



Date: October 4, 2010

To: Well Contractors
Environmental Consultants
"Wells" Webpage (<http://www.emd.saccounty.net/WP/EMDwells.htm>)

SUBJECT: PERMANENT AND TEMPORARY CONDUCTOR CASINGS

This memorandum has been issued as a reminder to members of our regulated community that pursuant to the Department of Water Resources' Bulletin 74-90 (California Well Standards) and Sacramento County Code, Title 6, Chapter 6.28 (Wells and Pumps), permanent conductor casings must have a two-inch minimum annular seal thickness between the formation and the conductor casing. Both the permanent conductor casing and the seal must extend to at least the minimum annular surface seal depth and must be anchored in a satisfactory impervious stratum.

Temporary conductor casing shall be withdrawn as sealing material is placed between the production casing and the borehole wall. Temporary conductor casing may be left in place in the borehole after the placement of the annular seal if either of the following conditions exist:

- Removal of the temporary conductor casing is not possible because of unforeseen conditions; or
- Removal of the temporary conductor casing would seriously jeopardize the integrity of the well and the integrity of subsurface barriers to pollutant or contaminant movement.

If temporary conductor casing is left in place, the following conditions must be satisfied:

- EMD approval shall be obtained prior to leaving a temporary conductor casing in place;
- Sealing material must be placed between the outside of temporary conductor casing that cannot be removed and the borehole wall to fill any possible gaps or voids between the conductor casing and the borehole wall;
- Means of placing sealing material between the outside of temporary conductor casing and the borehole wall other than pressure grouting must be approved by EMD;
- Sealing material shall consist of neat cement or bentonite slurry;

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- At least two inches of sealing material shall be maintained between the conductor casing and the production casing, and the sealing material must extend to at least the minimum annular surface seal depth and must be anchored in a satisfactory impervious stratum.

Any variation to the above provisions will necessitate the issuance of a variance from that provision of our Ordinance. Pursuant to Sacramento County Code, Title 6, Chapter 6.28, Section 6.28.070, a variance may be granted under the following circumstances:

1. Practical difficulties or unnecessary hardship would result from the strict interpretation and enforcement of the provision; and
2. The granting of a variance must be consistent with the purpose of our Well Ordinance, which is to protect the health, safety, and general welfare of the people of Sacramento County by ensuring that groundwater is not polluted or contaminated by improper well construction, modification, repair, inactivation, or destruction, or by improper pump installation.

In order to receive a variance from any provision of our Well Ordinance, written evidence must be submitted showing that the proposed variance will not impair, contaminate, or pollute the groundwater or endanger the health and safety of the public and that strict compliance with the Ordinance would be unreasonable in light of all circumstances. This submittal must be signed and stamped by a California registered Professional Geologist or Professional Engineer (Civil).

Our entire Well and Pump Ordinance (Sacramento County Code, Chapter 6.28) may be accessed online at: <http://qcode.us/codes/sacramentocounty/>. Please contact us at (916) 875-8400 if you have any questions.