

TO: STATE OF NEW MEXICO
WATER QUALITY CONTROL COMMISSION
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FROM: MAX YEH, PRIVATE CITIZEN
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RE: Case No. WQCC 12-01(R), Proposed Amendments to 20.6.2 NMAC, THE
COPPER MINE RULE

DATE: April 26, 2013

ADDENDUM ON LINERS, IMPOUNDMENTS, AND TAILINGS

In the proposed rules, Section 20.6.7.17, on general engineering principles, states in subsection D that new impoundments "at a minimum" have to abide by what follows, and in paragraph (3), it says that except for facilities within the open pit surface drainage area of existing mines, all "process water and impacted stormwater impoundments" shall have the double synthetic liner system described in the subparagraph (a). That seems to specify a standard of double synthetic liners generally, excepting only new construction within an OPSD area for operating mines, which have to have a single synthetic liner as described in paragraph (4).

Now in the definitions, "process water" is any water that is polluted including water from waste rock piles, leach piles, and tailings impoundments [20.6.7.7.B(50)]. But "impoundment" seems to exclude tailings impoundments [20.6.7.7.B(30)]. This

definition is entirely nonsensical since it makes the exclusionary phrase "excluding a tailings impoundment" itself meaningless. By definition tailings impoundments are not tailings impoundments; so, what is being excluded? In an adjective noun combination, the adjective identifies a subset of a group of objects the noun designates. In the rules, "impoundment" does not include the subset "tailings impoundment." It's an empty subset.

So it seems to me ambiguous whether tailings are included in that general standard set in 17.D(3). If you pay attention to the comma (process water, and impacted stormwater impoundment), it does, but without the comma it may or may not. The rule omits the comma at one place and uses it at another.

Let me say before I go further that this confusion in the rules is not easily resolved because every minor grammatical or punctuation change has enormous consequences, which I would like to demonstrate.

One of the most confusing parts of the rule's requirements in 17.D(3) is that this general principle or standard of double synthetic liner is contradicted by the separate sections dealing with new leach piles (where the double synthetic liner becomes one synthetic liner and one 12" clay liner [20.A(1)(a,b)]), with new waste rock piles (where the interceptor wells technique is used [21.B(1)]), and with new tailings (which also describes the interceptor technique [22.A(4)(c)]).

Further, both new leach piles and waste rock piles regulations distinguish between inside and outside the OPSD area, but these allowances within the OPSD areas seem to contradict 17.D(3) where only distinction referring to the OPSD area applies to existing mines. For leach piles an alternative is allowed but unspecified [20.A(1)(f)], but it seems

to ignore the requirements of 17.D(3). For waste rock only stormwater management is mentioned, though containment of stormwater would go back to the double synthetic liner requirement, maybe. Here the application of the double synthetic liner requirement would seem nonsensical since it prescribes greater safety inside the OPSD than outside it.

In the tailings rule, 22.A, no mention is made of OPSD exceptions. Yet, it is with regard to tailings facilities that the meaningless phrase (meaningless by definition) “tailings impoundment” causes havoc in these rules. Even if the definition 20.6.7.7.B(30) were changed to exclude tailings “facilities” and some of the ambiguity of 20.6.7.17D(3) removed, every place in the rules which refers to “tailings impoundments” would remain ambiguous, and changing all these would leave almost no rules intact governing tailings ponds. They would not be included in 17D(1), general design and construction rules; in 17D(2)(b and c), capacity and freeboard specifications; in 19E, the setback rules; in 22, the section dealing specifically with tailings water handling; in 22.A(4) and its subparagraphs, for example (d)(ii), the requirement for submitting “the topography of the site where the impoundment will be located”; in section 28 on water quality monitoring; in section 30 on contingency requirements, for example subsection E on insufficient “impoundment” capacity or subsection F on freeboard and G on structural integrity; and perhaps, most importantly, in section 33 on closure, subsection I on “impoundments,” in particular paragraph (6) which discusses closure handling of the contaminated vadose zone, which is where most the contaminants under an unlined tailings pond would gather waiting for the interceptor pumps to be turned off so that when the groundwater level rises above the cone of depression again, the groundwater picks up the contaminants..

Indeed, if only minor grammatical and punctuation corrections were made to 7B(30) and 17D, the rules still would exhibit a drastic schism between the intent of the double synthetic liner protection of groundwater and the almost regulationless operations described in the rest of the rules, with the major egregious problem that tailings ponds would be practically unregulated in the planning, design, construction, operation, and closure of new mines. Wording changes would leave rules in which the only application of the double synthetic liner protection would be for permanent stormwater containment, while much less stringent protection is put in place for much more damaging mining waters.

I point out without examination the fact that the single liner provision in 17.D(3) for new construction within the OPSD area of operating mines is also violated by the rest of the rules.

The Commission cannot in good conscience and knowingly approve these rules as conceived. It places an unbearable burden upon the NMED to interpret the self-negating, contradictory statements in the rules. It allows open legal warfare in the courts against NMED's decisions. And, it does almost nothing to protect groundwater.