STATE OF NEW MEXICO
WATER QUALITY CONTROL COMMISSION

IN THE MATTER OF THE TRIENNIAL REVIEW OF STANDARDS FOR INTERSTATE AND INTRASTATE SURFACE WATERS, 20.6.4 NMAC

WQCC No. 14-05(R)

PROPOSED REVISIONS TO 20.6.4 NMAC

Pursuant to the Procedural Order and Scheduling Order for the above-captioned Triennial Review, Peabody Energy hereby proposes that the Water Quality Control Commission (WQCC) adopt the following changes to the New Mexico Environmental Department's (NMED) criteria in 20.6.4 of the New Mexico Administrative Code (NMAC). Proposed changes are shown with additions underlined and deletions indicated by strikethrough. The basis for the revision is shown in italics below the proposed change.

I. Proposed Modification to Selenium Standard for Wildlife Habitat.

The first proposed revision is a modification of the current selenium standard for wildlife habitat.

Section 20.6.4.900.J - Proposed Revision to Use-Specific Numeric Criteria

Selenium

Pollutant	CAS Number	DWS	IRR	LW	WH	Aquatic Life			Type
						Acute	Chronic	HH-OO	
Selenium, dissolved	7782-49-2	50	b	50	50			4,200	P
Selenium, total recoverable	7782-49-2				~~5.0~~	20.0	5.0		

Basis for proposed change:

The current selenium water quality standard for the protection of wildlife habitat is 5.0 µg/L (total recoverable), which is identical to and duplicative of the chronic aquatic life water quality standard. The 5.0 µg/L concentration is based on the current national recommended EPA ambient water quality criteria for selenium based on the protection of fish, which were determined to be more sensitive than other aquatic life species (e.g. macroinvertebrates). It is unnecessary to impose 5.0 µg/L as a wildlife standard since any time wildlife and aquatic life are present, the relevant aquatic life standard applies.

The NMAC definition of wildlife habitat is:

> Wildlife habitat shall be free from any substances at concentrations that are toxic to or will adversely affect plants and animals that use these environments for feeding, drinking,

habitat or propagation; can bioaccumulate; or might impair the community of animals in a watershed or the ecological integrity of surface waters of the state.

While aquatic life spend their entire lives or sensitive life stages in the water, as stated in the NMAC definition, wildlife use water only for drinking or through incidental consumption during feeding. Thus, different standards are appropriate for terrestrial wildlife than for aquatic life. The exposure to wildlife is expected to be similar to that experienced by livestock; therefore, the livestock standard of 50 µg/L Se (dissolved) is appropriate.

II. Proposed Changes to Standards Applicable to Certain Man-Made Ponds.

The second proposed revision is to suggest changes to the water quality standards that are applicable to man-made ponds that are used for treatment, livestock watering, and/or wildlife habitat.

20.6.4.900 CRITERIA APPLICABLE TO EXISTING, DESIGNATED OR ATTAINABLE USES UNLESS OTHERWISE SPECIFIED IN 20.6.4.97 THROUGH 20.6.4.899 NMAC.

A. Fish Culture and Water Supply: Fish culture, public water supply and industrial water supply are designated uses in particular classified waters of the state where these uses are actually being realized. However, no numeric criteria apply uniquely to these uses. Water quality adequate for these uses is ensured by the general criteria and numeric criteria for bacterial quality, pH and temperature.

B. Domestic Water Supply: Surface waters of the state designated for use as domestic water supplies shall not contain substances in concentrations that create a lifetime cancer risk of more than one cancer per 100,000 exposed persons. Those criteria listed under domestic water supply in Subsection J of this section apply to this use.

C. Irrigation and Irrigation Storage: the following numeric criteria and those criteria listed under irrigation in Subsection J of this section apply to this use:

(1) dissolved selenium 0.13 mg/L

(2) dissolved selenium in presence of >500 mg/L SO4 0.25 mg/L.

D. Primary Contact: the monthly geometric mean of E. coli bacteria of 126 cfu/100 mL and single sample of 410 cfu/100 mL and pH within the range of 6.6 to 9.0 apply to this use. Notwithstanding the listing of designated uses for perennial or intermittent unclassified waters, it is not the intent of this regulation to require man-made ponds or man-made wetlands which are used or intended to be used for treatment, livestock watering, and/or wildlife habitat purposes, and that were built for such purposes, to meet primary human contact criteria.

E. Secondary Contact: the monthly geometric mean of E. coli bacteria of 548 cfu/100 mL and single sample of 2507 cfu/100 mL apply to this use.

Notwithstanding the listing of designated uses for ephemeral, unclassified waters, it is not the intent of this regulation to require man-made ponds or man-made wetlands which are used or intended to be used for treatment, livestock watering, and/or wildlife habitat purposes, and that were built for such purposes, to meet secondary human contact criteria.

Basis for proposed change:

New Mexico has many man-made ponds and wetlands that are important to the mining, industrial, ranching and farming communities, and either were created for the purpose of livestock watering, or are incidental to mining and industrial activities and will ultimately be used for livestock watering and/or wildlife purposes. Historically these water bodies, when regulated, have been required to meet designated uses for livestock watering or wildlife habitat. However, in 2008, the Surface Water Quality Bureau (SWQB) of the NMED issued a memorandum to the Coal Mine Reclamation Bureau stating that such impoundments may be subject to meeting water quality criteria for livestock watering, wildlife habitat, aquatic life, secondary contact, and possibly primary contact in some instances unless (1) the impoundment is not a water of the United States; or (2) the federal presumption is rebutted through a use attainability analysis (UAA).

Many man-made ponds or wetlands on mining, industrial, and farming lands were never intended to be used for recreation; therefore, secondary and primary contact standards are not appropriate. A requirement that man-made ponds and wetlands used or intended to be used for treatment, livestock watering and wildlife habitat meet human contact standards would be difficult if not impossible to achieve. These waters are intended to be used for livestock, and it is not uncommon to see cattle standing in stock ponds and defecating into the water source. In addition, manure is carried into the water on the cattle's hooves and deposited, which can frequently result in the water exceeding primary and secondary contact criteria for E. coli.

Peabody, along with other mining companies, utilizes impoundments to treat or contain water at its surface coal mining operations in New Mexico. While these man-made impoundments are currently used to primarily ensure water quality standards are maintained at the mining facilities, they are also opportunistic sources of water for livestock grazing and wildlife habitat. At Peabody's mine sites, surface owners who currently use the ponds to water their livestock have specifically requested Peabody to leave as many ponds as possible after active mining to enhance the land for the post-mining use of livestock grazing. Peabody's permitted reclamation and post mining land use plans therefore include leaving impoundments on the land for livestock and wildlife purposes.

Even if a man-made pond on a mining site is categorized as a waste treatment system during active mining and reclamation (and hence exempt from water quality standards), the waste treatment exclusion will likely expire when the pond is turned over to the prospective landowner for the sole uses of livestock and wildlife. As such, there is considerable uncertainty and a real threat that these man-made ponds would need to meet human contact standards post-mining regardless of the fact that they have been regulated in the past to meet the designated uses of livestock watering and wildlife habitat and will be used solely for such purposes in the future. Applying human contact standards at the post-mining stage could render these ponds unsuitable,

force their removal or create additional time-consuming and expensive reclamation requirements that will delay the return of the land to the surface owner. Thus, without this proposal, mining companies like Peabody may be incentivized to remove their impoundments as part of their reclamation programs and thereby essentially do away with water that has been opportunistically collected in these impoundments.

While it has been stated previously by NMED that livestock ponds do not pose a regulatory issue, and thus owners may expect to avoid enforcement of water quality standards, providing certainty that man-made livestock ponds will not be required to meet incompatible human contact standards is important to the mining and ranching communities in New Mexico. Moreover, if such ponds do not pose a regulatory issue, this only supports that Peabody's proposed revisions are reasonable and consistent with the State's water quality goals.

Peabody Energy appreciates the opportunity to submit these proposed changes.

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