

December 31, 2013

Changes to Permit Application Reviews and Grouting Inspections For Subsurface Environmental And Geotechnical Drilling In San Mateo County

The intent of this letter is to discuss changes to the permit application review process and grouting inspections in San Mateo County beginning January 1, 2014. This letter should be viewed as an update and supplement to the November 20, 2003 (revised January 6, 2004) *Guidelines, Policies, And Procedures For Subsurface Environmental And Geotechnical Drilling In San Mateo County* letter (www.smchealth.org/gpp) which clarified San Mateo County's Health System Groundwater Protection Program's (GPP) requirements on several aspects of the State of California Well Standards designated for interpretation by the local permitting agency. Please note, certain aspects of that letter have been updated or modified as indicated in more recent versions of the permit application.

- Permit applications will be reviewed by a GPP technician for all work in the county except the City of Daly City. This is a change from the contaminant oversight case workers for that geographic area that previously reviewed permit applications as well as performing contaminant oversight work. Permits are still required from the Daly City Department of Water and Wastewater Resources for drilling in Daly City.
- Permit reviews are a ministerial act and are subject to pass/fail criteria. This is not necessarily a change; however, the amount of assistance and correction by GPP staff of incomplete and incorrect permit applications resulted in no time available for field inspections under the permit fees. The emphasis on the pass/fail criteria is an effort to reverse the amount of time spent on both of these aspects without changing the permit fees.
- Complete and accurate permit applications with payment will have a three (3) business-day turn-around-time with no exceptions for expediting, due to a dedicated GPP technician for this function. This is a change from the previous 4 business-day turn-around-time.
- For any drilling in San Mateo County which requires a permit, notification to the GPP technician is required at least 2 business days (48 hours) prior to the scheduled drilling date with no exceptions for shorter notifications (i.e. 10 AM Wednesday notification will only allow a 10 AM Friday grouting inspection). For remediation sites in which GPP is the lead agency, a separate 2 business day (48 hours) notification is required to the remediation case worker for the start of any field work (i.e. 10 AM Wednesday notification will only allow a 10 AM Friday drilling commencement). Please note the difference in the objectives of both inspections and relative difference in start times of drilling for each. This is a change from one notification under both a permit condition and case worker oversight requirement to GPP because each function is now going to be handled by two different staff.
- All submittals required as conditions of the permit (i.e. analytical data, surveyed coordinates and elevations, well and boring logs, and copies of DWR Form 188) will be made to the GPP

technician rather than the remediation case worker for that geographic area. The only exception to this is for sites in which GPP is the lead agency and the required submittals under the permit conditions are done to the State of California's Geotracker database.

The following are going to be points of emphasis for grouting inspections and well destructions which are not necessarily a change from previous GPP policy.

- All grouting inspections are considered spot inspections by GPP. Therefore, should the grout inspector not be on site at the time notified for grouting to begin, then you are free to grout all borings and monitoring wells in accordance with the conditions of the permit.
- All grout must be mixed at a ratio of 6 gallons of water (maximum) for every 94-pound sack of cement, that can be approximately measured, prior to mixing, in the field. For small diameter shallow borings, half of an entire 5-gallon bucket (which measures closer to 6 gallons at the very top) will need to be mixed with a full half-sack (47 pound) of cement. For larger and deeper borings, volume of water can be measured using 5-gallon buckets poured into wheel barrels or drums or at the ratio of four 94-pound bags/55-gallon drum. The nitrile glove velocity test by itself will not be accepted. If the grout will not go down the tremie pipe being used via gravity (even with screened interval of pipe removed), then the grout will have to be immediately pumped down the tremie pipe or the driller will need to overdrill the hole, possibly as a separate mobilization.
- All borings with standing water at a height of at least 10% of the total boring depth must have the grout tremied into place, displacing the water. For example, 2 feet of water must be displaced by tremie grouting in borings at and shallower than 20 feet in total depth. Displaced potentially contaminated groundwater from wells and boreholes must be contained and disposed of properly. Enough grout should be mixed to insure one continuous pour to grout the entire boring, unless calculations can be shown that sanitary seals for deeper monitoring wells should be poured in lifts to avoid casing implosion.
- All sand pack materials need to be settled after placement and prior to placement of the transition seal. If the transition seal is above the water table, then it must be hydrated in six (6) inch lifts. For any well deeper than 40 feet, centralizers must be installed every 20 feet.
- For monitoring well destruction via pressure grouting, the driller must be able to demonstrate the grouted monitoring well can maintain twenty-five (25) psi of pressure for at least five (5) minutes. The total depth of the well must be verified against the published construction details of the wells. The amount of grout needed to properly destroy the well should be calculated prior to destruction by the registered professional.
- Wells that do not satisfy the conditions for pressure grouting must be destroyed via over-drilling using a guide rod inserted to the total depth of the well. Smaller bit-lead guide rods (2-5 feet) do not satisfy this requirement.