Environmental Bio-Systems
30028 Industrial Parkway, Southwest
Hayward, California 94544-6904
(415) 429-9988

ST ID 3566
JM

February 8, 1990

Mr. Ariu Levi
Alameda County Health Agency
Division of Hazardous Materials
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

Dear Ariu,

Enclosed is the final draft of the work plan for aeration of hydrocarbon contaminated soils at the Lewis' Bay Street Auto site at 1127 Lincoln Ave. in Alameda, CA.

Also enclosed for your information is a copy of the permit by rule regulations to be proposed by DHS. We just recently received them from Paris Greenly (DHS-Berkeley). If you haven't yet seen them I hope you find them interesting.

If I can answer any questions on the plan, or if you have any comments please contact me at (415) 429-9988.

Sincerely,
ENVIRONMENTAL BIO-SYSTEMS, INC.

Timothy M. Babcock
Environmental Scientist

TMB
Enclosures

WORK PLAN:
SOIL AERATION

LEWIS' BAY STREET AUTO
1127 LINCOLN AVENUE
ALAMEDA, CALIFORNIA

PREPARED FOR MR. LEO PAGANO
FEBRUARY 1, 1990

ENVIRONMENTAL BIO-SYSTEMS, INC.

WORK PLAN FOR SITE INVESTIGATION AND REMEDIATION AT 1127 LINCOLN AVENUE ALAMEDA, CALIFORNIA

INTRODUCTION

The following section contains the purpose and scope of this work plan, a brief site history, and a summary of previous investigations.

Purpose and Scope

This work plan presents the scope of services to be performed in the remediation of contaminated soils related to the underground storage tanks (UST's) formerly located at 1127 Lincoln Avenue, Alameda.

This plan has been prepared in accordance with Alameda County's guidelines for the preparation of site work plans.

Site History

The former underground storage tank site is located at 1127 Lincoln Avenue, Alameda, California. A site location map is included as Figure 1 (Appendix A) placing both soil storage and treatment areas. Currently no UST's are in use at the site.

Known uses of the site include the existence of a auto fueling & repair station from approximately 1930 to September, 1985. Prior to 1930 the site is thought to have been used as a auto repair station. Use of the underground fuel tanks was discontinued as of September, 1985. Use as a auto repair station has continued through the present.

Prior to September 18, 1986, 5 UST's were located at the site. The volumes and contents of the tanks were as follows: one 4,000 gallon tank containing gasoline, one 4,000 gallon tank containing gasoline, one 1,000 gallon tank containing gasoline, one 1,000 gallon tank containing gasoline, and one 500 gallon tank containing waste oil.

Based on a previous site investigation by Environmental Bio-Systems, Inc. (Appendix B), during which the tanks were removed and soil interface samples were analyzed, it appears that petroleum hydrocarbons are present in soils and possibly groundwater at the site. The possible sources of these constituents are the former tanks, product lines, and dispensers servicing the tanks. Petroleum hydrocarbons related to gasoline are the suspected contaminants from these potential sources. Several holes were noted on tanks removed from this location and were documented on the aforementioned EBS report.

Previous Investigations

The responsible party, Mr. Leo Pagano, retained the Zaccor Corporation to remove the UST's on September 18, 1989. Environmental Bio-Systems, Inc. was retained by Zaccor Corporation to perform sampling and preliminary assessment during this phase of the operation.

PROPOSED REMEDIAL WORK

Remedial actions currently warranted include the aeration of hydrocarbon contaminated soil which has been stockpiled since the the removal of the UST's, disposal at a class III landfill of all soil once it is treated to concentrations below 100 ppm TPH as gasoline, and remediation of contaminated material which has been left in place below the property to levels below 100 ppm. This document addresses only the aeration and disposal of soil now in storage above ground. Further remedial actions addressing both soil and water contamination at the site (if any) will be proposed following receipt of the results of the analyses put forth in this work plan.

Preliminary Measures

Prior to commencement of work, the appropriate state, local, and private entities will be contacted and all permission and permits necessary for the performance of work described in this plan will be applied for and obtained. A locating service will be contacted to map out all existing utilities on or near the proposed area of work at least 48 hours in advance of any underground activity.

Soil Storage

All soils stored on site, with the exception of the exempted amount being actively aerated, shall be covered with a plastic liner and weighted down to prevent both uncontrolled aeration and the intrusion of rainwater.

Soil Aeration

Approximately 200 cubic yards of soil are now being stored at the site. Composite soil analysis performed at the time of removal (Appendix B) revealed an average gasoline hydrocarbon concentration of 1000 parts per million (ppm).

Aeration of these soils will be undertaken in compliance with the Bay Area Air Quality Management District (BAAQMD) guidelines for the uncontrolled aeration of contaminated soils. Although the content and average contaminant concentration in the soil does not require the acquisition of a permit under the BAAQMD's Regulation 8, Rule 40, the lack of surface area available will require a treatment duration in excess of 12 weeks, thereby necessitating a permit for uncontrolled aeration as mandated in Regulation 2, Rule 1, Section 128.15.

As of February 1, 1989, the permit application was verbally approved by Mr. Barry Young of the BAAQMD and the written permit should be attained pending completion of the filing process.

According to the table outlined in the BAAQMD's Regulation 8, Rule 40, no more than 30 cubic yards of soil may be aerated per day at the demonstrated average contaminant concentration of 1000 ppm TPH as gasoline. In keeping within these limitations, a volume of up to approximately 30 cubic yards will be passively aerated at any one time as allowed by the strict space limitations present at the site.

The aeration will take place atop a hydrocarbon resistant liner of 6 mil thickness. The soil will be moved from the stockpile to the treatment area using a small garden type tractor. Aeration will be allowed to continue until organoleptic or OVA analysis estimates the probability of completion. When such condition has been met, a composite soil analysis will be performed consisting of four (4) brass sample tubes combined at the laboratory into one (1) soil sample per fifty (50) cubic yards of soil involved. The collected sample will be analyzed at a certified hazardous materials testing laboratory for TPH as gasoline and BTEX using EPA method 8015/8020, and both total and soluble lead using EPA method 6010/7000 and Waste Extraction Test as per CAC Title 22, Section 66700 (as mandated by the proposed accepting class III landfill).

Soil Disposal

Following confirmation of the reduction of TPH as gasoline in treated soils to an average concentration of less than 100 ppm, the soils from that treated batch will be considered to have been successfully treated. At such time, disposal of the soils will be arranged at an accepted class III landfill. All weight slips will be retained as proof of legal disposal and will be included in the final report as an appendix.

TIME SCHEDULE

Initiation of Aeration	**12/90**
Approximated BAAQMD Permit Acquisition	**2/10/90**
Anticipated soil treatment conclusion	**5/01/90**
Disposal of soil	**As Analysis Confirms**

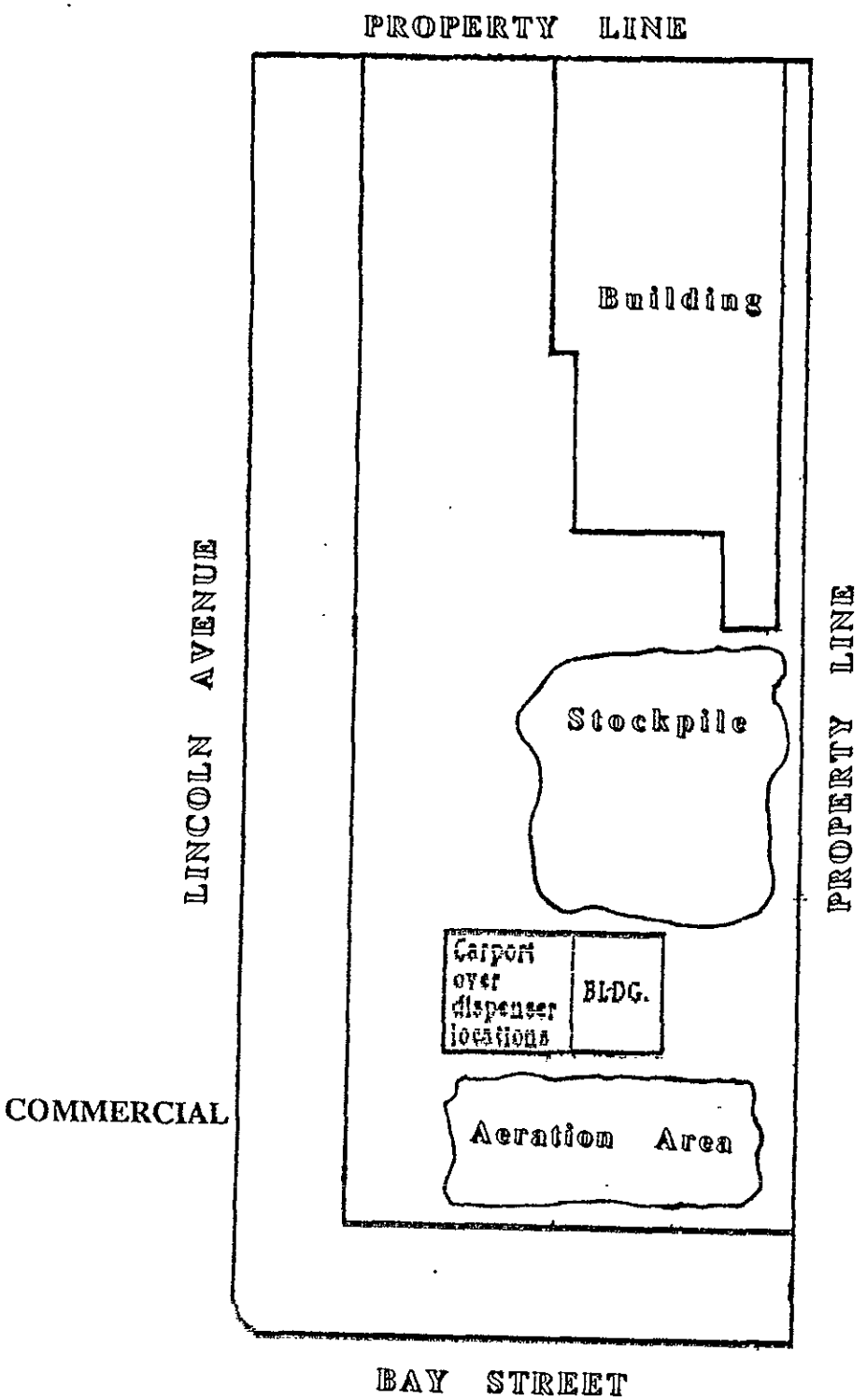
Project Reportage

Environmental Bio-Systems, Inc., will prepare a report describing field and laboratory procedures, and laboratory results. Our interpretations of the site conditions and results of analyses will be provided. Documentation will include copies of the chain of custody forms and laboratory reports, tabulated data, and interpretative figures as needed. The information obtained during this work will remain confidential and will be released only with the authorization of the responsible party, Mr. Leo Pagano.

APPENDIX A

LOCATION MAP & DIAGRAMS

COMMERCIAL



RESIDENTIAL

COMMERCIAL

COMMERCIAL

LEWIS' BAY STREET
AUTO SERVICE

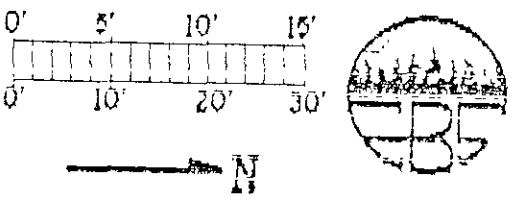


FIGURE 1

APPENDIX B

PREVIOUS ANALYTICAL FINDINGS

MOBILE CHEM LABS INC.

1678 Rellez Valley Road
Lafayette, CA 94549 • (415) 945-1266

Environmental Bio-Systems
30028 Industrial Pkwy. S.W.
Hayward, CA 94544-6904
Attn: Timothy Babcock
Environmental Scientist

Date Sampled:09-11-89
Date Received:09-11-89
Date Reported:09-19-89

Sample Number	Sample Description
099071	Job #003-066-254 - Alemeda 1127 Lincoln Ave. # 14 A-D SOIL

ANALYSIS

	Detection Limit	Sample Results
	ppm	ppm
Total Petroleum Hydrocarbons as Gasoline	1.0	820
Benzene	0.1	6.1
Toluene	0.1	26
Xylenes	0.1	110
Ethylbenzene	0.1	31

Note: Analysis was performed using EPA methods 5030 and TPH LUFT with method 8020 used for BTX distinction.

MOBILE CHEM LABS

Ronald G. Evans
Lab Director

MOBILE CHEM LABS INC.

1678 Reliez Valley Road
Lafayette, CA 94549 • (415) 945-1266

Environmental Bio-Systems
30028 Industrial Pkwy. S.W.
Hayward, CA 94544-6904
Attn: Timothy Babcock
Environmental Scientist

Date Sampled: 09-11-89
Date Received: 09-11-89
Date Reported: 09-19-89

Sample Number	Sample Description
098072	Job #003-068-254 - Alemeda 1127 Lincoln Ave. # 15 A-D SOIL

ANALYSIS

	Detection Limit	Sample Results
	ppm	ppm
Total Petroleum Hydrocarbons as Gasoline	1.0	780
Benzene	0.1	18
Toluene	0.1	64
Xylenes	0.1	120
Ethylbenzene	0.1	27

Note: Analysis was performed using EPA methods 5030 and TPH LUFT with method 8020 used for BTX distinction.

MOBILE CHEM LABS

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Lab Director

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Environmental Bio-Systems
30028 Industrial Pkwy. S.W.
Hayward, CA 94544-6904
Attn: Timothy Babcock
Environmental Scientist

Date Sampled:09-11-89
Date Received:09-11-89
Date Reported:09-19-89

Sample Number	Sample Description
089073	Job #003-066-254 - Alemeda 1127 Lincoln Ave. # 16 A-D SOIL

ANALYSIS

	ppm	ppm
Total Petroleum Hydrocarbons as Gasoline	1.0	1,400
Benzene	0.1	0.9
Toluene	0.1	44
Xylenes	0.1	220
Ethylbenzene	0.1	38

Note: Analysis was performed using EPA methods 5030 and TPH LUFT with method 8020 used for BTX distinction.

MOBILE CHEM LABS

Ronald G. Evans
Lab Director

APPENDIX C

SAMPLING PROTOCOL

SAMPLING METHODOLOGY

Composite soil samples will be composed of four clean brass tubes (1.96" x 6"), marked A-D, collected at a frequency of one composite sample per 50 cubic yards of soil. The samples will be taken at random locations within a designated area after removing at least the first foot of soil. The brass tubes will be immediately driven into the exposed layer. Soil will be packed into the tubes to exclude the existence of headspace. Thus prepared, the ends of the tubes will be wrapped with aluminum foil and sealed with plastic caps. After removing excess foil, electrical tape will be applied to the seems between cap and tube in an effort to reduce the evaporative loss of volatile constituents.

Samples will be documented on a chain of custody and stored on ice for transportation to Anametrix, Inc., a certified hazardous waste analytical laboratory (HMTL # 151), for subsequent analysis.

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INFORMATIVE DIGEST

Current State law (Health and Safety Code, section 25150) authorizes the Department of Health Services to adopt and revise standards and regulations for the handling, processing, use, storage and disposal of hazardous waste to protect against hazards to the public health or to the environment.

Section 25159.5 of the Health and Safety Code directs the Department, in adopting regulations, to make those regulations conform with corresponding federal regulations promulgated pursuant to the Resource Conservation and Recovery Act (RCRA) (42 U.S.C. section 6901 et seq.) as amended.

Currently on-site treatment units treating low risk waste streams by using simple processes are required to have either a facility permit or a variance. By contrast, the Department has established regulations which allow the operation of transportable treatment units (TTUs) under a permit by rule. These proposed regulations for permit by rule modify the regulations for TTUs and add permit by rule categories for pretreatment units, small quantity generators, site remediation and on-site treatment units. The proposed modifications specify the specific technologies that are acceptable for each wastestream. Additional technologies and wastestreams have been added to the list of wastestreams and technologies contained in current regulations.

Specifically these proposed regulations delineate the on-site treatment activities which would be allowed to operate pursuant to a permit by rule. The proposed regulations also list approved waste streams whose treatment is not regulated by RCRA and processes, closure, financial provisions, and procedural requirements for the eligible on-site hazardous waste treatment unit operations for both TTUs and on-site treatment units.

These regulations are in conformance with proposed federal regulations (FR Vol. 52 No. 106) and current federal (40 CFR 264.1) exemptions from RCRA permitting requirements.

LOCAL MANDATE DETERMINATION

The Department has determined, pursuant to Section 2231 of the Revenue and Taxation Code, that these regulations will not impose a mandate on local agencies or school districts.

FISCAL IMPACT ESTIMATE

These regulations do not impose new requirements on treaters of hazardous waste, so these proposed regulations will have no costs

or savings to the State. There are no costs or savings on federal funding of State operations. The Department has determined that these regulations will have no cost to local agencies, school districts or small businesses. These regulations will have a positive fiscal impact on persons involved in operating certain treatment processes, including vendors and hazardous waste generators. The proposed regulations will promote the construction and sale of treatment equipment. The increased availability of hazardous waste treatment options will encourage industry to remain an important part of the State's economy. We expect that a percentage of businesses positively impacted by the regulations will be small businesses.

PROPOSED REGULATIONS

Amend title 22, division 4, chapter 30, article [illegible], section 66371 (b) of the California Code of Regulations to read as follows:

(b) Permits are required for:

~~(1) Injection wells that dispose of hazardous waste, and associated surface facilities that treat, store or dispose of hazardous waste. However, the owner and operator with an Underground Injection Control Permit will be deemed to have a Hazardous Waste Facility Permit for the injection well if they comply with the requirements of Section 66392 (Permits by Rule).~~

(~~2~~1) Treatment, storage or disposal of hazardous waste at facilities requiring an NPDES permit. However, the owner and operator of a publicly owned treatment works (POTWs) receiving hazardous waste will be deemed to have a permit for that waste if they comply with the requirements of Section 66392(a) (permit by rule for POTWs).

(2) Pretreatment units discharging in compliance with an NPDES permit or to a POTW with an EPA or Regional Water Quality Control Board approved pretreatment program. However, the owner and operator of the pretreatment unit will be deemed to have a permit for the pretreatment if they comply with the requirement of Section 66392(b) (permit by rule for pretreatment units).

(3) Barges or vessels that dispose of hazardous waste by ocean disposal and onshore hazardous waste treatment or storage facilities associated with an ocean disposal operation. However, the owner and operator of the barge or vessel will be deemed to have a permit for ocean disposal from the barge or vessel itself if they comply with the requirements of Section 66392(c) (Permits by Rule for ocean disposal barges or vessels).

(4) Small quantity generators (less than 100 kg per month or aqueous photographic wastes containing less than 10 kg per month of hazardous constituents) that treat waste on-site. However, the owner and operator of the treatment unit will be deemed to have a permit for the treatment unit provided that the waste stream and treatment are listed in Section 66747.

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(5) Treatment of wastes being managed to remove or remedy a release of hazardous waste. However, the owner or operator are deemed to have a permit if they comply with the requirements of a plan approved by EPA or DHS or if the waste is soil or groundwater contaminated with a non-halogenated hydrocarbon and has a permit from the appropriate APCD or AQMD and is under the oversight of the city or county agency responsible for hazardous waste management.

(46) Treatment of hazardous wastes using a Transportable Treatment Unit (TTU). However the owner or operator of a TTU is deemed to have a permit to operate the TTU if the owner or operator complies with the requirements of Section 66392(d) (permit by rule for TTUs).

(7) On-site units treating hazardous waste. However, the owner or operator of an on-site unit treating hazardous waste is deemed to have a permit to operate the unit if they comply with the requirements of Section 66392(e) (Permit by Rule). For the purposes of this section, facilities that have a permit issued by the Department to accept off-site wastes for transfer or treatment and/or disposal do not qualify as an on-site unit.

(A) Notwithstanding any other provision of this chapter, the Director or any duly authorized representative of the Department may issue a determination that a unit operating or proposing to operate under permit by rule is not eligible for permit by rule. This determination shall be based on a history of violations of this chapter, an evaluation of the processes being used, an evaluation of the waste stream, or requests to do so from local agencies having jurisdiction over the facility. Determinations that a unit is not eligible for permit by rule become effective on the day following the determination. Such determinations may be appealed using the procedure specified in Section 66344 but the determinations remains in effect during the appeal.

(B) The Director or any duly authorized representative of the Department may also use any and all otherwise available means for revocation or termination of permits pursuant to Section 66384 for units operating or proposing to operate under permit by rule.

(C) Not withstanding any other provision of this Chapter, all variances previously issued to facilities for situations that are now eligible to operate pursuant to permit by rule are hereby revoked effective upon the date of adoption of this regulation.

Authority cited: Section 208, Health and Safety Code
Reference: Section 25150 and 25200.2, Health and Safety Code.

Amend title 22, division 4, chapter 30, article 4, section 66392 of the California Code of Regulations to read as follows:

66392. Permits by Rule.

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Notwithstanding any other provision of this chapter, the following shall be deemed to have a permit if the conditions listed are met~~:~~. Any facility deemed to have been issued a permit pursuant to its compliance with this article shall not be a facility or unit, nor shall it have been issued a permit, within the meaning of Health and Safety Code Section 25205.1. This section shall not exclude any facility from any definition or requirement not expressly governed by Health and Safety Code Section 25205.1, nor shall it exclude any facility from any fee assessed pursuant to Health and Safety Code Section 25205.7.

(a) Publicly owned treatment works (POTW). The owner or operator of a POTW which accepts for treatment hazardous waste, if the owner or operator:

(1) Has an NPDES permit or has received waste discharge requirements issued by a Regional Water Quality Control Board;

(2) Complies with the conditions of the permit or discharge requirements; and

(3) Complies with the following regulations:

(A) Section 67100, Identification Number:

(B) Section 67161, Use of Manifest System for any waste accepted by any other means than discharge to the sewer system under an industrial waste discharge permit issued by the agency responsible for the operation of the POTW:

(C) Section 67162, Manifest Discrepancies;

(D) Section 67163(a) and (b)(1), Operating Record;

(E) Section 67165, Annual Report for all manifested wastes;

(F) Section 67166, Unmanifested Waste Report where a manifest should have been provided but was not; and

(4) If the manifested waste meets all federal, state and local pretreatment requirements which would be applicable to the waste if it were being discharged into the POTW through a sewer, pipe or similar conveyance.

~~(b) Injection wells. The owner or operator of an injection well disposing of hazardous waste, if the owner or operator:~~

~~(1) Has a permit under the Underground Injection Control Program pursuant to the Safe Drinking Water Act (Public Law 95-523 as amended by Public Law 95-190);~~

~~(2) Complies with the condition of the permit;~~

~~(3) Complies with the regulation under subsection (a)(3) above;~~

~~(4) Complies with training requirements under Section 67105; and~~

~~(5) When abandonment is completed, the owner or operator must submit to the Department certification by the owner or operator and certification by an independent registered professional engineer that the facility has been closed in accordance with the specifications in permit to properly plug and abandon the well.~~

(b) Pretreatment units. The owner or operator of a pretreatment unit discharging in compliance with an NPDES permit

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or in compliance with an Industrial Waste Discharge permit to a POTW with an EPA approved pretreatment program provided that the pretreatment program includes the following elements:

(1) An evaluation of the pretreatment process and

(2) A provision and capability to perform on-site inspections to confirm compliance to the provisions of the industrial waste discharge permit.

(c) Ocean disposal barges or vessels. The owner or operator of a barge or other vessel which accepts hazardous waste for ocean disposal, if the owner or operator:

(1) Has a permit for ocean dumping issued~~,~~ as authorized by the Marine Protection, Research, Sanctuaries Act, as amended;

(2) Complies with the conditions of that permit; and

(3) Complies with the regulations under subsection (a)(3) above.

(d) Transportable Treatment Units (TTU). The owner or operator of a TTU that treats hazardous waste, if the owner or operator does all of the following:

(1) Restricts treatment to those wastes and processes listed in Section 66747;

(2) Discharges any effluent or treatment residuals as follows:

(A) To a publicly owned treatment works (POTW) in accordance with all applicable sewer discharge requirements issued by the agency responsible for the POTW. Any discharges to a sewer shall not contain hazardous wastes unless discharge of hazardous waste is specifically approved in writing by the agency responsible for the POTW. The facility owner or operator shall inform the appropriate agency responsible for the POTW of the time, volume and point of discharge in accordance with the POTW agency's requirements; or

(B) In accordance with an National Pollutant Discharge Elimination System (NPDES) permit or Waste Discharge Requirements issued by a Regional Water Quality Control Board; or

(C) To a treatment, storage, or disposal facility authorized to receive the waste; or

(D) In accordance with other applicable state laws allowing for alternative disposal of the material.

(3) Operates the TTU:

(A) At any single generator site or at any off-site hazardous waste facility where the facility is permitted for that treatment and wastestream for a maximum of 180 operating days within any 365 day period. When operating at an off-site facility, the total processing rate for any waste stream, including all approved fixed unit and all TTUs, shall not exceed the capacity stated in the off-site facilities approved Part A permit application at any time. Upon written request by the affected TTU client, the Department may grant an extension for reasonable cause. Reasonable cause shall be determined on a case by case basis; or

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(B) At a hazardous waste release site or hazardous waste facility as part of the site remediation, corrective action or closure activity for a maximum of 2 years. Upon written request by the affected TTU client, the Department may grant an extension for reasonable cause. Reasonable cause shall be determined on a case by case basis.

(4) Permanently marks the exterior of the TTU with the name of the operating company and an individual serial number;

(5) ~~The following items describing the TTU operation shall be submitted to the Department regional office in the region or regions where the treatment shall be performed prior to commencing operation in that region~~ Maintains the following documents at or adjacent to the TTU and these items shall be made available upon demand to any inspector authorized to enforce these regulations. ~~If the information submitted to a Department regional office changes, then the most current information shall be resubmitted:~~ Copies of these documents shall be delivered in person or by certified mail to the Department as specified in a written request from the Department. The written request from the Department shall include what documents are required, where to submit the required information and the date the information is required.

(A) A closure cost estimate for each unit as specified in Section 67034;

(B) A waste analysis plan for the treatment operation as specified in Section 67102(b);

(C) A written inspection schedule as specified in Section 67034(b);

(D) Training documents as specified in Section 67105(d); and

(E) A contingency plan as specified in Section 67141.

(6) Submits in person or by certified mail with return receipt a TTU Permit by Rule Site Specific Notification (DHS Form 8429 (8/89)) to the regional office in the region where the treatment shall be performed. The form shall be submitted a minimum of 30 days prior to beginning the first treatment of waste with the TTU at that site. On subsequent visits of the TTU to the facility to treat the same wastestream, a minimum 15 day notification period is required. If a different treatment process, waste or TTU will be involved in the subsequent visit then the 30 day notification period is required. Either notification period may be shortened by the Department upon a showing of reasonable cause. The notification form shall be submitted with all of the following:

(A) A disclosure statement, as defined in Health and Safety Code Section 2512.5, for the owner or operator of the Transportable Treatment Unit (TTU).

(B) A certification specifying the local authorities that have been notified of the intended date(s) of operation. At a minimum, the owner or operator shall notify the local health official responsible for hazardous waste; the agency responsible

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for the POTW, if the treatment results in discharges to a POTW, and any other agency that requires notification for the operation of the treatment facility. Copies of any local air district permit or other permits required for the operation of the treatment facility shall be attached to the site specific notification.

(C) Treatment site information including: site name, address or legal description of the site location, site EPA ID#, site contact person and telephone number, TTU contact person and telephone number, plot plan detailing where the hazardous waste treatment shall occur, description of the specific waste type(s), TTU serial number, a full description of the treatment process(es) to be used, the anticipated time period the unit will be on site, the anticipated dates and hours the unit will be in operation, and the anticipated date the unit will complete operations a description of how the treatment unit(s) operates (i.e. continuous, batch, intermittent, etc.)

(D) Documentation of an agreement with the property owner or facility operator allowing operation of the TTU,

(7) Maintains compliance with Sections 67034 and 67035 and with the following regulations as they apply to interim status facilities:

(A) Article 18. General Facility Standards for Interim Status and Permitted Facilities (except for Section 67108);

(B) Article 19. Preparedness and Prevention for Interim Status and Permitted Facilities;

(C) Article 20. Contingency Plan and Emergency Procedures for Interim Status and Permitted Facilities;

(D) Article 21. Manifest System, Recordkeeping and Reporting for Interim Status and Permitted Facilities (except for Section 67163(b)(2) and (b)(6));

(E) Article 23. Closure and Post-Closure for Interim Status and Permitted Facilities;

(F) Article 24. Use and Management of Containers. ~~except that the containment system required by section 67245(b)(3) need not provide capacity for a 24-hour, 25-year storm during the months of May through November.~~

(G) Article 25. Tanks at Interim status and Permitted Facilities;

(H) Article 32. Chemical, Physical and Biological Treatment.

(8) Prepares a quarterly report and submits the report to the Department within 45 days of the end of each quarter. The report shall be signed by the owner or operator or the authorized representative of the owner or operator. Forms for the report shall be available from the Department. The report shall include the following information for each site where treatment was performed during that quarter:

(A) The serial number of the TTU(s) involved in the treatment;

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(B) The physical and mailing address of the TTU owner or operator;

(C) The name, title and phone number of TTU contact person;

(D) The name and address or legal description of the site;

(E) The site EPA ID number, when applicable;

(F) The number of days the TTU was operated;

(G) The quantity of hazardous waste treated by the TTU;

(H) The composition of the influent hazardous waste(s);

(I) The identification of the waste(s) by waste code. The applicable waste codes are available on the back of page 6 of the Uniform Hazardous Waste Manifest (DHS 8022 A (1/88));

(J) The treatment method for each hazardous waste treated by the TTU;

(K) The quantity of effluent from the TTU that was discharged to a POTW, if applicable.

(e) On-site units treating hazardous waste. For the purposes of this section, facilities that have a permit issued by the Department to accept off-site wastes for transfer or treatment and/or disposal do not qualify as an on-site facility. The owner or operator of an on-site unit that treats hazardous waste, if the owner or operator does all of the following:

(1) Restricts treatment to those processes and wastes listed in Section 66747;

(2) Discharges any effluent or treatment residuals as follows:

(A) To a publicly owned treatment works (POTW) in accordance with all applicable sewer discharge requirements issued by the agency responsible for operation of the POTW. Any discharges to a sewer shall not contain hazardous wastes unless discharge of the hazardous waste is specifically approved in writing by the agency responsible for the operation of the POTW. The facility owner or operator shall inform the agency responsible for the operation of the POTW of the time, volume and point of discharge in compliance with that agency's requirements; or

(B) In accordance with an National Pollutant Discharge Elimination System (NPDES) permit or Waste Discharge Requirements issued by a Regional Water Quality Control Board; or

(C) To a treatment, storage, or disposal facility authorized to receive the waste; or

(D) In accordance with other applicable state laws allowing for alternative disposal of the material.

(3) Submits a site specific notification initially and annually thereafter containing the information required in Sections 66390(a)(1) through and including 66390(a)(6) and 66390(b) to the Department regional office for the region where the on-site treatment facility is located. The notification shall be submitted in person or by certified mail within 4 months of the adoption of these provisions or a minimum of 45 days prior to beginning the first treatment of waste whichever is later. The notification shall be submitted with all of the following:

(A) Treatment site information including: site name, address or legal description of the site location, site EPA ID#, site contact person and telephone number, plot plan detailing where the hazardous waste treatment shall occur, description of the specific waste type(s), treatment process(es) to be used, a description of how the treatment unit(s) operates (i.e. continuous, batch, intermittent, etc.) and the hours of operation of the treatment unit(s); and

(B) A certification specifying the local authorities that have been notified of the intended operation. At a minimum, the owner or operator shall notify the local health official responsible for hazardous waste; the agency responsible for the operation of the POTW, if the treatment results in discharges to a sewer, and any other agency that requires notification for the operation of the treatment facility.

(C) A certification signed by the operator that the operator will comply with all of the requirements listed in paragraphs (4) and (5) of this subsection before starting any treatment and thereafter. If the treatment unit was operating prior to the adoption of this section, then the certification of compliance should start at the time of the notification to the Department and continue thereafter.

(D) A copy of the text of the public notice required in paragraph (6) of this subsection, along with the name of the newspaper and the scheduled date of publication.

(4) The following items describing the unit shall be maintained at or near the unit and these items shall be made available upon demand to any inspector authorized to enforce these regulations. These documents shall be delivered in person or by certified mail to the Department as specified in a written request from the Department. The written request may also include the requirement for the inclusion of a Disclosure Statement, as defined in Health and Safety Code Section 25112.5. The written request from the Department shall include what information is required, where to submit the required information and the date the information is required. The items required are:

(A) A copy of the notification required in paragraph (3) of this subsection along with a copy of the actual public notice printed as required in paragraph (6) of this subsection;

(B) Copies of any local air district permit or other permits required for the operation of the treatment facility.

(C) A closure cost estimate as specified in Section 67002,

(D) A waste analysis plan for the treatment operation as specified in Section 67102(b);

(E) A written inspection schedule as specified in Section 67104(b);

(F) Training documents as specified in Section 67105(d)(3); and

(G) A contingency plan as specified in Section 67141.

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(H) The financial responsibility documents as specified in Sections 67003 and 67027.

(5) Maintains compliance with Sections 67251(b) and 67257 of Article 25, Article 24 except for section 67245(c) and with the following regulations as they apply to interim status facilities:

(A) Article 6, Requirements for Generators of Hazardous Waste;

(B) Article 17, Financial Requirements;

(C) Article 18, General Facility Standards for Interim Status and Permitted Facilities;

(D) Article 19, Preparedness and Prevention for Interim Status and Permitted Facilities;

(E) Article 20, Contingency Plan and Emergency Procedures for Interim Status and Permitted Facilities.

(F) Article 21, Manifest System, Recordkeeping and Reporting for Interim Status and Permitted Facilities (except for Sections 67163(b)(2) and 67163(b)(6);

(G) Article 32, Chemical, Physical, and Biological Treatment;

(6) Provides public notice within seven days of submitting the notification required in paragraph (3) of this subsection by publication of a notice in a daily or weekly major local newspaper of general circulation within the area located near the facility. The notice shall, at a minimum, contain the following information:

(A) Name of the owner or operator of the facility where the permit by rule treatment is to occur followed by the words "has notified the Department of Health Services of the intended operation of an on-site hazardous waste treatment unit under a permit by rule at" (the physical address of the facility);

(B) A brief description of the business conducted at the facility;

(C) Name, address and telephone number of a person from whom interested parties may obtain further information;

(D) A brief description of the waste(s) to be treated and the treatment process(es); and

(E) A list of the agencies, including the Department, that have been notified of the proposed treatment process(es).

(7) Maintains compliance with the following requirements regarding closure:

(A) Section 67211.

(B) The owner or operator shall have a written closure plan. The closure plan shall include at least:

(i) A description of how and when the facility will be partially closed, if applicable, and finally closed. The description shall identify the maximum extent of the operation which will be open during the life of the unit, and how the applicable requirements of Section 67248, 67260 and 67524 will be met.

(ii) An estimate of the maximum inventory of wastes in

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storage and in treatment at any time during the life of the unit.

(iii) A description of the steps needed to decontaminate the unit equipment during closure.

(iv) An estimate of the expected year of closure and a schedule for final closure. The schedule shall include, at a minimum, the total time required to close the facility and the time required for intervening closure activities which will allow tracking of the progress of closure.

(C) The owner or operator shall keep the closure plan and closure cost estimates updated.

(D) The owner or operator shall notify the Department and the agencies having jurisdiction over the closure project 15 days prior to completion of closure.

(E) The owner or operator shall remain in compliance with all parts of Section 66392(e) until the owner or operator submits to the Department certification both by the owner or operator and by an independent, qualified professional engineer, registered in California, that the unit has been closed in accordance with the closure plan and that the closure plan meets or exceeds existing regulatory standards.

NOTE: Authority cited: Section 208, Health and Safety Code Reference: Sections 25150 and 25200.2, Health and Safety Code.

66747. ~~List of Approved Treatment Processes and Influent Waste Streams.~~ List of Approved Influent Waste Streams and the Approved Treatment Process(es) for that Waste Stream.

~~(a) The following processes are approved singly or in combination for use by Transportable Treatment Units (TTU) deemed to have permits by rule pursuant to Section 66392(d) to treat wastes listed under subsection (b).~~

~~(1) A filtration process which separates particulate matter from a fluid by passing the fluid through a porous medium that will not pass the particulate.~~

~~(2) A dewatering process which removes water from a waste.~~

~~(3) A phase separation process which separates solid and/or liquid phases from wastes using a centrifuge, tanks or containers, but excluding super critical fluid extraction and the use of positive pressure vessels. A phase is a portion of a liquid or solid that is homogeneous throughout, has definable boundaries, and can be separated physically from other phases.~~

~~(4) An elementary neutralization process.~~

~~(5) An evaporation process which physically separates liquids from dissolved, suspended, solid or semi-solid wastes by converting a liquid to a vapor and then condensing and/or capturing the vapor so that no discharges are released untreated to the air. No discharge may be hazardous pursuant to any of the criteria set in Article 11 and all discharges shall comply with applicable air pollution control regulations. Aeration of soil contaminated with petroleum based fuels which results in a direct discharge of vapors to the atmosphere is specifically excluded~~

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~~from this definition of evaporation.~~

~~(6) A process which changes only the physical properties of the waste by grinding, shredding, crushing or blending.~~

~~(7) Solidification or fixation using silicates and/or cementitious type reactions.~~

~~(8) Absorption.~~

~~(9) Adsorption.~~

~~(10) A precipitation process which produces a separable solid phase within a liquid medium.~~

~~(b) The following influent hazardous wastes are approved for treatment by TTUs as provided in Section 66392(d) provided that the treatment of the waste is not regulated under the Resource Conservation Recovery Act of 1976, as amended (42 U.S.C., Sec. 6901 et seq.) and regulations adopted pursuant thereto and provided that the waste would not be classified as reactive pursuant to section 66705. Wastes classified as extremely hazardous pursuant to Article 11 are specifically excluded from these approved influent hazardous wastes.~~

~~(1) Aqueous solutions with metals.~~

~~(2) Aqueous solutions with total organic residue less than 10 percent and/or volatile organic compounds less than 1 percent.~~

~~(3) Metals sludge, metals dust and machining waste.~~

~~(4) Waste oils, mixed oils and oils mixed with solids.~~

~~(5) Oil/water separation sludge.~~

~~(6) Alum and gypsum sludge.~~

~~(7) Lime sludge.~~

~~(8) Phosphate sludge.~~

~~(9) Sulfur sludge.~~

~~(10) Special wastes as listed in Section 66740.~~

~~(11) Acid or alkaline wastes.~~

~~(12) Soils contaminated with metals or petroleum based fuels.~~

~~(13) Unrinsed containers that once held oils, lubricants, waste oils, mixed oils or oils mixed with solids which have been emptied so that:~~

~~(A) All material has been removed that can be removed using the practices commonly employed to remove materials from that type of container, e.g., pouring, pumping, and aspirating, and~~

~~(B) No more than 2.5 centimeters (one inch) of residue remain on the bottom of the container or inner liner, or~~

~~(C) If the container is less than or equal to 110 gallons in size, no more than 3 percent by weight of the total capacity of the container remains in the container or inner liner, or~~

~~(D) If the container is greater than 110 gallons in size, no more than 0.3 percent by weight of the total capacity of the container remains in the container or inner liner.~~

The following influent hazardous wastes are approved for treatment by TTUs as provided in Section 66392(d) or by on-site treatment facilities as provided in Section 66392(e) provided

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that the treatment of the waste is not regulated under the Resource Conservation Act of 1976, as amended (42 U.S.C., Sec 6901 et seq) and provided that the technologies used are the ones listed for that waste stream.

(a) Aqueous solutions containing cyanides of less than 5,000 mg/l may be treated with the following processes to treat the cyanide provided that :

(1) Oxidation with either chlorine or hypochlorite, hydrogen peroxide, or ozone provided that automatic pH control or pH alarms are installed and functional.

(2) Reaction with sulfur or polysulfide compounds provided that the pH is maintained at 10 or greater.

(3) Electrochemical oxidation.

(b) Aqueous solutions containing sulfides may be treated with the following process to treat the sulfide:

(1) Oxidation with chlorine, hypochlorite or hydrogen peroxide provided that the pH and oxidants addition rate are automatically controlled.

(c) Aqueous solutions containing hexavalent chromium may be treated to convert the chromium to trivalent chromium by the following process:

(1) Reduction with sodium bisulfite, ferrous sulfate or sulfur dioxide provided at both pH and the reducing agent are automatically controlled. < that

(d) Aqueous solutions with metals may be treated by the following technologies:

(1) pH adjustment or neutralization

(2) Precipitation

(3) Phase separations which separate the solids from the liquid

(4) Ion exchange

(5) Reverse osmosis

(6) Metallic replacement

(7) Plating the metal onto an electrode

(8) Electrodialysis

(9) Electowinning

(10) Solidification or fixation using silicates and/or cementitious types of reactions.

(e) Liquid wastes containing water and organic compounds may be treated by the following technologies provided that any discharge to the air shall comply with applicable air pollution control regulations and that the discharge shall not be hazardous pursuant to the criteria set in Article 11:

(1) Phase separations which separate either solids and/or liquid phases by filtration, centrifugation or gravity settling. Processes such as super critical fluid extraction or which use tanks with internal pressures in excess of 150 psig are excluded from this list of approved processes.

(2) Carbon adsorption

(3) Distillation

(4) Biological processes contained in tanks or containers

(5) Ultraviolet light with or without the addition of hydrogen peroxide or ozone provided that the treatment is in an enclosed process.

(f) Metals sludge, metals dusts and machining waste may be treated by the following technologies:

(1) Solidification or fixation using silicates and/or cementitious types of reactions.

(2) Physical processes which change only the physical properties of the waste such as grinding, shredding, crushing, blending or compacting.

(3) Drying to remove water provided that any discharge to air shall comply with applicable air pollution control regulations.

(4) Separating solids based on differences in physical properties such as size, magnetism or density.

(g) Sludges from metal precipitation, oil/water separation, alum, gypsum, lime, sulfur or phosphate may be treated by the following technologies:

(1) Drying to remove water provided that any discharge to air shall comply with applicable air pollution control regulations.

(2) Solidification or fixation using silicates and/or cementitious types of reactions.

(3) Phase separations of either solid/liquid or solid from solid based on physical differences.

(h) Special Wastes as listed in Section 66740 may be treated by the following technologies:

(1) Solidification or fixation using silicates and\or cementitious types of reactions.

(2) Drying to remove water

(i) Acid or alkaline wastes may be treated by the following technologies:

(1) Neutralization

(j) Soils contaminated with petroleum based fuels which as products had an ASTM distillation midpoint below 450 degrees Fahrenheit may be treated by the following technologies:

(1) In-situ soil venting provided that electric motors are totally enclosed and spark proof, the remediation equipment shall be bonded and grounded, and the extracted vapor shall be treated by one or a combination of the following technologies and that the treatment equipment and the discharge shall comply with applicable air pollution control regulations:

(A) Condensation of the recovered volatile organic carbon compounds and that there is a safety shut down system designed to prevent discharge of untreated hydrocarbon vapors or recovered contaminant to the environment.

(B) Granulated activated carbon.

(C) As fuel and/or the combustion air in an internal combustion engine.

(D) Catalytic oxidation provided that the catalytic oxidizer has appropriate and working monitoring and automatic shutdown control systems to prevent fire and/or explosion hazards or the release of untreated contaminants to the environment.

(E) Thermal oxidation provided that the thermal oxidizer has appropriate and working monitoring and automatic shutdown control systems to prevent fire and/or explosion hazards or the release of untreated contaminants to the environment.

(k) Soils contaminated with petroleum based fuels which as products had an ASTM distillation midpoint equal to or higher than 450 degrees Fahrenheit may be treated with the following technologies:

(1) In-situ soil venting provided that electric motors are totally enclosed and spark proof, the remediation equipment shall be bonded and grounded, and the extracted vapor shall be treated by one or a combination of the following technologies and that the treatment equipment and the discharge shall comply with applicable air pollution control regulations:

(A) Condensation of the recovered volatile organic carbon compounds and that there is a safety shut down system designed to prevent discharge of untreated hydrocarbon vapors or recovered contaminant to the environment.

(B) Granulated activated carbon.

(C) As fuel and/or the combustion air in an internal combustion engine.

(D) Catalytic oxidation provided that the catalytic oxidizer has appropriate and working monitoring and automatic shutdown control systems to prevent fire and/or explosion hazards or the release of untreated contaminants to the environment.

(1) Above ground biological treatment using naturally occurring bacteria provided that:

(A) A suitable liner is installed and maintained to prevent migration of wastes into the adjacent subsurface soil, ground water or surface water at all times during the treatment operations.

(B) A suitable run-off and run-on control system is installed and maintained to prevent migration of any leachate formed and migration of surface water onto the waste treatment pad. Collection and holding facilities associated with the run-on and run-off management systems shall be emptied or managed expeditiously to maintain the design capacity of the systems.

(C) Treatment, storage and disposal of any leachate generated at the treatment pad shall comply with all applicable laws and regulations.

(2) Vaporization followed by condensation followed by carbon adsorption or an afterburner such that all discharges to air shall comply with applicable air pollution control regulations and providing that:

(A) A direct or open flame shall not be used to strip the contaminant from the soil.

(B) The treatment is conducted in a totally enclosed system.

(C) A negative pressure shall be maintained within the system at all times during operation.

(D) The stripper maximum operating temperature shall not exceed 500 degrees Fahrenheit.

(E) All remediation equipment shall be bonded and grounded.

(F) Uncontrolled aeration of the untreated soil shall be minimized.

(l) Soils contaminated with organic liquids may be treated by the following technology:

(1) In-situ soil venting provided that electric motors are totally enclosed and spark proof, the remediation equipment shall be bonded and grounded, and the extracted vapor shall be treated by one or a combination of the following technologies and that the treatment equipment and the discharge shall comply with applicable air pollution control regulations:

(A) Condensation of the recovered volatile organic carbon compounds and that there is a safety shut down system designed to prevent discharge of untreated hydrocarbon vapors or recovered contaminant to the environment.

(B) Granulated activated carbon.

(m) Soils contaminated with metals may be treated with the following technologies:

(1) Solidification or fixation using silicates and/or cementitious types of reactions.

(2) Screening to separate based on size.

(n) Waste oils, mixed oils and oils mixed with solids may be treated by the following technologies:

(1) Phase separations which separate either solids and/or liquid phases by filtration, centrifugation or gravity settling. Processes such as super critical fluid extraction or which use tanks with internal pressures in excess of 150 psig are excluded from this list of approved processes.

(2) Distillation

(3) Neutralization

(4) Separation based on differences in physical properties such as phase, size, magnetism or density.

(5) Reverse osmosis

(6) Ultrafiltration

(o) Unrinsed, emptied containers that once held oils, lubricants, waste or mixed oils or any of the waste streams included above may be treated by the following technologies.

(1) Physical processes that change only the physical properties such as by crushing, shredding, grinding or compacting.

(2) Rinsing with water provided that the rinseate is managed according to applicable regulations.

(p) Two part adhesives may be treated by the following technology:

(1) Mixing the adhesive components together in accordance

with the manufacturers instructions.

(q) Asbestos containing waste may be treated by the following technologies provided that the process shall comply with both air pollution control regulations and worker safety regulations found in Title 8.

(1) Compacting to reduce volume

(2) Fixation using cementitious type reactions.

(r) Water reactive chemicals of 1 gallon or less may be treated by the following technologies:

(1) Reaction with water provided that the reaction products are either a simple acid or base and that these reaction products are then neutralized and provided that the following safety measures are incorporated in the process:

(A) The temperature of the reactor is continuously monitored and maintained below 190 degrees F and

(B) The feed rate of the water reactive compound to the reactor is accurately controlled such that the reactor temperature can be controlled.