

February 27, 2006

COMMENTS ON STATE OF NEW MEXICO OCD  
PIT RULE ADMENDMENTS

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**19.15.2.50.A.2 Closed Loop Systems.**

(2) Closed loop systems. In lieu of using pits or below-grade tanks in accordance with 19.15.2.50 NMAC, operators may conduct operations using closed loop systems. Operators, however, shall dispose of all wastes at a division-approved waste disposal facility or in a manner approved by the division.

*The above section gives operators a choice of using closed loop systems in lieu of pits or below-grade tanks. It is not recommended to pull waste from a **sufficiently lined** pit and put it into an unlined waste disposal site. The current division approved Waste Disposal Facilities are unlined. With proper closing and reclamation, the surface pits are a more technically sound and long term disposal option.*

*My recommended change is:*

(2) Closed loop systems. In lieu of using pits or below-grade tanks in accordance with 19.15.2.50 NMAC, operators may conduct operations using closed loop systems. Operators, however, shall dispose of all wastes at a division-approved LINED waste disposal facility.

**19.15.2.50.C.2.b Liners Required.**

(b) Liners required.

(i) Drilling [~~pits, workover~~] and work over pits. Each drilling pit or work over pit shall contain, at a minimum, a single liner appropriate for the site's conditions [~~at the site~~]. The liner shall be designed, constructed[,] and maintained so as to prevent the contamination of fresh water, and protect public health and the environment. Pits used for air drilling operations or to vent or flare [~~gas~~] gases during other drilling or work over operations that are designed to allow liquids to drain to a separate lined pit do not require a liner.

*The above section leaves the type of liner to be used wide open. One installer's definition of "Appropriate" may be different from the next.*

*My recommended change is:*

(b) Liners required.

(i) Drilling [~~pits, workover~~] and work over pits. Each drilling pit or work over pit shall

contain, at a minimum, a single liner per the specifications in section 19.15.2.50.C.2.c. [~~at the site~~]. The liner shall be designed, constructed<sup>[5]</sup> and maintained so as to prevent the contamination of fresh water, and protect public health and the environment. Pits used for air drilling operations or to vent or flare [gas]gases during other drilling or work over operations that are designed to allow liquids to drain to a separate lined pit do not require a liner.

### **19.15.2.50.C.2.c Liner Specifications.**

(c) Liner specifications. All liners shall meet the following requirements.

(i) Liners for all drilling or work over pits shall be at least 12 mils (.012 inches or .305 millimeters) thick, and manufactured from PVC (Polyvinyl chloride), or other equivalent material that meets or exceeds the various ASTM standards for PVC. Liners for all pits other than drilling or work over pits shall be at least 30 mils (.030 inches or .762 millimeters) thick, and manufactured from PVC, or other equivalent material that meets or exceeds the various ASTM standards for PVC. All synthetic (geomembrane) liners shall have a hydraulic conductivity no greater than  $1 \times 10^{-9}$  centimeters per second.

(ii) Except as otherwise provided in Subparagraph (c) of Paragraph (2) of Subsection C of 19.15.2.50 NMAC, geomembrane liners shall be composed of an impervious, reinforced, synthetic material that is resistant to hydrocarbons, salts and acidic and alkaline solutions. Liner materials shall be resistant to ultraviolet light, or provisions shall be made to protect the material from the sun.

*The above specification is a defacto specification for the liner to be PVC. As the material of choice per this specification, PVC is automatically approved, putting the burden to prove equivalency on those wishing to use other types of geomembranes. Other materials, such as reinforced polyethylene have emphatically been proven to outperform PVC as a pit liner. Also, the above specification does not verify if a reinforced material is required or not. In addition, there are no specific ASTM standards for PVC.*

*My recommend change is:*

(c) Liner specifications. All liners shall meet the following requirements.

(i) Liners for all drilling or work over pits shall be at least a 12 mil (.012 inches or .305 millimeters) thick, reinforced flexible membrane. Liners for all pits other than drilling or work over pits shall be at least a 30 mil (.030 inches or .762 millimeters) thick flexible membrane liner. All synthetic (geomembrane) liners shall have a hydraulic conductivity no greater than  $1 \times 10^{-9}$  centimeters per second.

(ii) Geomembrane liners shall be composed of an impervious, synthetic material that is resistant to hydrocarbons, salts and acidic and alkaline solutions. Liner materials shall be resistant to ultraviolet light, or provisions shall be made to protect the material from the sun.

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