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Standard Guide for Risk-Based Corrective Action[1]

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INTRODUCTION

This guide provides guidance for the development of a Risk-Based Corrective Action (RBCA) program that integrates the sciences of ecological and human health risk-based decision making into the corrective action process. The RBCA provides a flexible, technically defensible framework for corrective action that is applicable to a wide range of sites and chemical(s) of concern. The framework incorporates a tiered analytical approach, applying increasingly complex levels of data collection and analysis as the user proceeds through the process. It provides a starting point for the integration of multiple regulatory programs into a site-wide corrective action activity and a technically defensible process for achieving "No Further Action." The successful implementation of the RBCA framework is dependent on an understanding by the user of the technical policy decisions that are critical to the risk management process and the identification and determination of these technical policy decisions prior to beginning the process (see 3.2.60). There are numerous technical policy decisions that must be made to implement the RBCA process, for example, defining data quality objectives, determining target risk levels and addressing resource protection. It is not the intent of this guide to define appropriate technical policy decisions. The RBCA process is not intended to replace existing regulatory programs, but rather to complement these programs. Regardless of whether a corrective action is specifically governed by a regulatory program, the user should consult the regulatory agency requirements to identify the appropriate technical policy decisions prior to implementing the RBCA process. The RBCA process encourages user-led initiatives and stakeholder involvement in both the development of the technical policy decisions and the RBCA program. It recognizes the diversity of sites and provides appendixes for possible applications and examples. The appendixes are provided for additional information and are not mandatory sections of this standard guide. ASTM standards are not federal or state regulations; they are consensus standards that can voluntarily be followed.

1. Scope

1.1 This is a guide for conducting risk-based corrective action (RBCA) at chemical release sites based on protecting human health and the environment. The RBCA is a consistent decision-making process for the assessment and response to chemical releases. Chemical release sites vary greatly in terms of complexity, physical and chemical characteristics, and in the risk that they may pose to human health and the environment. The RBCA process recognizes this diversity by using a tiered approach that integrates site assessment and response actions with human health and ecological risk assessment to determine the need for remedial action and to tailor corrective action activities to site-specific conditions and risks. The evaluations and methods used in the RBCA process begin with simple analyses in Tier 1 and move to more complex evaluations in either Tier 2 or Tier 3, as applicable. The process of gathering and evaluating data is conducted in a scaled fashion. Consequently, only the data that are necessary for a particular tier's decision-making are collected at that tier.

1.2 This guide describes an approach for risk-based corrective action. It is intended to help direct and streamline the corrective action process and to complement but not to supersede federal, state and local regulations. It can be employed at sites where corrective action is being conducted including sites where there may not be a regulatory framework for corrective action, or where the user wishes to conduct corrective action such as sites in voluntary cleanup programs or under Brownfields initiatives. In addition, it can also be used as a unifying framework when several different agency programs affect the site. Furthermore, the user should be aware of the federal, state and local corrective action programs that are

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