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Standard Guide for Use of Activity and Use Limitations, Including Institutional and Engineering Controls¹

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INTRODUCTION

Valuable property, which is, or is perceived to be, environmentally impacted, remains idle throughout the fifty states because fears of liability and *corrective action* costs deter potential developers, purchasers, and lenders. In response, many states have adopted voluntary *corrective action* or brownfields programs that utilize risk-based *corrective action* principles. One element of these programs may be *activity and use limitations* to achieve either an “acceptable risk” or a “no significant risk” level. For example, an owner/operator who volunteers to remediate a *site* to meet an industrial or commercial use standard may do so in exchange for a *restrictive covenant* that limits the use of the *site* to industrial or commercial purposes only. *Activity and use limitations* should be considered an integral part of the *remedial action* selection process. The user may determine, based upon post-*remedial action* land use, or based upon the deficiencies in available *activity and use limitations*, that an activity and use limitation is not feasible for the *site*. The most effective use of *activity and use limitations* as part of a federal, state, tribal or local remediation program requires careful consideration of many factors, including effectiveness, amenability to integration with property redevelopment plans, implementability, technical practicability, cost prohibitiveness, long-term reliability, acceptability to *stakeholders*, and cost effectiveness. While this guidance is most likely to be applied where risk-based corrective actions are conducted, use of *activity and use limitations* is not restricted to risk-based applications. Both institutional and *engineering controls* may be employed as elements of a *remedial action* that is based on concentration level, background, or other non-risk-based approaches.

1. Scope

1.1 This guide covers information for incorporating *activity and use limitations* that are protective of human health and the environment into federal, state, tribal or local remediation programs using a risk-based approach to *corrective action*. *Activity and use limitations* should be considered early in the *site* assessment and *remedial action* selection process, and should be considered an integral part of *remedial action* selection. In the event that an appropriate activity and use limitation cannot be found, the user may need to revisit the initial *remedial action* selection decision.

1.2 This guide does not mandate any one particular type of activity and use limitation but merely serves to help users

identify, implement and maintain the types of *activity and use limitations* that may be appropriate in programs using a risk-based decision-making approach.

1.3 This guide identifies screening and balancing criteria that should be applied in determining whether any particular activity and use limitation may be appropriate. This guide identifies the need to develop long-term monitoring and stewardship plans to ensure the long-term reliability and enforceability of *activity and use limitations*. This guide explains the purpose of *activity and use limitations* in the *remedial action* process and the types of *activity and use limitations* that are most commonly available.

1.4 This guide describes the process for evaluating potentially applicable *activity and use limitations* and using and screening and balancing criteria to select one or more *activity and use limitations* for a specific *site*. The guide also describes some “best practices” from a transactional, stakeholder involvement, and long-term stewardship perspective. The guide also emphasizes the importance of considering the need

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for, and potential applicability of, *activity and use limitations* EARLY in the *remedial action* process. This guide can be used to effectively implement risk based *corrective action*.

1.5 All references to specific Federal or state programs are current as of the date of publication. The user is cautioned not to rely on this guide alone but to consult directly with the appropriate program.

1.6 The values stated in SI units are to be regarded as standard. No other units of measurement are included in this standard.

1.7 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.8 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:²

- D6008 Practice for Determining the Environmental Condition of Federal Property
- E1527 Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process
- E1689 Guide for Developing Conceptual Site Models for Contaminated Sites
- E1848 Guide for Selecting and Using Ecological Endpoints for Contaminated Sites
- E2081 Guide for Risk-Based Corrective Action
- E2205 Guide for Risk-Based Corrective Action for Protection of Ecological Resources
- E2247 Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process for Forestland or Rural Property
- E2435 Guide for Application of Engineering Controls to Facilitate Use or Redevelopment of Chemical-Affected Properties
- E2616 Guide for Remedy Selection Integrating Risk-Based Corrective Action and Non-Risk Considerations
- E2790 Guide for Identifying and Complying With Continuing Obligations
- E2876 Guide for Integrating Sustainable Objectives into Cleanup
- E3356 Guide for Stakeholder Engagement on Environmental Risk Management and Climate

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at www.astm.org/contact. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

2.2 USEPA Documents:³

- EPA's **Institutional Controls: A Site Manager's Guide to Identifying, Evaluating and Selecting Institutional Controls at Superfund and RCRA Corrective Action Cleanups** (September 29, 2000)
- EPA **Strategy to Ensure Institutional Control Implementation at Superfund Sites**, OSWER No. 9355.0-106, (September 2004)
- EPA, **A Citizen's Guide to Understanding Institutional Controls at Superfund, Brownfields, Federal Facilities, Underground Storage Tank, and Resource Conservation and Recovery Act Cleanups** (March 2005)
- EPA, **Long Term Stewardship: Ensuring Environmental Site Cleanups Remain Protective Over Time** (September 2005)
- EPA, **National Strategy to Manage Post Construction Completion Activities at Superfund Sites** (October 2005)
- EPA, **"Enforcement First" to Ensure Effective Institutional Controls at Superfund Sites** (March 2006)
- EPA. **Ensuring Effective and Reliable Institutional Controls at RCRA Facilities**, September 2007
- Recommended Evaluation of Institutional Controls: Supplement to the "Comprehensive Five-Year Review Guidance" OSWER Directive 9355.7-18, September 2011
- Enforcement Discretion Guidance Regarding the Affiliation Language of CERCLA's Bona Fide Prospective Purchaser and Contiguous Property Owner Liability Protections, September 2011
- Enforcement Discretion Guidance Regarding Statutory Criteria for Those Who May Qualify as CERCLA Bona Fide Prospective Purchasers, Contiguous Property Owners, or Innocent Landowners ("Common Elements"), (July 2019)
- Superfund Liability Protections for Local Government Acquisitions after the Brownfields Utilization, Investment, and Local Development Act of 2018 (June 2020)
- Institutional Controls: A Guide to Planning, Implementing, Maintaining, and Enforcing Institutional Controls at Contaminated Sites**; OSWER 9355.0-89 December 2012
- Institutional Controls: A Guide to Preparing Institutional Control Implementation and Assurance Plans at Contaminated Sites**, OSWER 9200.0-77 December 2012
- Implementing Institutional Controls in Indian Country**, Office of Site Remediation Enforcement, Office of Enforcement and Compliance Assurance November 2013
- State Brownfields and Voluntary Response Programs**, EPA-42-F-14-215, December 2014
- Cleaning Up Brownfields Under State Response Programs – Getting to No Further Action**, EPA 560-K-16-002, August 2016
- Office of Enforcement and Compliance Assurance September 29, 2023 Memorandum Incorporating Sustainability Principles in Cleanup Enforcement Actions Under the Comprehensive Environmental Response, Compensation, and Liability Act and the Resource Conservation and Recovery Act

³ Available from National Service Center for Environmental Publications (<https://nepis.epa.gov>).