



**RCRA Corrective Action Training  
Program: Getting to YES!**  
*Strategies for Meeting the 2020 Vision*



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## Notes:

### Purpose of Slide

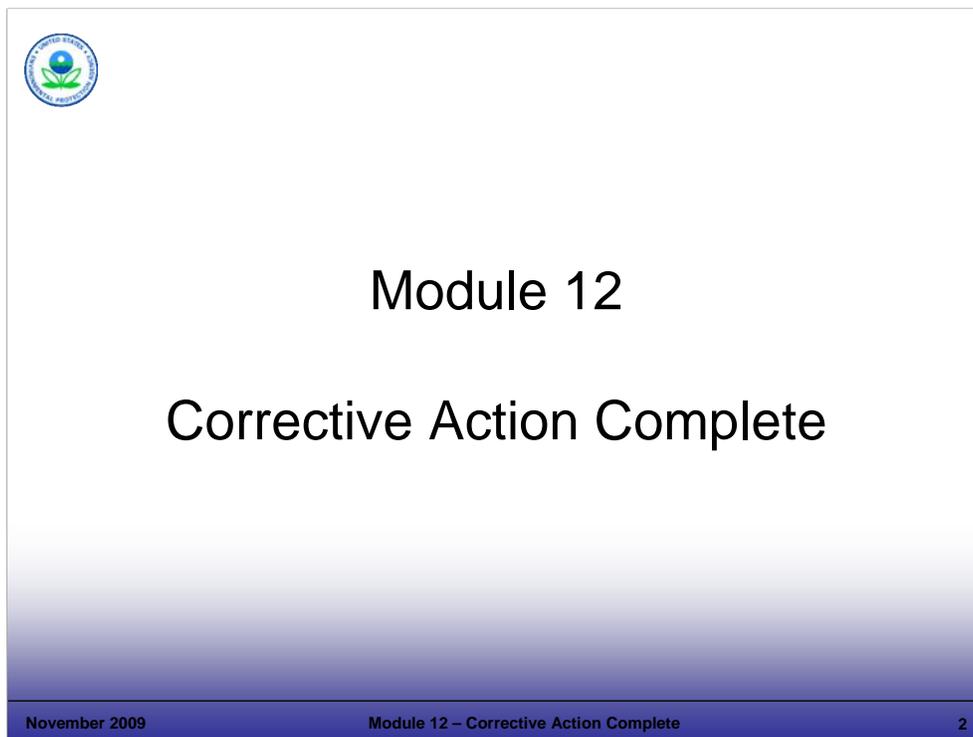
- Holder slide for Module 12, Corrective Action (CA) Complete.

### Key Points

- This is a holder slide. No specific key points.

### References

- None.



**Notes:**

Purpose of Slide

- Holder slide for Module 12, CA Complete.

Key Points

- This is a holder slide. No specific key points.

References

- None.



## Module Overview

- ❖ Review EPA guidance used to make formal determination that CA is complete
- ❖ Examine approaches to determine that controls are in place and effective
- ❖ Review other types of determinations

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### Notes:

#### Purpose of Slide

- Present the module overview.

#### Key Points

- In this module, we will review the following:
  - EPA guidance and other methods used to make formal determinations that CA is complete;
  - Approaches to determine that controls are in place and effective; and
  - Other types of determinations.
- We will also revisit long-term stewardship (LTS) and its relation to CA completion and related determinations.
- In other words, we will review how to determine whether we have used a good exit strategy to GET TO YES!

#### References

- FR. 2003. Final Guidance on Completion of CA Activities at RCRA Facilities. 68 FR 8757. February 25.



## Completion Determinations

- ❖ A formal determination is made to:
  - Inform the owner/operator (o/o)
  - Provide opportunity for public comment
  - Help return property to reuse
  - Remove facility from work load universe
- ❖ There are no Federal regulatory requirements for completion determinations

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### Notes:

#### Purpose of Slide

- Examine why we do Completion Determinations.

#### Key Points

- A formal determination is made to:
  - Inform the owner/operator (o/o) that the milestone has been met;
  - Provide an opportunity for public comment;
  - Help return the property to reuse; and
  - Remove the facility from the work load universe.
- EPA recognizes the importance of an official acknowledgment that CA activities have been completed. A Completion Determination informs the o/o that CA is complete at the facility. The process of making a formal Completion Determination assures that the public has the opportunity to review and comment on the determination. Completion determinations also can help promote the transfer of properties and redevelopment.
- Federal regulations do not provide explicit procedures for making Completion Determinations; therefore, regulators have considerable flexibility. On October 2, 2001, EPA announced draft guidance on Completion Determinations for CA, and on February 27, 2002, EPA issued another draft version of the guidance. After reviewing the comments received, EPA finalized the guidance on Completion Determinations on February 25, 2003. The 2003 guidance ties completion determinations to 40 CFR 264.101 requirement that CA must be conducted to protect human health and the environment and therefore, a completion determination from the State or EPA that CA activities are complete is, in effect, an announcement that the protection of human health and the environment standard has been achieved.

#### References

- FR. 2003. Final Guidance on Completion of CA Activities at RCRA Facilities. 68 FR 8757. February 25.



## EPA Guidance

- ❖ Two types of Completion Determinations
  - CA Complete without Controls
  - CA Complete with Controls
- ❖ Determinations not designed to recognize progress for short-term or intermediate goals

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### Notes:

#### Purpose of Slide

- Review EPA guidance for Completion Determinations.

#### Key Points

- EPA guidance identifies two types of Completion Determinations, as follows:
  - CA Complete without Controls, and
  - CA Complete with Controls.
- Facilities may obtain both types of determinations: A facility may obtain a CA Complete with Controls or a CA Complete without Controls. If a determination is made that CA is Complete with Controls and circumstances change (for example, if anticipated land use changes) and the facility wishes to achieve CA Complete without Controls, that is acceptable, but not required.
- Determinations are not designed to recognize progress for short-term or intermediate performance goals: EPA recognizes that some CAs may be complex and may include requirements for achievement of several progressive milestones. We have discussed in previous modules several performance goals to measure progress for RCRA CA short-term protection (for example, Environmental Indicators). However, a CA Completion Determination is only made when a remedy achieves the final cleanup goal(s).

#### References

- EPA. 2004. Handbook of Groundwater Protection and Cleanup Policies for RCRA Corrective Action for Facilities Subject to Corrective Action Under Subtitle C of the Resource Conservation and Recovery Act. EPA 530-R-04-030. Update. April.
- FR. 2003. Final Guidance on Completion of CA Activities at RCRA Facilities. 68 FR 8757. February 25.



## CA Complete without Controls

- ❖ Occurs when o/o satisfies all obligations under §§3004(u) and (v). Indicates that:
  - No need for CA in the first place, or
  - Remedy has been successfully implemented and no ICs or ECs are necessary to protect human health and the environment.

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### Notes:

#### Purpose of Slide

- Review the meaning of CA Complete without Controls.

#### Key Points

- The CA Complete without Controls determination is made when the facility owner has satisfied all obligations under Sections 3004(u) and (v), or there is no need for CA in the first place. EPA recommends this terminology be used to indicate that either there was no need for CA at the facility or, where CA was necessary, the remedy has been implemented successfully, and no further activity or controls are necessary for protection of human health and the environment. We will talk further about this RCRA event code on slide 18.

#### References

- FR. 2003. Final Guidance on Completion of CA Activities at RCRA Facilities. 68 FR 8757. February 25.



## CA Complete with Controls

- ❖ Applies when:
  - Corrective measures defined
  - Construction complete
  - Cleanup objectives met
  - Future activities include long-term stewardship

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### Notes:

#### Purpose of Slide

- Review the meaning and application of CA Complete with Controls.

#### Key Points

- A CA Complete with Controls determination is made at a facility where:
  - A full set of corrective measures has been defined;
  - The facility has completed construction and installation of all required remedial actions;
  - Site-specific media cleanup objectives for anticipated future use have been met; and
  - Performance of O&M and monitoring actions is required, and/or compliance with and maintenance of any ICs is ensured.
- A CA Complete with Controls determination “provides the o/o with recognition that protection of human health and the environment has been achieved, and will continue as long as the necessary O&M actions are performed, and any ECs and ICs are maintained and complied with.”

Note: The definition of CA Complete with Controls refers to “maintenance” of ICs rather than “implementation.” As we have discussed in previous modules, ICs are implemented and in place prior to a Completion Determination.

#### References

- FR. 2003. Final Guidance on Completion of CA Activities at RCRA Facilities. 68 FR 8757. February 25.



## Long-Term Stewardship

- ❖ Reliable ECs and ICs
- ❖ Clear roles and responsibilities
- ❖ Accurate life cycle costs
- ❖ Adequate financial assurance and resources
- ❖ Monitoring and enforcement
- ❖ Long-term management of information

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### Notes:

#### Purpose of Slide

- Remind participants of the role of, and issues involving, LTS at RCRA CA sites. This slide also provides a segue to following slides that discuss strategies to ensure the reliability of ICs and ECs at CA sites.

#### Key Points

- As we have discussed in previous modules, LTS is part of maintaining any remedy, in order to ensure long-term protection of human health and the environment. LTS helps ensure that ICs and ECs have been adequately protected. This should be done by ensuring that the following issues have been addressed:
  - Long-term management of information;
  - Clear roles and responsibilities;
  - Reliable ECs and ICs;
  - Accurate life cycle costs;
  - Adequate financial assurance and resources; and
  - Monitoring to ensure enforceability.

#### References

- Michael Hendershot. EPA Region 3. 2007. Presentation at San Diego Long-Term Strategy Meeting. "Developing Effective and Reliable ICs During the Remedy Selection Process." April.



# Engineering Controls

- ❖ Operation and maintenance plan
  - Activities
  - Frequencies
- ❖ Monitoring and reporting
  - Activities
  - Frequencies
- ❖ Financial assurance

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## Notes:

Notes will be added for subsequent deliveries.



# Institutional Controls

- ❖ ICs selected in final remedy must be
  - Clearly established and in place
  - Enforceable
  - Monitored and enforced
- ❖ The Uniform Environmental Covenants Act (UECA)



Appendix A of EPA 2003 Draft Guidance.

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## Notes:

### Purpose of Slide

- Discuss concepts developed to ensure a thorough and consistent approach to assessing the implementation and performance of ICs used in CA remedies. The next several slides will cover those concepts in more detail.

### Key Points

- Before remedies are considered complete, regulatory agencies should determine (1) if ICs have been implemented, (2) that ICs will be monitored and are enforceable, (3) who will be enforcing them. The status and performance of ICs (where ICs are considered necessary) is an essential part of determining if the remedy is protective. Monitoring is necessary to ensure that (1) the IC mechanism remains in place; and (2) the IC provides protection as required by the remedy.
- We briefly discussed the Uniform Environmental Covenants Act (UECA) in Module 6. UECA may provide clear rules for the States and federal agencies to create, enforce and modify a valid real estate document (an “environmental covenant”) to restrict the use of contaminated real estate. The UECA makes these covenants enforceable by eliminating legal doctrines that cast doubt on the covenant’s validity. UECA also applies traditional real estate law principles to environmental covenants to ensure they will be preserved over the very long term and be enforceable in accordance with their terms against successive owners of the property and against the parties liable for maintaining “ICs” on the property and performing other duties identified in the covenant.
- We discussed issues associated with establishing and monitoring ICs in Module 11, Maintaining Effective Remedy Performance. When issuing a CA Completion Determination, it is important to again review the performance and effectiveness of ICs used in the remedy.
- At the time of a Completion Determination, the regulatory agency should check whether ICs included in the selected remedy continue to prevent exposure as intended. If ICs were not selected, the review may show that ICs are now appropriate. The appropriate ICs should then be identified and implemented.

### References

- FR. 2003. Final Guidance on Completion of CA Activities at RCRA Facilities. 68 FR 8757. February 25.
- EPA. 2003. ICs: A Guide to Implementing, Monitoring, and Enforcing Institutional Controls at Superfund, Brownfields, Federal Facility, UST, and RCRA Corrective Action Cleanups. Draft. February.
- EPA. 2007. Final Memorandum. Ensuring Effective and Reliable ICs at RCRA Facilities. June 14.
- Environmental Covenants Web Site. Accessed On-line at <http://www.environmentalcovenants.org/ueca/DesktopDefault.aspx>.



## Procedures for Making Completion Determinations

- ❖ Will vary depending on
  - Permit status
  - Whether CA is subject to an order
  - Whether applied to entire facility or a parcel
- ❖ Should provide opportunity for public comment

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### Notes:

#### Purpose of Slide

- Review the procedures associated with Completion Determinations.

#### Key Points

- The regulatory agency implementing CA should make a Completion Determination using appropriate procedures and should provide a meaningful opportunity for public comment. Several factors affect procedures for Completion Determinations:
  - The permit status of the facility. If the facility is permitted, the process for making the Completion Determination will generally proceed as a permit modification. If the facility is not permitted, the Completion Determination may be accomplished by several methods. A different approach may be used for a Completion Determination if the facility will continue to operate under a permit, perform post-closure activities at a regulated unit without a permit, or complete clean closure.
  - Whether the CA is carried out under an order. If the facility is implementing CA under an order, the Completion Determination may involve modifying or terminating the order.
  - Whether the determination applies to the entire facility or a portion of it. There is no need to make a determination for a parcel; however, this may be done for the o/o if the o/o or the purchaser requests it, particularly if the parcel will be developed for reuse.
- Completion determination procedures should provide an opportunity for public comment.

#### References

- FR. 2003. Final Guidance on Completion of CA Activities at RCRA Facilities. 68 FR 8757. February 25.



## The Process

Controls	Permitted	Non-Permitted	CA Financial Assurance
Without	Modify or terminate	<ul style="list-style-type: none"> <li>❖ Notice</li> <li>❖ Terminate mechanism</li> </ul>	Terminate
With	Modify	<ul style="list-style-type: none"> <li>❖ Notice</li> <li>❖ Modify mechanism</li> <li>❖ Alternate mechanism</li> </ul>	Maintain

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**Notes:**

Purpose of Slide: Review the procedures for CA Complete without Controls Determination for an entire facility.

Key Points

- Use a permit modification for permitted facilities: EPA believes that a permit modification is an appropriate way to indicate the regulatory agency's determination that CA is complete. The purpose of the modification would be to terminate the permit, if CA is complete without controls. Current regulations in 40 CFR 270.42 provide procedural requirements for facility-requested permit modifications. In most cases, Class 3 permit modifications are used to indicate completion of CA. If CA is complete without controls, and a permit is terminated, the action means that there are no further controls needed to protect human health and the environment (unrestricted use). For RCRA-permitted facilities, the procedures for permit modifications are also appropriate when making a CA Complete with Controls Determination. A permit modification may be put in place to shorten the life of the permit, if there are other enforceable mechanisms in place that result in LTS.
- Address administrative disposition of permit, or issue a notice at non-permitted facilities: At non-permitted facilities where CA is complete without controls and all other RCRA obligations have been satisfied, EPA or the authorized State may acknowledge completion of CA by terminating interim status through final administrative disposition of the facility's Part A permit application. Regulatory agencies may use alternative terminology such as "no permit necessary determination" rather than "permit denial" to avoid confusing the public and possibly causing misperceptions of the facility. Regardless of the terminology, the basis for the decision should state clearly that: (1) no ongoing activities require a RCRA permit; (2) all closure and post-closure care requirements applicable to regulated units have been fulfilled; and (3) all CA obligations, including implementation of long-term monitoring procedures, have been fulfilled. For non-permitted facilities with controls remaining, a regulatory agency may issue a notice with an opportunity to comment that provides procedural protections (public comment, response to comments, administrative record). These are equivalent but not necessarily identical to those required by 40 CFR Part 124 (or an authorized State equivalent).
- Rather than issuing a final permit decision, EPA or authorized States may issue a notice informing the facility and public that the facility has met its CA obligations. However, this approach will not terminate interim status at the facility. Alternative procedures should provide procedural protections equivalent, though not necessarily identical, to those in 40 CFR Part 124 (or authorized State equivalent).
- Terminate order at facilities performing CA under an order: The regulatory agency may consider terminating the interim status CA order if a Completion Determination without Controls decision is appropriate for a facility.
- Should not terminate interim status or an enforcement order if RCRA-regulated obligations remain: If the facility must maintain financial assurance for maintenance or monitoring controls, regulators generally should not terminate interim status or eliminate an order.
- As appropriate, regulators may explore a variety of options, including: permits, orders, and other non-RCRA enforceable mechanisms, such as UECA, to maintain long-term ICs, where appropriate.
- Remember: informal communications about the status of cleanup activities are not the same as Completion Determinations.

Reference: FR. 2003. Final Guidance on Completion of CA Activities at RCRA Facilities. 68 FR 8757. February 25.



## The Process: CA Complete for Less Than the Entire Facility

- ❖ Can be requested by o/o
- ❖ Process in a manner that will not affect portions where obligations remain
  - Long-term plan for the facility,
  - ICs, and
  - Financial assurance obligations

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### Notes:

#### Purpose of Slide

- Review the procedures for CA Complete Determination for Less than the Entire Facility. Note that portions of facilities can be released with this determination.

#### Key Points

- Determinations for less than the entire facility are not necessary, but may be useful to an o/o. These can be requested by an o/o, particularly if that portion of the facility will be reused or redeveloped.
- The decision should be processed in a manner that will not affect portions where obligations remain. For example, a permitted facility may seek a CA Completion Determination with or without Controls for a portion of the facility. If a facility has ongoing CA obligations (for example, solid waste management units (SWMUs) at other parts of the facility that still require CA), a permit modification is appropriate. However, the permit should not be eliminated.
- Consider the long-term plan for the facility, ICs, and financial assurance obligations if the owner plans to sell property: If the owner plans to sell the portion not subject to CA because of a Completion without Controls Determination, the regulatory agency should take steps to ensure adequate financial resources to address obligations for CA and/or closure at the remainder of the facility. If an IC is being imposed through a RCRA permit, steps should be taken to ensure that long-term enforceability is not lost through property transfer or permit expiration.

#### References

- FR. 2003. Final Guidance on Completion of CA Activities at RCRA Facilities. 68 FR 8757. February 25.



## Wrap Up “Loose Ends”

- ❖ Ensure closure of RCRA-regulated units via CA has been addressed
- ❖ Ensure other obligations in orders have been addressed
- ❖ Document applicable RCRA performance measures

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### Notes:

#### Purpose of Slide

- Point out that all “loose ends” must be addressed with Completion Determinations.

#### Key Points

- Ensure that closure of RCRA-regulated units via CA has been adequately addressed: Regulatory distinctions exist between requirements for closure of RCRA-regulated units and CA requirements for SWMUs. RCRA-regulated units are subject to specific standards under 40 CFR Parts 264 and 265, Subparts F, G, and H. However, EPA rules provide flexibility to coordinate and implement closure and CA requirements: The Post-Closure Care Final Rule provides the regulatory agency discretion to impose requirements developed for CA in lieu of the requirements of 40 CFR Parts 264 and 265, Subparts F, G, and H, where a regulated unit and SWMU have contributed to the same release. Generally speaking, the goal is that closure and CA can be treated similarly.
- Ensure any other applicable obligations required in orders have been addressed.
- Document applicable RCRA performance measures, using appropriate RCRA Info Codes.

#### References

- EPA. 1998. Standards Applicable to Owners and Operators of Closed and Closing Hazardous Waste Management Facilities: Post-Closure Permit Requirement and Closure Process; Final Rule. Federal Register, Volume 63, Number 204. 63 FR 56710. October 22.
- EPA. 2005. Permitting and Corrective Action (PCA) Program Area Analysis (PAA) Report: Appendix D, National Details for Corrective Action Event Codes. Final Report. Win/Informed Executive Steering Committee. July 28.



# RAU Documentation

- ❖ Ready for Anticipated Use (RAU)
- ❖ Reuse determinations complement cleanup decisions

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## Notes:

### Purpose of Slide

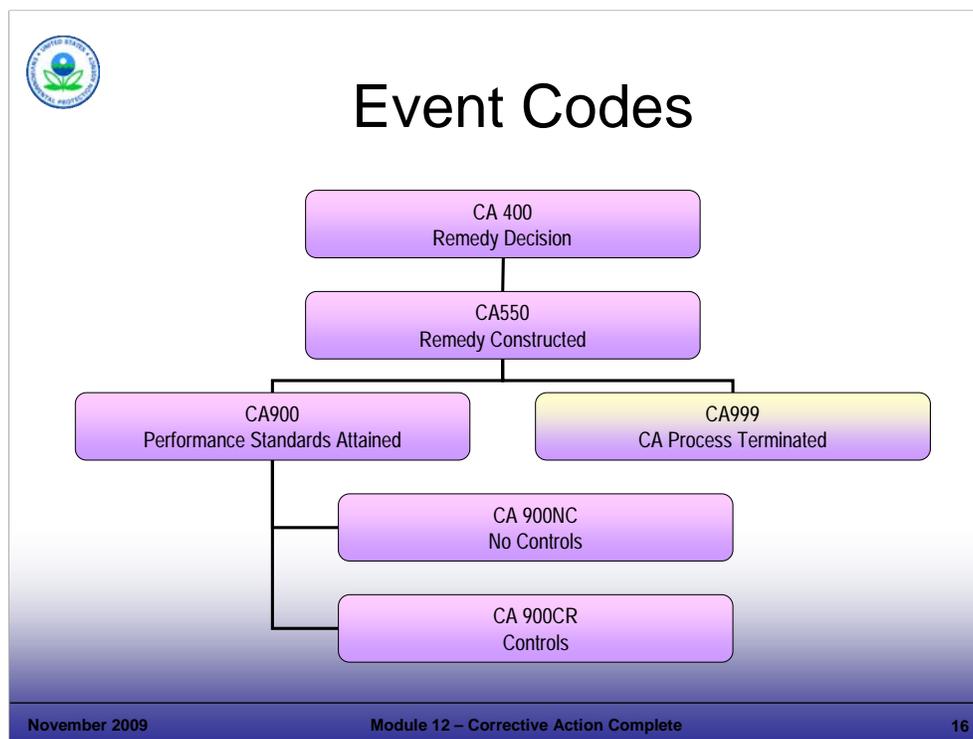
- Identify other types of Completion Determinations.

### Key Points

- The Ready for Anticipated Use (RAU) Determination is a performance measure that enables EPA and States to track acres determined to be protective for current and reasonably anticipated uses. The criteria for a facility or areas of a facility to meet the Ready for Anticipated Use Measure outlined in the CPRM Guidance are as follows:
  - Criteria for Protective for People under Current Conditions has been met (this requires documentation);
  - Cleanup goals have been achieved for media that may affect current and reasonably anticipated future land uses of the facility so that there are no unacceptable risks; and
  - All institutional or other controls, identified as part of a response action or remedy as required to help ensure long-term protection, are in place.
- The RAU Determination can be accomplished for an entire facility or for a portion of a facility. States and Regions are not required to make area-specific RAU determinations, but may make these determinations as they deem appropriate.
- RAU determinations are intended to aid EPA in performance measurement--they complement cleanup decisions, but cannot be used to address matters of liability or enforcement. The RAU Determination does not replace or substitute for decision documents required by RCRA regulations.

### References

- EPA. 2007. Guidance for Documenting and Reporting RCRA Subtitle C Land Revitalization Indicators and Performance Measures. February 21.
- EPA. 2007. RCRA Ready for Anticipated Use (RAU) Documentation Form.



## Notes:

Purpose of Slide: Review the RCRA Info Event Codes CA 990 and CA 999.

### Key Points

**CA 900** – CA 900 is a new RCRAInfo event code established to describe remaining events beyond the selection and construction of remedies at facilities subject to CA. While the event code is not actually available in RCRAInfo, it will become available with an upcoming release of this system.

- When EPA issued its final CA Completion Guidance, the guidance described CA Complete with or without Controls. EPA will use this guidance in making Completion Determinations at facilities, and will want to track those determinations. However, the event code structure in RCRAInfo did not adequately distinguish between situations where a completed CA requires long-term controls, and a “walk-away” situation. Also, in a number of authorized states, CA is not considered “complete” when an implemented remedy requires long-term maintenance procedures, land use controls, or other controls to maintain performance criteria. These states view these controls as part of CA, and must continue to expend RCRA resources to ensure that the controls remain in place. An event code structured on the final guidance would present a potentially misleading picture in states that require a permit or order to remain in place until no controls are necessary.
- The CA 900 code was designed to record the event where a facility attains CA performance standards, either with or without controls. There are two status codes within the 900 event code: CN for long-term controls, and NC for no controls.
- CA 999 - The CA 999 Event Code memorializes that the CA process has been terminated. All remediation and stabilization has been completed at the facility, and all requirements in permits and/or orders have been satisfied. This means that:
  - All cleanup objectives have been met.
  - The regulatory agency has determined that the RCRA CA process is no longer needed to maintain a protective remedy, regardless of whether the determination is completed with or without controls. For example, some states have an IC scheme that ensures LTS of the facility outside of the RCRA CA process.
- CA 900 without Controls (where RCRA CA in a permit or orders has been terminated) is equivalent to CA 999.

### References

- EPA. 2005. Permitting and Corrective Action (PCA) Program Area Analysis (PAA) Report: Appendix D, National Details for Corrective Action Event Codes. Final Report. Win/Informed Executive Steering Committee. July 28.



# Summary

CA Completion Determinations signal everyone that CA activities are no longer necessary (though controls to ensure remedies remain protective may be necessary).

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## Notes:

### Purpose of Slide

- Summarize the key messages in this module.

### Key Points

- CA Completion Determinations signal that no further CA activities are necessary (though controls may remain in place).
- The end goal is a remedy that is sustainable, complete, and protective of human health and the environment, based on current and reasonably anticipated uses.

### References

FR. 2003. Final Guidance on Completion of CA Activities at RCRA Facilities. 68 FR 8757. February 25



**Notes:**

Notes will be added for subsequent deliveries.