

3042

RECEIVED  
IRRC

**Comments regarding PADEP proposed rule § 78.59c. Centralized Impoundments.**

**By: David Silbaugh P.G., Silbaugh Hydrogeological Services**

2010 FEB 11 AM 11: 48

1. A definition for a "seasonal aquifer" should be added to § 78.1. The definition should provide for alternatives to groundwater monitoring wells in instances where the first water bearing zone located beneath an impoundment is approximately 50 feet or more below the impoundment sump elevation and the seasonal outcrops topographically. In cases where groundwater is >50 feet below an impoundment, groundwater monitoring wells may not detect a release since horizontal flow is preferential to vertical flow. A secondary collection zone constructed between the sub-base and secondary liner and similarly to the required Leak Detection Zone would be a reasonable alternative.
2. § 78.59c.(c)(5); Not all solid "blue line streams" shown on a 7.5 minute topographic quadrangle represent actual streams. Many of these features can have intermittent flow or only flow as a result of surface runoff. This rule should be expanded to allow for verification of streams based on actual site specific conditions determined from field surveys.
3. § 78.59c.(f)(4); Soil mottling can occur as a result of infiltration from precipitation or be an artifact of past geologic conditions that are no longer relevant (such as the affects from glaciation). Additional groundwater sampling requirements should be based solely on water table measurements and impoundment design specifications.
4. § 78.59c.(g)(1); Expand this rule to allow for intra-well data evaluation. Intra-well evaluations are well specific and eliminate the need for an upgradient well (inter-well evaluations).
5. § 78.59c.(h)(5); In cases where seasonal aquifers outcrop and the depth to groundwater is >50 feet, groundwater monitoring wells may not detect a release from an impoundment. Surface inspection for seeps and or other design considerations may be needed in these cases (see comment No. 1 above).
6. § 78.59c.(i)(2); Two inch wells are more than adequate for monitoring purposes and can be equipped with dedicated sampling equipment. Eliminate 4-inch well requirement.
7. § 78.59c.(i)(4)(ii); The requirement for a ten foot long outer protective steel casing is excessive. A five foot length is adequate.
8. § 78.59c.(i)(4)(iii); A three foot deep cement collar is not necessary to secure an outer steel casing. It is suggested that this rule be revised to require "be held firmly in place".