1R - 427-171

APPROVALS

YEAR(S):

2010

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Wednesday, June 23, 2010 3:14 PM
To: 'Hack Conder'
Cc: Leking, Geoffrey R, EMNRD; 'Marvin Burrows'; 'Scott Curtis'; 'Katie Jones'; Kindley, Jeff
Subject: Remediation Plan (1R427-171) Termination - ROC EME Jct I-13 Site

RE: Termination Request
for the Rice Operating Company's
EME Jct I-13 Site
Unit Letter I, Section 13, T20S, R36E, NMPM, Lea County, New Mexico
Remediation Plan (1R427-171) Termination

Dear Mr. Conder:

The New Mexico Oil Conservation Division (OCD) has received Rice Operating Company's report and request to close the above-referenced site (dated June 10, 2010). The report is acceptable to the OCD. However, the material used to plug the groundwater monitoring well at the site must be a cement grout with 1% to 3% bentonite. Please submit to the OCD a final plugging report within 2 years of receipt of this notice.

The above-referenced report, submitted in accordance with 19.15.29 NMAC (Part 29; formally, Rule 116), indicates that Rice Operating Company has met the requirements of 19.15.29 NMAC; therefore, the OCD approves the report and hereby notifies you that the remediation plan (1R427-171) is terminated in accordance with 19.15.29 NMAC.

Please be advised that OCD approval of this report does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

If you have any questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen
Hydrologist
Environmental Bureau

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Tuesday, April 20, 2010 4:45 PM
To: Hack Conder
Cc: Leking, Geoffrey R, EMNRD; Katie Jones; Kindley, Jeff; 'Reed, Timothy'
Subject: RE: ROC EME Jct. I-13 (NMOCD #1R0427-171) site - Addendum to the Corrective Action Plan Approval

RE: Addendum to the Corrective Action Plan Approval
for the Rice Operating Company's
EME Jct I-13 Site (1R427-171)
Unit Letter I, Section 13, T20S, R36E, NMPM, Lea County, New Mexico

Dear Mr. Conder:

The New Mexico Oil Conservation Division (OCD) has received the Addendum to the corrective action plan (Termination Request Addendum) for the EME Jct I-13 Site, dated April 19, 2010, and has conducted a review of the Addendum. The Addendum indicates that Rice Operating Company (ROC) has met the requirements of 19.15.29 NMAC (Part 29; formerly, Rule 116) for a remediation plan. Therefore, the OCD hereby approves the Addendum to the corrective action plan for above-referenced site in accordance with 19.15.29 NMAC.

Please be advised that OCD approval of this Addendum does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

If you have any questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen
Hydrologist
Environmental Bureau

From: Reed, Timothy [mailto:Timothy.Reed@tetratech.com]
Sent: Monday, April 19, 2010 12:22 PM
To: Hansen, Edward J., EMNRD
Cc: Hack Conder; Katie Jones; Kindley, Jeff
Subject: ROC EME Jct. I-13 (NMOCD #1R0427-171) site

April 19, 2010

Mr. Hansen:

On behalf of Rice Operating Company (ROC), Tetra Tech submits the following Termination Request Addendum for the ROC EME Jct. I-13 (NMOCD #1R0427-171) site. In a conversation between NMOCD and ROC on March 24, 2010, NMOCD requested that ROC submit a calculation of chloride mass. ROC is the service provider (agent) for the EME SWD system and has no ownership of any portion of the pipeline, well or facility. The EME SWD system is owned by a consortium of oil producers, System Parties, who provide all operating capital on a percentage ownership/usage basis.

As part of the ROC Junction Box Upgrade Workplan, starting on August 13, 2004, the junction box was eliminated and the old A/C pipeline was slipped with a new 4-inch poly pipeline. The former junction box site was excavated to dimensions of 30 feet by 30 feet by 12 feet deep with a backhoe. On October 10, 2008, Tetra Tech personnel were onsite to oversee the drilling of six soil borings (SB-1 through SB-6) within and around the former junction box location. The depth to groundwater in this area is approximately 30'. Additionally, the field chloride testing of the first five feet of soil in each soil boring was below 300 mg/kg. Using the soil borings, the width of the junction box excavation and depth to groundwater minus the first 5 feet, for the limits of impact, gives us approximate dimensions of 30' x 60' x 25'. The average chloride concentration using the field chloride testing data and laboratory data minus a 250 mg/kg background gives us approximately 201 mg/kg. If all of this chloride concentration was to impact groundwater, the total chloride loading would be:

30' x 60' x 25' = 45,000 cu.ft. / 27 cu.ft./ cu. yd. = 1,667 cubic yards.

Using 2600 lbs./cubic yard = 1667 x 2600 = 4,334,200 lbs of soil x 0.45359237 kg/lb = 1,965,960 kg of soil.

At 201 mg chloride per kg of soil = 1,965,960 kg x 201 mg/kg / 1,000,000 mg/kg = 395 kg of chloride.

We propose to remove the calculated mass by pumping groundwater from the EME L-6 boot site to maximize environmental benefit of the chloride mass removal effort. This site has a recovery well with a 4" casing (RW-1) that will allow for a high pumping rate. In February 2010, chloride concentrations of 11,600 mg/L were observed in RW-1.

Using 11,600 mg/L (.0116 kg/L) yields:

395 kg / .0116 kg/L / 3.7854 L/gal = 8,996 gallons of water to be removed.

Groundwater quality at L-6 allows a minimal removal of water and a high removal of chloride from groundwater. Removed groundwater will be utilized for pipeline and well maintenance. Groundwater will be pumped at a rate of approximately 1 gallon per minute (gpm) for approximately 8 hours per day.

If you have any questions or comments, please do not hesitate to contact us or Hack Conder at Rice Operating Company.

Thank You,

Tim Reed

Tim Reed, P.G. | Sr. Project Manager
Phone: 432.682.4559 | Fax:432.682.3946
timothy.reed@tetratech.com

Tetra Tech | Complex World, CLEAR SOLUTIONS™
1910 N. Big Spring | Midland, TX 79705 | www.tetratech.com