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TITLE: Summary of Recent Permit Assistance Team (PAT)
Comments

APPROVAL DATE: 03/14/86

EFFECTIVE DATE: 03/14/86

ORIGINATING OFFICE: Office of Solid Waste

☒ **FINAL**

☐ **DRAFT**

STATUS:

[]	A- Pending OMB approval
[]	B- Pending AA-OSWER approval
[]	C- For review &/or comment
[]	D- In development or circulating headquarters

REFERENCE (other documents):

- OSWER Policy Directive #9523.00-12
- OSWER Policy Directive #9523.00-15

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United States Environmental Protection Agency
Washington, DC 20460

OSWER Directive Initiation Request

1. Directive Number

9523.00-14

2. Originator Information

Name of Contact Person

James F. Michael

Mail Code

WH-563

Office

OSW

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(202) 382-2231

3. Title

Summary of Recent Permit Assistance Team (PAT) Comments

4. Summary of Directive (include brief statement of purpose)

This is the first in a series of periodic reports which summarize issues that HQ staff have addressed in their reviews of RCRA Part B permit applications, permits, and closure plans. This report covers issues that are of national interest from reviews conducted by the Land Disposal Permit Assistance Team in 1985.

5. Keywords

Land Disposal Facility / Permit / Closure

6a. Does This Directive Supersede Previous Directive(s)?

☒ No

☐ Yes

What directive (number, title)

b. Does It Supplement Previous Directive(s)?

☐ No

☒ Yes

What directive (number, title)

9523.00-12 & 9523.00-15

7. Draft Level

☐

A - Signed by AA/DAA

☐

B - Signed by Office Director

☐

C - For Review & Comment

☐

D - In Development

8. Document to be distributed to States by Headquarters?

☒ Yes

☐ No

This Request Meets OSWER Directives System Format Standards.

9. Signature of Lead Office Directives Coordinator

Jennifer A. Barker

Date

2/1/88

10. Name and Title of Approving Official

Terry Grogan, Program Manager, Land Disposal PAT Program

Date

03/14/86

EPA Form 1315-17 (Rev. 5-87) Previous editions are obsolete.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAR 14 1985

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: Summary of Recent Permit Assistance Team
(PAT) Comments
FROM: *Terry Grogan*
Terry Grogan, Program Manager
Land Disposal PAT Program
TO: Permit Section Chiefs
Regions I - X

The OSW Permits Branch plans to provide a semi-annual report summarizing major issues that PAT members address in their reviews of specific Part B applications. These reports will cover issues that are of national interest rather than strictly site-specific interest. The attached report is the first in this series; it summarizes generic issues addressed in PAT comments prepared for nine land disposal Part B applications reviewed during 1985. We hope the recommendations provided in this summary of recent PAT comments will be helpful for permit writers encountering similar situations at other RCRA facilities. Therefore, we encourage you to share this report with your staff and State permit writers.

Since this report is the first attempt to derive written national suggestions from site-specific PAT comments, we are very interested in your reaction. Please let me know if the report and current format are useful. Is the level of detail provided here adequate? Would you like to see the original PAT comments for specific sites or some other form of guidance?

Attachment A to the report lists the facility names, Regions, and PAT reviewers for each application included in this report. Attachment B provides a current roster of the members and expertise of the Land Disposal PAT staff.

cc: Marcia Williams
Bruce Weddle
Jack Lehman
Eileen Claussen
Lloyd Guerci
Peter Guerrero
Truett DeGeare
Ken Shuster
Jerry Kotas
Sylvia Lowrance
Mark Greenwood

SUMMARY OF RECENT PERMIT ASSISTANCE TEAM (PAT) COMMENTS

Sampling Procedures

1) Filtering Ground Water Samples

The practice of filtering ground water prior to analysis can remove contaminants sorbed onto particulates which can give misleading indications of ground water quality. The August 1985 Draft RCRA Ground-water Monitoring Technical Enforcement Guidance Document recommends that ground water samples collected for metals analysis should be split into two portions. One portion should be filtered through a 0.45 micron filter and analyzed for dissolved metals. The recommended approach for the second unfiltered portion is to use a mild acid digestion method (e.g., Method-3010, SW-846) to yield total recoverable metals. Any difference in concentration between the total and dissolved fractions may be attributed to either the original metals content of the particles or to the migration of dissolved metals onto the particles.

2) Bailers

The composition of bailers is important when monitoring for certain types of constituents. For example, brass bailers should not be used when sampling for metals because brass can introduce metallic ions into the samples.

The Use of Models

1) Unusual Ground Water Situations

In situations where aquifers are composed of highly stratified sediments or have other unique features, most current mathematical models may not accurately predict aquifer characteristics. Therefore, the model used should include a trial-and-error phase, in which computed drawdowns are matched with observed field drawdowns. A recommended reference is: Land, Larry F., "Utilizing a Digital Model to Determine the Hydraulic Properties of a Layered Aquifer" Ground Water v.15, no. 2 pp 153-159 (1977).

Applying HSWA Corrective Action Requirements to Releases from Process Areas

1) Interpretation of "SWMU"

A facility is underlain by contaminated soils and ground water resulting from prior releases from process areas. Draft policy guidance (January 30, 1985) interprets the term

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"solid waste management unit" (SWMU) to exclude accidental spills from production areas. However, the contamination at this facility appears to be the result of routine, deliberate, and systematic discharges from the process area. Such deliberate deposition qualifies the process area as a de facto SWMU.

Request for a Liner Exemption

1) Liner Exemption Based on Design Concept

A facility applied for an exemption from the landfill liner and leachate collection and removal system requirements of §264.301. The owner/operator claimed that the landfill unit will not result in migration of leachate from the unit due to its intergradient design. The unit is located within the uppermost aquifer and the net migration of water is into the unit. Theoretically, migration of contaminants out of the unit will be prevented since this is counter to the inward flow of water. However, this design does not qualify for a liner exemption, which requires that the unit prevents the migration of hazardous constituents into ground or surface water at any future time. Although the net flow of ground water is into the proposed facility, under certain conditions (i.e., when the waste reaches saturation) constituents can be expected to migrate out of the waste and eventually out of the unit.

Stabilization of Bulk Liquids

1) Acceptable Chemical Stabilization Techniques

To treat bulk hazardous liquids, owner/operators must demonstrate that the 'treatment' applied to the liquid is not absorption. Chemical stabilization is one treatment alternative for bulk hazardous liquids. Stabilization technologies commonly used include Portland cement-based processes and other pozzolanic processes using lime products and materials such as fly ash, ground slag, and cement kiln dust.

2) Demonstrations of Stabilization

After chemical transformation has occurred, the end product should pass the Paint Filter Liquids Test finalized on April 30, 1985 (50 FR 18370). In addition, the owner/operator must demonstrate that the waste has been adequately stabilized. EPA is in the process of recommending a performance standard to help owners/

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operators and permit writers determine whether a process is "chemical stabilization" (as opposed to absorption). This standard uses an unconfined strength test to make the determination. The owner/ operator has the option of proposing a different methodology as long as adequate stabilization can be demonstrated.

Corrective Action

1) Regulatory Status of Contaminated Ground Water

John Skinner's memo of December 26, 1984, states that contaminated ground water collected and derived from a listed waste or hazardous due to presence of a characteristic is a hazardous waste and subject to Subtitle C regulations. Therefore, owner/ operators proposing a corrective action such as counterpumping must manage such collected ground water as a hazardous waste. The Part B application must include the procedures used to manage ground water so that they can be evaluated.

2) Removal of PCP by Activated Carbon

Passing contaminated water through activated carbon usually works well for most organic chemicals. However, the applicability of this method for PCP (penta-chlorophenol) may be questionable. The phenolic group in PCP is weakly acidic ($pK_a = 4.7$) and PCP will ionize in neutral water. In the ionic form, the compound is highly water soluble and its affinity for carbon severely reduced. Specific data must be provided (e.g., from bench or pilot studies) that demonstrate the applicability of activated carbon in removing PCP.

3) Permit Specifications

Corrective action programs, when warranted for regulated land disposal units, must be specified as part of a facility's permit. The permit should include the basic measures to be taken for the corrective action, and predict when the goals of the corrective action plan will be met. Any future changes in the specifics of the corrective action program would entail a permit modification. It is important that the owner/operator adequately define the zone(s) of contamination, aquifer hydraulic characteristics, and the hazardous constituents in the groundwater. The owner/operator should conduct pilot pump tests to verify the performance of any counter-pumping installation if necessary.

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ACLs

1) Use of Acceptable Surface Water Limits

When the only exposure to ground water contaminants is via surface water, then it is possible to base the ACLs on acceptable surface water limits for the contaminants present in the ground water and to use a surface water dilution factor to derive the ACLs. The dilution factor, however, must be sufficiently conservative relative to the assumed stream flow. In general, the owner/operator should assume a 7-day, 10-year low flow. The dilution calculations should only consider mixing within some State-approved zone and will depend on the ground water loading to the river.

Owner/operators intending to use surface water dilution in an ACL application must prepare a surface water analysis to determine the cumulative impact on the river. The analysis should include upstream, downstream and point of discharge sampling for the Appendix VIII constituents present in the ground water.

The actual ground water discharge to a surface water body must be verified by appropriate ground water delineation methodology. It is not sufficient to assume that all ground water discharges to a surface water body. It must be demonstrated that ground water flow does not go under and beyond the surface water body.

2) Potential Point of Exposure

In an ACL submission, the applicant must address the on-site use of ground water as well as any use downgradient of the facility. Ground water exposure is assumed to be at the facility's waste management boundary unless there are use restrictions on-site. The fact that ground water is not currently used is not sufficient evidence to assume no potential exposure. If ground water use restrictions, i.e., deed restrictions, are implemented on-site, then the property boundary is assumed to be the potential point of ground water exposure. If the point of exposure is at a surface water body, ground water use restrictions should be in effect from the waste management boundary to the point where ground water discharges to surface water.

When calculating exposure through surface water in order to determine an ACL, surface water exposure should be based on exposure immediately outside the mixing zone. Applicants

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Attachment A

PAT Reviews Included in This Summary

<u>Facility</u>	<u>Region</u>	<u>PAT Coordinator</u>
Allied Chemical	III	Amy Mills
Chem Waste Management	IV	Chris Rhyne
Ciba-Geigy	IV	Rich Steimle
Eaton Corp	V	Amy Mills
G.E. Waterford	II	Amy Mills
Hytek	X	Amy Mills
International Paper	VII	Vernon Myers
Permapost	X	Robert Kayser
USPCI	VI	Robert Kayser

Attachment B

OSW Permits Branch

Land Disposal Permit Assistance Team (PAT)

- ° Terry Grogan, Manager (382-4740)

Current Staff:

- ° Chris Rhyne (Civil Engineer; 382-4695)
 - Disposal D & O Standards (liners, leachate collection)
 - Closures (caps, etc.)
 - CERCLA sites
- ° Bob Kayser (Chemist; 382-4536)
 - Appendix VIII Monitoring
 - Waste Analysis
 - Exposure Assessments
- ° Nestor Aviles (Chemical Engineer; 382-2218)
 - Land Treatment
- ° Janette Hansen (Hydrogeologist; 382-4754)
 - Groundwater Monitoring
 - Corrective Action
 - PA/SI Field Test and Training
- ° Mark Salee (Environmental Scientist; 382-4740)
 - ACLs
 - Exposure/Risk Assessments
- ° Dave Eberly (Civil Engineer; 382-4691)
 - Disposal Standards
- ° Vacancy (Geologist)

Others:

- ° Mickey Hartnett (Environmental Engineer; 382-4755)
 - On detail from Region IV to develop program for Corrective Action technical assistance.
- ° Rich Steimle (Hydrogeologist; 382-7912)
 - On detail to Ground Water Task Force.
- ° Amy Mills (Geologist)
 - On academic leave until 1/87.

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ACTION

Several actions can be taken to implement this new corrective action requirement prior to issuance of the above mentioned guidance packages. Specifically, we recommend that a notice be sent to each facility whose Part B has been requested and for which a final determination was not made prior to November 8, 1984. This notice should provide a general explanation of the new corrective action provision, and the fact that additional information must be submitted to satisfy the new requirement. In general, EPA will need to obtain the following information in order to determine whether a facility is in compliance with section 3004(u):

- (a) Identification of each unit at the facility that might fall within the definition of solid waste management unit, that has not already been described in the Part B application. Although no final decision has yet been made on the definition, a solid waste management unit may include any landfill, surface impoundment, waste pile, land treatment unit, injection well, incinerator, tank (including wastewater treatment units, elementary neutralization units, and tanks used in reuse/recovery operations), container storage area, transfer station, or waste recycling operation at the facility. The applicant should also understand that EPA views the "facility" as not limited to the area where wastes are managed, but includes the entire contiguous property under the control of the owner or operator. For each unit, the following information should be supplied:

- Type of unit
- Location of each unit at the facility on a topographic map
- General dimensions
- Whether the unit is currently operating, and if not, when the unit closed or ceased operating
- Description of the wastes that were placed in the unit (where available)

- (b) All information available to the owner/operator on whether or not releases have occurred from any of the solid waste management units (including the hazardous waste units) at the facility. Releases to ground water, as well as to other media (e.g., soils, surface water, air) should be described. Such information would include available ground or surface water monitoring data, results of soil sampling, spill reports, inspection records, etc.

We recommend that in most cases, applicants who have already submitted their Part B application should be given no more than 30-45 days in which to submit this information.

It should be understood that there is currently no provision in 40 CFR Part 270 which requires submission of the above information in Part B applications. In a sense, therefore, submittal of the information by permit applicants is "voluntary." However, section 3005(c) of the Act provides that permits can be issued to facilities only upon a determination that the facility is in compliance with the requirements of Section 3004 of the Act. Therefore, failure to submit information to demonstrate a facility's compliance with the §3004(u) requirement would be grounds for denial of the permit.

The above information, when submitted by the permit applicants, will allow the permit writer to make an assessment as to which facilities are likely to require corrective action programs, and how permitting and enforcement priorities might subsequently be realigned.

Some States may have existing regulatory requirements analogous to the new RCRA continuing release provision. Such States may already have gathered substantial information on solid waste management units and releases at their facilities. In preparing the notices to be sent to permit applicants, Regional Offices should coordinate with their States to avoid requesting such information that has already been collected by a State agency.

Some facilities may contain only units with a relatively low likelihood of having caused a release (e.g., indoor container storage areas, above-ground tanks, etc.). In such cases, the Region/State may consider going forward with issuing the permit, providing that:

- The owner/operator has indicated that there is no information indicating a release from any of the units; and
- An assessment of the facility, based on a site inspection and other available information, confirms that a release that poses a threat to human health and the environment is unlikely to have occurred.

For many facilities, the absence of a release will not be so easily established. Further, some facilities will already have determined that such a release(s) has occurred. For these facilities further information will have to be developed to identify and/or characterize releases. As noted earlier, guidance on these issues will be forthcoming.

Any questions or comments on procedural aspects of implementing this corrective action authority should be directed to Dave Fagan (382-4497). For information on the guidance packages being developed, please contact Art Day (382-4658), or George Dixon (382-4494).

Addressees:

Regional Administrators, Regions I-X
Regional Waste Management Division Directors, Regions I-X
Hazardous Waste Branch Chiefs, Regions I-X
Regional Counsels, Regions I-X
State Hazardous Waste Program Directors
Assistant Administrator for Enforcement and Compliance Monitoring
Associate General Counsel for Solid Waste and Emergency Response
OSWER Office Directors