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Public Comment regarding:

POLICY FOR A "NO FURTHER ACTION" DETERMINATION WHEN
CONTAMINATION REMAINS ABOVE THE COLORADO GROUND WATER
STANDARDS

DRAFT: GUIDANCE FOR THE CLOSURE OF LOW-THREAT SITES WITH
RESIDUAL GROUND WATER CONTAMINATION

Dear Mr. Avramenko,

Thank you again for the Public Availability session that you and your staff provided to the public on November 6, 2010. The discussion helped to clarify several issues related to the CDPHE's proposed policy for a "No Further Action" Determination and the draft guidance for the policy.

Simply stated, my understanding of the proposed policy and guidance is to allow the CDPHE, in limited circumstances, to terminate the requirement for water monitoring of Natural

Attenuation Remedies. If this is true, your documents do not clearly reflect that limited goal. Further, it is not clear that this policy is a new category of an on-going remedy, rather than a closure of the remedy. For example, the proposed guidance states (emphasis added):

There are now three conditions under which the Division will make a ***formal decision to terminate the ground water remediation process***. This decision is commonly referred to as a “No Further Action” or “No Action” determination (collectively referred to as “NFA” throughout this guidance):

1. The CGWS or health-based remediation goals approved by the Division in the absence of an established CGWS are met in all monitoring locations, so that the operation of remediation systems and monitoring programs are no longer necessary.
2. The Water Quality Control Commission approves a site-specific ground water standard to be met only at that specific location. Assuming the measured concentrations in ground water are all below this new site-specific standard, operation of remediation systems and monitoring programs may no longer be required.
3. If it can be demonstrated that the contamination in ground water poses little threat to human health and the environment and that the CGWS or other Division approved remediation goals in the absence of a CGWS will eventually be met within a reasonable timeframe, ***the Division may approve a request to terminate remedial activities and associated water quality monitoring requirements***.

This guidance document focuses on the third scenario described.

Paragraph 3 may imply that it refers to a Natural Attenuation remedy, but it needs to be more clearly stated. In fact, if I understand correctly, CDPHE does not propose to really terminate the remedial activities (Natural Attenuation), *but CDPHE proposes to terminate the associated water quality monitoring requirements*. If my understanding of your proposed goals is **incorrect**, I suggest that you revise your documents to clearly state what you propose and again invite public comment. If this is a true description of the CDPHE proposal, then I suggest the following issues be added or clarified:

- a. The site is requesting that it be moved to a new category of remediation, namely *Natural Attenuation Without Water Quality Monitoring*.
- b. The site must first operate a Natural Attenuation remedy as an appropriate and effective remedy of the site-specific contamination.
 - i. The site must describe the requirements it met in order to establish the NA remedy (the proposed Guidance outlines these criteria well).
- c. The site must have a reasonable record monitoring of its Natural Attenuation remedy, but no less than 5 years of quarterly monitoring reports, before CDPHE can terminate the associated water quality requirements. IN other words, a site cannot move from an active remedy to a “Natural Attenuation remedy without

water monitoring” – it must first prove that its NA remedy has a substantial track record of effectiveness.

- i. During the five years, or more, of water quality monitoring, the Natural attenuation remedy must have shown continual and substantial decrease in the amount of water contamination, thus proving that the Natural Attenuation remedy has been working, therefore providing the basis of CDPHE’s proposed assumption that the NA remedy will continue to be effective and will likely achieve its remediation goals within a reasonable time.

No one I know thinks it is a good idea to stop water quality monitoring on a contaminated site. However, we are willing to accept the limited use of this policy – to terminate water quality monitoring at sites where Natural Attenuation is the only remedy and has a proven track-record of effectiveness. I would therefore suggest that the following be included or expanded in the proposed policy and guidance:

1. The name of the policy should be changed: **POLICY FOR A “NO FURTHER ACTION” DETERMINATION WHEN CONTAMINATION REMAINS ABOVE THE COLORADO GROUND WATER STANDARDS** is misleading since the “further Action” would be the closure of the site. I suggest **POLICY FOR “NATURAL ATTENUATION WITHOUT WATER QUALITY MONITORING” DETERMINATION WHEN CONTAMINATION REMAINS ABOVE THE COLORADO GROUND WATER STANDARDS**
2. The name of the Guidance should be changed: **GUIDANCE FOR THE CLOSURE OF LOW-THREAT SITES WITH RESIDUAL GROUND WATER CONTAMINATION** is misleading since this is not guidance for closure but is guidance for a change to a new category of remedy. I recommend I suggest **GUIDANCE FOR “NATURAL ATTENUATION WITHOUT WATER QUALITY MONITORING” DETERMINATION WHEN CONTAMINATION REMAINS ABOVE THE COLORADO GROUND WATER STANDARDS**
3. This proposed policy and guidance should not be applicable to any site where the original contaminants were chemical weapons, including the pre-cursors or by-products of chemical weapons including, but not limited to, mustard gas, sarin, lewicite, and DIMP.
4. This proposed policy and guidance should not be applicable to any site where the original contaminants were nuclear and/or radioactive materials.
5. This proposed policy and guidance should not be applicable to any site that uses a remedy other than Natural Attenuation.
6. This proposed policy and guidance should not be applicable to any site where the required/established water quality monitoring is related to or impacts another remediation site.

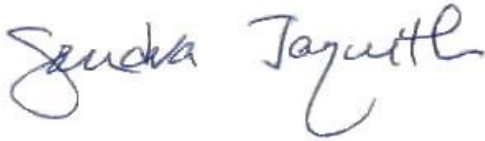
7. In order to qualify for the NA Remedy Without Water Quality Monitoring, the site must accept, and submit itself to the jurisdiction of, the Colorado Environmental Covenants, regardless of whether the law was in effect at the time that the remedy was adopted (this is just a clarification of your proposed guidance).
8. A Potentially Responsible Party (PRP) who is a “bad actor” should not be able to qualify for the termination of water quality monitoring under this policy and guidance. The definition of a “bad actor” would include, but not be limited to, the following actions:
 - a. A violation of federal, state, or local environmental laws, policies, regulations, and/or guidance after the site has been identified as a contaminated site requiring “clean-up” (in other words, the violations which established the initial contamination matter would not disqualify the site but the beginning of the remediation process, including site characterization, would toll the beginning of the disqualifying violation time period.)
 - b. The refusal of the PRPs and/or their agents, employees, etc. to testify at a grand jury inquiry into their actions and performance during the remediation process.
 - c. The failure of the PRPs and their agents, employees, contractors, etc. to cooperate with local, state, or federal officials.
 - d. The failure of the PRPs and their agents, employees, contractors, etc. to disclose pertinent information regarding the remediation to local, state, or federal officials, for example the existence of an unexploded ordinance discovered during remediation.
9. A public participation process must be included to involve all interested and affected public at the beginning of consideration by the CDPHE of application of this policy and guidance.
 - a. Public notice and comment period should be required for all sites considering NFA status.
 - b. Notice should go out to as many media outlets as possible for a site including local papers, radio stations, and public websites, especially well-known websites of environmental groups or others interested in hazardous waste clean-up.
 - c. Provide text to describe how Public stakeholders will be invited to participate with the Review Board.
10. Regarding Line of Evidence 1: For all reports there should be a requirement that a clear distinction be made between raw data, interpreted data, assumptions and conclusions. Data must be provided as evidence to support any reported conclusions.

Rationale must be provided based on accepted, peer reviewed scientific and engineering reports for every assumption.

11. Please provide a database of sites applying for and approved for NFA status readily accessible to the Public via the CDPHE website. Enable mapping functionality and the ability to query water level and quality data reported for the sites.

Thank you again for the information you provided during the comment period and for your willingness to meet with interested public to discuss this proposed policy and guidance, and for the extension of the public comment period to accommodate these communications. Please contact me if you have any questions and/or need clarification regarding these comments.

Respectfully submitted,

A handwritten signature in blue ink that reads "Sandra Jaquith". The signature is written in a cursive, flowing style.

Sandra Jaquith