**Section 245.570 Production Casing Requirements**

Production casing shall be used in the construction of all wells regulated by this Part and shall be set and cemented pursuant to the requirements of this Section.

a) *Production casing must be* *fully cemented from the production casing shoe to 500 feet above the top perforated* formation, *if possible* (Section 1-70(d)(14) of the Act). However, if that cementing requirement will inhibit the production of oil or gas from the targeted formation, the operator must make a written or electronic mail request to the Department for an alternate cementing plan, and in no event shall the cementing of the production casing be completed from less than just above the top of the perforated formation to 500 feet above the top of the perforated formation.

b) Production casing must conform to the industry standards set forth in the document referenced in Section 245.115(a)(2). Additionally, the use of production casing in the well construction must be in a manner consistent with the industry standards set forth in the document referenced in Section 245.115(a)(2).

c) *Casing thread compound must conform to* and meet all manufacturing and material requirements of *the industry standards* set forth in the document referenced in Section 245.115(a)(3) (Section 1-70(d)(2) of the Act). Additionally, the uses of casing thread compound in the well construction must be in a manner consistent with the industry standards set forth in the document referenced in Section 245.115(a)(3).

d) *The borehole must be circulated and conditioned* before production casing setting and cementing *to ensure an adequate cement bond* (Section 1-70(d)(5) of the Act).

e) The permittee shall notify the Department's District Office by phone and electronic mail before setting and cementing production casing to enable an inspector to be present.

f) When setting production casing, centralizers are required to be used as follows to keep the casing in the center of the wellbore prior to and during cement operations:

1) In the vertical portion of the well, *a centralizer shall be placed on every fourth joint from* the kickoff point *to the ground surface or to the bottom of the cellar*;

2) In the horizontal portion of the well, rigid centralizers shall be used and placed accordingly to ensure at least 80% standoff;

3) *The Department may require additional centralizers as necessary to ensure the integrity of the well design*; and

4) *All centralizers* used in the vertical portion of the well must conform to and *shall meet specifications in, or equivalent to,* the industry standards set forth in the documents referenced in Section 245.115(a)(4) through (a)(6)*.* (Section 1-70(d)(3) of the Act)

g) *A pre-flush or spacer must be pumped ahead of the cement* (Section 1-70(d)(6) of the Act).

h) Production casing cement must:

1) meet the cement requirements of Section 245.520(a) and (b); and

2) be applied behind the casing according to the requirements of Section 245.520(c) and (d).

i) *After the cement is placed behind the* production *casing* (Section 1-70(d)(8) of the Act)*,* the cement must be tested and cement job logs maintained pursuant to the requirements of Section 245.520(f) through (h).

j) After the production casing cement operation is completed, the permittee shall notify the Department's District Office by phone or electronic mail to enable an inspector to be present for testing the internal mechanical integrity of the production casing pursuant to Section 245.540.