiewit stated, so that the expected incremental cost of ammonia reduction should be assumed to be at least the midpoint of the 40,000-95,000 range, i.e. \$67,500. Aside from the technical challenges associated with attempting to achieve a lower limit discussed in our Responses to Comment, and that the fact that a 5ppm limit has never been achieved applications similar to the MLGS, this incremental cost is well in excess of the relative value of \$53,500 per ton assigned to ammonia reduction in the District's 2010 Clean Air Plan and demonstrates that it would not be cost-effective to achieve a lower limit. Moreover, as we discussed in our Responses and on our call yesterday, these cost estimates understate the actual costs of ammonia reduction since they do not reflect or quantify the unacceptable risk that Mirant would incur given that neither Kiewit nor its SCR vendors are willing to provide a guarantee that a 5ppm limit could be met. Kiewit states in point (e) of its letter, “The engineering, technical, and financial risk associated with moving to the lower ammonia slip level is substantial given the complexity and uniqueness of the project. This lower level would have an impact on the emission minimum acceptance criteria (MAC) and the performance MACs, both of which are tied to achieving substantial completion. Kiewit is not willing to bear this risk at this time.” If a guarantee could be

provided, the “risk adder” associated with the guarantee would represent a significant, material cost increase that would likely be several times the capital cost, thus driving up the incremental cost of ammonia reduction substantially.

Finally, as noted in our Responses, without a guarantee from our vendors to meet the lower limit, we would not be able to obtain project financing, and the MLGS project itself would become unviable.

- (3) Regarding a potential ammonia CEMS, John Lague has done some research and we’ve also discussed the issue internally. We’d like to have a call today if you’re available to discuss it. Let us know if/when you’re free.

Thanks,  
Peter

**Peter Landreth**

Director, California Environmental Policy & Associate General Counsel  
Mirant Corporation  
Tel: (925) 427-3567  
Cell: (925) 324-3510  
Fax: (925) 427-3535  
peter.landreth@mirant.com