



Off-Site Use of Regulated Fill Policy

Voluntary Investigation and Cleanup Program

Petroleum Brownfields Program

Policy Statement

Brownfield redevelopment sites that are enrolled in the Minnesota Pollution Control Agency's (MPCA) Voluntary Investigation and Cleanup (VIC) and/or Petroleum Brownfields (PB) programs may move Regulated Fill, as defined below, from one VIC/PB site to another VIC/PB site, subject to the terms and conditions outlined below.

Background

A developer may need to excavate large quantities of soil for geotechnical soil correction, changes in grade, or for the construction of basements, underground parking, or utility corridors. Often, this soil may consist of historical urban fill that has concentrations of contaminants greater than the MPCA's Residential Soil Reference Values (SRVs) but less than or equal to Industrial SRVs. In the past, the MPCA has required such soil, if excess, to be hauled to a permitted landfill for disposal or use as daily cover. Other Brownfield sites being redeveloped for industrial or restricted commercial use may require the import of large quantities of soil to backfill an excavation or to achieve the necessary design grade. Typically, these sites import clean fill to meet site redevelopment needs. In cases where low-impact soil can be reused in a way that is protective of human health and the environment, the controlled off-site reuse of such soil is consistent with a green remediation philosophy and can be a significant cost-saving measure for developers of Brownfield sites and for state and local units of government which provide contamination cleanup grants.

Definitions

The MPCA's framework for the off-site use of excess soil generated during site redevelopment is based upon three categories of potential fill soils, as defined below:

- **Clean Fill** – soil that is unaffected by a spill or release.
- **Unregulated Fill** – soil with no field signs of contamination, but which nevertheless has been affected by a release of contaminants at concentrations less than the MPCA's most conservative screening values. The MPCA has recommended best management practices for persons seeking to reuse Unregulated Fill. For additional information, see "Best Management Practices for the Off-Site Reuse of Unregulated Fill". <http://tinyurl.com/Unregulated-Fill-BMP>
- **Regulated Fill** – soil which has any of the contaminant characteristics described below:
 - diesel range organics (DRO)/gasoline range organics (GRO) 100 milligrams per kilogram (mg/kg) or greater from a known or likely petroleum source
 - metals or semi-volatile organic compounds (SVOCs) between the MPCA's residential and industrial SRVs
 - volatile organic compounds (VOCs) between the MPCA's default Tier 1 Soil Leaching Values (SLVs) and the site-specific Tier 2 SLVs for the importing site

Characterization of Regulated Fill

A sampling plan to characterize excess soil for potential off-site use as regulated fill should be reviewed and approved by VIC/PB staff. The approved sampling approach can be implemented during Phase II field work or as a separate effort during implementation of the Response Action Plan/Soil Management Plan. The following bullet points address some frequently asked questions regarding characterization of fill for potential off-site use:

- Naturally-occurring concentrations of some metals, such as arsenic, selenium, or copper, sometimes exceed the SRV or SLV. Such soils are not considered impacted in the absence of a contaminant source or other field or laboratory indications of contamination.
- Some detections of DRO in soil may stem from the presence of natural organic material or non-petroleum contaminants in the soil, such as coal tars or other material containing polynuclear aromatic hydrocarbons (PAHs). Evaluation of DRO data should take into consideration the history of the property, including the known or likely presence of a petroleum source, the presence (or lack thereof) of other contaminants in the soil sample, and the type of soil. If positive DRO results are related to non-petroleum contaminants, risk-based criteria for the non-petroleum contaminants should be applied. If desired, laboratory analytical methods are available to help determine if the DRO is from natural organic material in the soil.
- Provided that enough samples of the fill material have been collected to allow a meaningful statistical evaluation of the data, averaging of the data is acceptable. For example, some exporting sites that have successfully applied an averaging approach (excluding hot spots) have implemented a three-dimensional grid-based sampling strategy during the site investigation phase to characterize the fill material for potential reuse.
- While the goal is for Regulated Fill to be as free of debris as practicable, Regulated Fill may contain a de minimis amount of inert debris such as fragments of brick, concrete, glass, metal, etc. Because Regulated Fill will typically be comprised of historical urban fill, Regulated Fill may be discolored relative to native soil. If VOCs or elevated organic vapors (10 ppm or greater) as measured by a photo ionization detector (PID) are present in the Regulated Fill, special placement criteria at the receiving site may apply. The presence of VOCs in the Regulated Fill may also trigger the need for MPCA-approved site-specific Tier 2 SLVs for the receiving site.

Exclusions

Reuse of the following soil and other materials are not covered by the MPCA's fill reuse framework and will not be approved under this policy:

- Soil contaminated with agricultural chemicals. Such soil is under the regulatory oversight of the Minnesota Department of Agriculture Incident Response Program.
- Soil containing asbestos-containing material.
- Soil containing more than a de minimis amount of demolition debris, industrial waste, or other solid waste. Such soil continues to be regulated by the MPCA as a solid waste.
- Soil that is characteristically hazardous or contaminated due to a release of a listed hazardous waste. Such soil must be managed in accordance with the requirements of the MPCA's Resource Conservation and Recovery Act (RCRA) program.
- Soil exhibiting chemical odors, due to the potential for nuisance conditions at the receiving site.

- Non-soil materials such as crushed concrete, bricks, etc., that are proposed to be beneficially used as fill. Such material must be managed in accordance with the requirements of the MPCA's Solid Waste Program. <http://tinyurl.com/Beneficial-Use>
- Dredge materials. Such material may be regulated by permit or be subject to other MPCA regulations. <http://tinyurl.com/Dredged-Materials>

Requirements for Off Site Use of Regulated Fill

1. Both the exporting and importing sites must be enrolled in the VIC and/or PB program(s), as appropriate for the type of contaminants present at the site.
2. Both the exporting and importing sites must have completed a Phase I and Phase II environmental site assessment that is acceptable to MPCA.
3. Both the exporting and importing sites must have an MPCA-approved plan for the management and reuse of the Regulated Fill. This can be in the form of a *Response Action Plan* (RAP), if response actions are needed at the site or a *Soil Management Plan*, if response actions are not necessary or if the soil reuse plans were not known at the time the RAP was written.
4. Regulated Fill can only be used at restricted commercial or industrial sites which have existing contamination similar in type and concentration to that of the Regulated Fill to be imported. For definitions of restricted commercial and industrial property use, see the MPCA's Risk-Based Site Evaluation Manual at the link below. Placement of Regulated Fill at uncontaminated sites, or where only minor contamination is present (e.g. < Residential SRVs), or where the land use is not restricted commercial or industrial will not be approved. <http://tinyurl.com/RBSE-definitions>
5. The off-site use of Regulated Fill must be protective of human health and the environment, and there must be no increase in risk posed by the contamination as a result of its placement at the importing site. The evaluation of risk at the importing site must include (a) the potential human health risk through direct exposure to the soil contaminants, (b) the potential for groundwater impacts due to leaching, (c) the potential for soil vapor migration and vapor intrusion, and (d) the potential for surface water impacts.
6. The importing site must be a locally permitted and approved construction/redevelopment project with a legitimate need for backfill or grading material, as indicated in site documents submitted to the MPCA.
7. A **Regulated Fill application** which describes the proposal for the export/import of Regulated Fill must be submitted to the MPCA for review and approval. The Regulated Fill application identifies the exporting and importing sites and provides the necessary supporting information by which to evaluate the proposal. The application must be signed by the property owners of the exporting and importing sites.
8. The property owner of the importing site shall furnish a copy of the Regulated Fill application to the local unit(s) of government (LUG) listed below, as appropriate for the site. The LUG must sign a **Local Government Notification** form to confirm receipt of the information. A copy of the signed local government notification form must be attached to the Regulated Fill application when submitted to MPCA. Compliance with this policy does not release either party (exporter or importer) from any obligation to comply with local government ordinances, including ordinances that may require a solid waste permit prior to placement of the Regulated Fill material.
 - county auditor or other person designated by the county board to receive notifications
 - city clerk or other person designated by the city council to receive notifications

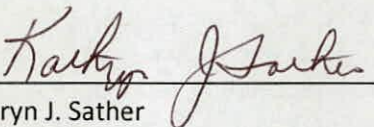
- town clerk or town chair as determined by resolution of the town board
 - for land within a reservation, the appropriate official of the tribal authority
9. Final placement of Regulated Fill at the importing site must be in accordance with the timeframe described in the Regulated Fill application, as approved by the MPCA. Temporary staging of Regulated Fill at a site other than the originating or importing sites will not be approved.
 10. The origin, final disposition, and placement of the Regulated Fill must be described in the Implementation Reports for the exporting and importing sites, with appropriate documentation. The Implementation Reports must be submitted to the MPCA for review and approval.
 11. An institutional control may be required for the receiving site based on activity restrictions or affirmative obligations related to the site's final conditions, as per standard Remediation Division policy. In the vast majority of cases, the need for an institutional control at the importing site will be driven by the site's own residual contamination, as opposed to the import of Regulated Fill. In rare cases where the placement of Regulated Fill was contingent upon the presence of a paved surface or building to reduce infiltration, the import of Regulated Fill may trigger the need for an institutional control.

Approvals/Assurances

Regulated Fill is considered by the MPCA to be solid waste. However, the MPCA has adopted a Program Management Decision on Regulated Fill which allows the VIC and PB programs to provide oversight for the off-site reuse of Regulated Fill, as defined above, rather than have such sites subject to permitting under the solid waste management program. The MPCA will not require permits or approvals to be obtained from the solid waste program for the off-site use of Regulated Fill, when managed in accordance with the terms and conditions of this policy. The MPCA will take no action against persons who move Regulated Fill, as defined above, from one VIC/PB site to another VIC/PB site so long as the persons comply with the terms and conditions of this policy.

The VIC/PB programs will use the following approvals and assurances to provide regulatory oversight and environmental closure for Brownfield redevelopment sites exporting or importing Regulated Fill. As with any approval or assurance, standard disclaimers will apply.

- Approval of Response Action Plan and/or Soil Management Plan.
- Approval of Regulated Fill application.
- For a site which exports or imports Regulated Fill impacted by petroleum, the PB program may issue an Implementation Report approval letter for the site.
- For a site which exports or imports Regulated Fill impacted by hazardous substances, the VIC program may issue an Implementation Report approval letter and a No Action/No Further Action Letter for the site, provided that the site meets all appropriate VIC requirements for these assurances.


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3/23/12
Date