

**Oregon Hazardous Waste Program Review
Program Evaluation Report for
Federal Fiscal Years 1996 to 1998**

July 1999

Prepared by
Environmental Protection Agency
Region 10
Office of Waste & Chemicals Management

Oregon Hazardous Waste Program Review
Program Evaluation Report for
Federal Fiscal Years 1996 to 1998

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Purpose of the Review

The Environmental Protection Agency (EPA) Region 10 established a goal of assessing the current status of all state enforcement and compliance programs for all delegated media programs in the Region. The purpose of this assessment is to establish a baseline from which to negotiate compliance/enforcement and reporting commitments for the FY 2000 Performance Partnership Agreements (PPA) with each state.

The purpose of the Oregon program review is described in the 1999-2000 PPA with the Department of Environmental Quality (DEQ) as follows:

1. Inform the Regional Administrator and State Agency Director as they define the role of enforcement in the state;
2. Fulfill EPA's oversight role by evaluating state program adequacy and consistency in implementing/enforcing national standards;
3. Establish a basis for differential oversight in the Air Quality program, recognizing some level of oversight will always be required of EPA with respect to delegated programs.

Scope and Methodology

The Oregon Hazardous Waste Program Review methodology is consistent with the "Compliance Assurance Program Evaluation Principles," established by Region 10 and the four states in March 1998. The review was also based upon the "EPA Region 10 RCRA Compliance Program Evaluation Guide," dated June 1994.

This review was conducted by the Office of Waste and Chemical Management (OWCM), using a work group that had also recently reviewed the hazardous waste programs in Washington and Idaho. (Alaska does not have a state hazardous waste program so no review was needed there.) The OWCM director also asked state program directors to volunteer participants and, as a result, state inspectors from Idaho and Washington RCRA programs were part of the work group. The review work group conducted a preliminary RCRIS data review, then traveled to the DEQ regional offices during the week of November 16-20, 1998. During the site visits the work group met with DEQ staff to discuss the evaluation areas and reviewed the selected inspection and enforcement files. The work group discussed their preliminary impressions of the program review at exit briefings in each regional office and with DEQ managers at the week's end.

The scope of this review was established by OWCM and DEQ in October 1998, following the process described in the PPA, and is included as Appendix A. The facilities in the review included:

- all facilities with data in the Resource Conservation and Recovery Information System (RCRIS) were used to calculate compliance and enforcement program performance

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measures and to compare with Oregon's enforcement measurements (as reported in the Bispham Report);

- a small percentage (13%) of the 427 facility inspections conducted by the DEQ regional offices at hazardous waste handling facilities were used for file reviews;
- three of the eighteen facilities that were ranked high in the corrective action priority ranking system were used for corrective action file reviews;
- facilities involved in the Waste Reduction Assistance Program (WRAP) that DEQ wanted to provide information about specifically, or in summary project reports.

Data pulled from RCRIS into a spreadsheet for the 427 hazardous waste handlers inspected are included as Appendix B. Data for the three treatment, storage and disposal (TSD) facilities and the three facilities reviewed for corrective action are included as Appendix C.

EPA provided a draft of the Program Review Report to DEQ in February 1999 to get additional state program comments and information about the review findings. DEQ responded in May 1999 with information about actions already underway to address some of the Review recommendations and with comments explaining some differences from EPA's views in DEQ's approach to the program. We incorporated editorial and factual changes into this final report and included the full text of DEQ's response as Appendix G.

Summary of Significant Findings - Oregon Hazardous Waste Program Strengths

A. Evaluation Area: Program Performance and Effectiveness

Relevant Requirements and Guidance: EPA Office of Enforcement and Compliance Assurance (OECA) Annual Planning Guidance and Core Accountability Measures, as incorporated into the 1996 and 1997 Hazardous Waste Program Grants and the 1998 and 1999-2000 Oregon PPAs.

Findings: The program exhibited an upward trend in the number of facilities inspected and a consistently high number of formal enforcement actions started, along with an active technical assistance program that visited many more waste handlers than could be reached through compliance inspections alone (Figure 1).

The program has a well-established technical assistance effort, called the Waste Reduction Assistance Program (WRAP), that has strategies in place for measuring success in terms of waste reduction and facility compliance. DEQ reported improved results in this program since it started in 1992 due to learning from each new project and documenting outreach and follow-up efforts.

Conclusion: DEQ compliance and enforcement activities were maintained or increased over this period while staff resource levels remained constant. The data indicate a consistent commitment to implement compliance and enforcement actions.

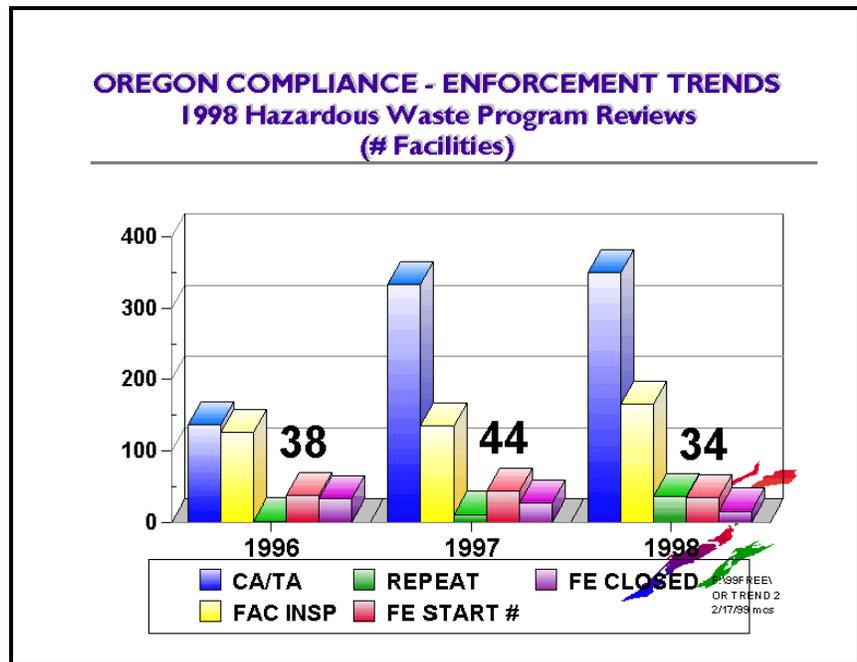


Figure 1

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B. Evaluation Area: Complete, Accurate and Current Knowledge of the Regulated Community

Relevant Requirements and Guidance: A comprehensive compliance program should include enforcement of the self-implementing provisions of 40 CFR Section 262, requirements applicable to generators of hazardous waste.

Findings: The DEQ program implemented at least two successful approaches to identify non-notifiers. Through the geographic and sector projects for WRAP technical assistance, DEQ staff used business phone directories and walk-up visits to canvas potential non-notifiers. DEQ also has a well-established complaint intake process, with designated duty officers in regional offices to handle calls, management evaluation of response options, and an outcome tracking process. The knowledge and experience of the staff seem to help focus priority for response on potential violators.

Conclusions: DEQ processes were successful at discovering hazardous waste generators who had not identified themselves as required. This constitutes a key component of the comprehensive compliance program.

C. Evaluation Area: Appropriate Targeting, Inspection, and Monitoring Strategy

Relevant Requirements and Guidance: Program review and compliance assurance agreement guidelines are that a strategy needs to be in place to set out goals and identify the means to achieve them.

Findings: DEQ provided a copy of the WRAP Site Visits and Inspection Best Practice Recommendations that describes the facility selection and priority strategy developed in 1997-1998. We found that DEQ developed and implements an effective strategy for greater coverage of generators, and for tracking the compliance results of both assistance and inspection contacts.

Conclusions: The Best Practice documentation provides a clear strategy for DEQ regional offices that includes field-tested methods for consistent implementation around the state. This strategy also addressed a significant recommendation from the 1994 program review. The Best Practice recommendation, that the hazardous waste program partner with the Enforcement Section in strategic planning, makes a good next step for the strategy.

D. Evaluation Area: Balanced Use of Tools

Relevant Requirements and Guidance: EPA Office of Enforcement and Compliance Assistance annual operating guidance and Policy Framework for State/EPA Enforcement Agreements. A

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program should have a dynamic compliance strategy that balances the relevant tools used to achieve compliance.

Findings: DEQ appeared to have a well-established strategy for using compliance training, assistance and monitoring to build compliance with hazardous waste regulations. We found that DEQ had created measurement systems for waste reduction assistance visits and had maintained the compliance monitoring system for inspections and penalties.

Conclusions: The continued focus on inspections and enforcement actions supports DEQ efforts to motivate the regulated community to undergo technical assistance visits and implement high percentages of DEQ compliance recommendations. DEQ's balanced effort is a compliance and enforcement program strength.

E. Evaluation Area: Timely and Appropriate Response to Significant Violations

Relevant Requirements and Guidance: EPA Enforcement Response Policy set a standard of 90 days to make timely enforcement determinations.

Findings: We found DEQ inspectors rapidly turned out inspection reports and notices of noncompliance (NONs) following inspections. The DEQ enforcement guidance set an ambitious target of 10 days to complete investigations and respond to the facility. We found DEQ staff routinely met that goal and rarely needed as long as the 90 day standard.

Conclusions: DEQ maintains a very timely enforcement response standard, a finding that was also noted in the 1994 state program review.

F. Evaluation Area: Sound Program Management

Relevant Requirements and Guidance: Policy Framework for State/EPA Enforcement Agreements, EPA annual operating guidance, Performance Partnership Agreements, and Authorization Memorandum of Agreement created numerous guidelines for program management, such as effective organization, planning and reporting.

Findings: We found that DEQ undertook a major strategic planning process between 1996 and 1998 that produced a comprehensive hazardous waste program plan. We also found the compliance program operated with firm enforcement policy standards established through state regulations and the Enforcement Guidance for Field Staff (1995).

Conclusions: It appears that the combination of a comprehensive hazardous waste program strategy and consistent use of the compliance and enforcement rules and policies makes a sound

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foundation for implementation of the DEQ hazardous waste program.

G. Evaluation Area: Corrective Action Site Reviews

Relevant Requirements and Guidance: EPA corrective action program guidance, including, Guidance for Developing Risk-based Cleanup Levels, proposed regulations for 40 CFR Part 264 Subpart S (1990 and 1996).

Findings: At facilities we reviewed, DEQ has taken steps to control human exposures to hazardous waste which were consistent with one of the national core program measures for the corrective action program. We found that DEQ established state policies for using risk-based cleanup levels in remediating contaminated sites, including RCRA corrective action facilities, that should protect human health when implemented through cleanup decisions.

Conclusions: DEQ appears to be operating with policies that create protective remedies based on human health risk assessments, consistent with EPA policy and guidance.

Summary of Significant Findings - Oregon Hazardous Waste Program Performance Recommendations

A. Evaluation Area: Program Performance and Effectiveness

Relevant Requirements and Guidance: OECA Annual Planning Guidance and Core Accountability Measures, as incorporated into the 1996 and 1997 Hazardous Waste Program Grants and the 1998 and 1999-2000 Oregon PPAs.

Findings: DEQ did not enter any significant non-complier (SNC) data elements in RCRIS. Without these data, it was not possible to calculate the national core accountability measures, as all of the rates were zero. To approximate the same results for the purpose of this review, we calculated the national core measure rates using facilities with formal enforcement actions as a substitute for facilities reported with SNC data.

We found the rate of significant violations lower and declining for first inspections, while higher and increasing for repeat inspections (Figure 2). DEQ reported that this measure could have indicated improved compliance in the regulated community overall, as well as effective targeting of follow-up inspections to find the serious violations. We found that the measure could instead have indicated that the deterrent impact of initial inspections and enforcement actions may not have been enough to prevent serious hazardous waste problems from continuing or being repeated at the noncomplying facilities.

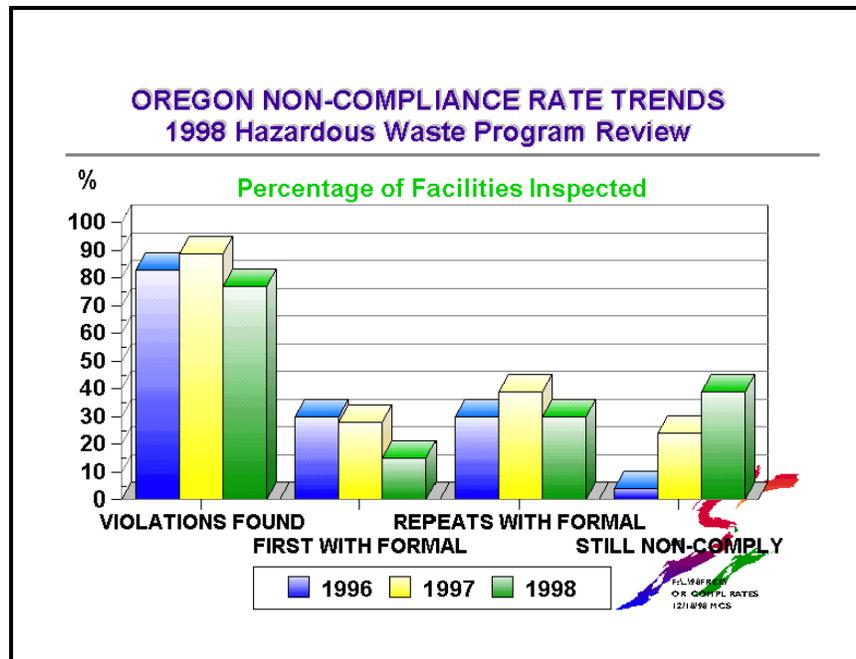


Figure 2

Recommendations: DEQ should report SNC data in RCRIS so that national core measure calculations will be meaningful and comparable with other programs. DEQ should further

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evaluate and support the assertion that higher noncompliance rate at facilities with repeat inspections was a positive trend resulting from escalation of consequences for recalcitrant facilities rather than a trend indicating ineffective deterrence of previous inspections.

B. Evaluation Area: Program Performance and Effectiveness (continued)

Findings: DEQ did not use the enforcement action “Actual Resolved Date” consistently to show facilities’ return to physical compliance in RCRIS, especially for formal enforcement actions. This probably prevents the national accountability measure from accurately reflecting return to compliance times.

Recommendation: DEQ should use RCRIS to accurately track the time it takes facilities to return to compliance following enforcement actions in order to be consistent with national measures.

C. Program Evaluation Area: Complete, Accurate and Current Knowledge of the Regulated Community

Relevant Requirements and Guidance: RCRIS Memorandum of Understanding, the 1996 and 1997 Hazardous Waste Program Grants and the 1998 and 1999-2000 Oregon PPAs standards for monthly upload of core data.

Findings: DEQ’s inspection coverage of the large quantity generator facilities in RCRIS could not be verified because of the data differences between RCRIS and the state database. There were 360 facilities in RCRIS and only 253 in HWIMSy (not all 253 were matched in RCRIS), which constitutes an error rate greater than 30% in the national database core data.

Recommendations: DEQ should reconcile the systems to make sure large quantity generators are matching up with each merge of the data. DEQ should identify and work with EPA to correct any systematic upload problems that perpetuate the data discrepancies for all regulated facilities following the reconciliation. Further reconciliation to match small quantity generators should be undertaken as resources allow.

D. Program Evaluation Area: Appropriate Targeting, Inspection, and Monitoring Strategy

Relevant Requirements and Guidance: Standard set by RCRA Section 3007(e) for TSD facility inspections no less often than every two years, with flexibility from OECA annual guidance, as incorporated in the 1996 and 1997 Hazardous Waste Program Grants and the 1998 and 1999-2000 Oregon PPAs.

Findings: We found 20 TSD facilities in RCRIS subject to the biennial compliance inspection

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requirement. DEQ covered six of the facilities more frequently than required and one facility as required. DEQ negotiated inspection flexibility annually with EPA but stated their frustration with the variability of facility classification in RCRIS for determining which facilities were subject to the requirement.

Recommendations: We recommend that DEQ work with EPA to verify or correct the data for facilities that are reported in RCRIS as TSD facilities subject to mandatory inspections and negotiate annual inspection goals with EPA using RCRIS and the available work load flexibility.

E. Evaluation Area: Timely and Appropriate Response to Significant Violations

Relevant Requirements and Guidance: EPA Enforcement Response Policy, Policy Framework for State/EPA Enforcement Agreements, and annual work plans or PPAs created criteria for addressing significant violations.

Findings: Although DEQ adopted the SNC designation criteria in state enforcement guidance and generally undertook formal enforcement actions where violators met the criteria, no SNC facilities were identified to EPA or the public through the national database. Failure to identify and track SNC facilities makes it almost impossible for DEQ to meet any of the standard enforcement program evaluation criteria evaluated for this period.

Recommendations: DEQ should take immediate steps to ensure that all future SNC designations will be entered into RCRIS and should review all formal enforcement files that were active during the review period to collect and enter previous SNC facility designations.

F. Evaluation Area: Timely and Appropriate Response to Significant Violations (continued)

Findings: We found four facilities that appeared to meet the SNC criteria had received only an informal enforcement response. We questioned the appropriateness of the responses based upon repeated or unaddressed violations and seriousness of the environmental threat.

Recommendations: DEQ should evaluate two of the four facilities for SNC designation and escalation to formal enforcement actions.

G. Evaluation Area: Timely and Appropriate Response to Significant Violations (continued)

Findings: We found eight facilities (out of twenty-five) with formal enforcement actions where we questioned the appropriateness of the penalty. It appeared that DEQ's penalty rules utilize a small multi-day violation factor, rather than assessing the full penalty for each day the violation existed, which results in relatively small penalty assessments. When relatively large penalties were

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originally assessed, DEQ's rules allow for mitigation based upon the Director's discretion and we did not find supporting documentation for applying that discretion as part of the enforcement file.

Recommendations: DEQ should pursue the penalty assessment options available for multi-day penalties and document the rationale for penalty mitigation when discretion is used.

H. Evaluation Area: Sound Program Management

Relevant Requirements and Guidance: Policy Framework for State/EPA Enforcement Agreements, EPA annual operating guidance, Performance Partnership Agreements, and Authorization Memorandum of Agreement created numerous guidelines for program management, such as effective organization, planning and reporting.

Findings: We did not find a consistent state-wide data management and program information analysis system in place. We found information in the compliance and enforcement files that was months overdue for RCRIS data entry. We noted a significant drop in the amount of permit and corrective action program progress data entered into RCRIS over the review time frame. We heard that data issues were EPA's problem and general frustration with system implementation and support. DEQ reported that a process improvement team was working to improve information management.

Recommendations: DEQ should maintain the high priority on resources that they report being recently devoted to information system improvements. Process improvements and information management responsibilities should be incorporated into program guidance and policy for consistent implementation standards in all regional offices.

I. Evaluation Area: Corrective Action Site Reviews

Relevant Requirements and Guidance: EPA corrective action program guidance, including Guidance for Developing Risk-based Cleanup Levels, proposed regulations for 40 CFR Part 264 Subpart S (1990 and 1996).

Findings: We found that the two remedy selections we reviewed have not demonstrated their protectiveness for off-site groundwater. File information indicated that groundwater contamination continued to migrate off-site and the remedies selected did not actively address that migration beyond the facility boundary or the off-site contamination.

Recommendations: DEQ should impose additional corrective measures to contain the migration of contaminated groundwater within the boundaries of the facilities and to actively remediate the off-site contamination, to meet EPA's national program goals for RCRA corrective action.

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J. Evaluation Area: Corrective Action Site Reviews (continued)

Findings: We found a decrease in information shared between DEQ and EPA. DEQ did not send a copy of the cleanup decision at one high priority corrective action facility to EPA for comment as spelled out in the agencies' Memorandum of Agreement. DEQ data in RCRIS did not accurately reflect the information in the facility files we reviewed. Data entry for all corrective action events has significantly declined from year to year such that we found only two events entered for FY 1998. It appears that the decrease in site activity progress reported resulted from the lack of data entered, rather than from a decrease in DEQ field activities.

Recommendations: DEQ reports that they have initiated an information management improvement process to develop more effective reporting and tracking of field activity data. We recommend that, in addition to improving the process for future activities, DEQ evaluate the information available for the corrective action facilities over the past three years, enter the appropriate milestone events in RCRIS (using the data crosswalk), and send EPA completed corrective action documents.

Program Evaluation Areas Narrative Report

Program Performance and Effectiveness

The compliance and enforcement program measures for outputs, outcomes and environmental conditions were evaluated using the RCRIS data, the DEQ annual Enforcement Accomplishments Report, and the DEQ Hazardous Waste Program Grant reports. DEQ provided additional WRAP and technical assistance project reports during the meetings at their regional offices.

The trends in compliance and enforcement activities are presented in Figure 1, above. DEQ increased the number of facilities inspected and the number with WRAP technical assistance visits in each year reviewed, even while the staffing level remained about the same. DEQ reported that staffing was steady at approximately 10 FTE for compliance inspectors, 5 FTE for enforcement case officers, and 6 FTE for WRAP specialists during this period. This data indicated that DEQ found some efficiencies in this area that increased their presence in the regulated community. DEQ reports that conducting WRAP visits, at a ratio of about 50 per FTE, helps them increase compliance through personal contact with many more businesses than could be reached by relying solely on more resource-intensive compliance inspections.

The numbers of formal enforcement actions initiated as a result of each year's inspections also increased, from 38 in 1996 to 44 in 1997, with 33 reported thus far for 1998 (as of November). Of the 38 actions initiated in 1996, 33 have been closed. That ratio dropped to 27 closed of 44 initiated from 1997 and to 15 of 33 from 1998. We understand that the number of formal enforcement actions initiated and closed will lag the inspection dates by several months, so the 1998 drop in actions taken and closed is a premature finding. The evaluation of closing out formal enforcement actions is presented later in this report, as part of the "timely and appropriate response to significant violations" criteria.

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The review sought to establish baseline statistics for the national accountability measures, including the average number of days for violators to return to compliance or enter enforceable agreements. DEQ did not report any significant violators in RCRIS for the review period, so we opted to calculate averages for all formal enforcement cases and for informal actions where the state issued notices of noncompliance. The averages for the last three years are presented in Figure 3. The average was within the DEQ Enforcement Guidance for Field Staff target of 100 days in 1996

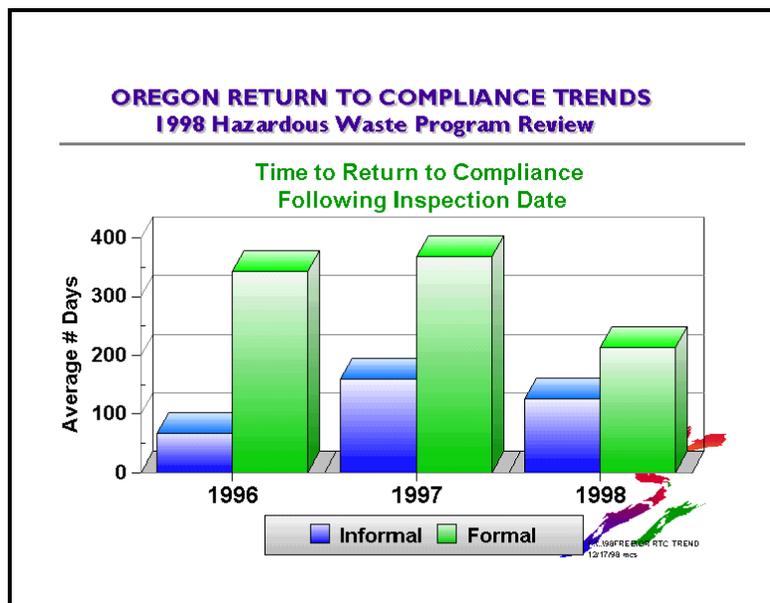


Figure 3

but the number of unresolved actions in 1997 and 1998 pushed the average beyond the state guideline. The EPA Enforcement Response Policy had no guideline for informal actions and the formal enforcement guideline is 300 days to enter a final order with full compliance or a schedule to achieve compliance. We again note that, due to enforcement case development and resolution times, comparison of the FY 1998 data with prior years would be premature.

DEQ management and staff stated that the return to compliance data produces more of a case management tracking measure than a portrayal of environmental conditions. They reported that they enter actual compliance dates for formal enforcement actions when the penalties are collected, which may be long after the facility was in physical compliance or compliance with a schedule and environmental conditions improved. However, the RCRIS data dictionary for the “Actual Resolved Date” that is used to calculate this measure states that “Penalty payment is not a condition of physical compliance,” and the agency determines when the handler demonstrates physical compliance. We also found multiple entries in RCRIS where DEQ entered actual resolved dates that came before or after the penalty collected date. We even found a few facilities where data showed a return to compliance without any data for penalty collection. Thus, we found that DEQ sometimes used this measure to reflect physical compliance, or generally, that this measure is used inconsistently.

We recommend that DEQ use the data system as necessary to track the time it takes for facilities to return to compliance as a measure of the impact and effectiveness of the compliance and enforcement program. The national accountability measure is limited to tracking this data

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only for SNC designated facilities. We recommend DEQ track return to compliance for all formal enforcement actions because DEQ's compliance strategy leans toward doing a large number of low dollar penalty actions, rather than concentrating a small number of high dollar penalty actions on SNC designated facilities.

Additional national accountability measures for rates of SNC facilities and recurrent violations were established as outcome measures related to the deterrent effect of compliance programs. Again, DEQ did not report any SNC designations in RCRIS, so we opted to calculate compliance rates for all the facilities inspected (Figure 2, above). We found that DEQ inspectors reported violations at a consistently high percentage of the facilities inspected. The percentage of first inspections turning up violations serious enough to warrant formal enforcement response and penalty assessments also was consistent (1996 = 30%, 1997 = 28%, 1998 = 15%, as of November) This measure usually has two competing implications. On one hand, it may be a positive indication that inspection planning is effective at sending compliance inspectors to facilities with serious hazardous waste management problems. On the other hand, this may be a negative indication that there is little deterrent effect of the program as almost one-third of facilities inspected each year had serious hazardous waste management problems that continued until DEQ arrived.

EPA also set out a national measure for the percentage of SNC facilities with new or recurrent significant violations within two years of an enforcement action. Since DEQ had not entered any SNC designations in RCRIS for several years, we could not calculate the national measure. The closest substitute measure was not meaningful as only 4 of the 38 facilities with formal enforcement actions in 1996 were reinspected within two years and only one of these had serious violations requiring a second enforcement action.

A similar measure for which we were able to use DEQ data is shown in Figure 2 (above, in the summary of significant findings). We calculated the percentage of facilities that were previously inspected by DEQ at which formal enforcement action was taken for the follow-up inspection (1996 = 30%, 1997 = 39%, 1998 = 30%). These rates of noncompliance requiring formal enforcement action at facilities that were previously inspected is slightly higher than the formal enforcement rate for first time inspections. We interpret this measure as an indication that DEQ inspections did not deter facilities from serious hazardous waste mismanagement any more than the deterrence for the overall population. DEQ pointed out that this measure is more indicative of their efforts to reinspect facilities for which prior inspections led them to suspect continued violations, as well as DEQ's pursuit of more recalcitrant facilities. We recommend that DEQ verify the assertion that a higher noncompliance rate at facilities with repeat inspections is a positive trend resulting from escalation of consequences for recalcitrant facilities rather than a trend indicating ineffective deterrence of previous inspections.

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DEQ provided some reports of their technical assistance project statistics on WRAP visits, included in Appendix D. DEQ's strategic plan calls for improving compliance through effective use of both assistance visits and compliance inspections. DEQ reports show that they have developed strategies and systems for measuring the effectiveness of technical assistance projects using checklists, facility self-assessment forms, and follow-up visits to a percentage of project participants. We found DEQ's efforts to measure the compliance impact of their technical assistance program to be a significant strength of their overall program.

DEQ also provided examples of reports they have used to identify environmental benefits attributable to compliance and enforcement efforts. For example, the waste minimization impact of a wood treatment facility's process changes following a DEQ enforcement action amounted to millions of pounds of soil not being contaminated and sent to a landfill. DEQ had not established a measurement system for compiling such information but has put together a measurement work group to develop a systems approach.

Complete, Accurate, and Current Knowledge of the Regulated Community

The review included a comparison of state and EPA data on regulated facilities. DEQ developed and implements the Hazardous Waste Information Management System (HWIMSy) to track hazardous waste handler registrations, identification numbers, annual waste generation reports, and generator fee billings. Region 10 and DEQ worked out a translator agreement so that DEQ could utilize HWIMSy for handler information and transfer that data to RCRIS monthly to keep the state and national data consistent. The RCRIS Memorandum of Understanding and the PPA standards for this area were that all core data will be entered within 30 days of occurrence for the monthly update of the national database.

The database comparison turned up significant discrepancies between the two systems. The review included an analysis of DEQ's inspection coverage of the regulated universe of large quantity generators, discussed in the next evaluation area below, which showed the RCRIS data to be outdated. Many facility status changes did not get into RCRIS, such as facilities that cleaned up hazardous waste, became one-time generators, and then inactivated their ID numbers or became conditionally exempt generators. While DEQ demonstrated accurate and current knowledge of the regulated universe through HWIMSy tracking of annual report data, we found that DEQ does not have an accurate and current knowledge of what handler data they were maintaining in the national database. For example, there were 360 large quantity generator (LQG) facilities in RCRIS, and only 253 in HWIMSy. This constitutes at least a 30% error rate for RCRIS, even if all 253 HWIMSy LQG facilities were in the RCRIS LQG universe, which is not the case. We recommend that DEQ pursue reconciliation of this system problem in order to stop further erosion of data equivalency and improve RCRIS data quality.

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The review evaluated the current data on the regulatory status of TSD facilities, as well as generators. The three facility files reviewed indicated that DEQ had accurate and current knowledge of facilities that treat, store, or dispose of hazardous waste, which require a permit for such activity. We found that RCRIS data was not entered for all the events which occurred at these three TSD facilities. The Chemical Waste Management facility data was current for most of the modification activity we found. DEQ Eastern Region staff reported that there were not as many formal permit modifications and notices of deficiency exchanged between DEQ and the facility in the past few years as there were previously, due to more efficient working arrangements created through the Environmental Leadership Project. The Oregon Steel Mills facility had no permit events entered and we found it difficult to establish the regulatory status of the facility. EPA and DEQ have not followed up on the termination of interim status decisions from 1985 and no further closure information in the files or in the database was found. DEQ no longer holds the facility to TSD facility requirements and should change the data to reflect the current and accurate knowledge of the facility. The Safety Kleen Springfield facility had no data recorded for the review period, while we found that efforts to revise the draft Part B permit application had been ongoing. The Western Region staff reported their frustration with RCRIS and a recent lack of data entry and validation activity.

In general, the amount of data entered for permit activities dropped markedly during the review period. In 1996 there were 21 permit and 7 closure events entered for 9 facilities, in 1997 there were 7 permit and 7 closure events entered for 6 facilities, and in 1998 there were 13 permit events entered at only one facility - Chemical Waste Management. We recommend that DEQ check to make sure that all core data have been entered for the most recent year and that efforts be stepped up to record events as they occur. DEQ reported that regional office staff are participating with headquarters staff in a hazardous waste program process improvement team to identify information management strategies for field activity data. The team delivered proposals for information gathering and system improvements to DEQ management in the spring of 1999 and DEQ reports they will be working to implement the proposals.

This program review also evaluated DEQ's efforts to identify facilities that fail to notify DEQ of their hazardous waste handling activities. The evaluation guidance includes such efforts as part of a comprehensive compliance program to find violations, since notification is a self-implementing requirement of hazardous waste handlers. DEQ identified at least two successful approaches to finding non-notifiers. One approach was to include non-notifiers in geographic and sector projects for WRAP technical assistance visits. DEQ used business directories and walk-up visits to meet hazardous waste handlers in the area they targeted, whether or not that handler had previously notified DEQ that they generated hazardous waste. DEQ discovered several conditionally exempt small quantity generators and a few small quantity generators in this manner and provided technical assistance which in most cases led the facility to request an identification number.

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The other successful approach was DEQ’s well-established complaint intake and evaluation system to handle tips and public referrals, usually about non-notifiers. All regional offices designate a duty officer to handle incoming complaints. Hazardous waste managers then evaluate the complaints, prioritize the responses, and assign technical assistance or compliance inspectors to handle the follow-up. Several of the inspection and enforcement files we reviewed originated from complaints that were appropriately investigated. We reviewed nine complaint files; five led to formal enforcement actions with penalties and four resulted in notices of noncompliance. This provides a good indication that DEQ appropriately focuses complaint response efforts on likely violators and that the violations are thoroughly addressed.

Appropriate Targeting Inspection, and Monitoring Strategy

This program review criterion analyzed trends in percentages of large and small quantity generators inspected during the review period (Figure 4). However, we found data problems in RCRIS, as noted above with the HWIMSy translation, that made it impossible to calculate this percentage accurately. The number of facilities in the “uninspected” category was calculated from RCRIS generators that had never been inspected. We looked at a 25% sample of the RCRIS LQG

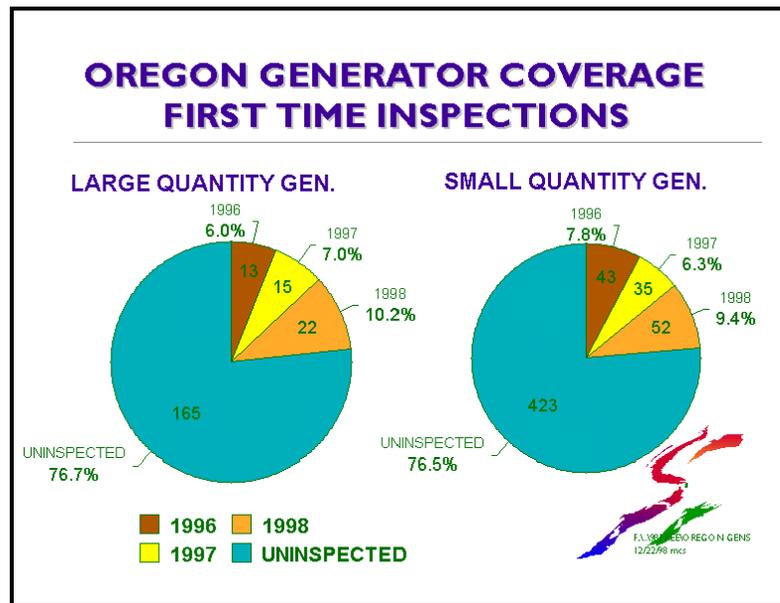


Figure 4

facilities and found only 33% of them in HWIMSy with LQG status. DEQ primarily uses HWIMSy for selecting inspections, thus the finding that a large percentage of RCRIS generators were not selected for inspections. We also agreed with the point made by DEQ in review discussions, that a facility may change its generator status monthly, so our report of total generators was a snapshot as of November 1998 and not the number applicable to 1996 or 1997. Therefore, the percentages in Figure 4 are approximations of the ratio of first time inspections to the total generator universes reported with no inspections. We found that DEQ selected a significant number of facilities that had never been inspected as part of their annual inspection priorities, even though they did select generators from RCRIS. We recommend that DEQ work to reconcile the state and national databases as much as possible so that accurate coverage statistics can be calculated.

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We also found that DEQ exceeded the national generator inspection targets of about 8% (1998 OECA MOA Guidance) of LQG facilities, whether compared to the approximate RCRIS (341) or HWIMSy (243) total universe. DEQ included the priority for generator inspections in the work plans and PPAs for the past several years and we found that they carried out most inspections as planned. We recommend that DEQ work to remove obsolete LQG data from RCRIS, as the large error rate causes the national enforcement statistics to appear lower than DEQ's actual performance.

The review also covered implementation of the statutory TSD facility inspection requirements, taking into account the flexibility provided in the RCRA Implementation Plans and PPAs applicable to this period (Figure 5). The standard set by RCRA section 3007(e) is that TSD facilities be inspected no less often than once every two years. National program guidance also allows for flexibility to forego facilities where good compliance history was established in order to conduct inspections in other priority areas.

DEQ's overall coverage of the TSD facilities subject to biennial compliance inspections is based upon DEQ's knowledge of the facility conditions, rather than RCRIS calculation of facilities subject to Compliance Evaluation Inspection (CEI) reports. While RCRIS data show 20 TSD facilities subject to the inspection requirement, DEQ covered six of the facilities (Chemical

OREGON TSDs SUBJECT TO CEI

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
CASCADE WOOD	9/8/94	6/14/95		6/26/97	
CHEM WASTE MGMT	9/26/94 OM 5/6/94	10/17/94	9/24/96 OM	9/30/97 4/1/97	6/16/98 3/19/98
COLUMBIA HELICOPTERS					
EVANITE FIBER	6/17/94		5/9/96		
LOCKHEED MARTIN			5/31/96		
MARION COUNTY DPW	9/26/94			6/26/97	
NW INDUSTRY		6/11/95 OM 1/24/95			
OR COAST SANITATION	7/29/94	9/20/95			
OR STEEL	12/15/94				1/28/98
PACIFIC FAB					
PERMAPOST	10/14/93	6/22/95	10/11/95 OM	9/26/97	4/16/98
POTTER MFG	7/11/94 6/8/94				
ROSEBURG FP				1/29/97	

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998
SAFETY KLEEN (OLD CLACK)		12/21/94			4/15/98
SAFETY KLEEN (SPRINGFIELD)	8/17/94 CM	6/21/95	6/6/96	12/18/96	
SAFETY KLEEN (CLACKAMAS)		12/21/94	9/4/96 12/26/95	11/12/96	9/8/98
TEKTRONIX	8/1/94	9/27/95	9/30/96 5/9/96	11/26/96 11/7/96 CM	11/5/97
USA UMATILLA CHEM DEPOT	2/8/94	10/19/94	6/4/96 6/4/96	9/26/97 ET SEQ	6/1/98 ET SEQ 5/6/98
WAH CHANG		8/22/95			4/15/98 3/16/98
WESTERN COMPLIANCE	5/17/94	5/18/95	6/3/96 3/22/96		
LEGEND	DEQ INSPECT	DEQ CM&E O&M	EPA INSPECT	EPA CM&E O&M	



Figure 5

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Waste Management, Permapost, Safety Kleen in Springfield and Clackamas, Tektronix, and Umatilla) more frequently than required. Inspection coverage of other facilities identified in RCRIS as TSD facilities subject to the inspection requirement was less frequent than required. We found three reasons for the less frequent inspections: (1) the facility data has not been completely updated to change facility status, for example, at Western Compliance Services; (2) the DEQ Cleanup Program has been implementing remedial action at the facility, so RCRA compliance monitoring was deemed inappropriate, for example, at Columbia Helicopters; (3) the facility has been closely monitored by DEQ and determined to need less frequent inspection so that resources could be redirected to other priorities such as generator inspections, for example, at Lockheed Martin.

We found that the third reason is the one that allows for inspection flexibility in the program guidance. We recommend that DEQ verify and correct the data for facilities that are reported in RCRIS as TSD facilities subject to the biennial inspection requirement to address the first reason for less frequent inspection. We recommend that the second reason be addressed either through data correction, to show where RCRA permitting and corrective action no longer applied to a facility, or through a record of good RCRA compliance history to use the available flexibility.

The program review also included an assessment of the DEQ priority setting guidelines for inspections and compliance assistance visits. DEQ provided a copy of the WRAP Site Visits and Inspection Best Practice Recommendations, included as Appendix E, which describes the facility selection priority strategy guidelines developed in 1997-1998. In addition to this document, we found that each regional office has responsibility for setting their own priorities for local issues within the context of overall state and national priorities. We found that DEQ maintains the priority for inspecting operating TSD facilities and negotiates trade-offs for state priorities in the grant work plan or PPA, as discussed above. DEQ developed and implements a rationale for greater coverage of generators, based on Oregon's legislated Toxic Use Reduction goals, and incorporated this into their 1998 strategic plan. We found that DEQ carried out inspections or compliance assistance in a number of industry sectors identified as national priorities, including dry cleaning, primary nonferrous metals, refineries, pulp mills, and automotive services, as well as a geographic initiative to address some environmental justice concerns. We found that tracking and prioritizing complaints is appropriately included in priority setting, without overloading the staff resources available. Overall, we found development of strategy guidelines to be a particular strength of the hazardous waste program.

Finally in this evaluation area, the review evaluated the appropriateness of DEQ strategy related to the compliance measures for program effectiveness. DEQ continues to target facilities that have never been inspected and continues to find noncompliance rates around 80%, with more serious violator rates around 30% (Figure 3, above). DEQ also reported that they targeted

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subsequent inspections at likely violators, apparently borne out by the increased formal enforcement rate for subsequent inspections at more than 30%. We found this inspection prioritization strategy to be appropriate to the trends above.

The return to compliance trends were also reviewed above. We found that DEQ has not developed a particular strategy based on monitoring the return to compliance times or rates. EPA's Hazardous Waste Enforcement Response Policy, revised in 1996, set guidelines for formal enforcement response times. We found that the average time to return to compliance was significantly impacted by a few enforcement actions that went unresolved for extended periods. For example, there were only 5 facilities out of the 126 inspected in 1996 that were not reported back in compliance at the time of the review but each of those cases contributed about 1,000 days to the return to compliance average calculation. DEQ reported that these facilities are being addressed on an individual basis and will receive continued attention until resolved, in accordance with DEQ enforcement policy stated in Oregon Administrative Rules. Further discussion of specific facilities we reviewed is included below in the timely and appropriate response evaluation area. DEQ also reported that achieving compliance at facilities is one of their strategic plan objectives and they are developing measures to track compliance improvements. We recommend continued investment in measuring compliance and targeting enforcement resources to address recalcitrant violators to decrease extended noncompliance. We also support implementing the Best Practices recommendation to partner with enforcement in the strategic planning process.

Balanced Use of Tools

The review included measurement of the balance of resource and activity levels for different aspects of the compliance program, to provide a variety of tools for improved compliance. As noted above, DEQ reported that staffing was steady at approximately 10 FTE for compliance inspectors, 5 FTE for enforcement case officers, and 6 FTE for WRAP visit specialists during this period. DEQ reported consistent or increased activity in both inspections and WRAP visits, as well as regularly presented hazardous waste environmental management training for the regulated community. Oregon also has an environmental audit self-disclosure law that provides some immunity from enforcement to facilities but we found no instances of implementation of this feature in the files reviewed. We concluded that DEQ's use of a technical assistance and training, along with compliance monitoring and enforcement, is a hazardous waste program strength.

We found the DEQ rationale for program balance in the strategic plan developed during the review period and published in June 1998. In the plan, DEQ set out goals for waste reduction and safe waste management along with assistance visit and compliance inspection strategies to achieve these goals. We found that DEQ apportioned a reasonable level of resources for the assistance program as a state-funded priority to address state waste generation and toxic use

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reduction goals. DEQ also maintained consistent compliance and enforcement resource levels through a combination of state and federal funding. DEQ set out a measurement strategy in the strategic plan that they reported is still under development for some new data that is not currently collected. This measurement strategy builds on the program strength we found in the WRAP projects, which developed effectiveness measurements that DEQ modified and implemented more uniformly over the past several years. EPA provided some grant funding toward these efforts through the waste minimization measurement project. Several WRAP project reports including measurement results are included in Appendix D.

DEQ described, in WRAP project reports and during review discussions, the impacts on the regulated community of balancing assistance and enforcement activities. DEQ reported the voluntary compliance efforts of facilities visited in the A-3 Channel project as: 79% of the compliance recommendations were implemented and 70% of the waste reduction recommendations were followed. The Eastern Region Outreach project reported that 93% of facilities visited made at least one recommended change and 21% made all changes. DEQ also reportedly found that compliance assistance was more effective where compliance inspections and enforcement actions were also publicized. Anecdotal information indicated that more requests for assistance were made following publicity in the local regulated community about DEQ enforcement efforts. DEQ reported that they will continue to balance assistance and enforcement efforts to complement one another as some compliance inspections motivate other facilities to request assistance with which DEQ can reach more people and get voluntary compliance and waste reduction efforts they would not have seen otherwise.

Timely and Appropriate Response to Significant Violations

The review included examination of a sample of 53 facility files out of the 423 facility inspections reported in RCRIS as taking place between October 1, 1995 and September 30, 1998. Of the 53 facilities reviewed, 10 had no violations cited, 18 had an informal enforcement response, and 25 had a formal enforcement response. The review evaluated the citing of, and response to, violations based on relevant guidance and policy, including EPA's Hazardous Waste Enforcement Response Policy (1996 update) and Oregon Administrative Rules, Chapter 340, Division 12. We found the overall structure of the DEQ hazardous waste enforcement program appeared to be consistent with the federal response policy. DEQ adopted the SNC designation in the Enforcement Guidance for Field Staff, November 1995, consistent with EPA's definition. DEQ's rules for penalty calculation were detailed in the "Civil Penalty Determination Procedure" section of Division 12 (OAR 340-12-045). We found that DEQ generally undertook formal enforcement actions at facilities that met the SNC definition and made some internal SNC designations, but reported no SNC facilities in the national database during the review period. We recommend that DEQ take steps to ensure that SNC designations are entered into the database for all future determinations and review all formal enforcement files active during the review period to collect

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and enter data on previous SNC determinations.

Inspections with no Enforcement Response

Ten of the facilities reviewed had inspections where no violations were cited. We found the inspections thoroughly documented, including photographs, with indications that inspector training guidelines were followed and all relevant RCRA requirements were covered. We found that DEQ had an experienced and knowledgeable compliance inspection staff and good reporting formats, such as checklists. The regional offices had different inspection checklists available that were utilized to varying degrees by inspectors based on personal preferences. We found one facility where it took much longer than appeared necessary to complete inspection reports where no violations were found. We also found that this same facility reported a hazardous waste landfill fire in February 1998 that would have usually constituted a release of hazardous waste to the environment. We would expect that this event met the criterion for a SNC designation, "facilities which have caused actual exposure or a substantial likelihood of exposure to hazardous waste or hazardous constituents." To date, no formal enforcement response has been indicated and we recommend that DEQ re-evaluate this violation for an appropriate response.

Inspections with an Informal Enforcement Response

Eighteen of the facilities reviewed had inspections where violations were found and only an informal enforcement response had thus far been reported. We found that DEQ inspectors promptly issued notice of noncompliance (NON) letters to facilities with violations. DEQ's guidance includes a goal of issuing a NON within 10 days of completing an inspection, which is much faster than the federal response policy guideline of 90 days. We found DEQ's program strong in this area, as the 10 day goal was often met and the 90 day guideline not exceeded. This program strength was also noted in the 1994 program review.

We found half of the 18 facilities with a NON met the timely and appropriate guidelines. At the other 9 facilities, we found some discrepancies of varying significance. We found file information for 2 facilities that had received formal enforcement actions but the RCRIS data had not been entered. DEQ reported that the data entry responsibility for formal actions rests with the enforcement section and that the agency-wide process improvement team will address data problems such as with these 2 enforcement actions. One facility was appropriately addressed with a NON but did not appear to return to compliance within the deadline given and we found no additional response (neither elevation to formal enforcement nor issuance of another NON) before the facility did comply 2 months later. We found 2 other facilities that were repeat violators that DEQ did not evaluate with the criteria for chronic or recalcitrant violators. However, we did not find any documentation of significant environmental threats from either the previous or current violations, and agreed that the response to the repeat violations need not have been formal enforcement. There were 4 facilities remaining of the 18 with NONs where we questioned the timeliness or appropriateness of the informal enforcement response and these are detailed below.

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Facility 29: A repeat violator with 3 years between inspections. The previous inspection cited 12 violations and produced a formal enforcement action that included a \$4,100 fine. This prior action did not appear to deter the facility as the recent inspection cited 16 violations. The facility appeared to meet the chronic violator criterion for SNC designation. A file memorandum from the regional office did not specifically address the SNC criteria when requesting the Enforcement Section not assess a penalty.

Facility 30: A first inspection with 4 class one violations, including storage without a permit. The informal response may have been appropriate. However, we found no documentation in the file to indicate that the violations had been corrected, or to support the return to compliance date entered in RCRIS. State and federal policy indicated that enforcement needed to be escalated or verification of compliance provided.

Facility 38: A first inspection for RCRA but the facility had prior water quality violations. The facility was cited for illegal treatment and failure to clean up a spill, which appeared to meet the actual exposure criterion for SNC designation. The file indicated that the facility was recalcitrant in not paying its water quality fine and not complying with the NON. The facility was referred to formal enforcement in September 1998, 11 months after the NON was issued, and a formal action was issued in May 1999, 19 months after the NON.

Facility 46: A repeat violator with multiple previous formal enforcement actions, cited for illegal disposal in January 1998. The facility had not yet complied with the NON and appeared to meet the SNC criteria for chronic or recalcitrant, as well as caused exposure. This facility also was maintained in the database as a TSD facility and the file documentation appeared inconclusive as to whether the facility still needed to close any regulated units.

In conclusion, of the 18 facilities where DEQ reported only informal enforcement actions, we recommend that DEQ evaluate Facilities 38 and 46 for SNC designation and conclude timely formal enforcement actions that return the facilities to compliance.

Inspections with a Formal Enforcement Response

We reviewed 25 facility inspections that had formal enforcement actions reported without any SNC designations reported. We found no issues of concern for 7 of these facilities and 6 facilities with data concerns only - missing RCRIS data for actual resolved date or penalty received. We found 6 facilities where our concern was that the penalty assessment was relatively small compared to the severity of the violations and the facilities' resources. Small penalties may not have created the deterrent effect necessary to prevent future hazardous waste mismanagement by those violators or other regulated facilities. The detailed description of these facility inspections is in Appendix F. We found the following two factors generally contributed to the

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relatively small penalty calculations.

One: The DEQ penalty procedure includes a factor, “O,” of only two-tenths times the base penalty amount for a violation that existed for more than one day [OAR 340-12-045-(1)(c)]. The Enforcement Guidance states that DEQ may assess multi-day penalties against SNC facilities but we did not find that option exercised for these 6 facilities.

Two: The DEQ penalty procedure includes a factor for calculating economic benefit, however we found that it was usually treated as *de minimis* or that DEQ stated a lack of sufficient information to justify it. Where we did find economic benefit part of the assessed penalty, the relative size of the penalty appeared appropriate.

We recommend that DEQ conduct follow-up inspections within two years at facilities where relatively small penalties have been assessed to evaluate the deterrent impact of the original penalty and provide an objective measure of the environmental outcome of this strategy. We also recommend that DEQ pursue the options available under the state penalty procedure in future cases to increase the relative size of the penalty if necessary to create the desired deterrent impact.

We found 4 of the 25 facilities with formal enforcement actions did not meet the timeliness guidelines of the Hazardous Waste Enforcement Response Policy. However, the Policy has a 20% consideration for exceeding the guideline. Based on the sample of formal actions we reviewed, the 4 of 25 is below the 20% guideline. However, one of these facilities appeared to be still out of compliance with a DEQ order issued in June 1997. The EPA Policy also requires the implementing agency to prepare a brief justification for the delay and develop an alternate schedule for case resolution, which we did not find in the files. Two of these facilities also appear to meet the SNC criteria, described below.

We found 4 of the 25 facilities with formal enforcement actions clearly met the policy criteria for SNC designation but were not reported to EPA. We found documentation in 3 facility files that DEQ made a SNC determination under state policy but did not report that information to EPA or enter it in the national database. While we did not find a state SNC designation for the fourth facility, it clearly met all 3 criteria for designation. We recommend that DEQ review the data for these facilities and enter appropriate designations in RCRIS. We also found it difficult to determine whether 3 of these 4 SNC facilities received appropriate penalties. These 3 facilities received significant penalty mitigation from the assessed amount without clear explanation of the rationale for decreased penalties in the file documentation. While both the EPA policy and DEQ rules provide that lesser penalties may be appropriate, we recommend that DEQ document the rationale for accepting a smaller penalty than originally assessed in order to maintain fairness and consistency in the penalty process. The details about these 4 cases are also in Appendix F.

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Finally, we reviewed violations cited for illegal treatment, storage or disposal for appropriate enforcement responses, including imposition of RCRA permitting requirements. We found 9 of the 50 generator inspections we reviewed included violations of TSD requirements. It appears that DEQ cited violations of the state equivalent of 40 CFR Part 262.34 for generator conditions. We understand that DEQ's version of this section imposes requirements differently from the federal rules for a facility to remain conditionally exempt from permit requirements imposed by the state equivalent of 40 CFR Part 264 (see DEQ program review response in Appendix G). We recommend that DEQ enforcement actions cite the state equivalent of Part 264 for facilities that exceed the generator exemptions and illegally treat, store or dispose of hazardous waste. DEQ also needs to notify EPA of the effect of the change in state regulations on the equivalence with Part 262.34 for the state's authorized program.

We also found one TSD facility that had submitted a Part B application and four generators had received cleanup orders under Oregon's cleanup authority in addition to the hazardous waste enforcement actions issued during the review period. While we recognize that DEQ has multiple authorities available to address environmental problems, we did not find information in the files about how the site specific decisions to implement those authorities were made. Several EPA policies address this issue, including, "Coordination between RCRA Corrective Action and Closure and CERCLA Site Activities," September 24, 1996. We recommend that DEQ establish criteria for, and document the implementation of, site specific hazardous waste and cleanup program coordination. Additional information on the corrective action program is included in the last section of this review.

Accurate Record Keeping and Reporting

We reviewed 53 facility enforcement files and compared the information with data entered into the national database. We also reviewed the DEQ enforcement reports for 1995, 1996 and the draft report, referred to as the Bispham report, for 1997. We provided a reconciliation of the information in the 1995 and 1996 reports to DEQ prior to conducting file reviews in Oregon. We found that information matches very

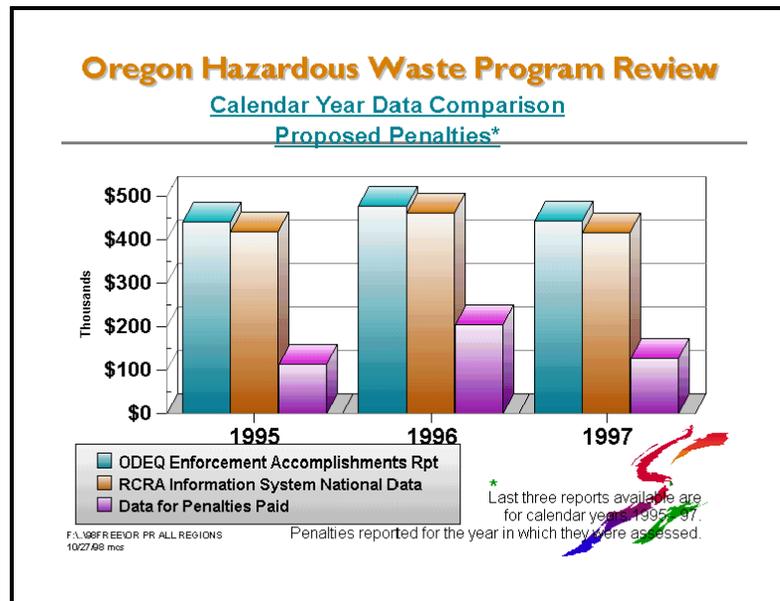


Figure 6

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closely for those three years, as indicated in Figure 6. This data differs from the charts above, in that penalty assessments were tracked for the year in which they were issued, rather than for the year in which the originating violations were determined. We found that the DEQ enforcement reports included penalty payments received as of the report date but payments were not tracked from one year to the next. We also found that penalty collection data was often missing from RCRIS, even though we found documentation of receipt in the Regions' and Enforcement Section's files. We looked at 12 facilities that had a penalty assessed data but no penalty collected data and 9 of these facility files included receipts for penalty payment. We recommend that the DEQ enforcement report follow-up on penalty payment reporting to resolve unpaid penalties from year to year, as the quality of data in RCRIS was clearly better for that information that was also reported in DEQ's annual report.

As noted above, DEQ's penalty calculations are made according to the regulations for "Enforcement Procedure and Civil Penalties," (OAR 340-12) and Enforcement Guidance for Field Staff. We found DEQ penalty calculations were carried out in accordance with state regulations and were well documented in the files. We found several files in which the penalty mitigation was explained through a detailed recalculation of the penalty matrix. However, we found some files in which the mitigation was based upon the Director's discretion criteria (OAR 340-12-047) without being adequately explained beyond noting the interest of obtaining a settlement. We again recommend that DEQ also document the reasons why the Director's discretion is being used to mitigate the original penalty assessment.

Clear and Enforceable Requirements

We reviewed 43 facilities that received notices of noncompliance, 25 of which also received a formal enforcement response in the form of a DEQ civil penalty notice or compliance order. We found that the notices clearly cited violations and specified the actions facilities needed to take in order to return to compliance. As noted above, however, we recommend that DEQ cite violations of the state equivalent to 40 CFR Part 264 for illegal treatment, storage, or disposal at a hazardous waste generating facility, as well as citing OAR 340-102-034. Where hazardous waste handlers do not follow the requirements necessary to maintain the conditional exemptions for generators, the enforceable requirements are those pertaining to operating a TSD facility.

We reviewed one facility where the enforcement settlement included the facility owner implementing a Supplemental Environmental Project (SEP) but it had not been entered in RCRIS. We found that the conditions of the SEP were consistent with SEP policy, that the agreement included an enforcement provision if the SEP was not implemented, and that DEQ followed-up on monitoring the nonperformance of the project in timely fashion. However, we did not find information in the file to indicate that the DEQ collected the amount of civil penalty specified when the SEP was not implemented. It appears that the violator avoided paying a penalty by

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agreeing to spend the money on a SEP instead and then not carrying out the SEP. We recommend that DEQ pursue payment of the avoided penalty.

We found one facility with a penalty and order that appears clear and enforceable but has not been appropriately resolved. Data in RCRIS show that the facility has returned to compliance but file information indicates that the facility owner lives out of state and has not paid the penalty nor taken responsibility for cleanup of the contaminated property. The EPA enforcement policy includes a role for EPA in cases where state authority is limited, such as a non-resident owner or operator, but we did not find information in the file to indicate that this case was discussed with EPA.

We also reviewed three TSD facility inspection files for application of the permit or interim status requirements. It appears clear that Chemical Waste Management was inspected based on the permit conditions. We found that DEQ interpreted the permit condition “. . . operate the facility in a manner minimizing the possibility of fire . . .” such that an actual fire in the landfill was not a permit violation. While this interpretation is consistent with inspecting against the permit, we believe that it does not preclude citing a violation for illegal treatment or disposal without a permit, as the landfill must not be allowed to burn hazardous waste. Safety Kleen in Springfield was operating under interim status and we found applicable conditions were enforced. We found that DEQ imposed state cleanup requirements through an order issued in April 1996, rather than a RCRA corrective action order. We did not find information in the file as to the facility’s progress under that order. Oregon Steel Mills apparently lost interim status for RCRA units in 1985. We could not determine from the files in Region 10 or DEQ whether any units still needed to close. We did not find that a permit was denied, so the facility status remains unclear. DEQ appropriately did not inspect the facility against interim status criteria, nor did we find information that they inspected any former hazardous waste management units to evaluate the need to close or monitor them. We recommend that the facility status questions be resolved through further record review or inspection.

Sound Program Management

DEQ provided extensive supporting documentation for program management and policy which we have included as Appendix E, Oregon DEQ Waste Management Program Binder, 1998. The DEQ hazardous waste program consists of the Hazardous Waste Program and Policy Development Section in Headquarters, Hazardous Waste Sections in regional offices, and an Umatilla Chemical Agent Disposal Program Section that was established in 1998. The hazardous waste enforcement cases are handled by the Enforcement Section in the Northwest Region Division, and the program receives legal services from the Natural Resources Section of the Oregon Department of Justice. We found that the hazardous waste program managers have an established communication network and regular meetings to coordinate state-wide

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implementation of policy, planning, and reporting. We found that the enforcement process is clearly defined and that the Enforcement Guidance for Field Staff appears to provide the framework for effective development and referral of enforcement actions. DEQ staff in the program and enforcement sections reported that the centralized processing of formal enforcement actions provides consistency to the case outcomes state-wide.

The DEQ Strategic Plan as of June 30, 1998 is also included in Appendix E. We found that although the plan was issued late in the review period, significant work had been done on its development beginning in 1996. The DEQ strategy to develop a balanced technical assistance and compliance monitoring approach has been in place for several years and was incorporated into the strategic plan. We found that EPA and DEQ annual agreements (grant work plans and the PPA cooperative agreements) incorporated the DEQ strategy into implementation plans. It appears that internal monitoring of enforcement program effectiveness is handled by the Enforcement Section and published in the Annual Enforcement Accomplishments Report, as noted above in the record keeping area. Regional offices developed technical assistance visit effectiveness measurement systems for specific projects. The hazardous waste program developed a comprehensive measurement component to the Strategic Plan and reported that a data gathering and reporting system will be established to implement the measures.

The OAR, Chapter 340, Division 12 enforcement regulations and the Enforcement Guidance, described above, create firm standards for the DEQ compliance and enforcement program. The Division 12 regulations were reviewed and revised in 1998 and DEQ reported that revisions to the Guidance are also being developed. We found the consistency provided by written regulations and guidance for inspections, notices of noncompliance, enforcement referrals and civil penalty assessment to be a significant strength of the DEQ hazardous waste program, especially since decentralization of the compliance monitoring program with some inspectors working alone in regional offices. The Hazardous Waste Policy and Program Development Section also supports regional consistency in regulatory interpretations by developing and coordinating the implementation of program policies and guidance.

DEQ identified its major training events in the end of year reports that are in Appendix E. DEQ also holds program-wide staff meetings at least twice each year to exchange information between regions, with headquarters, and to discuss new rules, policies and issues. DEQ did not provide individual staff training records as part of this review. We discussed training needs with staff as part of the review and found that most have several years experience in the hazardous waste program and have received all the basic training. We heard that staff are interested in opportunities to develop additional expertise in areas such as civil and criminal investigation techniques and to keep up with new rule developments and technological advances. DEQ appears to devote adequate resources to timely training from qualified trainers.

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We did not find a consistent state-wide data management process in place and DEQ did not provide examples of the information management reports that they use for program management. As we noted under some of the criteria above, we found a reduced number of permit and corrective action activities reported from year to year during this period and compared with previous years. We heard from some regional staff that frustration with the RCRIS data management process and a lack of technical support caused them to stop using the information system, which is corroborated by the decline in data entries. We heard that RCRIS was EPA's system, with EPA's problems, although the RCRA state authorization process included delegated responsibility for state management of national information requirements. We found that regional offices have some information tracking systems in place for inspection planning that are useful for these offices. The enforcement process includes a case tracking sheet and the program used an enforcement tracking spreadsheet that was shared with EPA in the 1996 end of year report, along with the RCRIS data. We did not find the tracking spreadsheet used for 1997 and 1998 and we found no particular program analysis effort outside of the Annual Enforcement Accomplishments Report. Once the annual report was completed, we did not find that information about case resolution continued to be tracked or analyzed.

It appears that program planning is conducted through informal information exchanges between regions and headquarters without using any particular database or management information system. We found that program analysis for generators is conducted with HWIMSy data and management reports. DEQ devotes resources to HWIMSy in order to manage the annual collection of generator data and fees which are based upon this data. As noted above, it appears that HWIMSy is effective for state purposes but does not meet national information needs because of the major discrepancies between HWIMSy data and RCRIS data.

DEQ reported that they have two efforts in progress to address program management concerns. For one, DEQ included a measurement system with the Strategic Plan and has a work group developing an implementation strategy for existing and new measures. For the other effort, DEQ has an information management process improvement team to review existing data collection, reporting, and quality assurance methods with a charter to involve all information customers in development of a more efficient process. We recommend that DEQ maintain the high priority for resources committed to information management improvements that continue to meet national planning and reporting requirements. We also recommend that the process improvements be incorporated into program guidance or policy for consistent implementation standards in all regional offices.

Corrective Action Site Reviews

The two purposes of this review in the corrective action area are to inform the discussion of the role of enforcement in the state and to evaluate the state program consistency in meeting

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national standards. The national standards for the corrective action program have been directed toward achieving environmental results consistent with the Government Performance and Results Act (GPRA) for controlling human exposures and groundwater releases at high priority RCRA facilities. This review included the files of three of the eighteen facilities that were ranked high in the corrective action priority ranking system. EPA and DEQ have been discussing the utilization of the DEQ strategy for state-wide consistency of facility cleanups by using the state cleanup program to remediate some RCRA corrective action sites, so two facilities where the DEQ cleanup program was involved were included in the review. "Facility One" is a permitted facility managed by the hazardous waste program, "Facility Two" is managed by the cleanup program as an orphan site, and "Facility Three" is managed by the cleanup site response program as a responsible party lead. We used criteria from EPA's corrective action program guidance, included in the evaluation criteria in Appendix A, to evaluate facility cleanup progress.

Facility One

Facility One is a RCRA treatment, storage and disposal facility conducting remediation under a RCRA post-closure permit.

Findings

Adequacy of Site Investigation

An abbreviated RCRA Facility Investigation (RFI) was completed in 1989 which reflects that the site has undergone closure and was issued a post-closure permit.

Cleanup Levels

The 1989 post-closure permit included the risk-based cleanup level at that time for pentachlorophenol (220 parts per billion). However, the permit was not reopened after 5 years to reduce the cleanup level to the revised risk-based level (1 ppb). DEQ reported that testing results at the facility indicated that they still had not reached the 1989 permit level, so it was not urgent to revise the permit. RCRA requires that, at the time of either the 5 year reopener or the 10 year renewal, the cleanup level be revised down to the current level of 1 ppb.

Protectiveness of On-Site Remedy

An asphalt cap, which covers a substantial portion of the facility, currently protects on-site workers from risks posed by the soil or ground water contamination. DEQ reported that, for long term protection, a deed restriction needs to be put in place to ensure the cap's integrity through ownership changes or redevelopment. Besides the main cap, a cap was constructed over a pile of contaminated soil which was discovered after the initial closure permitting process, and it was not clear that this had met substantive RCRA waste pile technical requirements. Groundwater contamination still greatly exceeds risk-based levels, and file information indicates that the remedy

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is not effective at containing the contaminated groundwater within the site. Also, DEQ reported that hazardous waste continues to be generated because a roof over the wood treatment area is needed to stop contamination of the surface water during storms.

Protectiveness of Off-Site Remedy

The off-site contaminated groundwater plume is not being captured by the existing groundwater pumping system, according to recent hydrogeologic reports. This is not consistent with RCRA corrective action guidance which requires best efforts to obtain off-site access and to remediate contamination. DEQ is planning a ground water beneficial use survey, described in Appendix G.

Financial Assurance

The facility used a combination of instruments to demonstrate financial assurance. The wording of these instruments was not comparable with the RCRA requirements of 40 CFR Part 264, Subpart H. It appeared that at least one of the instruments had financial problems, which may have put future corrective action work at risk. DEQ reported that they had some concerns about the facility's compliance with financial assurance requirements which they are actively addressing.

Public Involvement

Public participation was consistent with RCRA guidance when the remedy was selected at the time the permit was issued and subsequently modified for the soil pile containment.

Data Management

No data has been entered into RCRIS on stabilization or corrective measures since the approval of the corrective measures work plan in 1989.

Recommendations

Cleanup levels: DEQ should modify the permit to reflect the current risk-based cleanup levels for groundwater at the time of the 10 year renewal (September, 1999).

Protectiveness of On-Site Remedy: DEQ should require that the facility construct a roof over the wood treatment area to stop storm water contamination.

Protectiveness of Off-Site Remedy: DEQ should impose additional corrective measures to contain the migration of contaminated groundwater within the facility boundary, and to remediate the off-site plume.

Financial Assurance: DEQ should aggressively pursue the financial assurance compliance issues.

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Data Management: DEQ should enter into RCRIS the corrective action activities which constitute corrective action milestones.

Facility Two

Facility Two is an illegal RCRA treatment, storage and disposal facility with interim status managed under the orphan sites program. DEQ completed a removal action at the site, and was conducting a remedial investigation at the time of this review.

Findings

Adequacy of Site Investigation

The preliminary investigation completed in 1998 was adequate for stabilization and removal efforts and is consistent with EPA guidance.

The state cleanup program was in the process of conducting soil and groundwater investigations that appeared comparable to corrective action guidance.

Cleanup Levels

The facility has not yet reached the stage where final cleanup levels for soil and groundwater remediation need to be selected. The DEQ project manager reported that risk-based levels will be selected, which would be consistent with RCRA guidance.

Protectiveness of On-Site Remedy

The removal action that DEQ implemented protected against the imminent threat at the site. The removal action was consistent with RCRA guidance.

The on-site remedy has not yet been selected, pending the remedial investigation.

Protectiveness of Off-Site Remedy

There is no evidence of off-site contamination. The on-site removal and stabilization measures protect neighboring streams from the threat of contaminated runoff, consistent with RCRA guidance.

Financial Assurance

The owner/operator never met the interim status facility requirements for financial assurance. The DEQ orphan site cleanup program has assumed financial responsibility for the remediation. A recent court order produced \$185,000 toward the cleanup costs. This is not consistent with RCRA.

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Public Involvement

DEQ provided public notice using a news release and a cleanup project bulletin for the stabilization and removal action that occurred in 1998. There were plans for public comment on the remedy selection for the remedial action. Public involvement at this site is consistent with RCRA guidance.

Data Management

The data does not accurately reflect the current status of the facility.

Recommendations

Data Management: DEQ should re-evaluate the facility using the data element definitions for process operating and legal status codes (RCRIS events PU_OP_STAT and PU_LEG_STAT) and enter any changes into RCRIS. DEQ addressed this recommendation along with their draft review response.

We have also asked EPA Headquarters to clarify the data definition for referring corrective action responsibility to a non-RCRA federal authority (RCRIS event CA210) to see if it should also be applied by authorized states to a non-RCRA state authority. Pending that determination, DEQ should evaluate the recent removal action based on the corrective action to cleanup data crosswalk (see Appendix E) for data entry as a stabilization measure.

Facility Three

Facility Three is an illegal RCRA treatment, storage or disposal facility that lost interim status and is conducting remediation under a Record of Decision (ROD) from the Cleanup Program.

Findings

Adequacy of Site Investigation

The RFI was completed in 1994 and was adequate for making the on-site remedy selection. However, more extensive site investigation should have been required for the selected off-site remedy of natural attenuation to be consistent with RCRA guidance.

Cleanup Levels

The cleanup levels selected were based on maximum contaminant levels (MCLs) for drinking water on the condition that if MCLs do not meet risk-based levels, institutional controls would be required to further reduce risk. This is consistent with RCRA guidance.

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Protectiveness of On-Site Remedy

A groundwater pump and treat system was installed at the facility boundary. The ROD requires installation of an additional extraction well in the source area. Demonstration of the effectiveness of the groundwater treatment system to remediate and contain the further migration of the contaminated groundwater is also required. This is consistent with RCRA guidance.

Protectiveness of Off-Site Remedy

Natural attenuation was selected as the remedy for the off-site contamination. We found that the facility had neither provided sufficient data nor performed sufficient analysis, as specified in EPA's monitored natural attenuation guidance, to demonstrate that natural attenuation would be an effective remedy in a reasonable amount of time. The ROD has contingency measures in case natural attenuation is not effectively reducing off-site contamination. However, we are concerned about the effectiveness and timeliness of the triggers for these contingencies. A more certain approach would be that either the effectiveness of the remedy be demonstrated up front, or that a contingent remedy be included as part of the natural attenuation remedy which would be triggered automatically if the facility does not demonstrate effectiveness of natural attenuation by a certain, specified time.

Financial Assurance

Facility Three appears to have comparable financial assurance mechanisms in place to fund the state cleanup order requirements. This is consistent with RCRA.

Public Involvement

DEQ provided public notice and opportunity to comment on the proposed remedy prior to signing the ROD. However, EPA was not formally notified of the opportunity to comment as provided in the RCRA program Memorandum of Agreement.

Data Management

DEQ utilized the data crosswalk (developed by DEQ and EPA to link program activities in the cleanup program to RCRA program activities) to track the corrective measures study, public notice and remedy selection in RCRIS. This is consistent with the information sharing agreement between DEQ and EPA.

Recommendations

Adequacy of Site Characterization and Protectiveness of Off-Site Remedy: DEQ should follow EPA's guidance on monitored natural attenuation at this facility. This would include an extensive site characterization to evaluate, prior to remedy selection, the potential effectiveness of the remedy, the requirements for extensive monitoring of the effectiveness of the remedy, and enforceable schedules for attainment of cleanup goals.

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Public Involvement: DEQ should routinely share information pursuant to the cleanup of RCRA facilities with EPA.

Corrective Action Program Data

Finally, we reviewed the overall corrective action program data in RCRIS. We evaluated the data for progress toward the national program goal of controlling human health risk and groundwater releases at high priority facilities (Figure 7). Fourteen of the eighteen facilities that were ranked high in the corrective action priority ranking system have completed facility investigation work plans and one facility does not need a RCRA

investigation, so three facilities need to complete this important first milestone. EPA maintained the project lead for four of the eighteen facilities, as agreed in the PPAs, and these facilities are included in Figure 7. Progress continued toward the human exposures and groundwater releases controlled goals, and two facilities had met the goals by the end of 1998. In the spring of 1999, DEQ program managers re-ranked some of the facilities to update their status for EPA's GPRA baseline initiative so not all of the facilities in the review are still ranked high priority.

We found the lack of corrective action progress data made it difficult to evaluate the overall performance of the corrective action program, especially in the past two years. The national program measures require tracking of at least the core data elements (Oversight = Yes in the data element dictionary) and these were included in the annual EPA and state agreements. We found that the number of state data entries has dropped significantly for each of the past three years (Table 1).

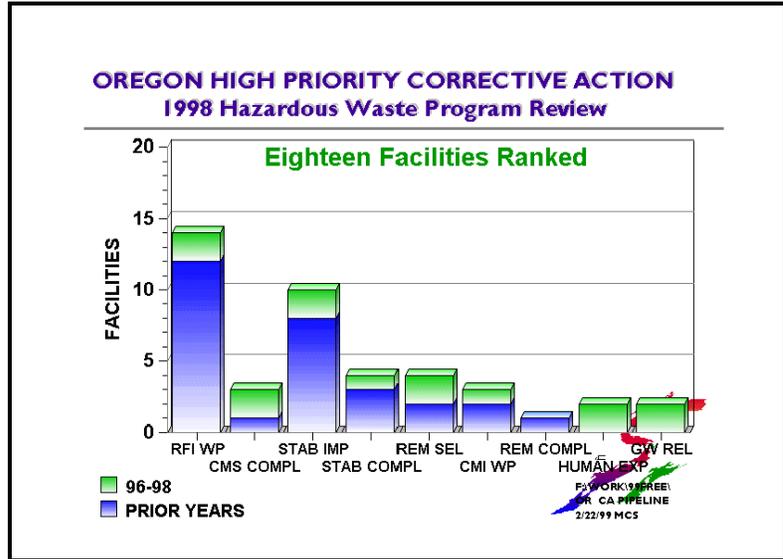


Figure 7

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RCRIS Corrective Action Data Entries

	Core	Optional
FY 1996	15	7
FY 1997	15	2
FY 1998	2	0

Table 1

Only five of the fifteen core data entries listed in the table for 1997 were actually for project milestones, as the other ten were for human exposures controlled and releases to groundwater controlled determinations. We recommend that DEQ re-evaluate the facilities that were high priority for corrective action and enter into RCRIS all the core events that occurred in the past two years. It appears that the DEQ strategy to transition some corrective action sites to cleanup program responsibility caused some doubt about the need to continue to track those facilities in RCRIS. We recommend that RCRIS be fully updated as soon as possible, consistent with the existing Performance Partnership Agreement and other understandings between EPA and DEQ.