



U.S. Environmental Protection Agency
Office of Enforcement and Compliance Assurance

**Compliance Monitoring Strategy
for the
Resource Conservation and Recovery Act
Subtitle C Core Program**

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	(This document is a separate pdf document. The Internet URL is provided.)	

Appendix A and B were developed for this RCRA *Compliance Monitoring Strategy (CMS)* to aid Readers.

Appendices C-H are *verbatim* copies of OECA documents originally produced for other purposes. This information is provided solely for the Reader's convenience. **Readers should refer to the original source documents, cited in each Appendix, regarding substantive matters or for contact information.**

Most of the documents cited in the *CMS* and these Appendices are available on the Internet; and Internet addresses (or hyperlinks) are provided. Certain documents, however, were developed for Agency personnel, and are posted only on EPA's Intranet. Where possible, Intranet documents have been included in these Appendices. Authorized states may consult their respective Regional RCRA contact persons regarding information in Intranet documents that have not been appended to this *CMS*.

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Appendix A

Acronyms and Generic Terms

This *RCRA Compliance Monitoring Strategy* uses the following acronyms:

ACS	Annual Commitment System
BAS	Budget Automated System
BR	Biennial Reporting
CAC	Corrective Action Compliance Evaluation
CASPD	OECA, OC, Compliance Assistance and Sector Programs Division
CDI	Case Development Inspection
CEI	Compliance Environmental Inspection
CESQG	Conditionally Exempt Small Quantity Generator
CSE	Compliance Schedule Evaluation
HPV	High Priority Violator
ICDS	Inspection Conclusion Data Sheet
ICIS	Integrated Compliance Information System
FCI	Focused Compliance Inspection
FFEO	OECA Federal Facilities Enforcement Office
FRR	Financial Record Review
FUI	Follow-up Inspection
GME	Groundwater Monitoring Evaluation
GPRA	Government Performance Results Act
LQG	Large Quantity Generator
NPMG	National Program Managers Guidance
OAM	Operation and Maintenance Inspection
OECA	EPA's Office of Enforcement and Compliance Assurance
OC	OECA Office of Compliance
OTIS	Online Tracking Information System
RCRA	Resource Conservation and Recovery Act
SQG	Small Quantity Generator
SNC	Significant Non-Compliance
SRF	State Review Framework
TSDF	Treatment, Storage and Disposal Facility
UST	Underground Storage Tank (RCRA Subtitle I)

For the reader's convenience, this *CMS* also uses certain generic terms. These terms are not legally defined terms or official Agency nomenclature.

- “*Coverage*” means how frequently Regions, or states, inspect the regulated universe.
- “*National areas of focus*” or “*national focus areas*” mean OECA National Priorities and Federal Facility Integrated Strategies (as distinguished from the ongoing RCRA Core Program).

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- “*Other RCRA Handlers*” means Used Oil Facilities, Universal Waste Handlers, entities involved in reclamation of Hazardous Secondary Materials, and any other type of facility, operation, entity or handler subject to Subtitle C *other than* a Generator, Transporter, or Treatment, Storage, and Disposal facility (TSDF).
- “*Universe*” means the array of RCRA-regulated facilities, operations, and handlers subject to inspection.

Appendix B

References

Most of the resources listed below are available to Regions, states, and the public on the Internet. A few documents, however, are available only to EPA personnel via the Agency's Intranet. See note on cover page.

General Information

Biennial Reports - <http://www.epa.gov/osw/inforesources/data/biennialreport/index.htm>

Annual Enforcement and Compliance Reporting Plans - <http://intranet.epa.gov/oeca/oc/etdd/reporting/index.html>

National Priorities - <http://epa.gov/compliance/data/planning/priorities/index.html#priorities>

RCRA Subtitle D - www.epa.gov/epawaste/nonhaz/index.htm

State Review Framework - www.epa-otis.gov/otis/stateframework.html

Watch List - www.epa-otis.gov/watchlist

Guidance / Memoranda

Guidance for RCRA Core LQG Pilot Projects (Alternative Plans / State Flexibility Plans)

<http://www.epa.gov/compliance/resources/policies/monitoring/rcra/fy08rcraguidancelqgproject.pdf>

Guidance on the Use of Section 7003 of RCRA (Oct. 12, 1997)

<http://intranet.epa.gov/oeca/ore/rcra/ise/documents/tab5.pdf>, or

<http://www.epa.gov/compliance/resources/policies/cleanup/rcra/971020.pdf>.

Hazardous Waste Civil Enforcement Response Policy (Dec. 2003).

<http://www.epa.gov/compliance/resources/policies/civil/rcra/finalerp1203.pdf> (or Appendix H to this CMS.)

National Program Managers Guidance (FY2010)

<http://www.epa.gov/ocfo/npmguidance/index.htm>

Performance Based Strategies for OECA's National Priorities FY2008-2010

<http://intranet.epa.gov/oeca/oc/npmas/priorities/index.html>.

RCRA Inspection Manual (Revised, Nov. 1998)

<http://www.epa.gov/compliance/resources/policies/civil/rcra/rcrarevinspman-rpt.pdf>.

RCRA State Oversight Inspection Guide (Dec. 1987)

<http://www.epa.gov/Compliance/resources/policies/rcra/rcrastosinspgu-rpt.pdf>

Review of RCRA Inspection Report Practices (2007)

<http://intranet.epa.gov/compliance/oc/caspd> (or Appendix F to this CMS.)

Role of the EPA Inspector in Providing Compliance Assistance During Inspections (June 25, 2003).

http://kodiak.r07.epa.gov/intranet/enviroprograms/role_of_inspector.pdf

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Appendix C

Compliance Monitoring Tools and Activities¹

All regional programs should conduct appropriate compliance monitoring activities, which include all regulatory agency activities to determine whether an individual facility or a group of facilities (geographical, by sector, or by corporate structure) are in compliance with environmental laws and regulations, as well as enforcement orders and settlement agreements. EPA documents and files compliance determinations using various methods (e.g., databases, inspection reports, etc.). Compliance monitoring activities occur before and until the point when either compliance is determined or an actual violation is identified. Review and oversight of authorized state, local and Tribal compliance assurance and enforcement programs continues throughout the year. As in the past, the National Enforcement Investigations Center (NEIC) will continue to support ongoing projects for commitments made in previous years, including case preparation and enforcement support.

EPA strongly encourages efforts to provide field inspectors with technology that will improve their capacity to collect, share, and report information. Regional managers and staff should utilize the Field Activity Compliance Technology Strategy to guide their efforts to utilize hardware and software to collect compliance monitoring data by automating specific workflow processes for the specific programs.

Examples of important compliance monitoring activities include:

Inspector support

- Training to fulfill the requirements of EPA Order 3500.1,² and other applicable Orders (1440.1, 1440.2, etc.).
- Implementing the OC guidance, *Final National Policy, Role of the Inspector in Providing Compliance Assistance During Inspections, June 25, 2003*.
- Issuing and tracking federal credentials to state and tribal compliance inspectors pursuant to the September 30, 2004 memorandum entitled *Guidance for Issuing Federal EPA Inspector Credentials to Authorize Employees of State/Tribal Governments to Conduct Inspections on Behalf of EPA* and the August 5, 2005 memorandum *Process for Requesting EPA Credentials for State/Tribal Inspectors Conducting Inspections on EPA's Behalf* to ensure inspectors are appropriately trained and credentialed.

Monitoring planning and execution

- Developing compliance monitoring plans in conjunction with OECA and states that include targeting and information gathering techniques.
- Creating a viable field presence and deterrent by conducting compliance inspections, evaluations, surveillance, and civil investigations (including sampling as necessary), in all the environmental media programs (authorized and non-authorized).
- Responding to tips, complaints, and referrals from private citizens, other governmental entities, and non-governmental organizations.
- Identifying potential environmental crimes through the civil compliance monitoring program, and referring to Regional criminal investigation division (CID) area offices.

¹ **Source:** This text is copied verbatim from the FY2010 *National Program Managers Guidance*, at 12-14.
<http://www.epa.gov/ocfo/npmguidance/index.htm>

² *Editor's Note:* This statement in the *National Program Managers Guidance* refers to *Training and Development for Compliance Inspectors/Field Investigators* (June 29, 1988), <http://intranet.epa.gov/occa/oc/campd/inspector/training/3500.html>. In 2002, OECA updated the 1988 Order with one entitled *Training and Development for Individuals Who Lead Compliance Inspections/Field Investigations*, http://intranet.epa.gov/ohr/rmpolicy/ads/orders/3500_1A1.pdf. As of July 2009, OECA was developing an update to the 2002 Order.

Appendix C

Data collection, review, and reporting

- Performing compliance data collection, reporting, analysis, evaluation, and management.
- Reviewing and evaluating self-reported data and records, environmental permits, and other technical information relating to compliance with environmental laws and regulations.
- Maintaining compliance files and managing compliance records.
- Preparing reports and entering compliance findings and inspection results into
- Reporting Government Performance and Results Act (GPRA) outcomes of on-site inspections and evaluations into ICIS for the Inspection Conclusion Data Sheet (ICDS) and proposed Expedited Settlement Orders, and by analyzing and evaluating the outcomes of compliance monitoring activities.

Program coordination/review/oversight/support

- Ensuring that the implementation of state, local and Tribal programs are in accordance with statutory requirements and EPA policy.
- Identifying, tracking, and coordinating with state, tribal, and local environmental agencies those violators that are, or should be designated as, Significant Noncompliers, High Priority Violators, or Watch List facilities.
- Developing, negotiating, or overseeing state or tribal compliance and enforcement grants.
- Providing training, assistance, support, and oversight of state, local and tribal programs.
- Performing compliance screens for various headquarters and/or state/tribal programs such as Performance Track.³
- Conducting reviews under the State Review Framework (SRF).

End

³ *Editor's Note:* The Performance Track program ended in Spring 2009.

Appendix D

Types of RCRA Inspections

Editor's Note: RCRAInfo, the database of record, recognizes the following types of RCRA inspections.⁴

CAC Corrective Action Compliance Evaluation

An evaluation of a site's compliance with the corrective action requirements of a permit or an order. When a CAC is conducted as part of another inspection type (CEI, GME, etc.), a separate entry for a CAC should be conducted for the CAC component.

CAV Compliance Assistance Visit

The compliance assistance activity that a Region or State conducts at a specific site to assist the site in achieving compliance as outlined in the OECA Operating Principles (URL: <http://www.epa.gov/compliance/resources/policies/planning/state/oprin-integ-mem.pdf>). A CAV evaluation does not include evaluation events that would otherwise qualify as another type of evaluation such as a CEI or OAM evaluation or conducted under the auspices of a confidentiality agreement via a small business or local government assistance program (sometimes referred to as an amnesty program). However, this CAV activity code would include technical site-specific compliance assistance not considered "interpretive technical assistance." CAVs are conducted without the threat of enforcement. Therefore, CAVs cannot be linked to violations or enforcement actions.

CDI Case Development Inspection

A CDI is an on-site inspection conducted for the sole purpose of gathering additional information that supports the evidence (i.e., samples, on-site record review, interview, etc.) for a potential or pending enforcement case. A CDI is performed only after an initial evaluation has resulted in the observation of potential violations.

CEI Compliance Evaluation Inspection

A CEI evaluation is primarily an on-site evaluation of the compliance status of the site with regard to all applicable RCRA Regulations and Permits (with the exception of groundwater monitoring and financial assurance requirements). Although portions of a CEI evaluation may routinely be conducted in an agency office setting, such "office" evaluations are considered an integral part of a CEI in terms of completing an evaluation. The overall evaluation of a site's compliance status may take place over multiple days necessitating multiple site visits and activities. The entire set of activities and associated effort is considered a single CEI.

⁴ **Source:** These inspection descriptions were copied *verbatim* from RCRAInfo, *Nationally Defined Values for Evaluation Type*, <https://rcrainfo.epa.gov/>.

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The major function of a CEI is an overall review of the site's performance. The inspection includes an on-site examination of records and other documents maintained by the site and an evaluation of the site's compliance with all applicable requirements and adequate sampling, when necessary. Where appropriate, it includes groundwater monitoring assessment outlines or plans, closure/post-closure plans, contingency plan reviews, waste analysis plan reviews, and preparedness and prevention plan reviews. Specifically excluded from the CEI type of evaluation are financial assurance requirements and inspections of groundwater monitoring systems. A review of financial assurance requirements is most often conducted by "agency experts", and appropriately coded as a Financial Record Review (FRR) evaluation. Inspections of groundwater monitoring systems are coded as either a GME or OAM.

CSE Compliance Schedule Evaluation

An evaluation conducted to verify compliance with an enforceable compliance schedule associated with a formal enforcement action. When a CSE is conducted as part of another inspection type (CEI, GME, etc.), a separate CSE entry should be made in RCRAInfo for the CSE component.

FCI Focused Compliance Inspection

An FCI is an on-site inspection that addresses only a specific portion or Subpart of the RCRA regulations or authorized State regulations/programs. Some examples of an FCI are a Subpart CC inspection, BIF inspection, Universal Waste Rule inspection, closure verification inspection, training inspections, etc. Nationally defined Focus Areas must be used with this evaluation type to further define the specific scope of the FCI.

FRR Financial Record Review

An extensive detailed review of a site's compliance with financial responsibility requirements. Financial Record Reviews are conducted in the Agency office and not on-site.

FSD Facility Self Disclosure

Indication that a site has self-disclosed the existence of a violation and/or performed an audit and has submitted the information as appropriate to the State or EPA.

FUI Follow-Up Inspection

A partial on-site inspection conducted to verify the status of violations cited during a previous evaluation. An FUI code value should only be used if the effort involved, or the extent of areas inspected, are insufficient to qualify as one of the more comprehensive evaluation types. Includes inspections following up to formal/informal actions where an enforceable compliance schedule has been established. Does not include any inspections involving an enforceable compliance schedule associated with a formal enforcement action. When an FUI inspection is conducted as part of another inspection type (CEI, GME, etc.), a separate FUI entry should be made in RCRAInfo for the FUI component. Please note that new violations may be cited as a result of an FUI evaluation, and those new violations would be linked to the FUI.

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GME Groundwater Monitoring Evaluation

A detailed evaluation of the adequacy of the design and operation of a site's groundwater monitoring system as per EPA's Final RCRA Compliance Groundwater Monitoring Evaluation Guidance Document. Evaluation of the groundwater monitoring system design should be conducted by a hydrogeologist and includes the review of the owner/operator's characterization of the hydrogeology beneath hazardous waste management units, monitoring well placement and depth/spacing, and well design and construction. It is essential that the GME ensure that the owner/operator has designed an adequate groundwater monitoring system. In addition, an integral part of the GME is the review of the operation of the groundwater monitoring system through an evaluation of the owner/operator's sampling and analysis plan and its implementation. GMEs should be scheduled, to the maximum extent possible, to coincide with owner/operator sampling events to permit the field evaluation of sampling techniques. Inspectors should collect splits or conduct EPA/State sampling as a random check of groundwater quality data at any wells that may have indicated releases to support enforcement of corrective action.

A comparison of EPA/State and owner/operator analytical results can be used to assess laboratory accuracy and establish the reliability of owner/operator submitted data. A GME should encompass everything covered in the CEI for groundwater monitoring facilities. In addition, GMEs should include:

- a. a detailed investigation of the engineering features and effectiveness of the groundwater monitoring system;
- b. a detailed review of the site's groundwater sampling and analysis plan;
- c. re-calculation of statistics at detection monitoring facilities to ensure that the site should not be in assessment;
- d. detailed examination of the site's assessment monitoring plan and field implementation;
- e. re-evaluation of groundwater flow direction; and
- f. a substantial amount of samp[ling].

LBN Land Ban Restrictions Inspection

An inspection of land disposal restriction requirements. Where Land-Ban is inspected in conjunction with another inspection type (CEI, CME, etc.), a separate Handler Evaluation form should be submitted reporting the Land-Ban component.

Note: This code is not available for new data entry.

NR No 3007 Information Request Received

Agency conducted an in-agency office review and determined a failure to respond to a 3007 information request.

NRR Non-financial Record Review

An evaluation conducted in the Agency office involving a detailed review of non-financial records.

Appendix D

OAM Operation and Maintenance Inspection

The Operation and Maintenance Inspection is a periodic inspection of how well a groundwater monitoring system continues to function once it is considered well designed. The inspection focuses on the condition of wells and sampling devices. Evaluation of well recovery notes, turbidity of water, total depth, depth to water, etc. should be made and compared to historic data. Sampling devices should be tested and if necessary pulled and visually inspected. The findings of an O&M inspection will indicate whether case development is warranted and/or will serve to focus future GMEs. The inspector should be experienced in evaluation of groundwater monitoring systems, e.g., hydrogeologist. This inspection can include sampling.

SNN No Longer a Significant Non-Complier (SNC)

A determination has been made to remove the SNC designation for a site.

Note: Entry of an SNN record is required to remove a site from being an SNC.

Business Rule: If an SNY and an SNN record are entered by the same agency on the same day, the site will remain an SNC unless the SNY record has "Site should not be a SNC" as the first words in the SNY record's NOTES field.

SNY A Significant Non-Complier (SNC)

A determination has been made to designate a site as an SNC using guidelines as set forth in the current version of the Hazardous Waste Civil Enforcement Response Policy (ERP).

An SNC is a site that has caused actual exposure or a substantial likelihood of exposure to hazardous waste or hazardous waste constituents; is a chronic or recalcitrant violator; or deviates substantially from the terms of a permit, order, agreement or from RCRA statutory or regulatory requirements.

In evaluating whether there has been actual or likely exposure to hazardous waste or hazardous waste constituents, implementers should consider both environmental and human health concerns. However, environmental impact or a substantial likelihood of impact alone is sufficient to cause a violator to be an SNC, particularly when the environmental media affected require special protection (e.g., wetlands or sources of underground drinking water). Additionally, when deciding whether a violator meets this criterion, implementers should consider the potential exposure of workers to hazardous waste or hazardous waste constituents.

Further, although consideration should be given to compliance status with other environmental statutes and regulations, an SNC in RCRAInfo should be linked to all applicable violations that contributed to the SNC designation, where appropriate. Although there are benefits to doing so, linkage of SNY determination to specific RCRA violations that contributed to the SNC determination is optional.

Note: It is important to enter the SNY designation promptly upon designation.

Business Rule: If an SNY and SNN record are entered by the same agency on the same day, the site will remain an SNC unless the SNY record has "Site should not be a SNC" as the first words in the SNY record's NOTES field.

End of Report

Appendix E

Oversight Inspections⁵

A federal oversight inspection evaluates the quality of the state inspection/evaluation program and the state inspector training program by reviewing and evaluating the findings of state inspections and evaluations. Oversight inspections identify strengths and weaknesses of state programs and develop mutually agreed upon commitments by the states and EPA to correct problems. When regions conduct oversight inspections, they should follow these guidelines:

- Only experienced EPA personnel should be used to conduct oversight inspections.
- The overall goal of oversight is to improve the state (and regional) compliance and enforcement program.
- Oversight should be tailored to fit state performance/capability, once it has been documented.
- EPA should observe procedures the state inspector follows or does not follow (e.g., credentials, purpose of inspection, entry conference, interview, field observations, record reviews, CBI procedures, exit interview, etc.).
- The EPA inspector should determine whether the state inspector:
 1. Follows state inspection and monitoring procedures
 2. Detects potential violations, especially SNCs, and gathers evidence to support violations
 3. Has adequate training and guidance
 4. Has adequate safety equipment and field equipment
 5. Has informed the facility of the subject regulations
- EPA should coach/inform the state inspector of potential concerns observed or discovered through questioning the state inspector after the oversight inspection is completed, and report findings and observations to regional managers by preparing a separate oversight inspection report for each oversight inspection so that any issues observed can be addressed in discussions with state managers and/or during the SRF review process. Regions can utilize the procedures described in more detail in the RCRA State Oversight Inspection Guide, dated December, 1987 for conducting oversight inspections and for preparing inspection reports: <http://www.epa.gov/Compliance/resources/policies/civil/rcra/rcrastosinspgu-rpt.pdf>.
- EPA oversight of state performance should be consistent with the following principles from the August 25, 1986, Barnes memo entitled, "Revised Policy Framework for State/EPA Enforcement Agreements."
 - a. Both positive and negative findings should be identified.
 - b. EPA should provide technical assistance and training when needed.
 - c. EPA action to correct problems should vary, depending on the nature and impact of the problem and if it reflects a single or multiple incidents.
 - d. The States should be given an opportunity to formally comment on EPA's performance relating to commitments made by EPA to the state, e.g., provide training, assist with sampling, provide equipment, etc.
 - e. Regions should provide all information to the states that is available on their performance.
 - f. The Region should report to the state on progress toward commitments made to that state.
 - g. EPA should give states sufficient opportunity to correct identified problems

⁵ **Source:** This text is copied *verbatim* from the FY2010 *National Program Managers Guidance*, at 14-16, <http://www.epa.gov/ocfo/npmguidance/index.htm>.

Appendix E

- h. EPA should use oversight inspections as a means of transferring successful regional and state approaches from one state to another.
- i. Where state performance fails to conduct quality inspections or evaluations, EPA may:
 - (a) suggest changes in state procedures; (b) suggest changes in the state use of resources or training of staff;
 - (c) provide technical assistance; and/or (d) increase the number of oversight inspections and/or require submittal of information on remedial activities.

It is expected that the regions, for each program, will conduct a number of these activities in any fiscal year. The specific combination of activities will depend upon the availability of intra- and extramural resources, and working agreements made between state and tribal governments.

Compliance monitoring does NOT include: 1) preparation of Notice of Violations (NOVs), warning letters, and administrative or judicial complaints, and 2) development of evidence and other information where a violation has already been determined to have occurred. Instead, these activities fall under the civil and criminal enforcement programs.

Appendix F

Review of RCRA Inspection Report Practices⁶

Background

As part of an activity related to the Foundries Initiative, the Office of Compliance, Compliance Assistance & Sector Programs Division (CASPD) requested RCRA inspection reports from a number of Regions. Over 80 inspection reports covering 69 facilities were received from Regions 1, 3, 4, 5, 7, and 10. These inspection reports covered inspections conducted by the Regional staff, Regional and State staff together, and by staff of authorized States. In addition, CASPD obtained another 45 inspection reports covering multi-media inspections conducted by NEIC primarily at chemical production facilities.

The primary activity associated with these reports was an analysis to determine common areas of non-compliance. However, the review also provided an opportunity to see how inspections are conducted and documented across the country and also provided useful insight into the diversity of styles and information included in inspection reports. Additionally, CASPD has had discussions with inspectors from Regions 6 and 10 and has reviewed documents from those regions, (such as Region 10's, "Report Contents: the 5W's," <http://www.epa.gov/region10/offices/oea/ieu/manual/inspct06.htm>), along with other RCRA guidance documents, such as the Revised RCRA Inspection Manual (1998) (<http://www.epa.gov/compliance/resources/policies/civil/rcra/rcrarevinspman-rpt.pdf>).

These discussions and document reviews have provided the basis for some recommendations, summarized in this document, which may be useful for RCRA core inspections and for "best practices" regarding RCRA inspection reports. Also included is a "model" inspection report outline that lists all of the elements essential to a good inspection report. The information in this document is an augmented "distillation" from several existing sources including: the Revised RCRA Inspection Manual; RCRAInfo guidance concerning "evaluation"/inspection types; and ICIS requirements. The recommendations provided are to be used in addition to the memorandum from Michael Alushin, dated April 18, 2002, "Practices to Follow and Avoid When Conducting Compliance Inspections," (<http://intranet.epa.gov/oeqa/oc/campd/inspector/referenc/inspectpractice.pdf>).

Examples of Good Report Qualities and "Best Practices"

From analysis of the RCRA Foundries and NEIC inspections, many excellent examples of desirable inspection report qualities emerged, including some inspection report "best practices." For example, an important inspection report quality contained in some of the reports (which should be included in all reports) was the purpose of the inspection. Was it part of a national priority initiative; follow-up to a previous inspection; or due to a tip or complaint? Additionally, there were some practices observed that indicate a need for a more common understanding of terminology and areas where improvement could occur. Report quality varied even within a Region or between Regions and States.

⁶ Source: <http://intranet.epa.gov/oeqa/oc/resources/caspd/RCRAinspmodeltoolfnl.pdf> or <http://intranet.epa.gov/oeqa/oc/caspd/index.html>. This document is copied *verbatim*, *except* that it omits a chart (included in the on-line version) which describes the various types of RCRA inspections. Appendix D provides the current descriptions for RCRA inspections.

Appendix F

Several reports also included excellent narrative descriptions. Positive attributes observed included: descriptions organized by facility/process/inspection area; detailed references to applicable regulatory areas (including specific regulatory language); thorough descriptions of waste issues, including locations, processes, and/or facility components, conditions present, container sizes and amounts; and excellent documentation such as photographs and photo logs which provided observation dates and times.

Inspection reports should be written so that a person unfamiliar with the facility can understand how the plant is organized; against what standards it was inspected; and what waste streams were identified, how they were determined, and how those streams are handled by the facility. The type of inspection and the type of facility (i.e., a brass foundry) should be identified and SIC or NAICs codes and RCRA permit numbers should be provided. If possible, sizes or amounts of pollutants that may be associated with potential noncompliance should be given. Providing this information makes it easier to determine measurable outcomes from inspections. The following is an actual example from the foundry inspection reports' analysis of a summary that demonstrates how information related to amounts of pollutants can be included in the inspection report.

“There were a number of containers of hazardous waste at the facility that were not properly labeled. The following was observed:

- In the paint booth bunker; one 55-gallon container of paint waste (D001). The container was approximately 1/3 full (see Photo 7 in Attachment 2).
- Ninety day storage area; one full 30 gallon container of waste mineral spirits (D001; see Attachment 6) with an illegible label.
- Outside the 90-day storage area there were two 50-gallon containers with “Hazardous Waste” on the label, but with no risk label and contents unknown. Facility was unsure of contents as the containers had been on site prior to facility ownership transfer. One was rusted through and leaking and appeared to be half full. Material appeared to be a mixture of paint waste and solvents.
- In the galvanizing room; one 3x8x5 foot tank about 2/3 full of zinc ammonia chloride solution. No labels were affixed. This waste is being evaporated before addition of clay-like material and is then shipped off as hazardous waste.”

This example could be further strengthened to develop an even more supportable enforcement case by adding additional information. For example:

- “Paint booth bunker 1A (Photo 1) contained three 55-gallon drums of paint waste (D001, F003; see Attachment 1 for the facility's hazardous waste determination). One of the drums (Photos 2, 3 and 4) was not labeled with the words "hazardous waste", the contents of the container or with the initial date of accumulation. The unlabeled drum was approximately 1/3 full.
- The ninety day storage area at the south end of Building F1 (See facility map Attachment 2) contained one full 30 gallon container of waste mineral spirits (D001; see Attachment 3 for the facility's hazardous waste determination). The container had an illegible label (Photo 9).
- Outside the ninety day storage area at the south end of Building F1 there were two 55-gallon containers labeled “Hazardous Waste” (Photo 12). According to Mr. Ted Smith, Environmental Manager, and Ms. Jane Rogers, F1 Operator, the exact contents of the drums were unknown.

Mr. Smith stated that the drums were generated during start up of the tar still unit several years ago (see Process Description Attachment 11) and the decision was made to dispose of them this week. The facility has collected samples of each of these drums and sent them off-site for testing. The work order and lab receipt are included as Attachment 7. The facility asked the lab to run only TCLP benzene on the waste, however, based upon the inputs to the unit (Attachment 11); the compliance inspector believes the facility should run TCLP VOC's and TCLP RCRA 8 metals for a complete hazardous waste determination. The facility agreed to run these additional tests and will share

Appendix F

the results with the region. The black drum seen in Photo 12 was rusted and appeared to be leaking (Photo 13). The stained area was on concrete and covered approximately 8 square feet (Photo 14). The facility overpacked the drum and used absorbent to remove the spilled material (Photo 15). The spent absorbent was placed into the overpacked drum and will be disposed following hazardous waste determination. The facility labeled the drums ‘Tar Still waste - pending analysis’ with today’s date during the inspection.”

In addition, inspection reports should document that all required procedures (such as presenting credentials) have been followed. All persons present during the inspection should be identified, to the extent possible. Most inspection reports did this. Using a cover sheet containing this information is especially helpful. Reports should also contain references to attachments used to substantiate the report’s findings (such as photos, manifests, parts of hazardous waste determination/analysis.) Including a list of these attachments in the report is also useful.

Guidance concerning requirements for inspection reports may be found in the Revised RCRA Inspection Manual (<http://www.epa.gov/compliance/resources/policies/civil/rcra/rcrarevinspman-rpt.pdf>). Additional information may be found in Region 10’s Investigations & Engineering Unit’s “(Inspection) Report Contents: The 5W’s” (<http://www.epa.gov/region10/offices/oea/ieu/manual/inspct06.htm>).

Areas Needing Improvement

The analysis also highlighted some areas where improvement could be attained. For example, there is a need for consistent terminology regarding inspection (evaluation) types. Some reports used the wrong acronym to designate the inspection type, or identified the inspection as one type when it was really another. Terminology has recently been revised for input into RCRAInfo, so inspection reports should use the acronym for inspection (evaluation) type and its corresponding definition that is consistent with the latest version of RCRAInfo. (See “Inspection Evaluation Type” table.)

Additionally, not all inspection reports contained the essential information needed to justify enforcement action/inaction. For example, some reports do not state the purpose of the inspection; such as it was conducted as part of a national priority focus, or was conducted in response to a tip and complaint. Inspection reports should contain at least the information required to be entered into RCRAInfo (and ICIS for Federal inspections). Also, inspection reports should include all the necessary information from which to determine whether a violation has been committed, but should not actually state that a violation has occurred. Simply stating the facts, such as “containers are not labeled,” or “a Contingency Plan is missing essential elements,” allows this determination to be made. Stating the regulatory language or referencing the regulatory citation of the requirements should be done; again, without drawing a conclusion. For example: “All containers of hazardous waste must be stored as required by 40 CFR 262.34(d)(2) [see 40 CFR 265.173(a)]. Five absorbent pads (12 by 12 inches, each) used as rags were found in a bucket with no lid in the quality control laboratory. These pads are shipped off as hazardous waste because they cannot be landfilled.”

Another area where improvement is desired is in providing information concerning the amounts and types of pollutants addressed or discovered that may be associated with non-compliance. Increasingly, we must demonstrate our successes in terms of things which can be measured. Identifying the amounts of wastes or pollutants that are related to noncompliance, or identifying reductions that occur because of our activities is extremely important for demonstrating how our actions benefit the public and protect the environment. Therefore, identification of wastes and/or pollutants potentially reduced by our actions or involved in potential noncompliance is an essential component of a thorough inspection report.

The pages following the Recommendations section contain information that may provide assistance in determining what information should be contained in the inspection report in general and also for particular types of

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RCRA facilities. Included are: a “Model” RCRA Inspection Report Outline; a list of “Recommended Areas of Inspection Focus for Specific Types of RCRA Entities;” and a list of Inspection (Evaluation) Types to assist with determining the inspection type that is consistent with RCRAInfo and ICIS terminology.

Recommendations

In addition to the requirements delineated in the Revised RCRA Inspection Manual and the April 2002 “Practices to Follow and Avoid When Conducting Compliance Inspections” memorandum, the following are recommendations based on our analysis and review.

Regions should:

- Review their processes and those of states to ensure quality inspections and inspection reports. This addresses one of the elements of the State Review Framework.
- Develop a template or use an existing one that meets all the essential elements of the “Model” Inspection Report Outline, and any other needs of the program.
- Develop a Standard Operating Procedure (SOP) or adjust the inspection SOP if necessary, to meet program needs, including periodic review of inspection reports or approval of inspection reports by manager.

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“MODEL” RCRA INSPECTION REPORT OUTLINE	
Report Heading	Inspection of (Region X Inspection of Acme Bulletin Board Company, for example).
Date/Time(s) of Inspection	Day, year and time for the inspection.
Type & Purpose of Inspection	What <u>type</u> of inspection was it? (i.e. Case Development Inspection, Compliance Evaluation Inspection, etc.) What was the purpose of the inspection? (Why was inspection conducted?) For example, "Inspection was part of x priority and was conducted to determine compliance with generator standards;" or, "Inspection was the result of a tip and complaint."
Facility Information	Region. Facility name, address, telephone number. Name of Facility Representative(s), including title (position) and telephone number. Type of facility (including <u>SIC or NAICS code</u> and <u>RCRA Identification number</u>).
Inspection Participants	Names and affiliations of all members of inspection team and facility participants.
Opening Conference	To whom were credentials shown; who was present (names, titles or positions), what was discussed; specific arrangements; entry granted or denied.
Facility Description	What was the facility like, including processes, RCRA-related activities, wastes generated, treated, stored, etc.
Site History	Compliance history and history of facility site location to extent known or ascertainable.
Inspection Narrative	Description of the field inspection events and observations. Where did you go? What did you see/do? What records were reviewed, copied, taken? Where were records kept and who was in charge of them? What selection method was used to select records reviewed? Which records were used? Were samples taken? Of what? Were there splits? Were photos taken to document the conditions observed? [If documentation is provided elsewhere (attachments, for example), it should be referenced here.]
Compliance Concerns/Deficiencies	Regulatory citation; nature of problem; size and quantities of areas concerned (for example, "5 fifty gallon drums."). Do not use the word " violation ," or draw enforcement conclusions, but <u>do state what problems were observed and how this relates to regulatory requirements</u> . For example: "40 CFR 262.34(a)(3) requires that containers of hazardous waste that are accumulated on-site be marked with the words "hazardous waste. At the time of the inspection the hazardous waste storage area contained five "super sacks" (holding approximately 10 cubic yards each) of baghouse dust from the electric arc furnace. The baghouse dust from the electric arc furnace has tested characteristically hazardous for cadmium and/or chromium. None of these sacks were labeled "hazardous waste," or marked with the accumulation start date."
Actions Taken By Facility Related to Deficiencies	For example: verified compliance with previously issued enforcement action; corrected recordkeeping deficiencies; completed a notification or report; corrected monitoring deficiencies; requested a permit application; implemented new or improved management practices or procedures; improved pollutant identification (e.g. labeling, manifesting, storage, etc); reduced pollution (e.g. use reduction, industrial process change, emissions or discharge change, etc.) (Specify the pollutant(s) and amounts reduced)
Compliance Assistance	Although not required, if assistance materials are provided, state what was provided and whether it was general or site-specific.
Attachments	List and describe all documentation including photographs, drawings, receipts, notices, etc.
Date and Signature	Make sure the report is signed and dated.

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RECOMMENDED AREAS OF INSPECTION FOCUS FOR SPECIFIC TYPES OF RCRA ENTITIES	
FOR GENERATORS	
General Standards For Generators	Parts 262.10 – 262.12. Describe compliance with these standards.
The Manifest	Parts 262.20 – 262.23. Establish existence of manifest records; assess adequacy with respect to regulatory requirements.
Pre-Transport Requirements	Parts 262.30 – 262.34 . Review packaging, labeling, marking and placarding procedures for compliance with the regulations; establish compliance with accumulation time restrictions.
Recordkeeping and Reporting	Parts 262.40 – 262.43. Establish existence of annual reports and additional reports.
Special Conditions	Parts 262.50 – 262.51. Inspect for reports of international shipments of waste, and proper notification of the Administrator.
Standards for Universal Waste Management	Part 273. Inspect for proper management of universal waste including: batteries, not covered elsewhere; recalled pesticides; mercury-containing equipment; and hazardous waste lamps.
Standard for the Management of Used Oil	Part 279. Inspect for compliance with used oil standards including: standards for used oil generators; standards for used oil collection centers and aggregation points; standards for used oil transporter and transfer facilities; standards for used oil processors and re-refiners; restrictions on burning for energy recovery; used oil fuel marketing; and use as a dust suppressant.
FOR TRANSPORTERS	
General	Parts 263.10 – 263.12. Ensure that the transporter has obtained an EPA ID number and only stores waste at transfer facilities fewer than 10 days
Manifest System and Recordkeeping	Parts 263.20 – 263.22. Establish existence of manifest records and compliance with manifest procedures.
Hazardous Waste Discharges	Parts 263.30 – 263.31. Ensure that transporter is aware of responsibilities under these sections. Check to see if any discharge reports have been made to the Department of Transportation as required by these regulations.
FOR TSDFs	
General Facility Standards	Parts 264/5.10 – 264/5.18. Describe compliance with standards.
Preparedness & Prevention	Parts 264/5.30 – 264/5.37. Check for required equipment and arrangements with local authorities.
Contingency Plan & Emergency Procedures	Parts 264/5.50 – 264/5. 56. Check records and procedures for conformance with requirements of this section.
Manifest System, Recordkeeping, & Reporting	Parts 264/5.70 – 264/5.77. Establish existence of manifest records, operating record, annual report, and unmanifested waste report. Assess conformance with regulatory requirements..
Groundwater Monitoring	Parts 264/5.90 - 264.99 or 265.94. Examine ground-water monitoring plan and review results of sampling analysis
Corrective Action Program	Parts 264.100 – 101. Review status of corrective action program)
Closure and Post Closure	Parts 264/5.110 - 264/5.120 (Review closure and post-closure plans for adequacy with respect to regulatory requirements
Facility Specific Standards	Parts 264/5.170 - 264.603 or 265.445 and Parts 264/5.1100 - 1102. Depending upon the type of facility being inspected, establish compliance with the appropriate regulatory standard.
Permit Conditions	For permitted facilities, review violations of specific permit conditions or schedules of compliance.

Appendix G

Calculating Hazardous Waste Outcomes

----- Editor's Note -----

There are two alternative ways to calculate hazardous waste outcomes from compliance monitoring activities: (1) the “hazardous constituent density” approach; or (2) the simplified “mass hazardous waste” approach. Although these methodologies were developed for measuring enforcement outcomes, they also can be used to calculate compliance monitoring outcomes.

- **Hazardous Constituent Density Approach**
This methodology requires one to calculate the *density of hazardous constituents* within the hazardous waste affected by the Region’s (or state’s) intervention. This methodology is used in the *Case Conclusion Data Sheet Training Booklet* (2004), available at www.epa.gov/compliance/resources/publications/data/tools/ccds.pdf.
- **Mass Hazardous Waste Approach**
This methodology counts the *entire mass of hazardous waste* addressed by the Region’s (or state’s) intervention, instead of requiring calculation of the *density of hazardous constituents* within the waste. This methodology was established by OECA’s *Revised Instructions for Reporting RCRA Cases for FY08 End-of-Year Reporting (EOY)*, issued October 8, 2008, which is copied in full below.

Examples of Outcome Measures and Reports	
<p>Inspection: The Region (or State) inspected the ABC Chemical Co. The Region/State found that:</p> <ul style="list-style-type: none"> • The company had not properly handled ten 55-gallon drums of F001 solvent waste, containing methylene chloride; and • Three hazardous waste streams, which together generated an estimated 50 tons of hazardous waste, were not properly identified or handled. 	
<p>“Hazardous Constituent Density” Approach^{1/}</p> <p>Calculation: The Region/State used the density of methylene chloride to estimate the amount of material in pounds that had not been properly handled.</p> <p>Outcome Measure: 10 drums F001 × 55 gal/drum × 11.149 lbs./gal = 6,132 lbs. of F001</p> <p>Outcome Report: As a result of the Region’s/State’s inspection, 6,132 pounds of F001 waste that were not being handled properly at the time of inspection and, therefore, were at-risk of improper treatment will now be handled properly.</p>	<p>“Mass Hazardous Waste” Approach</p> <p>Calculation: The Region/State used the total weight of the hazardous waste (using the approximate weight of water) to estimate the amount of material in pounds that had not been properly handled.</p> <p>Outcome Measure: 10 drums × 55 gal/drum × ~8 lbs./gal = ~4,400 lbs. of hazardous waste (or 2.2 tons)</p> <p>3 waste streams generating 50 tons of hazardous waste</p> <p>Outcome Report: As a result of the Region’s/State’s inspection:</p> <ul style="list-style-type: none"> • Approx. 2.2 tons of hazardous waste that were not being handled properly at the time of inspection and, therefore, were at-risk of improper treatment or disposal will now be handled properly. • Waste streams accounting for an estimated 50 tons of waste not previously identified are now identified and will be handled properly.
<p>^{1/} Adapted from Example 1. Hazardous Waste Treatment (Direct), Chapter 7, <i>Case Conclusion Data Sheet Training Booklet</i>.</p>	

----- End of Editor's Note -----

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Revised Instructions for Reporting RCRA Cases for FY08 End-of-Year Reporting (EOY)⁷

These are new guidelines for reporting RCRA environmental benefits when injunctive relief will result in direct pollutant reductions. The OECA Environmental Outcome Reporting Management Committee (EORMC) has proposed a new methodology for calculating direct benefits for RCRA cases, by creating a new pilot reporting category that will be used instead of “pounds of pollutants reduced, treated, or eliminated.” The new pilot reporting category, “**Estimated pounds of hazardous waste treated, minimized or properly disposed of**” and guidance on the new approach are described below. The new methodology will count the entire mass of the hazardous waste addressed by the enforcement action, but still allows for the reporting of specific hazardous constituents in the RCRA waste (although thru a manual process). Identifying specific pollutant constituents allows OECA to better characterize pollutant reduction risks in its efforts to enhance environmental outcome reporting.

This new pilot category will only include RCRA cases in FY08, but the Management Committee will consider how cases under other statutes, particularly CERCLA, with similar remedies should also be included through the revised guidance for FY09. The new approach is not an opportunity to reassess existing RCRA cases with preventative benefits for the purpose of getting credit *instead* for direct benefits. In addition, volume of contaminated media (VCMA) reported amounts for RCRA will continue to be counted as cubic yards of contaminated soil or aquifer cleaned.

HQ has generated a list of the FY08 RCRA cases with direct benefits currently in ICIS and is providing next steps for the regions to complete in modifying their ICIS data. The ICIS data entry deadline is **October 10, 2008**. Information on the EOY reporting schedule is available at: <http://intranet.epa.gov/oeca/oc/etdd/reporting/fy2008/index.html>.

If you have specific questions or concerns on calculating environmental benefits, please contact Donna Inman, at 202-564-2511, inman.donna@epa.gov. For ICIS data entry questions, please contact, David Sprague, at 202-564-4103; sprague.david@epa.gov. For RCRA specific questions, call Ann Stephanos, at 202-564- 4006; stephanos.ann@epa.gov.

New Direct Benefits Reporting Category for RCRA

Title	Estimated pounds of hazardous waste treated, minimized or properly disposed of
Complying actions	Direct
	- Waste Treatment - Waste Minimization
	Annual
	- first full year of implementing the complying action(s) for ongoing operations - total amount of waste to be addressed divided by number of years to complete closure action
Pollutant Name	Hazardous waste
Units	Pounds

⁷ This text is copied *verbatim*.

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All RCRA cases addressing hazardous waste that would have previously been reported as “pounds of pollutants reduced, treated, or eliminated” will now be reported under the new pilot category. To implement this change, the Regions should select “Hazardous waste” as the “pollutant” from the ICIS drop down menu. The Regions will also report hazardous constituent information manually, as described below.

Note: No workaround changes are required for RCRA Subtitle C cases where storage and disposal complying action types for preventative benefits have previously been reported. ICIS entries for these actions should remain as currently exist.

Complying Actions

In some instances, what are typically considered storage or disposal preventative complying actions actually result in stopping “an ongoing release of hazardous waste or preventing an otherwise inevitable release. In these instances only, OECA believes the complying action results in a direct environmental benefit. However, “storage change” and “disposal change” complying action types are allowed for preventative benefits only. As a result, the complying action types which must be entered in ICIS for the new pilot reporting category are “waste treatment” and “waste minimization.” These complying actions are currently available for cases under RCRA §§ 3002, 3003, & 3004 and are explained in the current CCDS guidance. Similar types of waste treatment and waste minimization complying actions may also be required in a RCRA § 7003 case; however, they are not currently available in ICIS for § 7003 cases. As explained below, OECA has developed a workaround for reporting waste treatment and waste minimization complying actions for § 7003 cases

Workaround for entering RCRA §7003 direct benefits in ICIS:

Currently, ICIS only allows in-situ and ex-situ treatment, removal of contaminated medium and containment complying actions for RCRA § 7003 cases. However, many § 7003 cases achieve the same direct environmental benefits by requiring the same types of complying actions as cases under RCRA §§ 3002, 3003, & 3004 – waste treatment and waste minimization. In order to report direct benefits for RCRA Subtitle C actions occurring under RCRA §7003 authority, the regions must include §3002, §3003 or §3004 as the secondary law in its ICIS entry and enter “waste treatment” or “waste minimization” as the complying action type.

Revising existing RCRA §3002, §3003 or §3004 entries

You will not need to change the complying action types in ICIS if you have entered waste treatment or waste minimization for cases with a primary or secondary law/section of RCRA §3002, §3003 or §3004. However, you must determine whether constituent pollutant names and amounts have been entered. If you previously entered “Hazardous waste” as the pollutant name and the total waste amount in pounds, no further changes are necessary. Otherwise, you must follow the ICIS data entry and manual reporting steps below.

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Reporting Guidelines

ICIS Data Entry:

- 1- enter complying action type: **Waste Treatment or Waste Minimization** (and estimated cost of complying action)
- 2- enter estimated total pounds of RCRA regulated waste as follows:
 - a. **Pollutant Name = Hazardous waste**
If specific pollutant names are currently entered in ICIS, you must:
 - i. delete the individual constituent names and amounts
 - ii. enter “Hazardous waste” as the pollutant name and estimated total amount.

NOTE: Any RCRA amounts which are not listed as “Hazardous waste” will not be counted in the appropriate “Pounds of hazardous waste treated, minimized or properly disposed of” category. Specific constituent amount(s) will be collected manually (see manual reporting below).

- b. **Unit of Measure = Pounds**
(NOTE: must convert/report total estimated hazardous waste amount in pounds)
- c. **Destination Media = land, soil or water (ground).**

Manual Reporting

Enter in the appropriate worksheet of the EOY reporting workbook the estimated pounds of toxic constituents, if known. The toxic constituent amounts are the pounds of specific pollutants in the hazardous waste that have been calculated. In your EOY certification, please identify those RCRA cases where an authority is used in ICIS that was not cited in the enforcement action so that we can note this issue on the ECHO website as a known data quality issue.

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Guidance for State Alternative Plans (Flexibility Plans) For RCRA LQG Compliance Monitoring⁸

In the Resource Conservation and Recovery Act (RCRA) program requirements section of the Office of Enforcement and Compliance Assurance's (OECA's) FY08 National Program Managers' (NPM) Guidance, there is a requirement that each state inspect at least 20% of its large quantity generator (LQG) universe. The NPM guidance stated that the 2005 National Biennial Reporting System (BRS) universe should be used to calculate the 20% number for inspections.⁹ The Regions (after consultation with headquarters) have allowed the states to use a universe other than the 2005 BRS universe if they believe the alternative data more accurately portrays the LQG universe of the state¹⁰. The NPM guidance also provides for pilot projects where states may seek approval for flexibility from the requirement in RCRA02.s to inspect at least 20% of the LQGs in order to improve the outcomes¹¹ of their compliance assurance activities. This guidance provides the details for submitting pilot project plans to EPA for approval.

Procedures for Alternative Approaches

For states that choose an alternative approach to the standard requirement to inspect at least 20% of their LQG universe, a **brief** written plan must be developed and submitted to the Region. If a state chooses one of the pre-approved alternatives (described below) and follows the requirements for developing the written plan, the plan should be approved by the Region without much, if any, need for negotiation (there may be special circumstances or conditions

⁸ *Editor's Note:* This policy, entitled *Guidance for FY08 RCRA Core LQG Pilot Projects*, was posted on-line in 2007, <http://www.epa.gov/compliance/resources/policies/monitoring/rcra/fy08rcraguidancelqgproject.pdf>. In 2007, EPA used the National Biennial Reporting System (BRS) for determining a state's LQG universe. EPA now uses the Biennial Report (BR) for this purpose.

⁹ This guidance deals only with LQGs and not treatment storage and/or disposal facilities (TSDFs). While some LQGs may also be TSDFs the coverage commitments are separate. An inspection at a facility that is a TSDF and LQG counts as only one inspection for the total RCRA inspection count but when discussing the coverage of the TSDF universe or LQG universe, a facility that falls in both universes is counted in both universes for coverage purposes. Outcomes of the inspections should be attributed to the appropriate portion of the facility (TSDF or LQG). Since the requirements for each universe are reviewed separately this is not double counting the number of inspections nor is it double counting any of the outcomes.

¹⁰ An example of an approved alternative for the universe is to use facilities that appear in two or three of the last three BRS cycle. The idea of this approach is to focus the 20% coverage on the "stable" BRS universe of LQGs and use the remainder of inspection resources to inspect other handler types. Using Alabama as an example, there were 234 LQGs in the 2005 BRS (20% of 234 or 47 facilities). There were only 172 facilities that were in each of the last three BRS cycles. Twenty percent of 172 is 35, so Alabama could direct up to the resources that would have gone to 12 more LQGs to inspect facilities other than LQGs.

¹¹ EPA is trying to move from using only output based measures to output and outcome based measures for its programs. For OECA this means trying to move from output based measures (i.e., numbers of inspections) to outcome based measures (i.e., increased understanding, changes in environmental management practices, pollution eliminated, reduced or treated) to better describe the benefits of its compliance and enforcement programs.

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where additional information is needed for the Region to approve a state submittal). If a state chooses an alternative that is not one of the pre-approved alternatives contained in this guidance, the proposal should be submitted to the Region under the proposal process for Element 13 of the State Review Framework (SRF). The Region will consult with headquarters before granting approval to the state for its alternative plan submitted under Element 13 of the SRF. If the alternative plan is one of the pre-approved alternatives, consultation with headquarters is not required but a copy of the plan should still be sent to headquarters. This will help in preparing a national report at the end of the year. In all cases, the actual commitments for inspections conducted in lieu of the LQG inspections should be captured in the notes field of EPA's Budget Automation System¹² (LQG inspection commitments are captured as normal in the system).

NOTE: For any proposed alternative, it is fully expected that the level of inspection resources will remain the same. Inspection resources should not decrease although they may be directed to different targets and may be coordinated more closely with other resources such as compliance assistance or compliance incentive resources.

The written plan should include:

- 1) a general description of the state's universe of regulated generators,
- 2) the number of Comprehensive Evaluation Inspections (CEIs) at LQGs that would have been required under the standard approach,
- 3) the issue(s)/problem(s) as the state sees it with continuing the standard approach, and/or opportunities available under the alternative approach,
- 4) the planned mix of inspections under the alternative approach (what types and how many of each type of facilities will be inspected and how many of each inspection types will be conducted),
- 5) if applicable, a description of how inspections will be used in combination with other tools (compliance assistance, pollution prevention, compliance incentives, etc),
- 6) the expected improved benefits or outcomes the state expects to realize from implementing the alternative approach including a projection of the expected outcomes, and
- 7) a measurement plan that details what benefits/outcomes the state plans to measure¹³ and how it will collect and report the information to EPA,

¹² EPA's Office of the Chief Financial Officer (OCFO) uses BAS to house resource (\$/FTE) and performance (Annual Performance Goals and Performance Measures) information within the Agency-wide strategic planning framework (Goals, Objectives, Sub-objectives and Strategic Targets). In other words, it houses the commitments for the Annual Commitment System (ACS). Each Region has a contact for data entry into BAS.

¹³ Outcomes should be collected for the LQGs in addition to the alternative inspections.

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Plan Submittal

For plans that follow one of the pre-approved alternatives, the plan should be submitted to the Region for review to ensure that all of the elements are appropriately captured in the plan.¹⁴ The Region will forward copies of the plan to OECA.¹⁵

If a state wishes to pursue an alternative that is not one of the pre-approved alternatives, the state submittal should be sent to the Region as formal request under Element 13 of the SRF. All of the elements of the plan should still be included in the state's submittal and the Region after consultation with OECA, will approve the plan or negotiate an alternative plan with the state. If an alternative plan can not be agreed upon by mid-September then it is expected that the state will follow the standard approach (inspect 20% of the LQG universe) for the Federal fiscal year.

Written Plan Details

- 1) Description of the state's known universe – This description should include the known number of each type of generator (provide the source(s) of the information). The universe information should also provide to the extent possible, information on quantities of waste generated in the state. At the very least, the most recent BRS data can be used, but if the state collects this information through other means, that data may be used as well or in place of the BRS data. This information will help in describing the size and benefits/outcomes of the program.
- 2) Baseline - Using BRS¹⁶ or another agreed upon database (one that accurately identifies the current number of generators) identify the number of inspections (CEIs) that the state would have had to conduct to meet the standard approach of inspecting 20% of the LQG universe each year. If a data source other than BRS is used, the Region and state should consider how to handle one time LQGs (e.g., waste generated as the result of the clean up of contaminated sites) and periodic LQGs (e.g., sources that under normal operations do not generate enough waste to be an LQG but periodically have turn arounds where the facility or portions of the facility are shut down for maintenance and/or repair and

¹⁴ Submittal should be electronic or electronic and hardcopy.

¹⁵ Copies of the state's alternative plan should be sent electronically from the Region to ripp.tom@epa.gov in the Office of Compliance (OC).

¹⁶ BRS includes a count of "LQGs" and "non-LQGs." An "LQG" facility is a facility that met the requirements for large quantity generator status during the time period the report covers and at the time the facility submitted the report. A "non-LQG" facility is one which met the requirement for large quantity generator status during the time period the report covers but no longer met those requirements at the time the facility submitted the report. For calculating the 20% requirement, only the LQGs are used but in counting the total waste generated, both the LQG and non-LQG amounts of waste are used.

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generate large amounts of waste as a result of that activity) that should be identified in BRS but may not be identified in other data sources.

- 3) Problem statement - The state should develop a problem statement that describes the problems being missed by the standard approach.

Example problem statement: The state is confident that most/all of the waste streams have been properly identified at all of its largest LQGs and while there may be violations at some of these LQGs they are generally minor, involve a small percentage of the waste at the facility and likely would not have led to waste being shipped offsite to a non-TSD facility. Therefore, while continually inspecting these LQGs confirms that most/all of their generated wastes are being handled properly, there are small quantity generators (SQGs) that are generating more wastes than some of the LQGs but they are inspected less frequently (some are not inspected not at all). The state has anecdotal evidence that certain SQGs do not properly identify all of their waste resulting in hazardous waste being shipped to sites not permitted to treat or dispose of the hazardous waste causing contamination that will need to be cleaned up. The state expects this quantity to be larger and pose a greater risk to human health and the environment than the types of violations and quantities of improperly handled wastes found at the LQGs in the state.

- 4) Planned mix of inspections – This is essentially the replacement for the commitment to inspect 20% of the LQG universe and while this is a projection, the information reviewed in this element will help show that the state’s overall level of effort for inspections does not decrease and the information will be captured in EPA’s BAS as part of the commitments and will be used in developing a national report and in Element 1 of the State Review Framework (SRF) reviews that describe the universe of inspections planned/conducted.
- 5) Mix of tools – If applicable, describe how the alternative approach for inspections will be used in conjunction with assistance or incentive approaches to try to maximize outcomes. For example, compliance assistance visits for an industry sector followed by targeted inspections or promotion of self audit or small business policies followed by inspections. This section should also describe the types of inspections the state plans on conducting if they are going to be something other than CEIs.
- 6) Expected outcomes – A qualitative description of the outcomes the state expects to achieve by adopting this alternative approach compared to what the state would expect by following the standard approach.

Example: Under the standard approach, it is the state’s experience that since the LQGs are inspected frequently, they have only minor violations that are easily corrected and involve only small quantities of waste. Out of the 874,749 tons of waste reported in

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BRS, the state estimates that only a few tons will be handled improperly and that any drums with missing labels will be correctly identified before being shipped off site. Under the alternative approach the state expects to identify a number of generators that did not report themselves as LQGs but are in fact LQGs and that the waste generated by these facilities have not been handled properly and the state expects the quantity identified as being handled improperly to far exceed the amount of waste improperly handled by any LQGs identified with violations. The state will also end up with a more complete LQG universe.

- 7) Measurement plan – A description of the quantitative measures the state will collect and report and how it intends to collect/document the outcomes. For example, the state will document the amount of waste a facility generates, the amount of waste identified as not being handled properly at the time of an inspection but corrected at the time of inspection, the amount corrected as a result of follow up enforcement actions, the amount that will now be managed properly because of the implementation of environmental management practices that ensure compliance, the amount not properly identified as hazardous waste that will now be handled properly, etc. The plan should also include a description of any other ways the state may follow up to collect outcome measures along with where it will keep the data (state database, RCRAInfo, etc) and how it plans to report the outcomes to the Region (e.g., brief quarterly reports to be discussed during the normal quarterly calls the state holds with the Region and a complete written end of year report submitted to the Region).

Year-end Reporting

At the end of the year, an analysis of the alternative approach (did it meet expectations, if outcomes haven't been realized yet, a projection of the outcomes, recommendations that the alternative approach be continued, altered or discontinued, etc) should be conducted and the results reported to the Region. The report should cover the elements submitted in the written plan. The Region will forward all reports to OECA so that a national report on the outcomes of the core program can be generated. The end of year report should be submitted to the Region by the end of October and the Region should forward copies of the report to OECA as soon as they receive it so that a national report for RCRA can be developed by the end of December.

Pre-Approved alternatives

Any state which chooses to follow one of the following alternatives will have their pilot approved without the need for detailed negotiations (states are allowed to add additional information to these pre-approved alternatives but may not delete any provisions contain in these alternatives without going through the approval process previously described).

For those states that choose one of the following plans, during the negotiation for the annual commitments between the EPA Regions and Headquarters, they only need to identify

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what option they are selecting, the numbers of LQG inspections and alternative inspections (identified by each type of facility to be inspected, SQG, CESQG etc. as applies) and agree to collect the identified outcomes and perform a year end analysis of the benefits/outcomes from implementing the alternative approach. To assist in the end of year analysis and reporting, the state should then follow up with a written plan containing the information requested above.

Alternative 1 – The 80% Approach

States would use the latest National BRS report (or other agreed upon alternative) to identify the number of LQGs and the amount of waste generated by the LQGs and “non-LQGs.” Instead of inspecting at least 20% of the LQG universe, a state choosing this option would inspect LQGs that account for at least 80% of the waste generate by the LQGs and “non-LQGs” listed in Exhibit 1.1 of the National Analysis which can be found at <http://www.epa.gov/epaoswer/hazwaste/data/br05/national05.pdf>, and then with the remaining resources that would have gone to inspecting other LQGs, the state may target inspections to try to maximize outcomes described in its plan. There would be at least two outcomes for LQGs from this alternative. One would be reported as amount of waste generated by the facilities where no violations were found and were therefore being handled properly at the time of inspection (use BRS numbers to generate this). The second outcome would be amount of waste that was not being handled properly by facilities at the time of inspection that will now be handled properly when the facility returns to compliance. This same outcome information could also be collected and reported for the other entities inspected in lieu of the LQGs under this alternative.

For example, according to the 2005 BRS, Alabama had 234 LQGs meaning that they would have to inspect 47 LQGs to meet the current requirement. According to Exhibit 1.1 in the 2005 BRS national report, the total waste generated by the 235 LQGs and Non-LQGs¹⁷ was 874,749 tons. Eighty percent of that is 699,799 tons. The top four facilities in Alabama accounted for 707,692 tons. This means that Alabama could direct up to 43 of its 47 inspections to facilities other than LQGs.

Outcome measures for Alternative 1

The LQGs inspected should be put into perspective of the state’s overall universe. Additionally, the outcomes should relate to the amount of waste being handled properly. For example, for Alabama,¹⁸ the state inspected four LQGs accounting for 81% of the waste generate by LQGs in the state. At three facilities that according to the 2005 BRS, generated a total of

¹⁷ According to the 2005 BRS national report, Alabama had 234 LQGs and 1 non-LQG for a total of 235 generators. The 234 number is used for the current LQG universe but the total number is used for the amount of waste generated.

¹⁸ The noncompliance data for Alabama is made up for illustrative purposes.

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673,518 tons of hazardous waste (77% of the BRS waste) no significant violations were identified at the time of the inspection) and at one facility that according to the 2005 BRS, generated a total of 34,174 tons of hazardous waste (4% of the BRS waste) the state found that 3 streams of waste were not identified and those streams generate an estimated 50 additional tons of waste which were not properly handled. Additionally, the state identified 8 drums (approximately 1.75 tons) of hazardous waste which were not properly marked and at risk for not being handled properly. No violations were identified at the remainder of the facility, so there is no evidence that the rest of the 34,174 tons of waste were handled improperly. This could be summed up as: Out of the four facilities accounting for 707,692 tons (81%) of the waste generated by LQGs in Alabama in the 2005 BRS, no violations were identified for facility operations that account for approximately 707,690 tons, 1.75 tons were not being handled properly at the time of inspection and therefore at risk of improper treatment or disposal but will now be handled properly, and waste streams accounting for an estimated 50 tons of waste not previously identified are now identified and will be handled properly as a result of the State's actions.

The other generators/handlers inspected in lieu of the LQGs (plus any other inspections the State may want to count) additional outcome measures should be collected and be put into perspective regarding the portion of the universe and amount of waste that they accounted for (to the extent that information is easily available) but in any event, the direct outcomes of how much waste was being handled properly and how much waste was not should be collected in a similar manner to the LQGs.

Continuing the above example for Alabama, for the 43 inspections, 20 SQGs, 10 CESQGs, 8 transporters and 5 potential non-notifiers were inspected. Then go on to describe for example, the amounts of wastes generated/handled by each category, what was confirmed to be handled properly, what was not being handled properly, whether or not the generators were identified correctly (e.g., 16 of the SQGs were confirmed to be SQGs with no significant violations and together they generated 34 tons of hazardous waste in the last year, four of the inspected SQGs were determined to be LQGs generating 300 tons of waste which was not being sent to a permitted TSD facility but they only reported and properly handled 15 tons of waste, and 3 of the potential non-notifiers were identified to be SQGs generating 8 tons of waste which was not being sent to a permitted TSD), etc.

Outcome examples used in Alternative 1 should be used in the remaining alternatives unless the state identifies additional outcome measures to use.

Alternative 2 - The Greater Than 5 Ton BRS Approach

The largest possible small quantity generator (SQG) can generate 12 metric tons (long tons) or 13.2 english (short tons). This means that some LQGs can actually generate less waste

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than some SGQs since a facility can be an LQG because it had one month where it generated over one metric ton of waste. The idea under this option is to allow for flexibility in the middle of the range of where a facility could be and SQG or an LQG. For Alabama, the 2005 BRS “List of Reported RCRA Sites” file (located at:

<http://www.epa.gov/epaoswer/hazwaste/data/br05/index.htm>) shows that of the 234 LQG facilities, 206 of them generated greater than 5 tons of waste. That means 42 (20% of 206 = 42) would need to be inspected to meet the target of inspecting at least 20% of the LQG universe, leaving flexibility inspections at other handler types equivalent to the resources that would have gone to inspecting five LQGs. This approach can be applied to the full 2005 BRS universe or the “stable” BRS universe.

Alternative 3 – The Straight Trade-off Approach

The straight trade off approach (This replaces the 2:1 requirement that existed in the FY 2007 NPM guidance) – This is a straight cut of up to 50% from the requirement to inspect at least 20% of the LQG universe. In other words, inspect at least 10% of the BRS LQG universe. For Alabama this means inspecting 24 LQGs (at least 10% of the 234 universe), and then Alabama could direct the freed up resources (23 inspections if we assume that each substitute inspection takes as much resources as an LQG inspection) to facilities other than LQGs. Again the idea is that the level of effort for inspections (personnel and/or \$) should remain the same. So if the each of the alternative facilities inspected only took half the time it takes to inspect the average LQG then Alabama would inspect 46 other facilities (2:1 trade-off).

Appendix I

Hazardous Waste Civil Enforcement Response Policy (Dec. 2003)

See separate pdf document – or

<http://www.epa.gov/compliance/resources/policies/civil/rcra/finalerp1203.pdf>