RESULTS-BASED PROJECT MANAGEMENT FOR RCRA CORRECTIVE ACTION WORKSHOP

GLOSSARY OF KEY WORKSHOP ACRONYMS AND TERMS

action levels

Health- or environmental-based concentrations derived using chemical-specific toxicity information and standardized exposure assumptions; commonly referred to as screening levels.

Advanced Notice of Proposed Rulemaking (ANPR), 1996 The major product of the Subpart S Initiative. The May 1, 1996 ANPR discussed improvements to the corrective action program that were already underway; updated the 1990 proposal and other documents by providing the Agency's current guidance on corrective action implementation; and requested comments on many issues that could affect future corrective action rulemaking and policies. Section III of the ANPR is EPA's most current guidance on corrective action implementation and includes seven "guiding principles" (61 FR 19432).

http://www.epa.gov/docs/fedrgstr/EPA-WASTE/1996/May/Day-01/

Area of Contamination (AOC) Policy

Interpretation of RCRA that equates certain discrete areas of dispersed contamination ("AOCs") with a RCRA unit. The AOC policy was first articulated in the National Oil and Hazardous Substances Pollution Contingency Act (NCP). See 53FR51444 for detailed discussion in proposed NCP preamble; 55FR8758-8760, march 8, 1990 for final NCP preamble discussion. See also, most recent EPA guidance, March 13, 1996 EPA memo, "Use of the Area of Contamination Concept During RCRA Cleanups."

ASTSWMO

The Association of State and Territorial Solid Waste Management Officials (ASTSWMO) is an organization supporting the environmental agencies of the States and trust territories. ASTSWMO focuses on the needs of State hazardous waste programs; nonhazardous municipal solid waste and industrial waste programs; recycling, waste minimization, and reduction programs; Superfund and State cleanup programs; waste management and cleanup activities at federal facilities, and underground storage tank and leaking underground storage tank programs.

authorized State

A State that has been authorized to carry out their hazardous waste program in lieu of EPA. A State program must be at least as stringent as the Federal standards. "Base" authorization is the first step.

balancing criteria Criteria that should be used in the justification/selection of a remedy:

(1) long-term reliability and effectiveness; (2) reduction of toxicity, mobility, or volume through treatment of hazardous wastes and hazardous constituents, including how treatment is used to address principal threats posed by the facility; (3) short-term effectiveness; (4) implementability; (5) cost; (6) community acceptance; and (7)

State acceptance.

Blind Window The "window" in a communication in which information is visible to

another but not to us.

brownfields Abandoned, idle, or underused industrial and commercial facilities

where expansion or redevelopment is complicated by real or

perceived environmental contamination.

CERCLA Comprehensive Environmental Response, Compensation, and

Liability Act. The act that authorizes EPA to identify, access and clean up site where there is a release of a hazardous substance. CERCLA provides EPA with authority to ensure that responsible parties pay the costs associated with cleaning up a site where there

is a release of hazardous substances.

CERCLIS Comprehensive Environmental Response, Compensation, and

Liability Act Information System. A computerized database used to

track hazardous substance sites.

CFR Code of Federal Regulations. A compilation of all regulations issued

by Executive departments and agencies of the Federal Government

that is published annually. Title 40 of the CFR contains

environmental regulations and may be accessed via the Internet at

http://www.epa.gov/epacfr40.

closure Period following active hazardous waste management during which

operations cease, hazardous wastes are no longer accepted and owners/operators of TSDFs complete treatment, storage, and disposal operations; apply final covers to or cap landfills; and dispose of or decontaminate equipment, structures and soil. "Closure" is define in 40 CFR § 270.2 as the act of securing a hazardous waste management facility pursuant to the requirements

of 40 CFR Part 264.

Conceptual Site Model

(CSM)

A three-dimensional picture and/or other illustration (i.e., flow diagram) of site conditions that conveys what is known or suspected about contamination sources, releases or, release mechanisms; contaminant fate and transport; exposure pathways and potential

receptors; and risks.

Contained-In Policy

Contaminated environmental media that contain hazardous waste are subject to all RCRA requirements until they no longer contain hazardous waste. The contained-in policy was first articulated in a November 13, 1986 EPA memorandum, "RCRA Regulatory Status of Contaminated Groundwater." See 53FR31138, 31142, 31148 (Aug. 17, 1988), 57FR 21450, 21453 (May 20, 1992) for updated versions. A detailed discussion is in the HWIR-media proposal preamble, 61FR18795 (April 29, 1996).

Corrective Action

EPA's program to address the investigation and remediation of contamination at or from hazardous waste treatment, storage, or disposal facilities.

CAMU

Corrective Action Management Unit. A CAMU is defined in 40 CFR § 260.10 as an area within a facility that is used only for managing remediation wastes for implementing corrective action or cleanup at the facility. 63 FR 65937 (Nov. 30, 1998). (Amendments to 1993 rule reflected here will become effective June 1, 1999)

Corrective Action

Management Rule

58 FR 8658, February 16, 1993. The CAMU rule allows EPA or an authorized state to create a unit for the on-site treatment, storage, or disposal of remediation wastes; wastes placed into the unit are not subject to RCRA's LDR pre-treatment requirements and CAMUs are not subject to RCRA's minimum technological requirements.

Corrective Action Plan (CAP)

Office of Solid Waste and Emergency Response (OSWER) Directive 9902.3-2A, May 1994. Provides an overall program implementation framework; and model scopes of work for site characterizations, interim actions, evaluation of remedial alternatives, and remedy implementation.

Corrective Action Results

A term-of-art in context of the Corrective Action Workshop referring to the requirements, recommended performance standards, and remedial expectations (e.g., protect human health and the environment, control sources, restore contaminated groundwater to beneficial uses) for the corrective action program.

Corrective Measures Implementation (CMI)

Component of corrective action in which the owner and operator performs detailed design, construction, operation, maintenance, and monitoring of a chosen cleanup remedy.

Corrective Measures Study (CMS) An evaluation, if deemed necessary by the overseeing regulatory program, in which the owner/operator identifies and evaluates remediation alternatives at a given contaminated site.

CSGWPP Comprehensive State Groundwater Protection Program. Program to

be developed by States and supported by EPA which is aimed at preventing contamination of high priority ground water, facilitating coordination among intrastate programs that protect ground water, and building a comprehensive approach to protection of ground

water that includes all stakeholders.

debris solid material exceeding 60mm particle size that is intended for

disposal and that is a manufactured object, plant or animal matter, or

natural geologic material. 40 CFR § 268.2 (note exceptions).

Disclosure The sharing of relevant information.

Indicators (Els)

DQO Data Quality Objective. DQOs are qualitative and quantitative

statements developed to ensure that data of known and appropriate

quality are obtained to support decisions or actions. DQOs

encompass all aspects of data collection, analysis,

validation and evaluation.

Environmental Two environmental indicators are used by the corrective action

program. Human exposures controlled is attained when there are no unacceptable risks to humans due to releases of contaminants at or from the facility subject to RCRA corrective action. Groundwater releases controlled is attained when the migration of groundwater contamination at or from the facility across designated boundaries is controlled. See the most recent EPA guidance, February 5, 1999 EPA memo, "Interim-Final Guidance for RCRA Corrective Action

Environmental Indicators."

environmental media Materials such as soil, groundwater, air, and sediment.

ETV Environmental Technology Verification Program. Verifies the

performance of innovative technical solutions to problems that threaten human health or the environment. Managed by EPA's Office of Research and Development, ETV was created to substantially accelerate the entrance of new environmental technologies into the domestic and international marketplace.

Feedback The cross-checking of information to ensure a similar interpretation

of data or events.

Fugacity The "escaping tendency" of a chemical to migrate from one

compartment of the environment to another. Fugacity is to mass diffusion as temperature is to heat diffusion. Chemicals move from

high fugacity to low fugacity.

generator accumulation units

Tanks, containers, containment buildings, and drip pads used by generators for the on-site accumulation of hazardous waste, including remediation waste. Such units are not subject to permitting requirements. 40 CFR § 262.34. Treatment in accumulation tanks or containers that meet the requirements of § 262.34 is permissible. 51 FR 10146, 10148 (Mar. 24, 1986).

GPRA, 1993

Government Performance and Results Act. Places new management expectations and requirements on Federal agencies by creating a framework for more effective planning, budgeting, program evaluation, and fiscal accountability for Federal programs. The intent of GPRA is to improve public confidence in Federal agency performance by holding agencies accountable for achieving program results.

Groundwater El

A positive "No Further Migration of Contaminated Groundwater" El determination indicates that no further migration of "contaminated" groundwater is occurring or expected, based on physical evidence.

Guiding Principles

The seven-part corrective action program management philosophy included in Section III of the May 1, 1996 Advanced Notice of Proposed Rulemaking. 61 FR 19432.

hazardous waste

Hazardous waste is defined under RCRA § 1004(5) as "a solid waste, or combination of solid waste, which because of it quantity, concentration, or physical, chemical, or infectious characteristics may - (A) cause, or contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed." Also see the narrower regulatory definition of "hazardous waste" provided in 40 CFR § 261.3.

Hazardous Waste Identification Rule for Contaminated Media (HWIR-Media Rule) A final rule with provisions for streamlined permits for managing remediation wastes, increased flexibility for staging wastes prior to their ultimate disposition, an exclusion for certain dredged materials, and streamlined State authorization procedures. 63 FR 65874 (Nov. 30, 1998).

http://www.epa.gov/fedrgstr/EPA-WASTE/1998/November/Day-30/f30269.htm

Hazardous and Solid Waste Amendments (HSWA), 1984 This 1984 Act amended RCRA by, among other things, enacting provisions that required phasing out land disposal of untreated hazardous waste. Some of the other mandates of this law include increased enforcement authority for EPA and a program requiring corrective action at treatment, storage, and disposal facilities "seeking a permit".

Hidden Window The "window" in a communication in which information is visible to

us but not to another.

hot spots Highly contaminated areas of contaminated media.

Human Exposures El A positive "No Current Human Exposures" El determination indicates

that there are no unacceptable exposures to contamination (i.e., contaminants present in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land and ground water use conditions (for all contamination at or from the identified facility). See Feb. 5, 1999 EPA memorandum, "Interim-Final Guidance for RCRA Corrective Action Environmental

Indicators."

institutional controls

(IC)

Non-engineering controls used to restrict land use or land access in order to protect people and the environment from exposure to hazardous substances left in the land. E.g., deed restrictions.

interim measures Under RCRA Subtitle C corrective action, short-term actions to

control ongoing risks while site characterization is underway or

before a final remedy is selected.

interim status facilities Treatment, storage, and disposal facilities (TSDFs) that were

already in operation when the applicable RCRA standards were established, and that are operating under the standards in 40 CFR Part 265 until they receive a permit. To qualify for interim status an owner or operator of an existing facility had to provide a RCRA § 3010(a) notification of hazardous waste activity and submit a Part A

permit application. 40 CFR § 270.70.

Johari Window A communication model developed by Dr. Joseph Luft and Dr.

Harrington Ingham in the 1950's.

LDR Land Disposal Restrictions. These restrictions were mandated by

the 1984 HSWA amendments to RCRA. A major part of the LDR program is to require EPA to establish treatment standards for hazardous wastes that must be met before the waste can be

disposed of in land disposal units.

MCL Maximum Contaminant Level. Contaminant-specific levels

established under the SDWA that are the maximum levels of a contaminant in drinking water that will ensure protection of human health. Used by RCRA site decision-makers in determining appropriate monitoring and remediation of groundwater.

media cleanup levels Site-specific concentrations of individual hazardous constituents in a

given medium that must be achieved as part of a corrective action

remedy.

Media Cleanup
Objective (MCO)

Broad cleanup objectives made up of media cleanup levels, points of

compliance, and remediation time frames.

MTR

The Minimum Technological Requirements (MTR) under RCRA § 3004(o)(A) which require, among other things, "for each new landfill or surface impoundment ... (i) the installation of two or more liners and a leachate collections system above (in the case of a landfill) and between such liners; and (ii) ground water monitoring."

NCAPS

National Corrective Action Prioritization System. NCAPS considers the setting of a facility, actual and potential releases of hazardous constituents from the facility, and the toxicity of constituents of concern, to group facilities into high, medium, or low priority groups. EPA uses this system to set priorities to ensure that it is using its resources in the most effective manner.

NPL

National Priorities List is defined in 40 CFR § 300.5 to mean the list, compiled by EPA pursuant to CERCLA section 105, of uncontrolled hazardous substance releases in the United States that are priorities for long-term remedial evaluation and response. The NPL is contained in 40 CFR Part 300, Appendix B.

OSHA

Occupational Safety and Health Act of 1970 was enacted to assure safe and healthful working conditions for working men and women; by authorizing enforcement of the standards developed under the Act; by assisting and encouraging the States in their efforts to assure safe and heathful working conditions; by providing for research, information, education, and training in the field of occupational safety and health; and for other purposes.

http://www.osha-slc.gov/OshAct_data/ACT1.html

OSW

The Office of Solid Waste (OSW) operates under authority of the Resource Conservation and Recovery Act to protect human health and the environment by ensuring responsible national management of hazardous and nonhazardous waste. OSW's goals are (1) to conserve resources by reducing waste; (2) to prevent future waste disposal problems by writing result-oriented regulations; and (3) to clean up areas where waste may have spilled, leaked, or been improperly disposed of.

OSWER

The Office of Solid Waste and Emergency Response provides policy, guidance and direction for the land disposal of hazardous waste, underground storage tanks, solid waste management, encouragement of innovative technologies, source reduction of wastes, and the Superfund Program.

PCBs

Polychlorinated Biphenyls (PCBs) are a class of chemical, clear to yellow oily liquids or solids. They are used as insulating material in electrical transformers and capacitors, in hydraulic and heater transfer fluids, as plasticizers and in many heat and fire sensitive applications. Their major benefit, durability, is also a problem: They do not break down in the environment. They have caused cancer in laboratory animals and are suspected human carcinogens.

permit waivers

Guidance indicating that RCRA-authorized states with state waiver authorities comparable to CERCLA 121 (e) or RCRA Section 7003 could use those state waiver authorities to waive some RCRA requirements as long as the state did so in a manner no less stringent than that allowed under the corresponding Federal authorities. See EPA guidance memo from J. Winston Porter to EPA Regional Administrators, "RCRA Permit Requirements for State Superfund Action," November 16, 1987, OSWER Directive 9522.00-2.

performance standards

A results-based measure that protects human health and the environment, attains "media cleanup objectives," and remediates the sources of release to eliminate or further reduce threats to human health and the environment.

points of compliance (POCs)

Site-specific locations where media cleanup levels must be measured and achieved. Should be established for all affected media subject to the remedial action.

post-closure

Applies only to land disposal facilities and facilities that cannot decontaminate, or "clean close" all equipment, structures, and soils. Post closure is normally a 30 year period after closure during which owners/operators conduct monitoring and maintenance activities to preserve the integrity of the disposal system and continue to prevent or control releases of contaminants from the disposal units. The requirements for post-closure are found in 40 CFR §§ 264.117 and 265.117.

Post-Closure Rule

63 FR 56710 of October 22, 1998. Rule does not change postclosure requirements—it changes the authorities the EPA or authorized States will use to enforce the requirements. It also allows the lead agency to regulate a unit under a closure or post-closure plan without a permit and to perform facility-wide corrective action utilizing an alternate authority.

http://www.epa.gov/fedrgstr/EPA-WASTE/1998/October/Day-22/f282 21.htm

presumptive remedies

Preferred technologies for common categories of sites, based on historical patterns of remedy selection and EPA's scientific and engineering evaluation of performance data on technology implementation.

principle threat Contamination that is highly toxic, highly mobile, or cannot be

reliably contained, and that would present a significant risk to human

health and the environment should exposure occur.

problem Conditions that require a response that remove, modify, or otherwise

reduce the impact of the condition.

problem statement Clear, concise format communicating the condition that needs a

response.

RCI RCRA Cleanup Initiative. Focuses on meeting the Environmental

Indicators set in response to the GPRA. It will implement reforms

that increase the number and speed of RCRA cleanups.

RCRA Resource Conservation and Recovery Act, 1976. Amended the

Solid Waste Disposal Act and laid the framework for regulating hazardous and nonhazardous wastes. RCRA gave EPA authority to control hazardous waste from "cradle-to-grave." This includes the minimization, generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for

the management of non-hazardous solid wastes.

RFA RCRA Facility Assessment. Element of RCRA Corrective Action

where regulators and/or owners and operators compile existing information on environmental conditions at a given facility, including

information on actual and potential releases.

RFI RCRA Facility Investigation. Site characterization that should

describe the facility and releases of hazardous wastes and constituents as necessary to enable the identification and implementation remedies needed to achieve the desired results.

RCRIS Resource Conservation and Recovery Information System. A

database that tracks RCRA Subtitle C facility-specific data and contains events and activities related to hazardous waste

generators, transporters, and TSDFs.

RAP Remedial Action Plan. Defined in 40 CFR § 270.2 as a special form

of RCRA permit that a facility owner or operator may obtain instead of a permit issued under §§ 270.3 through 270.66, to authorize the treatment, storage or disposal of hazardous remediation waste at a remediation waste management site. 63 FR 65941 (Nov. 3, 1998)

(Rule will become effective June 1, 1999)

remedial expectations Developed by EPA to assist owner/operators in assessing one or

more remedial alternatives that meet the remedy performance standard and in choosing or recommending a remedy that presents an appropriate balance between the remedy balancing factors.

Discussed in detail in the May 1, 1996 ANPR.

remediation timeframe

Site-specific schedule under which a remedy will be implemented, including an estimate when media cleanup levels will be achieved at the points of compliance.

remediation waste

All solid and hazardous wastes, and all media (including groundwater, surface water, soils, and sediments) and debris that contain listed hazardous wastes or that themselves exhibit a hazardous waste characteristic and are managed for implementing cleanup. 63 FR 65937 (Nov. 30, 1998) (Amendments to current definition reflected here will become effective June 1, 1999)

risk

The likelihood or probability that a given contaminant exposure or series of exposures may damage human health or the environment.

risk assessment

Activity to understand risks; the application of tools to evaluate probabilities of risks occurring.

risk management

The process of evaluating and selecting alternative regulatory and non-regulatory responses to risk.

risk-based decision making

A process that utilizes risk and exposure assessment methodology to help implementing agencies make determinations about the extent and urgency of corrective action and about the scope and intensity of their oversight of corrective action.

RU

RCRA Regulated Units are defined in 40 CFR § 264.90 as surface impoundments, waste piles, land treatment units, and landfills that receive hazardous waste after July 26, 1982. RCRA regulated units are a subset of the universe of solid waste management units (SWMU).

Shared Window

The "window" in a communication in which information is readily known and clearly visible to all parties.

Site Conceptual Exposure Model Builder A computer graphics tool that generates SCEMs and associated documentation. http://tis-mt.eh.doe.gov/oepa/programs.

SWMU

Solid Waste Management Unit. For purposes of RCRA corrective action, a SWMU is "any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area of a facility at which solid wastes have been routinely and systematically released." 61 FR 19442 (May 1, 1996).

Statement of Basis

Document that summarizes a proposed remedial action plan and the findings supporting that selected plan in the RCRA Subtitle C corrective action process. (Guidance on RCRA Corrective Action Decision Documents: The Statement of Basis, Final Decision and Response to Comments, Office of Waste Programs Enforcement,

EPA, OSWER Directive 9902.6, April 29, 1991.)

Subpart S Proposal (1990)

EPA-proposed, detailed regulations on the technical and procedural elements of corrective action. 55FR30802 (July 27, 1990).

Subpart S Initiative (1994)

EPA and State collaboration to develop a comprehensive strategy to identify and develop improvements to the corrective action program and resolve the Subpart S proposal. The Subpart S Initiative involves the assessment of the current corrective action program, outreach to stakeholders, finalization of some elements of the 1990 proposal, development of new proposals, guidance documents, and the 1996 Advanced Notice of Proposed Rulemaking.

Stabilization Initiative

Encouraged program implementors to implement near-term activities to control or abate threats to human health and the environment and prevent/minimize movement of existing contamination at all facilities rather than focusing on final, facility-wide, cleanups for only a few sites.

Staging Pile

Defined in 40 CFR § 260.10 as an accumulation of solid, non-flowing remediation waste that is not a containment building and that is used only during remedial operations for temporary storage at a facility. 63 FR 65937 (Nov. 30, 1998). (Rule will become effective June 1, 1999)

TCLP

Toxicity Characteristic Leaching Procedure. A test designed to determine whether a waste meets the regulatory definition of "hazardous waste"; also can be used to monitor treatment techniques for effectiveness. The TCLP (Method 1311) is published in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" EPA Publication SW-846. 58 FR 46049 (Aug. 31, 1993).

temporary units (TUs)

Containers or tanks that are designated by EPA or an authorized state to manage remediation wastes during cleanup at permitted or facilities authorized to operate in Interim Status. 40 CFR § 264.553. 58 FR 8683 (Feb. 16, 1993), 63 FR 65939 (Nov. 30, 1998)

treatment standards

Land disposal restrictions (LDR) criteria that hazardous waste must meet before it is disposed. 40 CFR Part 268.

TSDF

Treatment, Storage, and Disposal Facility. Generally, facilities engaged in the treatment, storage, or disposal of hazardous waste.

Unknown Window

The "window" in a communication in which no one can see the data, solutions, or opportunities.

UST

Underground Storage Tank is defined to mean any one or combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation or regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is 10 percent or more beneath the surface of the ground. See exemptions in 40 CFR § 280.12.

VOCs

Volatile Organic Compounds. Any organic compound which evaporates readily to the atmosphere. VOCs contribute significantly to photochemical smog production and certain health problems.