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DEPARTMENT OF NATURAL RESOURCES
PATRICIA L. BODDY, INTERIM DIRECTOR

January 12, 2011

Lorraine Woxell
Magellan Midstream Partners, LC
One Williams Center
Mail Drop 27-3
Tulsa, OK 74172-0140

SUBJECT: Recommendation for Trial Termination (Shut Down) of Air Sparging Wells and Air Lift Circulation Trench in the Northeast Remediation Area
Magellan Midstream Partners, LP, Des Moines Terminal at 2503 SE 43rd Street in Pleasant Hill, Iowa

Dear Ms. Woxell:

In the April 2010 through September 2010 Semi-Annual Monitoring Report (complied by Apex Companies, LLC for TRC) for remediation projects in the Northeast Area and Southern Area at the Magellan Des Moines Terminal there was a recommendation for a trial termination (shut down) of air sparging (AS) wells and the Air Lift Circulation Trench (ALT). This would be a shut down of all currently operating remediation systems in the Northeast Area. The justification for the recommendation was that remediation in the northeast area had progressed to the point that natural attenuation processes should be capable of ensuring compliance with the agreed to groundwater clean up goals (referred to as Levee Area Groundwater Remediation Goals (LGRG's) in the monitoring report – benzene 3.88 mg/L, toluene 1.9 mg/L, ethylbenzene 1.3 mg/L, xylenes 1.65 mg/L, & MTBE 13.0 mg/L). The point of compliance for the agreed to groundwater clean up goals (LGRG's) is the levee at the Des Moines River; specifically a group of nested monitoring wells placed on the inside of the levee labeled as MW00-58A, MW00-58B and MW00-58D.

TRC/Apex recommended a line of three sentinel monitoring wells (MW97-38, MW97-39 & MW97-40) on the up-gradient side of the ALT and a line of three trigger monitoring wells on the down-gradient side of the ALT (MW97-36, MW00-56A and a new monitoring well to be placed between the ALT and MW97-35). The wells would be sampled quarterly with the following recommended conditions:

- Monitoring results for the trigger wells will be compared to the LGRG's. If the LGRG's are exceeded, the AS operations will be recommenced, and the ALT will be operated until the wells up-gradient of the ALT demonstrate that the chemical(s) of concern (COC) concentrations are again below the LGRG. If COC concentrations in the trigger wells remain below the LGRG's the trial period of post-remediation monitoring will continue.
- Monitoring results for the line of sentinel wells located up-gradient of the ALT will be tracked for purposes of assessing trends at the edge of the former light non-aqueous phase liquid (LNAPL) zone. Given their proximity to the former LNAPL zone, relatively minor shifts in plume extent could cause the LGRG's to be exceeded in these wells. However, such an exceedence of LGRG's in these wells would not trigger recommencement of AS or ALT operations.

- Permission will be requested for permanent shut down of the northern area remediation systems under either of the following scenarios:
    1. COC concentrations in the wells up-gradient of the ALT remain below the LGRG's for a period of one year
    2. COC concentrations in the trigger wells down-gradient of the ALT remain below the LGRG's for a period of two years.

Based on the monitoring data, recommendations for trial termination (shut down) of the AS and ALT systems and justifications provided in the April 2010 through September 2010 Semi-Annual Monitoring Report, we will agree to the trial termination (shut down) of the air sparging (AS) wells and air lift circulation trench (ALT) with the following stipulations:

1. The wells selected for the monitoring plan are acceptable however the point of compliance is the Des Moines River levee we believe monitoring wells MW00-58A, MW00-58B and MW00-58D must be sampled at least once showing that they meet the agreed to groundwater clean up goals (LGRG's) before approval is given for permanent shut down of the Northeast Area remediation systems.
2. If any of the sentinel wells (wells east of the ALT, MW97-38, MW97-39 & MW97-40) has COC's that exceed the LGRG's, depending on the amount of exceedence or change from previous sampling results, Iowa DNR may require monthly sampling of one or more wells until results show there is no longer a need for the increased frequency.
3. The conditions for permanent shut down are mostly acceptable however we believe the conditions for permanent shut down should be COC concentrations in the wells up-gradient of the ALT remain below the LGRG's for a period of one year, *and* COC concentrations in trigger wells down-gradient of the ALT remain below the LGRG's for a period of one year (the same year as the up-gradient wells) with one additional year of quarterly monitoring of the trigger wells.
4. Reporting of monitoring activities in the northeast area must be submitted quarterly instead of semi-annually during the trial termination period.

The trial termination (shut down) of the AS wells and ALT in the Northeast Area can take place immediately with the first sampling taking place in the first quarter of 2011. If possible, we would like to see the third (new-additional) trigger down-gradient monitoring well (to be drilled between the ALT and MW97-35) installed before the first quarter samples are collected.

You may contact Bill Gibbons (515-725-0335; bill.gibbons@dnr.iowa.gov) or this office with any questions or comments.

Sincerely,

Ted Petersen
Supervisor
Iowa DNR Field Office 5

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