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Walter Avramenko  
Colorado Department of Public Health and Environment  
4300 Cherry Creek Drive S  
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Re: Comments on Draft Policy for a “No Further Action” Determination When Contamination Remains Above the Colorado Ground Water Standards, and related draft guidance document

Dear Walter:

As members of a law firm that represents a variety of commercial and industrial clients in environmental remediation and contaminated property transactions matters, we hereby submit our comments on the Colorado Department of Public Health and Environment’s (“CDPHE” or the “Department”) draft Policy for a “No Further Action” Determination When Contamination Remains Above the Colorado Ground Water Standards, and accompanying Guidance for the Closure of Low-Threat Sites With Residual Ground Water Contamination (herein after referred to collectively as the “Draft Closure Policy”).

Over the past 15 years, the State of Colorado has been a leader in its development of innovative programs that ensure the protection of human health and the environment, while also resolving some of the common obstacles to the redevelopment of contaminated properties that have traditionally hampered economic development in communities both throughout the State and the nation. Specifically, Colorado has successfully allowed for the revitalization of previously idle, contaminated properties through important legislative tools such as the Voluntary Cleanup and Redevelopment Act, C.R.S. § 25-16-301 et seq., and Colorado Senate Bill 01-145 (referred to herein as the “Environmental Covenant Law”).

We are generally supportive of a written policy that accurately reflects the scope and intent of these laws, and believe that majority of the Draft Closure Policy’s provisions are consistent with Colorado law and represent sound policy. However, we believe that certain, key aspects of the Department’s Draft Closure Policy would represent a fundamental shift from both the plain language and legislative intent of Colorado law that has been carefully developed by

the General Assembly, CDPHE, and the regulated community, as well as the Department's own policies and practices to date.

As further described below, those aspects of the Draft Closure Policy, if left unchanged, could result in a significant retrenchment in the redevelopment and revitalization of contaminated properties in Colorado at the expense of our State's economy and without any justification based upon greater protection of human health and the environment. Indeed, the problematic provisions of the Draft Closure Policy could even lessen the protection of human health and the environment, particularly through its apparent limitation on the use of certain available institutional controls and its express application to the Voluntary Cleanup Program ("VCUP").

Below is a summary of both those comments we consider to be a fundamental change from current law and practice, along with certain other suggested clarifications.

1. Scope of Media Addressed by the Policy

At the outset, it is unclear whether or how the policy would address closure with residual soil contamination. Although the title of the Draft Closure Policy is limited to groundwater, certain aspects of the policy contemplate a review of soil impacts, including potential soil source areas. The absence of express provisions related to residual soil raises the question of how such contamination would be addressed by the Department in its consideration of closure. For example, it is common for Environmental Covenants and Restrictive Notices (herein collectively referred to as "Environmental Covenants") to include a requirement to comply with a materials management plan that would address the potential for residual soil contamination above state standards, particularly underlying existing buildings that could be demolished by a future owner. To be consistent with Colorado Law, past practices, and to be protective of all possible mitigation pathways, we suggest that the Draft Closure Policy be expanded to expressly include a discussion of residual soil contamination and the ability for applicants to demonstrate the mitigation of possible exposure pathways to such contamination through institutional controls that would be enforceable against future owners through the recording of an Environmental Covenant against the property.

2. Application to VCUP Program

We disagree, generally, with the application of the Draft Closure Policy to the VCUP program. The VCUP program is designed to give participants the flexibility to implement risk-based cleanups, based on the planned use of the property. It is designed to be a thorough and efficient approach to the cleanup of properties that generally would not otherwise trigger remediation obligations. Thus, both the participants and the Department have a great deal of latitude to develop appropriate cleanup approaches based on very site-specific risk factors. The Draft Closure Policy simply is not conducive to the VCUP process, as it contemplates the rigid development and documentation of "lines of evidence," that may take "several years" to develop, while also apparently placing limits on risk-based standards, or other appropriate controls or use restrictions that may be considered by the Department. For this reason, we recommend that the

Draft Closure Policy be limited to enforcement-led cleanups only. However, if the Department does not adopt this suggestion, we have identified other specific problems associated with the Draft Closure Policy's application to VCUP that are discussed below.

As stated in the Draft Closure Policy, an Environmental Covenant is not required for the issuance of a No Action Determination ("NAD") (or VCUP approval) under the VCUP program. Instead, the NAD, itself, is conditional on use restrictions or other controls that the Department may deem necessary to mitigate potential exposure pathways based on the planned use of the site. As the NAD is only effective if those conditions are met, the conditions specified in a NAD are regarded with great importance by owners, developers, lessees, and lenders in connection with their private transactions. In practice, great care is taken by all parties to meet and maintain all conditions noted in a NAD to ensure that the NAD is effective and the assurances afforded by the NAD are preserved.

Despite the Draft Closure Policy's note that an Environmental Covenant is not required for a NAD, it also states that "[p]roperty owners may voluntarily choose to include in their VCUP application a proposal to prepare and file an environmental covenant as part of the site remedy, particularly if doing so reassures the Division that compliance with land use restrictions will be maintained for as long as they are deemed necessary." The significance of this statement is that it: (1) assumes that, in connection with the VCUP program, the Department has the authority to consider assurances for land use restrictions in documents other than a NAD; and (2) it necessarily implies that, although the Department cannot mandate an Environmental Covenant for a VCUP property, it has the authority under VCRA to withhold NAD or VCUP approval if the owner does not "voluntarily" record one against the property. Such authority is not granted to the Department by VCRA, the Environmental Covenant Law, or any other Colorado law. Furthermore, the import of a costly and time-consuming requirement for an Environmental Covenant or other encumbrance into the VCUP program would have a chilling effect on the number of parties willing to undertake the cleanup and redevelopment of properties under that program. For this reason, we recommend that the Department remove any references or discussion about the "voluntary" submission of an Environmental Covenant under VCUP.

Finally, under the Draft Closure Policy section entitled, "Lines of Evidence 6," the Department states that "[a]n environmental covenant, restrictive notice or land use commitments specified in the VCUP application must be placed on properties with ground water levels exceeding CGWS or other Division approved remediation goals in the absence of CGWS." The term "VCUP application" appears to be a typographical error, as this requirement for VCUP applications is inconsistent with the Draft Closure Policy's prior assertion that Environmental Covenants are "voluntary" for VCUP applications. Thus, we recommend correcting it to read "*closure application*."

### 3. Apparent New Limitations on Acceptable Institutional Controls

The Draft Closure Policy contains certain provisions that may suggest new limitations on the types of institutional controls that the Department may approve to mitigate exposure pathways. It is unclear whether this is a misinterpretation that merely needs to be clarified in the Draft

Closure Policy, or if the Department intends to narrow the types of institutional control technologies that may be employed to ensure the protection of human health and the environment. The Department's current implementation of its Draft Closure Policy may suggest the latter and, therefore, this aspect of the Draft Closure Policy may represent a significant inconsistency with current Colorado law and prior practices of the Department.

For example, in the section entitled "Line of Evidence 3," the Department lists certain considerations for evaluating potential exposure pathways. It also notes that controls must be "durable over time." A separate section, "Line of Evidence 5," also includes consideration of the "reliability of institutional controls over time." It is unclear what controls the Department would consider durable or reliable over time. However, based on recent discussions with the Department, it appears that the Department may intend to eliminate the use of institutional controls that would require on-going monitoring, maintenance, and operation to ensure its long-term effectiveness, despite the fact that such controls are commonly employed throughout Colorado and the country to mitigate potential exposure pathways. Such controls may include vapor intrusion controls, the use of material management plans, pond liners, the continued operation of French drain systems, etc.

Under the Environmental Covenant Law, an environmental use restriction is defined as "a prohibition of one or more uses of or activities on a specified real property, including drilling for or pumping groundwater, a requirement to perform certain acts, *including requirements for maintenance, operation or monitoring necessary to preserve such prohibition of uses or activities*; or both, where such prohibitions or requirements are relied upon in the remedial decision for an environmental remediation project for the purpose of protecting human health or the environment." C.R.S. § 25-15-101(4.7) (emphasis added). The Environmental Covenant Law expressly contemplates controls that would require on-going monitoring, maintenance, and/or operation obligations to ensure long-term effectiveness. The Department can be assured that such inspection, maintenance and replacement practices will be carried out by making them a requirement under the Environmental Covenant. Indeed, the Environmental Covenant Law provides enforcement authority to the Department to issue an order requiring compliance and to bring suit in a court of law to enforce the terms of the order or covenant." C.R.S. § 25-15-322. To be consistent with current law and common engineering practice, we suggest that the Draft Closure Policy be modified to expressly state that "*institutional controls requiring on-going monitoring, maintenance and/or operation will be considered by the Department to be durable and reliable over time, provided appropriate monitoring, maintenance and/or operation obligations are included as requirements in an Environmental Covenant.*"

In addition, in the same section, the Department has included the following text:

*If the constituents of concern pose a vapor intrusion threat, that pathway must be evaluated through the direct testing of buildings above the ground water plume. Data must be provided showing that vapor intrusion is not occurring, i.e., measured values are equal to or below background or health-based concentrations (a hazard quotient of one for non-carcinogens or concentrations*

*that represent an excess upper bound lifetime risk to an individual of  $1 \times 10^{-6}$  for carcinogens), whichever is higher.*

It is unclear whether the above demonstration can be made with the operation of any existing indoor air vapor intrusion controls, or absent this demonstration, if the Department will consider the future installation of approved vapor intrusion controls (in existing or new buildings) to be appropriate to mitigate that potential exposure pathway and potentially qualify the site for closure under the policy. As written, this provision may suggest that, in order for closure to be granted under the policy, the applicant would have to demonstrate that there are no potential indoor vapor intrusion impacts, even absent existing or future vapor intrusion mitigation controls inside buildings. As the vast majority of groundwater plumes may present some potential for vapor intrusion, this requirement (and apparent restrictions on the use of approved vapor mitigation controls for closure) could effectively eliminate sites with residual groundwater contamination from consideration for closure, thereby rendering the policy meaningless and leaving those sites to sit idle potentially for years/decades while there are numerous, effective, and tested technologies employed throughout the country to eliminate an indoor vapor intrusion risk. Moreover, as discussed above, although vapor intrusion mitigation controls may require on-going inspection, maintenance and/or operation, they are the sorts of controls contemplated by the Environmental Covenant Law.

Thus, to be consistent with current law and common practices, we suggest that the above language regarding an evaluation of potential vapor intrusion threats be modified to include a statement that “[T]his demonstration may be made through the use of existing vapor intrusion mitigation controls in existing buildings and/or a requirement for future buildings to be constructed with vapor intrusion mitigation controls, designed and installed through good engineering practices.”

#### 4. Enforcement, Revocation of NFAs, and Re-Opening of Cleanup Orders

The Draft Closure Policy contains multiple references to CDPHE’s ability to revoke an NFA and effectively re-open a prior closure decision, or otherwise require additional remediation/sampling under circumstances that are inconsistent with applicable Colorado law. For example, the section entitled, “Line of Evidence 6,” includes the following:

*Failure to implement, monitor or enforce institutional controls for a long-term remedy may trigger the need for continued active remediation and/or long-term monitoring to verify that the CGWS or other Division approved remediation goals in the absence of a CGWS will be met. If institutional controls are required as a condition of site closure, property owners must demonstrate to the Division that the proposed controls are robust, durable, and maintainable over time. Failure to do so could result in revocation of the NFA and cause the site to be reopened, including the resumption of ground water monitoring and/or remediation activities.*

The “Other Considerations” section of the draft policy itself includes the following:

*The Division has the discretion to require the site owner/operator to conduct additional sampling and/or remediation if: the owner/operator wishes to change the site uses to uses not covered by the institutional controls; the land use on other nearby affected properties changes; the site in question is modified in a way that will impact the ongoing natural attenuation process, or; other sources of contamination are discovered at the site in the future.*

We agree with the ability of site owner/operator to voluntarily undertake additional sampling or remediation activities in order to modify the covenant to allow for certain uses, and with the discretion of the Division to require additional remediation if new sources of contamination are discovered. However, the other enforcement, revocation, and re-opening provisions are outside the scope of the Department's enforcement authority.

The Environmental Covenant Law was intended to be a tool to allow site owners/operators to seek closure with residual contamination, provided the owner/operator undertakes a comprehensive evaluation of exposure pathway risks and develops appropriate, approved, institutional controls to mitigate those risks. The approved institutional controls are recorded in an Environmental Covenant so that they are binding and enforceable against future property owners. Thus, the Environmental Covenant stands in the place of any prior cleanup order and becomes the enforceable document going forward. As such, the Department cannot revoke an NFA and mandate additional remediation or investigation of conditions that were the subject of the prior cleanup order—thereby effectively re-opening that order/liability for the original site owner/operator. The statute was constructed in this manner in order to provide the site owner/operator under the original cleanup order some closure certainty, and for buyers to have the certainty of a known set of controls that will mitigate risks associated with known, existing conditions.

This is supported by the express language of the Environmental Covenant Law which provides that when an Environmental Covenant has been recorded against a property, Departmental enforcement is limited to the provisions of C.R.S. § 25-15-322, “even if the environmental remediation project is not otherwise subject to this part 3.” Under that section, the Department is limited to ordering the owner to comply with the terms of the covenant, and/or enforcing the terms of the Environmental Covenant in a court of law against any owner that fails to comply with the terms of the covenant.

In light of this provision, the Department has no authority to revoke a NFA if current or future owners fail to comply with the terms of the Environmental Covenant, if site uses change, or if other controls prescribed by the covenant are not maintained. Similarly, the Department cannot unilaterally revoke a NFA and require remediation if site uses change on “nearby affected properties.” The Department is only authorized to enter the property to inspect and ensure that the institutional controls and use restrictions are being complied with, and to require an annual certification of compliance from the owner, all supported by an annual \$1000 covenant review fee. If the Department determines that the owner/operator is not in compliance with the

Environmental Covenant, the Department may issue an order requiring compliance with the covenant and/or it may file suit in a court of law to enforce its terms. This would apply both to property that was the subject of the original cleanup order, and to surrounding properties that are impacted by migrating contamination (and therefore, those surrounding properties would also necessarily have an Environmental Covenant or intergovernmental agreement in place under the Draft Closure Policy).

For these reasons, we suggest that the enforcement sections be modified to be consistent with the above, and the authority provided to it under the Environmental Covenant Law. Towards that end, we also suggest that the Draft Closure Policy's references to the revocation of NFAs be deleted, and that the Draft Closure Policy's statements about the Department's discretion to require additional sampling and/or remediation be limited to new site conditions, and for site owners/operators responsible for such conditions.

#### 5. Requirement for Environmental Covenants in the Absence of Closure

Under the Draft Closure Policy section entitled, "Other Options If a Request for Closure is Denied," CDPHE lists alternatives to closure under the policy. One of the alternatives is the continued monitoring of the groundwater plume until additional activities can be conducted to help support a future application for closure under the policy. In such circumstance, the Department states "[t]hese sites will also require that an environmental covenant, restrictive notice or some other program specific institutional control be put in place to prevent future exposure to contamination." The Department has no authority to require an Environmental Covenant outside of closure.

Under the Environmental Covenant Law, Environmental Covenants are required for an "environmental remediation project" in which an applicable governmental authority makes a "remedial decision" that will result in residual contamination at levels that are not safe for unrestricted uses, or that incorporate an engineered feature or structure that requires monitoring, maintenance, or operation. C.R.S. § 25-15-320. The term "remedial decision" means the administrative determination by the department, the United States Environmental Protection Agency, or other appropriate governmental entity under the laws cited in subsection (4.5) of this section, that establishes the remedial requirements for the environmental remediation project. C.R.S. § 25-15-101 (13.5). The term, "Environmental Remediation Project" means the "*closure* of a hazardous waste management unit or solid waste disposal site or any remediation of environmental contamination, including determinations to rely solely or partially on environmental use restrictions to protect human health and the environment but excluding interim measures that are not intended as the final remedial action . . ." C.R.S. § 25-15-101 (4.3) (emphasis added). Under common principles of statutory construction, the term "closure" necessarily modifies each of the terms "hazardous waste unit," "solid waste unit," and "remediation of environmental contamination." Otherwise, the term "solid waste disposal site" would have no meaning.

Based on Mr. Spaanstra's own assistance in the development of the Environmental Covenant Law, the legislative history supports this interpretation. Indeed, the Environmental Covenant

Law was generally intended to be a “carrot” rather than a “stick.” In fact, the restriction on CDPHE’s ability to order the imposition of an Environmental Covenant outside of closure was of critical importance and fundamental to the passage of that law. To wrongly reinterpret those provisions to provide CPDHE such enforcement authority—after CPDHE and the regulated community expressly testified that such authority was not intended by the legislation—would, in our view, materially undermine Colorado’s position as a national leader in the redevelopment of contaminated properties.

Moreover, the imposition of an Environmental Covenant before closure is simply not necessary. One of the primary purposes of the Environmental Covenant Law was to ensure that, as the property is transferred, there is a mechanism for the Department, the original grantor, and local governments to enforce those institutional controls. While under a cleanup order, an Environmental Covenant is simply not needed to provide for the enforcement of institutional controls, as the Department retains authority under other sections of the Colorado Hazardous Waste Act, and corresponding regulations, to effectively regulate and enforce any controls or other requirements that may be necessary prior to closure.

In addition, prior to closure, there is still an opportunity (and, indeed, the likelihood), that additional information will be gathered about site contamination and related risks. Even if the current approved remedy is long-term monitoring, additional site data will be developed, and additional active treatment or investigation of the property may be requested by the Department. It would be overly burdensome to require a site owner/operator to engage in the lengthy process of negotiating an Environmental Covenant prior to completing all the remediation on site, and before all the potential risks/exposure pathways can be appropriately assessed. Indeed, if closure under the policy is denied by the Department, it is necessarily due to the need to develop further “lines of evidence” (i.e., investigation, remediation, or evaluation of potential risks). So, the denial of a closure request necessarily means that there is insufficient information to effectively develop an Environmental Covenant.

It is also important to note that the exposure pathways that may be present during on-going remediation/monitoring are very different from those that have to be put in place at closure to account for future owners and uses of the property. Thus, any Environmental Covenant required by the Department would have to be substantially modified at closure, placing the owner/operator in the position of incurring the significant costs of developing and negotiating at least two Environmental Covenants, as well as paying for both cleanup review/oversight fees and covenant fees. Such a result would be unduly burdensome, particularly when the first Environmental Covenant is a duplicative enforcement authority pre-closure and thus, unnecessary and unwarranted.

For the reasons discussed above, we suggest that the Department remove from the Draft Closure Policy all statements about the Department’s authority or ability to require an Environmental Covenant prior to closure.

#### 6. Presumption of Hydraulic Communication With Deeper Aquifer

Under the Draft Closure Policy section entitled “Line of Evidence 1,” the Department states the following:

*Shallow ground water is generally assumed to be in hydraulic communication with a deeper aquifer when a substantial, competent aquitard is not identified or when data (i.e., aquifer pumping tests) are not available. Therefore, shallow ground water is assumed to have potential drinking water beneficial use unless a demonstration can be made that the shallow ground water is not reasonably expected to be used in the future or is not in hydraulic communication with a deeper aquifer that may be in use or have the potential to be used.*

While we generally agree that the use(s) of the groundwater should be ascertained and adequately documented for the Department, the Draft Closure Policy establishes “aquifer pumping tests” as the only example of data allowed to dispute a presumption of hydraulic connection. Aquifer pumping tests pose the risk of establishing a connection between shallow groundwater and a deeper aquifer that might not otherwise exist. Thus, the Draft Closure Policy should make clear that other types of data and information can be gathered to dispute the presumption, including data from the sampling of an existing deep aquifer well, or some other existing or gathered site data (e.g. USGS). Towards that end, we suggest deleting “(i.e., aquifer pumping tests)” and, instead, adding “[S]uch data may include, but is not limited to, aquifer pumping tests, existing aquifer well data, historic geologic or hydraulic data, or other competent information.”

#### 7. Requirement to Demonstrate Declining Trend Absent Active Remediation

As part of the “Line of Evidence 4,” the Department notes that “[f]or natural attenuation to be proposed as a remedy, declining concentration trends must not be dependent on the continued operation and maintenance of active remediation or containment systems.” It is unclear from the Draft Closure Policy what is meant by “active remediation or containment systems.” We would suggest that this be defined to expressly exclude injection material, as there is no known way to measure the on-going effectiveness or impact of certain injection technologies. Furthermore, the concern about possible, future rebound can be mitigated through sampling trend analyses, and sampling information to document the elimination of soil source areas.

#### 8. Notice Requirements

The Draft Closure Policy has several required notices provisions that are beyond the scope of applicable Colorado law. For example, under “Notices,” it states that notice must be provided to building tenants and residents within the footprint of the groundwater plume.” Under “Lines of Evidence 6,” the Draft Closure Policy states that notice must be given to “stakeholders with an interest in the property.” Under the Environmental Covenant Law, an environmental covenant is required to include “[a] requirement to incorporate, either in full or by reference, the environmental covenant or restrictive notice in any leases, licenses, or other instruments granting

a right to use the property *that may be affected by the environmental covenant or restrictive notice.*” C.R.S. § 25-15-319 (g) (emphasis added). That law sets forth other notice requirements for persons with an interest in the property subject to the Environmental Covenant, persons known to them to have an unrecorded interest in the property, and other “affected persons.” C.R.S. 25-15-321. There may be other notice requirements related to site closure under the applicable cleanup program. As the notice requirements under the Environmental Covenant and other laws are quite varied about who should be notified, and some of them apparently differ from the language in the Draft Closure Policy, we suggest that the Draft Closure Policy qualify each reference to a notice requirement with “*as may be required under applicable laws and regulations.*” This change will minimize the potential for confusion with respect to the various, differing notice requirements that may be applicable to any one site.

#### 9. Little Threat to Human Health and the Environment

CDPHE outlines three conditions under which the Department can issue a No Further Action decision. Under the third condition, the Draft Closure Policy includes the statement that such a decision is appropriate “if it can be demonstrated that the contamination poses little threat to human health and the environment.” The term “little threat” is used throughout the Draft Closure Policy. It is unclear what a “little threat to human health and the environment” means, as that phrase is not defined or included applicable statutes or regulations, nor, to our knowledge, has it been previously utilized by the Department in its issuance of No Further Action letters. As the term is ambiguous and also potentially inconsistent with applicable regulations, we propose that it be replaced with “*does not pose an unacceptable risk to human health and the environment*”—a phrase that is already utilized under certain CDPHE programs.

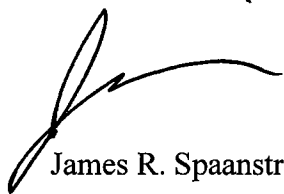
#### 10. Compliance with Water Quality Control Commission Regulation 41

The draft policy, itself, states that the Division’s discretion for closure under the policy “does not circumvent or replace compliance with Compliance with Water Quality Control Commission Regulation 41” (groundwater standards). It is unclear what this language means from a future enforcement or regulatory context. As the affect of the policy on any requirement to meet applicable groundwater standards is currently unclear, we suggest that the Department replace the above language with the following language that reflects our understanding: “*the Draft Closure Policy was developed in coordination of all relevant divisions of CDPHE, including the Water Quality Control Division and the policy, especially as it relates to the achievement of water quality standards within a reasonable timeframe as determined by the Division, serves as compliance with Regulation 41 for the subject groundwater plume as long as the Environmental Covenant is in place.*”

We appreciate the opportunity to comment on the Department’s Draft Closure Policy. Given the fact that we, and possibly other members or representatives of the regulated community, believe that aspects of this policy reflect a significant departure from current law and practice, we respectfully request that an additional draft of the policy be prepared for comment and additional stakeholder outreach be conducted in preparation of that draft.

Walter Avramenko  
September 30, 2010  
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Sincerely,



James R. Spaanstra

Sincerely,



Lynn M. Kornfeld

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