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TRI-PARTY AGREEMENT

Change Notice Number	TPA CHANGE NOTICE FORM	Date:
TPA-CN- 537		11/20/12

Document Number, Title, and Revision:
DOE/RL-2010-33, Rev 0., *Removal Action Work Plan for Central Plateau Decommissioning Activities*
0088779

Date Document Last Issued: 04/09/10

Originator: W.E. Toebe

Phone: 372-2359

Description of Change:
Change to document is needed to modify document to delete allowance for use of alternate controls for regulated asbestos-containing material. This change notice constitutes request for concurrence from the Washington State Department of Ecology and EPA.

O.A Farabee and F.W. Bond (Ecology) / C.J. Guzzetti (EPA) agree that the proposed change
DOE **Lead Regulatory Agency**
modifies an approved workplan/document and will be processed in accordance with the Tri-Party Agreement Action Plan, Section 9.0, *Documentation and Records*, and not Chapter 12.0, *Changes to the Agreement*.

DOE/RL-2010-33, Rev. 0, *Removal Action Work Plan for Central Plateau Decommissioning Activities* documents activities to be performed to achieve the non-time-critical removal action (NTCRA) for surplus facilities located on the Hanford Site's Central Plateau. The removal process is achieved through the deactivation, decontamination, decommissioning, and demolition (D4) of surplus facilities.

Section 2.2.2.1 addresses the removal and disposal of asbestos, including provisions for transite siding and conditional use of alternate methods using emission controls similar to those addressed by EPA's Alternative Asbestos Control Method, EPA/600/R-08/094, "*Comparison of the Alternative Asbestos Control Method and the NESHAP Method for Demolition of Asbestos-Containing Buildings.*" Section 4.2 also reference use of control similar to those addressed by EPA/600/R-08/094. By this change notice, these provisions are deleted from the RAWP. See attached redline-strikeout text modifying language in the RAWP, Sections 2.2.2.1, 4.2, 4.3, and 6.0.

Note: Include affected page number(s) Affected page numbers are 2-2, 2-3, 4-1, 4-8, and 6-3

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JAN 25 2013
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Justification and Impacts of Change:
The attached changes are made to accomplish the following:

- Revise D4 approach consistent with stated EPA expectations.
- Remove reference to demolition with transite siding in place.
- Remove reference to demolition with regulated asbestos-containing material in place and use of alternate emission controls.

Approvals:

DOE Project Manager	11.26.12 Date	[ ] Approved [ ] Disapproved
EPA Project Manager	11/20/12 Date	[✓] Approved [ ] Disapproved
Ecology Project Manager	11/26/12 Date	[~~✓~~] Approved [ ] Disapproved

waste acceptance criteria for the Environmental Restoration Disposal Facility (ERDF) or other disposal facility. Refer to Section 1.3.2 for the list of the primary hazardous substances.

Removal and disposal of asbestos and ACM will be performed~~. to the extent practicable,~~ in accordance with the substantive provisions of the *Clean Air Act and Amendments* (40 CFR 61, Subpart M) as identified in the Action Memorandum, which require special precautions to control airborne emissions of asbestos fibers during asbestos removal activities.

Asbestos abatement activities will be performed in full compliance with all substantive NESHAP standards that are ARAR for the work. Prior to the commencement of the demolition a thorough inspection of the affected facility will be performed for the presence of asbestos , including Category I and Category II nonfriable asbestos containing material (ACM). All Category II nonfriable ACM will generally be presumed to be potentially friable and will be removed prior to the start of actual demolition activities. If DOE identifies any Category II ACM that should be allowed to remain in place during demolition based on knowledge that the demolition will not render it friable, information identifying the planned demolition approach and describing how the Category II ACM will not become crumbled, pulverized or reduced to powder, by the forces expected to act on it during the demolition or otherwise friable will be provided in advance to EPA for approval. Category I nonfriable ACM will also be removed prior to the start of actual demolition activities, except in situations where demolition practices will be used that can be or have been demonstrated to the satisfaction of EPA to not render the Category I ACM friable, consistent with NESHAP standards. Demonstration can be performed using existing EPA or Washington State guidance regarding asbestos abatement under NESHAP. Such Category I nonfriable ACM must not be in poor condition and planned demolition activities must not subject the ACM to sanding, grinding, cutting, or abrading. In all cases, ACM that is either friable or cannot be demonstrated to remain nonfriable during a demolition will be removed prior to such demolition as required by NESHAP.~~Class II asbestos (e.g., transite siding) may be left on the outside of buildings/structures during demolition.~~

~~In situations where Class I Thermal System Insulation and/or Class II regulated asbestos-containing material (RACM) is inaccessible, removal poses significant worker safety issues, the building/structure is structurally unsound and/or in danger of imminent collapse, or removal requires initiation of demolition activities, emission controls similar to those addressed by EPA's Alternative Asbestos Control Method, EPA/600/R-08/094, "Comparison of the Alternative Asbestos Control Method and the NESHAP Method for Demolition of Asbestos-Containing Buildings," will be used. Notification to EPA will be provided prior to implementation of this alternative method. Notification may be in the form of email and will provide pertinent information such as an estimate of potential ACM that will remain prior to demolition, planned asbestos controls methods, etc. Controls such as the following will be implemented by incorporation into the work document.~~

- ~~An accredited asbestos building inspector will perform a comprehensive inspection of the building/structure to be demolished.~~
- ~~An estimate of the potential ACM that may reside in the building or structure.~~
- ~~A competent person trained in asbestos regulations will provide oversight during active asbestos demolition activities.~~
- ~~Track hoes, end loaders, and equivalent equipment and controlled explosives may be used during demolition in conjunction with wetting processes to minimize generation of dust.~~

- ~~Buildings/structures to be demolished with RACM remaining will be thoroughly and adequately wetted with amended water (water to which a surfactant has been added) prior to demolition, during demolition, and during debris handling and loading. To the extent feasible, cavity areas and interstitial wall spaces will be wetted. A fixative or sealant such as "lockdown" may be used to reduce the potential for fiber and dust generation during the demolition process. Additionally, fixative or sealant will be used on demolition debris that will remain undisturbed for greater than 24 hours.~~
- ~~Breakage of ACM will be minimized, to the extent practical, and ACM debris generated during that day will be containerized for disposal.~~
- ~~The "National Emission Standards for Hazardous Air Pollutants" (NESHAP) asbestos standard of "no visible emissions" from RACM or ACM will be employed.~~
- ~~In the event of inclement weather that will impede the ability to adequately wet the structure, demolition activities will be delayed or halted.~~
- ~~Worker protection requirements will be followed. Personal protection equipment (PPE) will either be disposed of as RACM or decontaminated in accordance with the Occupational Safety and Health Administration (OSHA) practices.~~
- ~~Potentially contaminated water will be controlled during demolition. Impervious surfaces will be thoroughly washed with water following completion of the asbestos-related activities.~~
- ~~Upon the removal of demolition debris, bare soil within the asbestos-related demolition area will be excavated to a minimum depth of 7.62 cm (3 in) or until no debris is found. If berms or other run-off controls were used to contain water, they will be removed and disposed of as potentially asbestos-contaminated.~~

In instances where beryllium-contaminated materials may be present, special controls for beryllium will be necessary. Beryllium-contaminated materials will be managed in a manner that ensures worker protection. Prior to demolition, beryllium contamination may be fixed in place, as required.

Known liquid PCBs will be removed from buildings/structures prior to demolition. Other PCBs will only be removed as needed prior to demolition to facilitate proper disposal in accordance with ARARs and the waste acceptance criteria for ERDF or other receiving facility. PCB surface coatings and PCB spills (e.g., dried paints, adhesives) on concrete and other materials (both porous and non-porous materials) may be stabilized or fixed in place prior to demolition and the resulting demolition debris disposed as PCB bulk product waste or PCB remediation waste, as appropriate.

Where slabs or below-grade structures with suspected PCBs will be left in place, sampling may be performed to determine if potentially previously contaminated surfaces meet the substantive PCB decontamination standards of 40 CFR 761.79 without further action. When such sampling is performed, the results will be used to determine the TSCA status of the slab or structure to be left in place. If the results of sampling indicate presence of PCB contamination above applicable levels from 40 CFR 761,the contamination will be removed from the slab or structure to be left in place, if practicable, in accordance with substantive standards of 40 CFR 761.79(b) or (c). Materials separated from the contaminated slab or structure will be disposed as PCB waste. Subsequent sampling of the slab or structure to be left in place will be performed after decontamination. When decontamination is achieved to below applicable levels of 40 CFR 761.79, the slab or structure will no longer be subject to TSCA. If decontamination methods other than those addressed in 40 CFR 761.79(b) or (c) are determined necessary, concurrence of the alternate decontamination approach would be obtained from EPA prior to implementation. If decontamination is impracticable or unachievable, the contractor may consult with the On Scene

4 Environmental Management and Controls

4.1 Applicable or Relevant and Appropriate Requirement Compliance

The ARARs for this removal action are identified in the Action Memorandum, DOE/RL-2010-22. The key ARARs include waste management standards, standards controlling releases to the environment, and standards for protection of cultural and natural resources.

4.2 Waste Management Plan

A variety of waste streams will be generated under this removal action. It is anticipated that some of the waste will potentially be determined to be low-level waste (LLW). However, dangerous or mixed waste, PCB waste, and asbestos and asbestos-containing material also could be generated. The majority of the waste will be in a solid form. However, some liquid wastes might be generated. Waste management activities will be performed in accordance with the following ARARs:

- The *Atomic Energy Act of 1954* for management by DOE of radioactive waste.
- RCRA, as implemented by 40 CFR 260 through 268 and *Washington Administrative Code* (WAC) 173-303 for management of dangerous waste. The identification, storage, treatment, and disposal of hazardous waste and the hazardous component of mixed waste are governed by RCRA. The State of Washington, which implements RCRA requirements under WAC 173-303, has been authorized to implement most elements of the RCRA program. The dangerous waste standards for generation and storage will apply to the management of any dangerous or mixed waste generated by the decommissioning activities at the Hanford excess industrial buildings/ structures and as a result of debris cleanup activities. Treatment standards for dangerous or mixed waste subject to RCRA land disposal restrictions (LDRs) are specified in WAC 173-303-140, which incorporates 40 CFR 268 by reference.
- TSCA includes standards for management of PCB waste. The disposal of PCB wastes are governed by regulations at 40 CFR 761. PCB wastes that are generated during decommissioning and debris cleanup activities will be disposed at ERDF or other appropriate facility in accordance with the substantive provisions of 40 CFR 761.PCBs also are considered underlying hazardous constituents under RCRA for waste that designates as dangerous or mixed waste, and thus could require treatment to meet WAC 173-303 and 40 CFR 268 requirements.
- The CAA, as implemented by 40 CFR 61, Subpart M. Removal and disposal of asbestos and ACM are regulated under the CAA (40 CFR 61, Subpart M). These regulations provide for special precautions to control environmental releases or exposure to personnel due to airborne emissions of asbestos fibers during removal actions. ~~In situations where removal of RACM is impractical or infeasible prior to demolition, emission controls similar to those addressed by EPA's Alternative Asbestos Control Method[3] will be used as described in Section 2.2.2.1.~~

Wastes generated through implementation of this removal action will be disposed of at ERDF, the preferred waste disposal facility, in accordance with the waste acceptance criteria (WCH-191, *Environmental Restoration Disposal Facility Waste Acceptance Criteria*). Alternate onsite and/or offsite waste treatment or disposal facilities that meet 40 CFR 300.440 criteria may be considered if determined to be suitable.

~~[3] USEPA (2008) "Comparison of the Alternative Asbestos Control Method and the NESHAP Method for Demolition of Asbestos-Containing Buildings," Publication No. EPA/600/R-08/094.~~

4.3.2 Criteria/Toxic Emissions

The primary source of emissions resulting from this removal action will be fugitive particulate matter. In accordance with WAC 173-400-040(3) and (8), reasonable precautions will be taken to (1) prevent the release of air contaminants associated with fugitive emissions resulting from demolition, materials handling, or other operations; and (2) prevent fugitive dust from becoming airborne from fugitive sources of emissions.

Operation of trucks and other diesel-powered equipment during these removal activities would be expected, in the short term, to introduce quantities of sulfur dioxide, nitrogen dioxide, particulates, and other pollutants to the atmosphere, typical of similar-sized construction projects. These releases would not be expected to cause any air quality standards to be exceeded. Dust generated during removal activities would be minimized by watering or other dust-control measures, e.g., use of fixatives. Vehicular and equipment emissions will be controlled and mitigated in compliance with the substantive standards for air quality protection that apply to the Hanford Site. These techniques are considered reasonable precautions to control fugitive emissions as required by the substantive requirements.

Emissions that would be subject to the substantive applicable requirements of WAC 173-460 after use of treatment technologies are not anticipated to be a part of this removal action.

Treatment of some waste encountered during the removal action may be required to meet the ERDF waste acceptance criteria. In most cases, the type of treatment anticipated will consist of solidification/stabilization techniques such as macroencapsulation or grouting, and WAC 173-460 will not be considered an ARAR because the work will not result in the emission of toxic air pollutants at regulated levels. If more aggressive treatment is required that would result in the emission of regulated air pollutants above de minimis emission values in WAC 173-460-150, the substantive requirements of WAC 173-400-113(2) and WAC 173-460-060 will be evaluated to determine applicability and satisfy substantive requirements determined to be ARAR.

4.3.3 Asbestos Emissions

Removal and disposal of asbestos and ACM are regulated under the CAA. The substantive provisions of these regulations provide for special precautions to prevent environmental releases or exposure to personnel of airborne emissions of asbestos fibers during removal actions. ~~In situations where removal of RACM is impractical or infeasible prior to demolition, emission controls similar to those addressed by EPA's Alternative Asbestos Control Method will be used as discussed in Section 2.2.2.1.~~

4.3.4 Emission Limits and Controls

Based on analysis of the potential emissions and analysis of available control technologies, the following controls have been selected for use during the removal action.

- Water will be applied, as needed, during any excavation and backfilling/recontouring activities, to spray for suppression of fugitive emissions including dust.
- Fixatives will be applied to structural materials, debris and equipment, and/or contaminated soil as needed, to minimize airborne contamination during the removal action activities for fugitive emissions and dust. Fixative application techniques may include spraying, fogging, brushing on, pouring, or some other method, as necessary.
- Fixatives or cover material (e.g., soil, gravel, etc.) will be applied to disturbed contaminated soils, when field activities will be inactive more than 24 hours except as noted in the next bullet.

DOE/RL-96-32, 2001, *Hanford Site Biological Resources Management Plan*, U.S. Department of Energy, Richland Operations Office, Richland, Washington. Available at http://www.pnl.gov/ecomon/docs/brmap/BRMaP.pdf.

DOE/RL-96-88, 2003, *Biological Resources Mitigation Strategy*, U.S. Department of Energy, Richland Operations Office, Richland, Washington. http://www.pnl.gov/ecomon/docs/BRMiS.pdf.

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Ecology, EPA, and DOE, 1989, *Hanford Federal Facility Agreement and Consent Order*, Washington State Department of Ecology, U.S. Environmental Protection Agency, and U.S. Department of Energy, Olympia, Washington. Available at http://www.hanford.gov/?page=91&parent=0.

Endangered Species Act of 1973, 16 USC 1531 et seq. Available at http://www.fws.gov/laws/lawsdigest/ESACT.html.

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EPA, 2006, *Updated User's Guide for CAP88-PC, Version 3* http://www.epa.gov/rpdweb00/assessment/CAP88/index.html#version3.

EPA/240/B-01/003, 2001, *EPA Requirements for Quality Assurance Project Plans*, EPA QA/R-5, U.S. Environmental Protection Agency, Quality Assurance Division, Washington, D.C. Available at: http://www.epa.gov/QUALITY/qs-docs/r5-final.pdf.

~~EPA/600/R-08/094, 2008, *Comparison of the Alternative Asbestos Control Method and the NESHAP Method for Demolition of Asbestos-Containing Buildings*, U.S. Environmental Protection Agency, National Risk Management Research Laboratory, Cincinnati, Ohio. Available at: http://www.epa.gov/nrmrl/pubs/600r08094/600r08094.html.~~

HNF-2418, 1997, *Soil Contamination Standards for Protection of Personnel*, Fluor Daniel Hanford, Inc., Richland, Washington. Available at http://www2.hanford.gov/arpir/?content=findpage&AKey=0904290338.

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Document Number, Title, and Revision: DOE/RL-2010-33, Rev 0., *Removal Action Work Plan for Central Plateau Decommissioning Activities*		Date Document Last Issued: 04/09/10
Originator: W.E. Toebe		Phone: 372-2359

Description of Change:
Change to document is needed to modify document to delete allowance for use of alternate controls for regulated asbestos-containing material. This change notice constitutes request for concurrence from the Washington State Department of Ecology and EPA.

O.A Farabee (DOE) and F.W. Bond (Ecology) C.J. Guzzetti (EPA) (Lead Regulatory Agency) agree that the proposed change modifies an approved workplan/document and will be processed in accordance with the Tri-Party Agreement Action Plan, Section 9.0, *Documentation and Records*, and not Chapter 12.0, *Changes to the Agreement*.

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Section 2.2.2.1 addresses the removal and disposal of asbestos, including provisions for transite siding and conditional use of alternate methods using emission controls similar to those addressed by EPA's Alternative Asbestos Control Method, EPA/600/R-08/094, "*Comparison of the Alternative Asbestos Control Method and the NESHAP Method for Demolition of Asbestos-Containing Buildings.*" Section 4.2 also reference use of control similar to those addressed by EPA/600/R-08/094. By this change notice, these provisions are deleted from the RAWP. See attached redline-strikeout text modifying language in the RAWP, Sections 2.2.2.1, 4.2, 4.3, and 6.0.

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- Revise D4 approach consistent with stated EPA expectations.
- Remove reference to demolition with transite siding in place.
- Remove reference to demolition with regulated asbestos-containing material in place and use of alternate emission controls.

Approvals:

DOE Project Manager	11.26.12 Date	[] Approved [] Disapproved
EPA Project Manager	11/26/12 Date	[✓] Approved [] Disapproved
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waste acceptance criteria for the Environmental Restoration Disposal Facility (ERDF) or other disposal facility. Refer to Section 1.3.2 for the list of the primary hazardous substances.

Removal and disposal of asbestos and ACM will be performed~~. to the extent practicable,~~ in accordance with the substantive provisions of the *Clean Air Act and Amendments* (40 CFR 61, Subpart M) as identified in the Action Memorandum, which require special precautions to control airborne emissions of asbestos fibers during asbestos removal activities.

Asbestos abatement activities will be performed in full compliance with all substantive NESHAP standards that are ARAR for the work. Prior to the commencement of the demolition a thorough inspection of the affected facility will be performed for the presence of asbestos , including Category I and Category II nonfriable asbestos containing material (ACM). All Category II nonfriable ACM will generally be presumed to be potentially friable and will be removed prior to the start of actual demolition activities. If DOE identifies any Category II ACM that should be allowed to remain in place during demolition based on knowledge that the demolition will not render it friable, information identifying the planned demolition approach and describing how the Category II ACM will not become crumbled, pulverized or reduced to powder, by the forces expected to act on it during the demolition or otherwise friable will be provided in advance to EPA for approval. Category I nonfriable ACM will also be removed prior to the start of actual demolition activities, except in situations where demolition practices will be used that can be or have been demonstrated to the satisfaction of EPA to not render the Category I ACM friable, consistent with NESHAP standards. Demonstration can be performed using existing EPA or Washington State guidance regarding asbestos abatement under NESHAP. Such Category I nonfriable ACM must not be in poor condition and planned demolition activities must not subject the ACM to sanding, grinding, cutting, or abrading. In all cases, ACM that is either friable or cannot be demonstrated to remain nonfriable during a demolition will be removed prior to such demolition as required by NESHAP.~~Class II asbestos (e.g., transite siding) may be left on the outside of buildings/structures during demolition.~~

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- ~~Upon the removal of demolition debris, bare soil within the asbestos-related demolition area will be excavated to a minimum depth of 7.62 cm (3 in) or until no debris is found. If berms or other run-off controls were used to contain water, they will be removed and disposed of as potentially asbestos-contaminated.~~

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- The CAA, as implemented by 40 CFR 61, Subpart M. Removal and disposal of asbestos and ACM are regulated under the CAA (40 CFR 61, Subpart M). These regulations provide for special precautions to control environmental releases or exposure to personnel due to airborne emissions of asbestos fibers during removal actions. ~~In situations where removal of RACM is impractical or infeasible prior to demolition, emission controls similar to those addressed by EPA's Alternative Asbestos Control Method[3] will be used as described in Section 2.2.2.1.~~

Wastes generated through implementation of this removal action will be disposed of at ERDF, the preferred waste disposal facility, in accordance with the waste acceptance criteria (WCH-191, *Environmental Restoration Disposal Facility Waste Acceptance Criteria*). Alternate onsite and/or offsite waste treatment or disposal facilities that meet 40 CFR 300.440 criteria may be considered if determined to be suitable.

~~[3] USEPA (2008) "Comparison of the Alternative Asbestos Control Method and the NESHAP Method for Demolition of Asbestos-Containing Buildings," Publication No. EPA/600/R-08/094.~~

4.3.2 Criteria/Toxic Emissions

The primary source of emissions resulting from this removal action will be fugitive particulate matter. In accordance with WAC 173-400-040(3) and (8), reasonable precautions will be taken to (1) prevent the release of air contaminants associated with fugitive emissions resulting from demolition, materials handling, or other operations; and (2) prevent fugitive dust from becoming airborne from fugitive sources of emissions.

Operation of trucks and other diesel-powered equipment during these removal activities would be expected, in the short term, to introduce quantities of sulfur dioxide, nitrogen dioxide, particulates, and other pollutants to the atmosphere, typical of similar-sized construction projects. These releases would not be expected to cause any air quality standards to be exceeded. Dust generated during removal activities would be minimized by watering or other dust-control measures, e.g., use of fixatives. Vehicular and equipment emissions will be controlled and mitigated in compliance with the substantive standards for air quality protection that apply to the Hanford Site. These techniques are considered reasonable precautions to control fugitive emissions as required by the substantive requirements.

Emissions that would be subject to the substantive applicable requirements of WAC 173-460 after use of treatment technologies are not anticipated to be a part of this removal action.

Treatment of some waste encountered during the removal action may be required to meet the ERDF waste acceptance criteria. In most cases, the type of treatment anticipated will consist of solidification/stabilization techniques such as macroencapsulation or grouting, and WAC 173-460 will not be considered an ARAR because the work will not result in the emission of toxic air pollutants at regulated levels. If more aggressive treatment is required that would result in the emission of regulated air pollutants above de minimis emission values in WAC 173-460-150, the substantive requirements of WAC 173-400-113(2) and WAC 173-460-060 will be evaluated to determine applicability and satisfy substantive requirements determined to be ARAR.

4.3.3 Asbestos Emissions

Removal and disposal of asbestos and ACM are regulated under the CAA. The substantive provisions of these regulations provide for special precautions to prevent environmental releases or exposure to personnel of airborne emissions of asbestos fibers during removal actions. ~~In situations where removal of RACM is impractical or infeasible prior to demolition, emission controls similar to those addressed by EPA's Alternative Asbestos Control Method will be used as discussed in Section 2.2.2.1.~~

4.3.4 Emission Limits and Controls

Based on analysis of the potential emissions and analysis of available control technologies, the following controls have been selected for use during the removal action.

- Water will be applied, as needed, during any excavation and backfilling/recontouring activities, to spray for suppression of fugitive emissions including dust.
- Fixatives will be applied to structural materials, debris and equipment, and/or contaminated soil as needed, to minimize airborne contamination during the removal action activities for fugitive emissions and dust. Fixative application techniques may include spraying, fogging, brushing on, pouring, or some other method, as necessary.
- Fixatives or cover material (e.g., soil, gravel, etc.) will be applied to disturbed contaminated soils, when field activities will be inactive more than 24 hours except as noted in the next bullet.

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