

Notes: Summary of key proposed changes within the Solid Waste Regulations. This summary is not meant to be a complete or detailed list of all of the proposed regulatory changes, but to provide a summary list of stakeholder feedback and accomplishments for our upcoming discussion.

- 1) The stakeholders discussed and we incorporated into the existing draft the modified “adequately wet” definition as follows:

“Adequately wet asbestos contaminated soil” means sufficiently wet to minimize or eliminate visible emissions of dust and/or debris within the regulated work area and prevent the release of visible emissions from leaving the RWA in accordance with Section 5.5 of these Regulations (Note: Ensure SBP is clear that this is the visible emission and not completely preventing all fibers from leaving the site). The observance of visible emissions of dust and/or debris is an indication that soils are not adequately wet.”

This revised definition provides for: 1) a real time field observation based determination whether the soils are adequately wet, 2) allows an area where emissions can occur but not leave the regulated work area, 3) saves money and staff time by reducing overwatering, and .4) save disposal money by reducing the weight of overwatered soils.

- 2) Deleted “**Asbestos-contaminated soil**” means soil containing any amount of asbestos. This definition is proposed to be replaced with:

“Regulated Asbestos Contaminated Soil (RACS)” means soil, ash or debris containing:

- 1) Friable asbestos containing materials and volume of soil as defined in BMP 4; or
- 2) Asbestos containing materials that have been broken/resized/damaged, and have a high probability of becoming, crumbled, pulverized, reduced to powder, or releasing fibers from the forces expected to act upon the material, as determined by a CABI in the field, along with the surrounding soils as defined in BMP 4,:
 - a. Asbestos cement materials; or
 - b. Plaster; or
 - c. Brittle caulking, glazing and sealants; or
 - d. Powdery Concrete Masonry Unit (CMU) sealant; or
 - e. Powdery floor leveling compound; or
 - f. Drywall/wallboard and associated joint compound material; or
 - g. Firebrick; or
 - h. Deteriorated non-friable materials that are in poor condition due to weathering, mechanical impact, fire damage (by evidence of ACM within an ash layer) or other factors; or
 - i. Other material as determined by the Department, at the request of the person disturbing debris, to have a high probability to release fibers and surrounding soil (as defined in BMP 4); or
- 3) Soil known to contain non-visible asbestos based on: current observation of site conditions or ACM sources, or documented evidence;

The use of RACS accomplishes several stakeholder goals as follows: 1) eliminates the asbestos contaminated soil definition tied to “any” asbestos, 2) uses language that CABI’s are familiar with, are trained on, and have years of experience implementing. Communications with APCD representatives indicate that while the definition does include the phrase “high probability”; that this terminology is used

on a routine basis with CABI's, and has never resulted in a formal enforcement action, 3) specifically gives the responsibility for making the RACS determination to the CABI in the field, which was a significant stakeholder desire for real time in-field determinations, 4) RACS is not an "every" or "any" fiber determination and does not include all asbestos contaminated material, 5) RACS concept mirrors other regulatory constructs that have been in place and implemented by industry for years (most notably the EPA NESHAP regulation).

- 3) Iterative compliance schedule: If project representatives determine, through visual or air monitoring, that that soil disturbing activities are releasing asbestos fibers beyond the regulated work area, then the project representatives must evaluate the work practices and engineering controls, determine why the engineering controls are not preventing the release of fibers and either improve the current work practices or implement additional work practices. This may iterate twice, then, CDPHE must be notified and consulted to determine why asbestos fibers are being released. This is not a cause for project shut-down. This provides an in-field performance and solution based approach that allows for real time ongoing projects adjustments.
- 4) The stakeholders discussed and we incorporated into the existing draft and are updating the applicability requirements in the current working draft to include the use of personnel with "asbestos awareness" training to spot suspect asbestos materials. This provides relief from the expense of having a CABI on-site at all times, while still being protective such that suspect asbestos containing materials will be readily identified. The suspect materials will then be further evaluated (sampled or presumed to contain asbestos) by a CABI.
- 5) Training: Related to #4 above, the stakeholders discussed and we incorporated into the existing draft and are updating the training requirements in the current working draft. The current working draft will reflect the training requirements such that the individual responsible for identifying suspect asbestos containing material will be required to have asbestos awareness training. In addition, the requirement for plans to be developed/signed by an Asbestos Project Designer will be eliminated.
- 6) Reduced air monitoring: We know that we have differences regarding the appropriate amount of air monitoring, but have made significant strides as to the amount of air monitoring required. The stakeholders discussed and we incorporated into the existing draft provisions for projects with a duration of two days or less, or emergency projects, such that they do not require air monitoring. In addition, air monitoring will not be required at projects with no adjacent receptors. This provides a large amount of relief for many stakeholders.
- 7) Progressive air monitoring. Projects with a duration of greater than 2 consecutive days managing RACS will require perimeter air monitoring and analysis by PCM and TEM: TEM analysis is required on only 25% of the samples for the 1st 5 days of soil disturbing activities. After 5 days of soil disturbing activity with no TEM detects, then the TEM may be reduced to one TEM analysis per every 5 days of RACS soil disturbing activities. This rewards operations with effective implementation of emissions controls.

Of note, is that the air monitoring with PCM and TEM analysis is to be used as a checks and balance system to evaluate the effectiveness of the engineering controls. In brief, if there is a TEM detection, then the facility is supposed to notify CDPHE, evaluate the emission controls, submit an emissions control plan to CDPHE, implement the plan, and provide additional details including operational adjustments or additional measures to control emissions. If there are 3 consecutive TEM detections

or 10 detections at a single project then CDPHE must be consulted to evaluate BMPs. There are no project shut-down requirements built into this process.

- 8) **Material separation:** The stakeholders have discussed and we are incorporating into the current working draft provisions where identified or presumed asbestos containing materials may be removed along with a surrounding amount of soils that do not have asbestos containing materials and the remainder of the project not be subject to Section 5.5, as long as no further asbestos containing materials are present. This facilitates project continuity, while removing and appropriately managing surrounding soils that may have been impacted, and not requiring an entire project be subject to Section 5.5.
- 9) **Material reuse:** The stakeholders have discussed and we are incorporating into the current working draft provisions for material reuse that allow the beneficial reuse of asbestos contaminated soil within an existing contaminated area provided the soils meet the intended geotechnical requirements and there is not a direct exposure pathway. We are also working on provisions for off-site reuse.
- 10) **Material Disposal:** The stakeholders discussed and we incorporated into the existing draft and are updating material disposal requirements in the current working draft. Material disposal at landfills was modified so that the determination regarding disposal of asbestos contaminated soil was based on visual observations of the load being disposed. For a load of RACS, if less than one percent of the entire load was visible friable asbestos, then the material could be disposed of as non-friable asbestos waste. If more than one percent of the load was visible friable asbestos, then the materials is to be disposed of as friable asbestos containing material.
- 11) **Material reuse and related clearance procedures:** The stakeholders discussed and we are updating material clearance requirements in the current working draft. The clearance procedures will allow for visual inspection and possibly sampling, depending on the type of reuse. The Department recognizes that even soils that have been sampled for clearance purposes may contain some asbestos contaminated material. We are working to develop procedures whereby an entity that receives soils that were previously determined to be clean, but subsequently identifies asbestos containing materials, may remove and manage the asbestos containing material under Section 5.5, but without the remainder of the project being subject to Section 5.5.
- 12) **Detailed implementation procedures:** Stakeholders demanded that CDPHE stop regulating asbestos contaminated soil projects via fiat through the guidance documents. The stakeholders discussed and we incorporated into the existing draft and are updating detailed implementation requirements in the current working draft. CDPHE worked in small group sessions with stakeholder representatives to develop an alternative Best Management Practices (BMPs) approach for future consideration by the larger stakeholder group. The small group's BMPs were not universally well received by the larger stakeholder group. Therefore, CDPHE is reworking the BMPs to try and strike a middle ground between the small work group BMP model and the BMP model developed with the larger stakeholder group. Some stakeholders indicated that the BMPs were too detailed and restrictive. However, a number of smaller communities with asbestos contaminated soil projects strongly urged, during their own workplan development process, the state to develop detailed and implementable BMPs to relieve their plan development burden. In addition, owners and operators are not required to use the BMPs. They may use and then modify the BMPS into a site specific plan or set of standard operating procedures.