

6 CCR 1007-2, Part 1, Part A, GENERAL REQUIREMENTS AND INFORMATION CONCERNING ALL SOLID WASTE DISPOSAL SITES AND FACILITIES IN THE STATE OF COLORADO

Section 1 - Administrative Information

1.2 Definitions

“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.

“Air Monitoring Specialist” means a person trained and certified, in accordance with the requirements of Air Quality Control Commission (5 CCR 1001-10, Part B) Regulation No. 8, for the collection of air samples to determine airborne particulate and/or asbestos concentrations.

“Area of Contamination (AOC)” means a discrete, discernible area of known RACS.

“Asbestos” means the asbestiform varieties of serpentinite (chrysotile), riebeckite (crocidolite), amosite (cummingtonite-grunerite), anthophyllite, actinolite, and tremolite.

“Asbestos-containing material (ACM)” means any material that contains more than one percent (1%) asbestos. Material suspected of containing asbestos must either :1) be assumed to contain asbestos, and managed as asbestos containing material, 2) be sampled and analyzed to demonstrate that the material does not contain asbestos, or 3) there must be documentation unique to the material observed in the field demonstrating the asbestos content of the material.

“Asbestos waste” means any asbestos-containing material whether it contains friable or non-friable asbestos, that is not intended for further use. This term includes but is not limited to asbestos mill tailings, asbestos from pollution control devices, and containers that contain asbestos.

“Asbestos waste disposal area” means an area approved for the disposal of asbestos waste at a solid waste facility, including, but not limited to, a trench or monofill.

“Best Management Practices or BMPs” mean practices designed and implemented to control the release of asbestos fibers from the regulated work area.

“Certified Asbestos Building Inspector” means a person trained and certified in accordance with Air Quality Control Commission (5 CCR 1001-10, Part B) Regulation No. 8, for the identification of asbestos containing materials and the collection of samples to determine asbestos content.

“Debris” means the remains of any non-earthen material that has been discarded, broken down, destroyed, or burned.

“Friable asbestos-containing material” means any material that contains asbestos and when dry can be crumbled, pulverized, or reduced to powder by hand pressure and that contains more than one percent asbestos by weight, area, or volume. The term includes non-friable forms of asbestos after such previously non-friable material becomes damaged to the extent that when dry it can be crumbled, pulverized, or reduced to powder by hand pressure as determined in the field by a CABI.

“Friable asbestos waste” means any asbestos waste that has been or can be pulverized or reduced to powder by hand pressure when dry.

“Mechanical” means operated or produced by mechanism or machine.

“Non-Regulated Asbestos Contaminated Soil (Non-RACS)” means soil or debris that contains only:

- 1) Intact non-damaged non-friable asbestos containing materials;
- 2) Non-friable asbestos containing materials that do not have a high probability to release fibers based on the forces expected to act upon the material as determined in the field by a CABI. The following materials are predetermined to be non-RACS:
 - a. Resin based materials including but not limited to phenolic-plastic (Bakelite), used in electrical and mechanical parts
 - b. Resilient flooring (vinyl, asphalt, rubber) excluding non-tar impregnated friable felt backing on sheet vinyl flooring (linoleum)
 - c. Tar impregnated or asphaltic materials in good condition that have not become brittle
 - d. Elastic, pliable, or rubberized materials;
 - i. Pliable duct sealant
 - ii. Pliable fiberglass insulation sealant
 - iii. Pliable fire-stop caulking /sealants
 - iv. Pliable window and door caulking
 - e. Extremely hard materials, coatings and sealants including but not limited to:
 - i. Laboratory countertops and sinks;
 - ii. Epoxy type Concrete Masonry Unit (CMU) coatings;
 - iii. Epoxy type panel adhesive;
 - iv. Duct sealant;
 - v. Ceiling tile adhesive; or
 - f. Other asbestos containing materials as approved by the Department.

“Regulated Asbestos Contaminated Soil (RACS)” means soil, ash or debris (plus 6 inches in all directions of surrounding soil or other non-RACS material) containing:

- 1) Friable asbestos containing materials; 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,:
 - 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; or

- 3) Soil known to contain non-visible asbestos based on: current observation of site conditions or ACM sources, or documented evidence; or,

“Regulated work area (RWA)” as used in Section 5.5 of these Regulations means the portion(s) of a site at which soil disturbing activities involving RACS occur.

“Soil-disturbing activities” means digging, excavation, staging, loading, stockpiling, backfilling, compacting, grading, tilling, drilling, and equipment or vehicle movement or any other mechanical activity, that when used, disturbs the surface and/or subsurface soil. For the purposes of Section 5.5 disturbance or removal of solid waste and or RACS is considered a soil disturbing activity. For the purposes of Section 5.5 hand disturbance or removal of RACS is subject to this regulation, but not a mechanical disturbance.

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“Visible” means capable of being seen with the unaided eye.

“Visible emissions” means any emissions which are visually detectable without the aid of instruments, coming from material containing asbestos, asbestos waste, asbestos-contaminated soil, or from handling and disposal of asbestos waste, material containing asbestos or asbestos-contaminated soil.

5.5 MANAGEMENT OF REGULATED ASBESTOS CONTAMINATED SOIL (RACS):

5.5.1 SCOPE AND APPLICABILITY

(A) Soil disturbing activities that encounter solid waste or soil containing debris must have protocols to characterize waste for appropriate management, disposal, or re-use, and appropriate personnel to implement those protocols.

(1) Conduct visual assessment of disturbed material;

(2) If no debris is present, and the soil is not known to contain asbestos fibers, then Section 5.5 is not applicable;

(3) If debris is observed that only contains metal, glass, wood, or stone with no associated material suspected of containing asbestos fibers, then Section 5.5 is not applicable.

(B) Any person who encounters or disturbs solid waste or soil containing debris that is not excluded within 5.5.1(A), must visually inspect the debris using all reasonable efforts to determine if the debris is or contains suspect asbestos containing material and whether the suspect asbestos containing material is Regulated Asbestos Contaminated Soil (RACS). The person(s) inspecting the solid waste or soil containing solid waste must, at a minimum, have completed a two hour asbestos awareness training, and be capable of identifying suspect asbestos containing material in the soil or solid waste. All suspect asbestos-containing material, must be assumed to be ACM, or sampled and analyzed to determine if it is RACS using the following method:

(1) The asbestos determination shall be made within seven (7) calendar days of discovery of the solid waste.

(a) Within 24 hours of discovery of solid waste, and until the asbestos determination is made, the debris must be stabilized in accordance with Section 5.5.4(A)(3) of these Regulations.

(b) No additional disturbance, other than necessary to perform the required stabilization in Section 5.5.4(A)(3), of the debris shall occur prior to the asbestos determination.

(2) A person who disturbs debris, determined or assumed to be ACM per 5.5.1(B), should determine if the debris is exempted in accordance with Section 5.5.2 of the Solid Waste Regulations.

(3) A person who disturbs debris, determined or assumed to be ACM per 5.5.1(B), must determine if the debris is or contains RACS, as defined in Section 1.2 of these Regulations, by:

(a) Assuming the debris suspected of containing asbestos is RACS and managing the RACS in accordance with Section 5 of these regulations; or,

(b) Sampling of all types of suspected asbestos containing material(s) and analysis of the material(s) by Polarized Light Microscopy (PLM) (using EPA Method 600/R-93/116 or equivalent) to determine asbestos content. The asbestos evaluation and sample collection must be conducted by an Air Pollution Control Division (APCD) Certified Asbestos Building Inspector (CABI), and the analysis must be conducted by a National Volunteer Laboratory Accreditation Program (NVLAP) participating laboratory; or,

(c) Applying knowledge of the presence or absence of ACM based on observation or documented evidence about the asbestos content of the material or,

(d) Applying knowledge of the presence of non-visible asbestos in soil

based on documented evidence or observation of site conditions or sources;

(4) Records of all asbestos determinations for debris must be retained onsite for the duration of the debris disturbance and retained by the owner/operator for a period of six months after the completion of debris disturbing activities.

(C) If the debris is or contains RACS then:

- (1) RACS that is disturbed must be managed or disposed of or reused in accordance with these regulations.
- (2) Removal of asbestos-containing material on a facility component, that is located on or in soil that will be disturbed, shall be conducted under this Section 5.5, in accordance with work practices in Air Quality Control Commission Regulation No. 8 (5 CCR 1001-10, Part B), Section III.V, but is not subject to the permit requirements of 5 CCR 1001-10, Part B, as long as the total quantity of asbestos-containing material is below the following trigger levels:
 - (a) 260 linear feet on pipes,
 - (b) 160 square feet on other surfaces, or
 - (c) The volume of a 55-gallon drum.
- (3) RACS that is generated and not disposed of or reused in compliance with Section 5.5.8 of these Regulations is disposal of RACS and must be managed in accordance with C.R.S. 30-20 Part 1 and 6 CCR 1007-2, Part 1.

(4) A person who disturbs RACS and does not manage it in accordance with Section 5.5 must cease soil disturbing activities and permanently stabilize the site to control release of RACS in accordance with one of the following:

- (i) Cover RACS with geofabric, followed by 18 inches of fill suitable for unrestricted use, and vegetation; or
- (ii) Cover RACS with geofabric, followed by 6 inches of fill suitable for unrestricted use, and concrete or asphalt; or
- (iii) Cover RACS with geofabric, followed by fill suitable for unrestricted use to grade for vertical excavation faces or trenches; or
- (iv) Alternate cover designs as approved by the Department.

5.5.2 EXEMPTIONS

(A) Removal of asbestos-containing material on a facility components with asbestos quantities above the trigger levels, as defined in 5.5.1 (C) (2), is subject to the permit and abatement requirements of Air Quality Control Commission Regulation No. 8 (5 CCR 1001-10, Part B), and is therefore not subject to this Section 5.5, but must still comply with Sections 5.1 through 5.4 of these regulations.

(B) Spill response activities that are subject to the requirements of Air Quality Control Commission Regulation No. 8 (5 CCR 1001-10, Part B) are not subject to the requirements of Section 5.5, but must still comply with Sections 5.1 through 5.4 of these regulations.

(C) Ambient occurrences of asbestos fibers in soil that are demonstrated to the Division's satisfaction not to be due to site specific activities are not subject to the requirements of this Section 5.5.

(D) During active solid waste disposal operations, asbestos waste disposal areas that have a certificate of designation are not subject to 5.5, but must comply with the facility's Engineering Design and Operations Plan.

(E) De minimis projects involving disturbance of RACS with a total project volume of less than 1 cubic yard of RACS, using low-emission methods, are not subject to this Section 5.5, but must still comply with Sections 5.1 through 5.4 of these regulations.

(F) Projects conducted directly by a homeowner on their primary residence, including residential landscaping projects and other private residential soil-disturbing projects conducted after the primary dwelling is built, e.g. planting trees, digging holes for fence posts, installing sign posts, gardening, other projects done by private individuals on their primary place of residence are not subject to this Section 5.5, but must still comply with Sections 5.1 through 5.4 of these regulations..

5.5.3 TRAINING

(A) Community outreach shall be conducted for projects involving mechanical disturbance of RACS containing friable ACM with adjacent receptor(s) present. In addition, ancillary worker awareness briefing(s) shall be conducted through the dissemination of fact sheets and/or informational meetings that discuss the presence of RACS that includes friable ACM and the measures being taken to prevent emissions and cross contamination.

(B) Projects that involve the disturbance of solid waste or soil that contains solid waste shall include at least one onsite individual capable of recognizing suspect asbestos-containing materials, and is familiar the requirements of Section 5.5.1, during active solid waste disturbance.

(C) General contractor personnel directing the disturbance of RACS and those disturbing RACS shall have annual awareness training. This training shall cover information necessary to comply with Section 5.5 and the selected management approach for the project (PSRMP, SOP, BMP Matrix or RBMMP), including:

- 1) General asbestos awareness; including health effects.

- 2) Overview of the requirements of Section 5.5.
- 3) Overview of suspect ACM that require further evaluation by a CABI.
- 4) Overview of RACS and Non-RACS.
- 5) Worker protection, including levels of PPE required for various activities and conditions.
- 6) Decontamination requirements for equipment and personnel.
- 7) Engineering controls to prevent the release of asbestos outside the RWA.
- 8) Overview of RACS handling procedures.

(D) Per-project site-specific awareness training for general contractor personnel and those disturbing RACS. This training shall cover site-specific information necessary to comply with Section 5.5 and the selected management approach for the project (PSRMP, SOP, BMP Matrix or RBMMP) including project chain-of-command and identification of authorized personnel with stop work authority.

(E) Inspection and identification of RACS shall be conducted by a Colorado Certified Asbestos Building Inspector (CABI), with 40 hours of on the job asbestos in soils experience on a minimum of three (3) different asbestos in soils jobs, conducted under either AQCC Regulation No. 8 or Section 5.5. The CABI must be independent of the general contractor (GC) and/or abatement contractor unless the CABI and the GC or abatement contractor are both employees of the property owner. However, the GC or abatement contractor may hire a subcontractor CABI, but the CABI may not be an employee of the GC or abatement contractor.

(F) Air monitoring conducted in accordance with this Section 5.5 shall be performed by a Colorado Certified Air Monitoring Specialist (AMS).

(G) Documentation of training, as applicable, shall be maintained onsite for the duration of the project.

5.5.4 RESPONSE FOR UNPLANNED RACS DISCOVERY

Areas of soil disturbing activities where RACS is encountered without previously selected BMPs or approved plans are subject to the following requirements:

(A) IMMEDIATE ACTIONS: Immediate actions shall be taken by the person conducting the soil-disturbing activity, or representative of the owner or operator, to manage RACS in accordance with Section 5.5 and Section 1.2 definitions of these Regulations. These actions shall include, but not be limited to, the following:

(1) Stopping all soil-disturbing activities, related to RACS, until the 24-hour notification requirements in Section 5.5.4(B), and the interim action requirements in Section 5.5.4(C), are met. In the event of an emergency in which a soil disturbing activity must continue or commence at once, notification shall be made as soon as possible, but within 24 hours of identifying or assuming RACS within the soil disturbing area.

(2) Establishing, and taking measures to prevent access to, the regulated work area by unauthorized persons.

(3) Conducting surface soil stabilization to reduce emissions including:

- i. Polyethylene sheeting or geotechnical fabric with daily inspection, and inspection after storm events, and repair/replacement of sheeting as necessary to maintain stabilization; or
- ii. Chemical stabilizer demonstrated to be effective in the stabilization of RACS (e.g. magnesium chloride) w/ weekly inspection, and inspection after storm events, and re-application of chemical stabilizer as necessary to maintain stabilization; or
- iii. Minimum of 3 inches of soil appropriate for unrestricted use; or
- iv. Other means of stabilization as approved by the Department.
- v. Stabilization is not required if RACS is kept adequately wet and additional RACS disturbance occurs within 12 hours.

(B) 24-HOUR NOTIFICATION REQUIREMENTS: The owner/operator, or owner/operator representative shall notify the Department's Hazardous Materials and Waste Management Division within 24 hours of encountering RACS during a soil-disturbing activity. This notification shall include, but not be limited to, the following:

- (1) Property location.
- (2) General site description.

- (3) Description of activities resulting in RACS being encountered.
- (4) Description of type and quantity of RACS encountered in the regulated work area(s).
- (5) Description of any access and emission controls already implemented at the site.
- (6) Property representative's name and phone number.
- (7) Contact name and phone number for the party performing soil-disturbing activities.
- (8) Contact name and phone number of the person who encountered the RACS.

(C) INTERIM ACTIONS: In accordance with 5.5.5, the owner/operator shall submit to the Department, for review and approval, within five (5) working days of the discovery, Project Specific RACS Management Plan (PSRMP), Standard Operating Procedure (SOP), Risk Based Monitoring and Management Plan (RBMMP), or indicate BMPs will be followed.

(D) Once the requirements of Sections 5.5.4(A), (B), and (C) are completed, soil disturbing activities may proceed in accordance with applicable requirements.

5.5.5 RESPONSE FOR PLANNED RACS MANAGEMENT

Planned soil-disturbing activities involving RACS in regulated work areas must be conducted in accordance the minimum standards identified in Section 5.5.7, and with one of the following management strategies:

- a) Project Specific RACS Management Plan (PSRMP);
- b) Standard Operating Procedures (SOP);
- c) Best Management Practices (BMPs); or,
- d) Risk Based Monitoring and Management Plan (RBMMP)

(A) NOTIFICATION REQUIREMENTS FOR ALL SOIL PROJECTS THAT

DISTURB RACS: The Owner/Operator must choose one of the notification options from the following list:

(1) The Owner/Operator shall notify the Department's Hazardous Materials and Waste Management Division at least 10 working days prior to any planned soil-disturbing activity. This notification shall include submittal of a Project Specific RACS Management Plan (PSRMP) conforming to the requirements of Section 5.5.5 (B) (1) as applicable, and that must be approved by the Department prior to implementation.

(2) The owner/operator shall notify the Department at least three (3) days prior to implementation of the previously approved SOP at a regulated work area. Standard Operating Procedures (SOPs) that conform to Section 5.5.5 (B) (2), as applicable, that are approved by the Department prior to implementation;

(3) The Owner/Operator shall notify the Department's Hazardous Materials and Waste Management Division of Best Management Practices from **Appendix 5A** appropriate to the site at least 3 working days prior to any planned soil-disturbing activity. This notification shall include property location, general site description, and contact information for the owner/operator responsible for the regulated work area activities; or

4) The owner/operator shall notify the Department's Hazardous Materials and Waste Management Division of its intent to implement risk based soil monitoring plan (RBMMP) at least 10 working days prior to any planned soil-disturbing activity. The RBMMP shall contain procedures conforming to the requirements of 5.5.5 (B) (4). This notification shall include a clear reference to the document containing the RBMMP, property location, general site description, and contact information for the owner/operator responsible for the regulated work area activities.

(B) MANAGEMENT OPTIONS: Depending on the Owner/Operators choice in 5.5.5 (A), the Owner/Operator shall comply with the minimum requirements prescribed in 5.5.7 of these Regulations as well as the appropriate section in 5.5.5 (B) below.

(1) If the Owner/Operator chose(s) Section 5.5.5 (A) (1), a PSRMP shall be developed and submitted to the Department for review and approval prior to implementation. The Department will use its best efforts to review and respond to the plan within ten (10) working days of receipt. The PSRMP submitted in accordance with Section 5.5.5 (A) (1) shall include as applicable, but not be limited to, the following:

(a) Property representative's name and phone number

(b) Property location.

(c) General site description, including a description of RACS the types of known or assumed asbestos-containing material(s), and the location(s) on the site.

(d) Although sampling is not required, a Sampling and Analysis Plan (SAP) is required for any proposed site characterization. The SAP must include:

(i) Work practices to be utilized during any proposed debris or soil sampling or characterization to prevent the release of visible emissions, and/or exposure to asbestos.

(ii) The location of any proposed sampling.

(iii) Proposed sampling methodology.

(iv) Proposed analytical method.

(e) Description of planned soil-disturbing activities.

(f) Description of site management, emission control activities, and work practices to control the release of, and/or exposure to, asbestos outside of the RWA.

(i) Measures to assure that the soil is adequately wet (as that term is defined in Section 1.2 of 6 CCR 1007-2), stabilized, or covered during soil disturbing activities; and,

(ii) Wind speed monitoring during RACS disturbance, including

- frequency of monitoring, and shutdown and start up criteria; and,
- (iii) An air monitoring plan to verify that the measures to control the release of, and/or exposure to, asbestos outside of the RWA are effective. The plan may include a tiered air monitoring approach providing less frequent air monitoring given demonstrated effectiveness of work practices; and,
- (iv) Work practices specific to mechanical and/or hand disturbance of RACS including measures to prevent the release of visible emissions outside of the RWA; and,
- (v) Work practices for the loading and placement of RACS including spill prevention procedures.
- (vi) The owner / operator has the option to erect a structure maintained at a negative pressure differential sufficient to contain all dust, with off-gas from the evacuation system treated with HEPA filtration. If chosen, the requirement to submit an air monitoring plan, under 5.5.5(B)(f)(ii) is not applicable.

(2) Site regulated work area owners and operators may develop and submit to the Department, for review and approval, thirty (30) days in advance of any RACS disturbing activities, SOPs that conform with Section 5.5.5 (B) (1) (a) – (f), as applicable, that site owners and operators will implement, upon notice to the Department per Section 5.5.5 (A)(2), at future regulated work areas.

(3) Best Management Practices (BMP) may be implemented in accordance with the BMP Matrix and description in Appendix 5A.

(4) A detailed, specific, and fully implementable RBMMP capable of demonstrating that the regulated work area activities are not generating emissions in excess acceptable risk levels based on site specific factors as include in Appendix 5B. The RBMMP shall be developed and submitted to the Department for review and approval prior to implementation.

(C) Once the notice has been given in accordance with Section 5.5.5(A), RACS disturbing activities may proceed in accordance with the PSRMP, SOPs, BMPs, or the RBMMP, a copy of which shall be maintained on the site during RACS disturbing activities.

5.5.6 REMEDIATION OF REGULATED ASBESTOS CONTAMINATED SOIL.

(A) Remediation is not required of properties at which asbestos-containing material, RACS, or asbestos waste is located. If the owner of a property chooses to remediate (rather than just manage) all or a portion of the property containing RACS, and seeks a No Further Action or No Action Determination in accordance with the Voluntary Cleanup and Redevelopment Act (C.R.S. 25-16-301 et seq.), the Resource and Recovery Act Subtitle D (C.R.S. 30-20, Part 1) or the Resource and Recovery Act Subtitle C C.R.S. 25-18-302 et.seq., as may be required by a final enforceable mechanism, an Asbestos Remediation Plan shall be submitted to the Department's Hazardous Materials and Waste Management Division for review and approval prior to commencement of RACS disturbing activities. The Asbestos Remediation Plan shall comply with this Section 5.5, and the governing regulatory authority and include, but not be limited to, the following:

(1) The minimum requirements in accordance with Section 5.5.7, and the plan requirements outlined in 5.5.5 (B).

(2) A detailed description of planned remediation activities, including proposed depth and areal extent of remediation, and work practices to be implemented.

(3) The proposed use of the property and area of remediation.

(4) Any planned engineering controls to prevent exposure to any asbestos left in place.

(D) If a remedial decision is made by the Department, the area subject to the remedial decision is subject to C.R.S. Section 25-15-320(2), and an environmental covenant may be required for waste left in place. The Department shall use its best efforts to provide written notification that an Asbestos Remediation Plan has been approved or disapproved within no more than forty-five (45) days after a request by a property owner, unless the property owner and the Department agree to an extension of the review to a date certain.

5.5.7 MINIMUM REQUIREMENTS FOR THE DISTURBANCE OF RACS

(A) ESTABLISHMENT AND CONTROL OF A REGULATED WORK AREA (RWA)

(1) Requirements for establishment and control of a Regulated Work Area (RWA) applicable to all projects subject to this Regulation:

(a) Establish a RWA which is identifiable to all persons. Haul roads between RWAs, where RACS is not present, are considered to be outside the RWA(s); however, equipment decontamination [5.5.7 (C)] and spill response procedures [5.5.7 (E)] shall be followed, as applicable.

(b) Stop all soil disturbing activities in the RWA if personnel not trained in accordance with 5.5.3 or members of the public are present within the RWA.

(2) Additional Requirements Applicable to Projects with Receptors:

(a) Post labeling and signage to demarcate RWA(s). The RWA shall be demarcated with a visual means that fully defines the extent of the RWA. Labeling and signage shall indicate the presence of asbestos, and that the area is off limits to unauthorized personnel.

(3) Additional Requirements Applicable to Projects Disturbing RACS Containing Friable ACM:

(a) Establish a secured work site (e.g., fencing/locks/zip-ties/chains). Personnel, or staff assigned to this duty, may be used to secure the RWA in lieu of fencing. If the RWA is located within a larger secure facility, fencing of the RWA is not necessary as long as the RWA is adequately secured.

(B) PERSONAL PROTECTIVE EQUIPMENT

- (1) Requirements applicable to all projects subject to this Regulation:
 - (a) Use disposable booties or impermeable footwear that will be decontaminated per 5.5.7(C)
 - (b) Use disposable or impermeable gloves that will be decontaminated per 5.5.7(C)
 - (c) Replace or decontaminate (per 5.5.7.(C)) all PPE as necessary to prevent contamination from leaving the RWA via cross contamination. This requirement applies to all instances where the integrity of the PPE is compromised, and when workers exit the RWA.
 - (d) Decontaminate (per 5.5.7(C)) or dispose of all used PPE as asbestos contaminated waste.

- (2) Additional Requirements Applicable to Projects Disturbing RACS Containing Friable ACM:
 - (a) Use Tyvek® suits or equivalent coveralls.

(C) DECONTAMINATION

- (1) Requirements applicable to all projects subject to this Regulation:
 - (a) Personnel Decontamination:
 - i. Remove booties and/or gloves before exiting RWA and dispose as asbestos contaminated waste, or
 - ii. Decontaminate boots in a boot wash station, remove gloves after exiting the boot wash station, and dispose of gloves as asbestos contaminated waste. Rinsate from the boot wash station shall be collected, filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or re-applied to RACS that will be removed.

 - (b) Equipment and Surface Protection or Decontamination:
 - i. Keep all equipment off of RACS; or
 - ii. Protect clean surfaces from coming in contact with RACS by covering equipment surfaces or RACS surfaces with polyethylene sheeting or equivalent durable covering. For onsite movement of excavation equipment between RWAs, where only the excavator bucket has come in contact with RACS, the bucket shall be wrapped in polyethylene sheeting prior to movement. Protective coverings shall be cleaned, repaired, or replaced as necessary. Coverings that have come in contact with RACS shall be disposed as asbestos contaminated waste; or
 - iii. For equipment that comes into contact with RACS:

- a. Wet decontamination on a decontamination pad (minimum 10 mil poly) followed by CABI inspection and verification of equipment decontamination before it leaves the decontamination area. All decontamination liquids and solids must be contained, and run-on and run-off shall be prevented. Rinsate/runoff shall be collected, filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or re-applied to RACS that will be removed;
 - i. For non-durable decontamination pads removal of 3 inches of soil or other non-RACS material, from beneath breach(es) in the pad were RACS or water contaminated with asbestos may have impacted the material below the pad;and/or
- b. Decontamination using HEPA vacuums followed by CABI inspection and verification of equipment decontamination before it leaves the decontamination area; and/or
- c. For onsite movement of equipment only, soil sampling may be used to determine asbestos content of soil on equipment; however, moving equipment offsite requires full decontamination and CABI verification that all potential RACS has been removed from the equipment.

(2) Additional Requirements Applicable to Projects Disturbing RACS Containing Friable ACM:

- (a) Remove Tyvek® or equivalent coveralls before exiting RWA and dispose as asbestos contaminated waste, or
- (b) Conduct full wet decontamination prior to exiting RWA with collection of rinsate and filtration to less than 5 microns and discharge to a sanitary sewer. Re-application of decontamination shower water is prohibited.

(D) STAGING, STOCKPILING, AND STORAGE OF RACS

- (1) Staging, consisting of accumulation and temporary storage of RACS in the RWA for 12 hours or less, shall include:
 - (a) Staging of RACS must be on 10 mil polyethylene sheeting or must include removal of a minimum of 3 inches of soil, or other non-RACS material, from below the staging pile/area prior to demobilization; with visual or measured confirmation of removal. If poly is placed on top a durable surface such as concrete or asphalt, the surface must be decontaminated using wet methods, followed by CABI inspection verifying that all soil and debris has been removed from the surface. Rinsate/runoff shall be collected and filtrated to less than 5

microns (or applicable local requirements) and discharged to a sanitary sewer or re-applied to RACS that will be removed.

- i. Staging of clean material with incidental discovery of RACS must be managed as follows:
 - a. If a CABI was continually inspecting the material during generation, remove the piece of ACM and one foot of material in all directions, with CABI confirmation that the visual extent of RACS has been removed. If more than one piece of ACM, or a pocket of ACM is discovered, remove the pocket of ACM plus one foot of material in all directions, with CABI confirmation that the visual extent of RACS has been removed.
 - b. If a CABI was not continually inspecting the material during generation, an intrusive inspection of the pile must be conducted to determine the extent of RACS contamination, followed by the removal of the visual extent of contamination plus removal of one foot of material in all directions. Alternatively, the entire pile, plus 3 inches of material below the pile, shall be removed as RACS. If the pile was placed on top a durable surface such as concrete or asphalt, the surface must be decontaminated using wet methods, followed by CABI inspection verifying that all soil and debris has been removed from the surface. Rinsate/runoff shall be collected and filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or re-applied to RACS that will be removed.

(2) Stockpiling, consisting of the accumulation and storage of RACS that will exist for more than 12 hours, shall include:

- (a) Stockpiled RACS must be placed on a minimum of 6 mil polyethylene sheeting or must include removal of a minimum of 3 inches of soil, or other non-RACS material, from under the entire area of RACS stockpiling after stockpile removal. If the stockpile was placed on top a durable surface such as concrete or asphalt, the surface must be decontaminated using wet methods, followed by CABI inspection verifying that all soil and debris has been removed from the surface. Rinsate/runoff shall be collected and filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or re-applied to RACS that will be removed.
- (b) RACS shall be adequately wet during disturbance.
- (c) Stockpiled RACS must be secured per 5.5.7(A)
- (d) Stockpiled RACS must be stabilized by:
 - i. Polyethylene sheeting or geotechnical fabric with daily inspection, and inspection after storm events, and repair/replace sheeting as necessary to maintain stabilization; or
 - ii. Chemical stabilizer demonstrated to be effective in the stabilization of RACS (e.g. magnesium chloride) w/ weekly inspection, and inspection after storm events, and re-application of chemical stabilizer as necessary to maintain stabilization; or

- iii. Minimum of 3 inches of soil appropriate for unrestricted use.
 - (e) The maximum duration that RACS may be stockpiled shall not exceed 10 working days
 - (f) For a stockpile that was previously thought to be free of RACS, but where RACS is subsequently identified, an intrusive inspection of the pile must be conducted to determine the extent of RACS contamination, followed by the removal of the visual extent of RACS contamination plus removal of one foot of material in all directions. Alternatively, the entire pile, plus 3 inches below the pile, shall be removed as RACS.
 - (g) For stockpile areas that are non-contiguous with the RWA, transportation of RACS shall be conducted in accordance with the following:
 - i. Transportation equipment tires must kept off RACS; or
 - ii. The tires must be decontaminated per 5.5.7(C) before leaving the RWA; or
 - iii. The haul road must be managed as RACS for stabilization, per 5.5.7 (D) (2) (d), and future removal of a minimum of 3 inches of soil, or other non-RACS material. If the road is constructed of a durable surface such as concrete or asphalt, the surface must be decontaminated using wet methods, followed by CABI inspection verifying that all soil and debris has been removed from the surface. Rinsate/runoff shall be collected and filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or re-applied to RACS that will be removed.
- (3) Storage of RACS exceeding 10 working days, but not exceeding 6 months, shall require the submission of a RACS Storage Plan. Storage of RACS shall not commence prior to approval of the RACS Storage Plan by the Division. The RACS Storage Plan shall include:
- (a) Approval of storage w/ signature from property owner
 - (b) Volume of RACS intended for storage
 - (c) Liner design or provisions for removal of a minimum of 3 inches of underlying material
 - (d) Storm water design including protections for run-on and run-off
 - (e) Cover design or use of an equivalent durable stabilizer
 - (f) Site security and signage
 - (g) Storage timeframe
 - i. Storage shall not exceed 6 months unless an extended storage timeframe is approved by the Division
 - (h) Inspection and maintenance schedule
 - (i) Closure/ removal requirements

- (j) Documentation/reporting
- (k) Certification by an independent, qualified, and registered Professional Engineer

(E) RACS SPILL RESPONSE

- (1) Spilled material shall be cleaned up immediately and not allowed to dry out or accumulate on any surface; and
- (2) Removal of a minimum of 3 inches of soil, or other non-RACS material, from beneath breached ground coverings where RACS or water contaminated with asbestos may have impacted the material below the covering, with visual or measured (e.g. survey) confirmation that 3 inches of soil/non-RACS material from beneath the breached covering has been removed. If ground coverings are placed on top a durable surface such as concrete or asphalt, the surface must be decontaminated using wet methods, followed by CABI inspection that all soil and debris has been removed from the surface. Rinsate/runoff shall be collected and filtrated to less than 5 microns (or applicable local requirements) and discharged to a sanitary sewer or re-applied to RACS that will be removed.

(F) REQUIREMENTS FOR EXPOSED RACS REMAINING IN PLACE

- (3) Any remaining RACS that has been exposed by the soil-disturbing activity, but is not disturbed, such as an excavation side-wall or bottom shall be covered or stabilized using one of the following:
 - (a) Cover RACS with geofabric, followed by 18 inches of fill suitable for unrestricted use, and vegetation; or
 - (b) Cover RACS with geofabric, followed by 6 inches of fill suitable for unrestricted use, and concrete or asphalt; or
 - (c) Cover RACS with geofabric, followed by fill suitable for unrestricted use to grade for vertical excavation faces or trenches; or
 - (d) Alternate cover designs as approved by the Department.

(G) DOCUMENTATION

- (1) The following documents shall be maintained during a project and available for Department review upon request; this documentation need not be submitted to

CDPHE unless requested. CABI and AMS notes may be collected by one individual if they possess both certifications; however, if no AMS is onsite (no air monitoring required) it may be necessary for the CABI to provide items listed in the AMS notes section (e.g. wind monitoring and shutdown events). Other appropriate personnel may also provide the following documentation.

(a) CABI Notes shall include documentation of:

- i. site description including location,
- ii. descriptions of site activities,
- iii. descriptions of equipment in use,
- iv. descriptions of hand removals (including locations),
- v. descriptions of types of debris encountered,
- vi. descriptions of suspect material encountered,
- vii. friability of ACM encountered,
- viii. sampling, if conducted,
- ix. decontamination visual clearances,
- x. excavation visual clearances,
- xi. spill response activities,
- xii. observations of visible emissions and responses,
- xiii. observations non-earthen material or the appearance of fill,
- xiv. observations of other indicators of impact to soils

(b) AMS notes shall include documentation of:

- i. wind speed measurements,
- ii. prevailing wind direction(s),
- iii. wind shut down event(s),
- iv. initial air sample locations,
- v. air sample relocation notes,
- vi. observations of visible emissions and responses,
- vii. notes pertaining to sample malfunctions (pump faults, overloading, etc.),
- viii. air sample data (flow rates, time of sampling, volumes, calibration method, etc.)

(c) General documentation shall include:

- i. disposal records,
- ii. analytical reports,
- iii. location of remaining RACS
- iv. dates of stockpile creation and removal

5.5.8 DISPOSITION OF REGULATED ASBESTOS CONTAMINATED SOIL

(A) Disposal

(1) RACS containing one percent (1%) or greater of friable ACM (as determined in the field by a CABI) by volume per load or container, based on continuous best reasonable efforts visual estimation, or other Department approved quantifiable means of measurement, must be packaged in a leak tight container and disposed as friable asbestos waste, in accordance with Section 5.3 of this Part 5. Alternatively, no friable ACM determination by a CABI is required if the disposal load is assumed to be RACS containing 1% or greater of friable ACM and is disposed of accordingly. Documentation stating that soil originating from this site shall not be used as daily cover or sold as clean fill must accompany each load of RACS removed from the site.

(2) RACS containing

(a) Less than one percent (1%) of friable ACM (as determined in the field by a CABI) by volume, based on continuous visual estimation, or other Department approved quantifiable means of measurement, must be packaged in a leak tight container and disposed in a manner similar to non-friable asbestos waste, as described in Section 5.2 of this Part 5. Documentation stating that soil originating from this site shall not be used as daily cover or sold as clean fill must accompany each load of RACS removed from the site.

(b) Only visible non-friable asbestos that has not been rendered friable, or RACS that contains no visible asbestos, must be packaged in a leak tight container and disposed of as non-friable asbestos in accordance with Section 5.2 of this Part 5. Documentation stating that soil originating from this site shall not be used as daily cover or sold as clean fill must accompany each load of RACS removed from the site.

- (c) The total volume of debris is less than 1% of the disposal load, and the material is all assumed to be RACS, then a CABI is not required to make a friable ACM determination.

(3) A Design and Operations (D&O) plan shall be submitted to, and approved by, the Department for onsite disposal of RACS outside of the AOC, in accordance with the Act and Regulations; however, the packaging requirements set forth above in 5.5.8 (A) (1-2) shall not be required for onsite disposal, but the requirements of Section 5.5.5 (B) (1) (f) are applicable. An environmental covenant, in accordance with 25-15-320, C.R.S., is required for onsite RACS disposal, and a Certificate of Designation shall be required, in accordance with Section 1.6 of this Regulation, unless exempt under Section 1.4.

(B) Reuse of RACS shall be in accordance with one of the following:

- (a) Reuse of RACS within the AOC shall comply with 5.5.5 (B) (1) (f), and the following cover requirements:
 - i. Cover RACS with geofabric, followed by 18 inches of fill suitable for unrestricted use, and vegetation; or
 - ii. Cover RACS with geofabric, followed by 6 inches of fill suitable for unrestricted use, and concrete or asphalt; or
 - iii. Cover RACS with geofabric, followed by fill suitable for unrestricted use to grade for vertical excavation faces or trenches; or
 - iv. Alternate cover designs as approved by the Department; and
 - v. Covenant requirements - **TBD**
- (b) A plan for beneficial reuse of RACS outside the AOC, in accordance with Section 8.6, shall be submitted to the Department for review and approval prior to its implementation. The plan must include provisions for covering RACS to prevent direct exposure, and must comply with the management requirements of Section 5.5.5 (B) (1) (f). Additionally,

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the cover requirements outlined in 5.5.4 (A) (3) shall be adhered to.
Covenant requirements **TBD**.

(C) Unrestricted reuse of material generated within the AOC demonstrated not to be RACS:

(a) Material may be shown to be appropriate for unrestricted use onsite or offsite based on analysis showing no detectable asbestos. Sampling shall be conducted in accordance with **Appendix 5C**.

5.5.9 FEES.

The Department shall collect fees, from the owner, operator, or person conducting the soil-disturbing activity, based on total documented costs, in accordance with Section 1.7