

Aide Ortiz - Kaweah River Rock revised NPDES permit

From: Andrew Kopania <akopania@sbcglobal.net>
To: Aide Ortiz <AOrtiz@waterboards.ca.gov>
Date: 4/11/2011 2:55 PM
Subject: Kaweah River Rock revised NPDES permit
CC: Jean Kiel <j_kiel@comcast.net>, Michelle Cunningham <mdcunningham@santafeaggregates.com>
Attachments: Response Letter to RWQCB 4-11-2011 final.doc; Response Letter to RWQCB 4-11-2011 final.doc

Aide-

On behalf of Santa Fe Aggregates, we sincerely appreciate the hard work and attention that you and Matt provided with respect to the revisions of the NPDES permit for the Kaweah River Rock plant. After review of the revisions, Santa Fe requested that I provide the attached letter clarifying two of our previous comments regarding pH. Please distribute this letter to the appropriate personnel at the Regional Board and do not hesitate to contact me if you have any questions regarding this submittal or would like to discuss it further.

Sincerely,
Andy Kopania

EMKO Environmental, Inc.

551 Lakecrest Dr.
El Dorado Hills, CA 95762-3772
(916)939-0133
(916)939-0529 FAX
akopania@sbcglobal.net

April 11, 2011

Clay L. Rodgers, Assistant Executive Officer
Central Valley Regional Water Quality Control Board
1685 E Street
Fresno, CA 93706

Re: Responses to Comments and Revised Tentative Waste Discharge Requirements
Santa Fe Aggregates, Inc. Kaweah River Rock Sand and Gravel Plant (NPDES
No. CA0082201)

Dear Mr. Rodgers:

This letter has been prepared on behalf of Santa Fe Aggregates, Inc. (Santa Fe) regarding the subject Permit and responses to comments. Santa Fe appreciates the time and effort your staff has provided to work with us on the revisions to the Tentative Waste Discharge Requirements. The resulting changes better reflect the results of the long monitoring history and the conditions at the site. Santa Fe is pleased with the outcome of the collaborative effort.

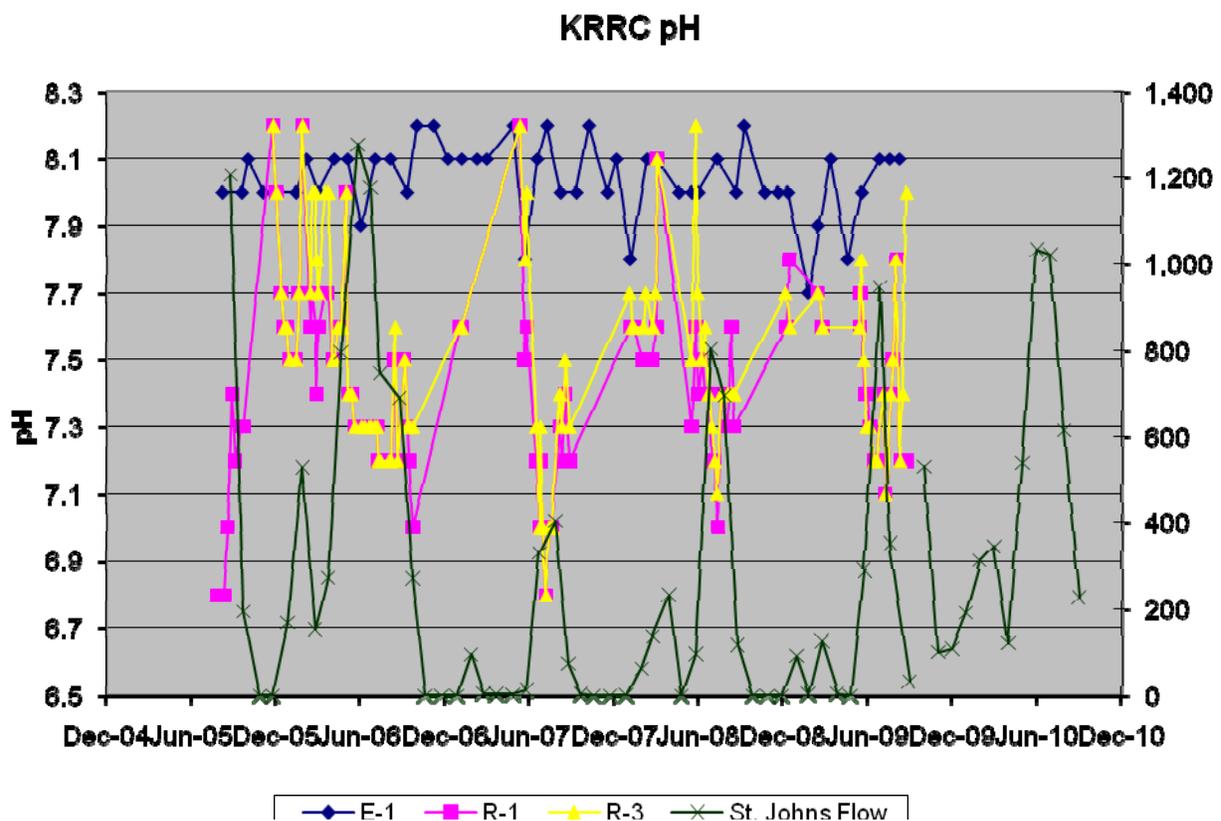
Santa Fe does, however, want to clarify our previous comments regarding pH. The responses provided by Board staff (dated April 5, 2011 and transmitted by a letter signed by Matthew S. Scroggins) suggest that our comments were not clearly communicated and thus potentially subject to misinterpretation by Board staff.

In the response to Discharger Comment 1, staff states (2nd paragraph of response):

Section II.D.3, Attachment F (Fact Sheet) states the discharge “has sporadically caused or threatened to cause *potential* violations of” receiving water limitations (emphasis added). “Normal ambient pH” does not mean the ambient pH must be stable to be considered “normal ambient”. Ambient variability is expected, and the Discharger has not demonstrated that a change in pH of 1.4 units over a seven-week period is not part of the normal variability. Additionally, the Discharger has not conducted a mixing zone analysis to demonstrate that the effluent and receiving water are fully mixed at monitoring location RSW-002 (formerly identified as R-3). Central Valley Water Board staff notes that if the receiving water and the discharge were fully mixed, it does not appear that the discharge would have caused a change in pH of 0.3 units or greater.

The intent of our initial comment was to assert that the observed pH variability is part of the

normal, or “ambient”, conditions in the St. Johns River, consistent with the response prepared by Board staff. The comment also presented data that clearly demonstrates that pH variations between the upstream monitoring location (RSW-001, formerly identified as R-1) and the downstream monitoring location (RSW-002, formerly identified as R-3) vary by more than 0.3 pH units and that this variation cannot be caused by the discharge from the Kaweah River Rock facility. The data chart from our original comments is reproduced here for convenience.



As shown on the chart, above, in late May 2007 the pH measured at R-1 was 7.6 and the pH measured at R-3 was 8.0, a change of 0.4 pH units. The pH of the effluent was 7.8 pH units. The flow in the river at that time was 13 cfs while the discharge was 0.4 cfs. Independent of the magnitude of flow and the degree to which any mixing may have occurred between the effluent point and R-3, located 1800 feet downstream, it is chemically impossible for the effluent at a pH of 7.8 to change the receiving water from a pH of 7.6 to a pH of 8.0. The discharge has clearly not created a condition that has caused or threatened to cause a potential violation of the Permit. It is, as stated by Board staff, part of the expected ambient variability within the St. Johns River.

Likewise, in February and March 2006, there were three occasions when the pH measured at the upstream location, R-1, was 7.6 and the pH measured at the downstream location, R-3, was 8.0. At that same time, the pH in the effluent was 8.0. Flow in the river was reported at 152 cfs while the discharge was 0.88 cfs. Staff is correct in stating that Santa Fe has not conducted a mixing zone analysis. However, unless the water sampled at R-3 was effectively 100 percent effluent from the Plant, a discharge of 0.88 cfs at a pH of 8.0 could not possibly change the pH of the river, flowing at 152 cfs, from 7.6 to 8.0. To assume that there would be no mixing over a distance of 1800 feet is unfounded. As with the situation discussed in the paragraph above, these three measurements are clearly not a condition that has caused or threatened to cause a potential violation of the Permit.

Based on this more detailed presentation of the pH data, Santa Fe respectfully requests that Board staff reconsider their decision to maintain that the effluent has caused or threatened to cause a violation of the pH standard. The data and site conditions clearly demonstrate that the pH variations cited are part of the normal ambient variation in the receiving water within the St. Johns River, as acknowledged by Board staff in their response to our initial comment. In addition, given the documentation that the natural ambient changes within the river result in pH differences that are greater than 0.3 pH units between the upstream and downstream receiving water sampling locations, it would be appropriate to acknowledge this condition in the permit and either remove or clarify the 0.3 pH-unit receiving water limitation V.A.9.

In response to Discharger Comment 2 regarding pH, staff state that:

The pH monitoring frequency in the effluent has not been changed, and the pH monitoring frequency in the receiving water has been reduced to monthly. Monitoring data show that the pH in the discharge was near the upper range of the pH effluent limitations (instantaneous maximum effluent limitation is 8.3 and the highest pH effluent reading was 8.2). Quarterly monitoring for pH would not allow Central Valley Water Board staff to determine if and when exceedances occur due to seasonal variations or otherwise.

It should be noted that, while the pH in the effluent is near the upper range of the pH effluent limitations, the pH level in the effluent has been very stable over time. For example, 47 pH measurements were made between 2005 and 2009. Of those 47 measurements, only six measurements were at a pH of 8.2, five measurements were at a pH between 7.7 and 7.9, and 36 measurements were between a pH of 8.0 and 8.1. The pH in the effluent has never been at or exceeded a pH of 8.3. Thus, the effluent pH is very stable and there is no basis in the historical record to expect "exceedances to occur due to seasonal variations or otherwise". It is also important that Board staff not confuse the stability and limited range of pH in the effluent with the extreme ambient variability in the St. Johns River, where the pH frequently and repeatedly can vary from 6.8 to 8.2 in just a few weeks.

Again, Santa Fe very much appreciates the effort and support your staff has provided throughout this process. We do feel, however, that it is important to clarify our previous comments, as discussed above, and again request that the assertion that the effluent could have potentially caused a violation to be removed from the Permit, along with an acknowledgement that the natural conditions within the St. Johns River can result in pH variations that do not meet the receiving water limitations. Please do not hesitate to contact me if there are any questions regarding the information we have provided in this letter or our prior comments.

Sincerely,

EMKO Environmental, Inc.

A. Kopania

Dr. Andrew A. Kopania, R.G., C.H.
President and Principal Hydrogeologist
California Registered Geologist #4711
California Certified Hydrogeologist #HG31