

Illinois Changes to Mercury Remediation Objectives

Introduction

Earlier this year, the State of Illinois amended the Tiered Approach to Corrective Action Objectives (TACO) regulations (35 IAC Part 742). The changes included, but were not limited to revision of the Tier 1 Soil Remediation Objectives (SRO) for the Construction Worker Inhalation Exposure Route (CWIER). SROs for twenty-eight (28) contaminants of concern (COC) were revised, and in particular, the mercury SRO for the CWIER was reduced from 52,000 to 0.1 mg/kg. This new mercury SRO is intended to address elemental mercury (free phase mercury). According to the IEPA, the burden to demonstrate there is no elemental mercury is placed on the Property owner. However, laboratory costs to assess for the presence of elemental mercury can be in complicated and expensive. Consequently, in the absence of this laboratory analysis, the 0.1 mg/kg CWIER SRO will be applied by the IEPA.

This change is one of the more dramatic, and is particularly significant because mercury is often detected in soils sampled from sites located in large urban areas. Within the Chicago metropolitan area it is not unusual to detect mercury concentrations well in excess of this revised SRO. This revision has the potential to impact property transactions, routine soil excavation projects, or new construction throughout the Chicago metropolitan area.

Applicability

Mercury is commonly detected at low concentrations in many generally inert soils and fill materials in excess of 0.1 mg/kg. Consequently, construction worker safety precautions are expected to be required for more property developments, even where there is no visible evidence or suggestion of environmental concerns. General and/or remediation contractors may also have to accommodate additional health and safety considerations.

Protective Measures

Protection of the CWIER can be addressed through applicable regulations promulgated by the Illinois Environmental Protection Agency (IEPA) and the Occupational Safety and Health Administration (OSHA). Based on our experience, the IEPA allows these COC concentrations to be addressed with the following construction worker safety provisions:

- Property owner/operator will notify construction workers in advance of site conditions and will enumerate the COCs known to be present; and
- Property owner/operator will require construction workers to implement protective measures consistent with good industrial hygiene practice.

These precautions are required only when intrusive activities are conducted in areas of a property where the SROs have been exceeded. An alternative option is to perform a site-specific Risk Based Corrective Action (RBCA) evaluation in order to calculate a Tier 2 mercury SRO for the CWIER. In light of recent changes to TACO, the IEPA is just beginning to understand the implications of this change to the mercury SRO. Consequently, traditional approaches to addressing the CWIER are being relied upon at this time.

Weaver Boos Qualifications

Weaver Boos is experienced assisting developers and contractors in managing construction worker safety precautions. As a routine course of business we can:

- Develop Health and Safety Plans (HASP) for projects requiring construction worker safety precautions. These plans are generally submitted to a developer or contractor prior to site demolition or construction activities and can serve future landowners as well;
- Provide on-site monitoring of HASP protocols on behalf of owners, developers or contractors; and
- Develop site-specific Tier 2 SROs for the CWIER that may mitigate the need for additional precautions during site development or future subsurface intrusive activities

Weaver Boos employs qualified Environmental Professionals educated and experienced to assist you with your environmental management requirements. For more information, please call Peter Cambouris at 312-922-1030 or Doug Dorgan at 630-717-4848.

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