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Affirmative Action/Equal Opportunity Employer

**STATE OF CONNECTICUT
V.
TRIRAM CONNECTICUT, LLC**

*I certify that this document is a true copy of a record
(original or photocopy, whichever is applicable)
on file at the Department of Energy and Environmental Protection.*
Signature (four lines), Department of Energy and Environmental Protection

CONSENT ORDER # WSWDH16001

Date Issued: March 10, 2016

A. With the agreement of Triram Connecticut, LLC ("Respondent"), the Commissioner of Energy and Environmental Protection ("the Commissioner") finds the following:

1. Respondent is a limited liability corporation which owns the property located at 150 Brownstone Avenue in Portland, Connecticut ("the site"). Respondent also operated at the site from approximately 1997 until December 31, 2013.
2. Respondent generated hazardous waste at the site.
3. Respondent hired third party environmental contractors to manage hazardous waste at the site on its behalf.
4. Based on the findings of an inspection of the site performed by the Department of Energy and Environmental Protection ("the Department"), Bureau of Materials Management and Compliance Assurance, Waste Engineering and Enforcement Division on August 20th, 21st, and 28th, 2014, September 2nd and 5th, 2014, meetings with Respondent and its representatives on December 3, 2014 and September 16, 2015, and the response of Respondent of June 26, 2015 and September 10, 2015, the Department finds:
 - a. Respondent's waste disposal contractor performed waste determinations, but these waste determinations failed to identify whether each waste generated at the site was a hazardous waste as required by Section 22a-449(c)-102(a)(2)(A) of the Regulations of Connecticut State Agencies ("RCSA"), which incorporates by reference 40 CFR 262.11 with specified changes. Specifically, the Department found that the contents of several containers of materials stored on-site were not adequately identified by Respondent's waste disposal contractor, including, but not limited to, the following:
 - i. At least 6, 55-gallon drums of waste Ad-Here damaged by a fire in August 2010;*
 - ii. Approximately 27, 55-gallon drums of waste Redicote E4868;*
 - iii. 2, 55-gallon drums of waste liquid sodium hydroxide;*
 - iv. 2, 55-gallon drums containing Ad-Here CB and PT-743 cross linker identified in the report of the Department's inspection dated December 31, 2014, revised February 17, 2015 ("the inspection report") as Drums #DKS27 and DKS29;*
 - v. The contents of several badly corroded drums and associated releases to the ground as shown in Photos 1 through 32 of the inspection report.

*Note: In addition to the 2, 55-gallon drums of waste liquid sodium hydroxide, at least 4, 55-gallon drums of waste Redicote E4868, 1, 55-gallon drum of Ad-Here CB, 1, 55-gallon drum of PT-743 cross linker, and at least 1, 55-gallon drum of waste Ad-Here identified in the inspection report as Drums #DKS8, DKS16, DKS17, DKS18, DKS27, DKS29, and DKS 28 respectively, were determined to be hazardous waste through sampling performed during the inspection.

- b. Respondent failed to offer for transport a hazardous waste on EPA Form 8700-22, and, if necessary, EPA Form 8700-22A according to the instructions in appendix Part 262, as required by Section 22a-449(c)-102 of the RCSA, which incorporates by reference 40 CFR 262.20. Specifically, the Department found that materials identified through sampling to be hazardous wastes were shipped from the site using non-hazardous waste manifest forms.
- c. Respondent failed to prepare EPA Form 8700-22 according to the instructions in appendix Part 262, as required by Section 22a-449(c)-102 of the RCSA, which incorporates by reference 40 CFR 262.20. Specifically, the Department found that materials identified through sampling to be hazardous wastes were shipped from the site using temporary ID No. CRW024248900 instead of the EPA ID No. CTD001152115 assigned to the site.
- d. Respondent failed to ensure that each treatment or storage facility receiving hazardous waste receives a one-time written notice which includes the required information in the Generator Paperwork Requirements Table in paragraph 268.7(a)(4) as required by Section 22a-449(c)-108(a) of the RCSA, which incorporates by reference 40 CFR 268.7(a)(2). Specifically, the Department found that no notification was provided to the facility receiving hazardous wastes shipped from the site.
- e. Respondent failed to perform annual personnel training as required by Section 22a-449(c)-102(a)(2)(k) of the RCSA, which incorporates by reference 40 CFR 262.34(a)(4) and 265.16. Specifically, the Department found no documentation indicating that site personnel had been trained to conduct hazardous waste inspections, manage hazardous waste, and respond to hazardous waste emergencies.
- f. Respondent failed to maintain records with job titles, job descriptions and the name of each employee filling each position at the facility related to hazardous waste management as required by Section 22a-449(c)-102(a)(2)(K) of the RCSA, which incorporates by reference 40 CFR 262.34(a)(4) and 265.16(d)(1) and (2). Specifically, the Department found no evidence that job descriptions pertaining to hazardous waste management duties were adequately documented.
- g. Respondent failed to have a contingency plan for the facility designed to minimize hazards to human health and the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water as required by Section 22a-449(c)-102(a)(2)(K) of the RCSA, which incorporates by reference 40 CFR 262.34(a)(4) and 265.51(a) through 265.56. Specifically, the Department found no hazardous waste management contingency plan at the site.
- h. Respondent failed to complete and submit a biennial report as required by Section 22a-449(c)-102(a)(2)(AA) of the RCSA, which incorporates by reference 40 CFR 262.41(a). Specifically, the Department identified through sampling that greater than 2,200 pounds (or 1,000 kilograms) of hazardous waste were stored on-site and no biennial report was filed.
- i. Respondent failed to maintain containers accumulating materials identified through sampling to be hazardous waste in good condition as required by Section 22a-449(c)-102(a)(2) of the RCSA which incorporates by reference 40 CFR 262.34(a)(1)(i) and 40 CFR 265.171 with specified changes. Specifically, the Department found several containers, identified through sampling to contain hazardous waste, being managed at the site in poor condition (rusty, corroded, leaking).
- j. Respondent failed to mark containers accumulating hazardous waste with the words "Hazardous Waste" and a description of contents as required by Section 22a-449(c)-102(a)(2)(J) of the RCSA which incorporates by reference 40 CFR 262.34(a)(3) with specified changes. Specifically, the Department found several containers, identified through sampling to contain hazardous waste, not marked with the words "Hazardous Waste" and a description of contents.

- k. Respondent failed to accumulate hazardous waste in containers that are clearly marked with the date upon which each period of accumulation begins as required by Section 22a-449(c)-102(a)(l) of the RCSA, which incorporates by reference 40 CFR 262.34(a)(2). Specifically, the Department found several containers, identified through sampling to contain hazardous waste, not clearly marked with the accumulation start date.
- l. Respondent failed to provide secondary containment for containers as required by Section 22a-449(c)-102(a)(2)(E) of the RCSA, which incorporates by reference 40 CFR 262.34(a)(l)(i) and 264.175. Specifically, the Department found inadequate secondary containment was provided for several containers identified through sampling to contain hazardous waste.
- m. Failed to segregate containers holding hazardous waste that were incompatible with other wastes or materials stored nearby in other containers by means of a dike, berm, wall, or other device as required by Section 22a-449(c)-102(a)(2)(E) of the RCSA, which incorporates by reference 40 CFR 262.34(a)(l)(i) and 265.177(c). Specifically, the Department identified through sampling containers of ignitable and corrosive RCRA hazardous waste stored at the site amongst combustible materials without any separation.
- n. Respondent failed to maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operations in an emergency as required by Section 22a-449(c)-102(a)(2)(K) of the RCSA, which incorporates by reference 40 CFR 262.34(a)(4) and 265.35. Specifically, the Department found several containers, identified through sampling to contain hazardous waste, not stored in a manner allowing adequate aisle space for inspection of each container.
- o. Respondent failed to locate containers holding ignitable or reactive waste at least 15 meters (50 feet) from the facility's property line as required by Section 22a-449(c)-102(a)(2)(E) of the RCSA, which incorporates by reference 40 CFR 262.34(a)(l)(i) and 265.173(a). Specifically, the Department found at least 1, 55-gallon drum of waste Ad-Here, identified through sampling to be ignitable hazardous waste, stored against a fence on the property line at the north end of the facility.
- p. Respondent failed to inspect the facility for malfunctions and deterioration, operator errors, and discharges which may be causing or lead to: (1) release of hazardous waste constituents into the environment or (2) a threat to human health. These inspections are required by Section 22a-449(c)-102(b)(2) of the RCSA, which incorporates by reference 40 CFR 265.15(a). Specifically, the inspection logs produced by Respondent were insufficient evidence for the Department to conclude that inspections had been adequately performed for all areas accumulating materials identified through sampling to be hazardous waste, including the container storage area located behind the emulsion building and the area where 6, 55-gallon drums of waste Ad-Here were stored.
- q. Respondent failed to maintain and operate a facility in a manner that minimizes the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment as required by Section 22a-449(c)-102(a)(2)(K) of the RCSA, which incorporates by reference 40 CFR 262.34(a)(4) and 265.31.
- r. Respondent failed to obtain a permit from the Commissioner prior to storing hazardous waste at the facility for greater than 90 days as required by Section 22a-449(c)-102(a)(2)(L) of the RCSA, which incorporates by reference 40 CFR 262.34(b). Specifically, the Department identified through sampling that greater than 2,200 pounds of hazardous waste was stored at the facility without a permit to do so.

5. By virtue of the above, the Department finds that Respondent has violated Section 22a-449(c)-102 of the RCSA.
 6. On April 28, 2015, the Department issued Notice of Violation No. WSWDH 15016 to Respondent to correct the violations listed in paragraph A.4 of this consent order.
 7. In correspondence received June 26, 2015, Respondent represented that the violations corresponding to those alleged in paragraph A.4 of this consent order have been resolved by full removal of the waste from the site.
 8. By agreeing to the issuance of this consent order, Respondent makes no admission of fact or law with respect to the matters addressed herein, other than the facts asserted in paragraphs A.1 through A.3 of this consent order.
 9. Respondent demonstrated good faith efforts to resolve the violations alleged in paragraph A.4 above by entering into this consent order with the Department and promptly removing all wastes from the site for disposal at a licensed treatment, storage, and disposal facility.
- B. With the agreement of Respondent, the Commissioner, acting under Sections 22a-6, 22a-131, and 22a-449 of the Connecticut General Statutes ("CGS"), orders Respondent as follows:
1. Respondent shall maintain all hazardous waste handling procedures and facilities in compliance with all the applicable provisions of the RCSA Section 22a-449(c)-100, et. seq., in accordance with the following schedule:
 - a. On or before **thirty (30) days** after the date of issuance of this consent order, Respondent shall retain one or more qualified consultants acceptable to the Commissioner. Respondent shall retain such consultants or retain other qualified environmental consultants acceptable to the Commissioner until this consent order is fully complied with, and within **ten (10) days** after retaining any consultants other than those originally identified under this paragraph, Respondent shall notify the Commissioner in writing of the identity of such other consultant. Respondent shall submit to the Commissioner a description of a consultant's education, experience, and training which is relevant to the work required by this consent order within **ten (10) days** after a request for such description. Nothing in this paragraph shall preclude the Commissioner from finding a previously acceptable consultant unacceptable.
 - b. On or before **thirty (30) days** after the issuance of this consent order, Respondent shall submit a closure plan for the Commissioner's review and written approval in accordance with guidance set forth in the attached "Draft RCRA Closure Guidance for Generators Who Store Less Than 90 Days Container Storage Areas and Tank Systems." The closure plan shall specifically address the areas in which containers of hazardous waste were stored at the time of the Department's inspection. Respondent shall implement the approved plan and submit a report, for the Commissioner's review and written approval, certifying completion of closure activities within **ninety (90) days** of the approved closure plan.
 2. Full compliance. Respondent shall not be considered in full compliance with this consent order until all actions required by this consent order have been completed as approved and to the Commissioner's satisfaction.
 3. Status of Notice of Violation No. WSWDH 15016: This consent order supersedes Notice of Violation No. WSWDH 15016.
 4. Civil penalty. Respondent shall pay a penalty of fifty thousand seven hundred seventy five dollars (\$50,775) as the total civil penalty to be sought by the Commissioner for those, and only those, violations described in paragraph A.4 of this consent order. The penalty shall be paid as follows: Respondent shall remit an initial payment of twenty five thousand three hundred eighty seven dollars (\$25,387) within ninety (90) days of the date of issuance of this consent order and a second payment of twenty five thousand three hundred eighty eight (\$25,388) on or before one hundred eighty (180) days thereafter. These payments must be made in accordance with the protocol described in paragraph B.6 below.

5. Supplemental Environmental Project. In addition to the penalties referenced in paragraph B.4 above, Respondent has agreed to fund a supplemental environmental project ("SEP") or projects acceptable to the Commissioner to advance the State's sustainable materials management goals and objectives according to the Department's February 15, 1996 "Policy on Supplemental Environmental Projects". Therefore, Respondent shall pay fifty thousand seven hundred seventy five dollars (\$50,775) to the Statewide SEP Account in two payments: a payment of twenty five thousand three hundred eighty seven (\$25,387) due on or before two hundred seventy (270) days of the date of issuance of this consent order and a payment of twenty five thousand three hundred eighty eight (\$25,388) on or before three hundred sixty (360) days thereafter, provided Respondent has not received approval from the Commissioner to perform an alternate SEP. Within sixty (60) days of issuance of the order, Respondent may submit an alternate SEP proposal (consistent with the attached policy) to advance the State's sustainable materials management goals and objectives for the Commissioner's review and written approval. If such approval is received, then the payment to the Statewide SEP Account noted above is limited to the difference between the credited value of the SEP and fifty thousand seven hundred seventy five dollars (\$50,775). The proposed alternative SEP shall be implemented in accordance with a schedule approved by the Commissioner. Any payments under this paragraph shall be mailed or personally delivered to the Department of Energy and Environmental Protection, Bureau of Financial and Support Services, Accounts Receivable Office, 79 Elm Street, Hartford, Connecticut 06106-5127, and shall be by certified or bank check payable to the "Connecticut Department of Energy and Environmental Protection", with notation thereon "Statewide SEP Account" and the consent order number identified on the first page of this Consent Order. A copy of the check and any transmittal letter shall also be sent to Julie Dutton, Bureau of Materials Management and Compliance Assurance, Waste Engineering and Enforcement Division at the same address.
 - a. Respondent shall not claim or represent that any SEP payment made pursuant to this consent order constitutes an ordinary business expense or charitable contribution or any other type of tax deductible expense, and Respondent shall not seek or obtain any other tax benefit such as a tax credit as a result of the payment under this paragraph.
 - b. If and when Respondent disseminates any publicity, including but not limited to any press releases regarding funding a SEP, Respondent shall include a statement that such funding is in partial settlement of an enforcement action brought by the Commissioner.
 - c. If Respondent fails to fully perform any SEP in accordance with paragraph B.5 of this consent order, Respondent shall immediately notify the Commissioner in writing of such noncompliance and shall, upon written request by the Commissioner, remit a payment equal to: the total estimated cost, as determined by the Commissioner, of all such SEP(s); plus either \$2,500 or 10% of such total estimated cost, whichever is greater. Within fourteen (14) days after the date of the Commissioner's written request, Respondent shall make such payment in accordance with the remittance procedures for unexpended SEP funds in paragraph B.5 above.
6. Payment of penalties. Payment of penalties under this consent order shall be mailed or personally delivered to the Department of Energy and Environmental Protection, Bureau of Financial and Support Services, Accounts Receivable Office, 79 Elm Street, Hartford, CT 06106-5127, and shall be by certified or bank check payable to the "Connecticut Department of Energy and Environmental Protection." The check shall state on its face, "Bureau of Materials Management and Compliance Assurance, Waste Engineering and Enforcement Division, civil penalty" and the consent order number identified on the first page of this consent order. A copy of the check as well as any transmittal letter shall be mailed or delivered to Julie Dutton, Bureau of Materials Management and Compliance Assurance, Waste Engineering and Enforcement Division at the same address.
7. Sampling and sample analyses. All sampling and sample analyses which are required by this consent order and all reporting of such sample analyses shall be conducted by a laboratory certified by the Connecticut Department of Public Health to conduct such sampling and analyses. All sampling and sample analyses

performed under this order shall be performed in accordance with procedures specified or approved in writing by the Commissioner, or, if no such procedures have been specified or approved, in accordance with EPA document SW-846. Unless otherwise specified by the Commissioner in writing, the value of each parameter shall be reported to the maximum level of precision and accuracy specified in the applicable protocol, and if no such level is specified, to the maximum level of precision and accuracy possible.

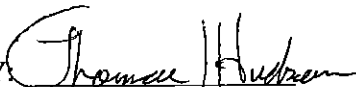
8. Approvals. Respondent shall use best efforts to submit to the Commissioner all documents required by this consent order in a complete and approvable form. If the Commissioner notifies Respondent that any document or other action is deficient, and does not approve it with conditions or modifications, it is deemed disapproved, and Respondent shall correct the deficiencies and resubmit it within the time specified by the Commissioner or, if no time is specified by the Commissioner, within thirty (30) days of the Commissioner's notice of deficiencies. In approving any document or other action under this consent order, the Commissioner may approve the document or other action as submitted or performed or with such conditions or modifications as the Commissioner deems necessary to carry out the purposes of this consent order. Nothing in this paragraph shall excuse noncompliance or delay.
9. Definitions. As used in this consent order, "Commissioner" means the Commissioner or a representative of the Commissioner.
10. Dates. The date of "issuance" of this consent order is the date the consent order is deposited in the U.S. mail or personally delivered, whichever is earlier. The date of submission to the Commissioner of any document required by this consent order shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this consent order, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is deposited in the U. S. mail or is personally delivered, whichever is earlier. Except as otherwise specified in this consent order, the word "day" as used in this consent order means calendar day. Any document or action which is required by this consent order to be submitted or performed by a date which falls on a Saturday, Sunday or a Connecticut or federal holiday shall be submitted or performed by the next day which is not a Saturday, Sunday or Connecticut or federal holiday.
11. Certification of documents. Any document, including but not limited to any notice, which is required to be submitted to the Commissioner under this consent order shall be signed by Respondent or, if Respondent is not an individual, by Respondent's chief executive officer or a duly authorized representative of such officer, as those terms are defined in Section 22a-430-3(b)(2) of the RCSA, and by the individual(s) responsible for actually preparing such document, and each such individual shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, that the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under §53a-157b of the Connecticut General Statutes and any other applicable law."
12. Noncompliance. This consent order is a final order of the Commissioner with respect to the matters addressed herein, and is non-appealable and immediately enforceable. Failure to comply with this consent order may subject Respondent to an injunction and penalties.
13. False statements. Any false statement in any information submitted pursuant to this consent order may be punishable as a criminal offense under Section 53a-157b of the CGS and any other applicable law.
14. Notice of transfer: liability of Respondent. Until Respondent has fully complied with this consent order, Respondent shall notify the Commissioner in writing no later than fifteen (15) days after transferring all or any portion of the facility, the site or the business which is the subject of this consent order or after obtaining a new mailing or location address. Respondent's obligations under this consent order shall not be affected by the passage of title to any property to any other person or municipality.

15. Commissioner's powers. Except as provided hereinabove with respect to payment of civil penalties, nothing in this consent order shall affect the Commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for past, present, or future violations of law. If at any time the Commissioner determines that the actions taken by Respondent pursuant to this consent order have not successfully corrected all violations, fully characterized the extent or degree of any pollution, or successfully abated or prevented pollution, the Commissioner may institute any proceeding to require Respondent to undertake further investigation or further action to prevent or abate violations or pollution.
16. Respondent's obligations under law. Nothing in this consent order shall relieve Respondent of other obligations under applicable federal, state and local law.
17. No assurance by Commissioner. No provision of this consent order and no action or inaction by the Commissioner shall be construed to constitute an assurance by the Commissioner that the actions taken by Respondent pursuant to this consent order will result in compliance or prevent or abate pollution.
18. Access to site. Any representative of the Department of Energy and Environmental Protection may enter the site without prior notice for the purposes of monitoring and enforcing the actions required or allowed by this consent order.
19. No effect on rights of other persons. This consent order neither creates nor affects any rights of persons or municipalities that are not parties to this consent order.
20. Notice to Commissioner of changes. Within fifteen (15) days of the date Respondent becomes aware of a change in any information submitted to the Commissioner under this consent order, or that any such information was inaccurate or misleading or that any relevant information was omitted, Respondent shall submit the correct or omitted information to the Commissioner.
21. Notification of noncompliance. In the event that Respondent becomes aware that it did not or may not comply, or did not or may not comply on time, with any requirement of this consent order or of any document required hereunder, Respondent shall immediately notify by telephone the individual identified in the next paragraph and shall take all reasonable steps to ensure that any noncompliance or delay is avoided or, if unavoidable, is minimized to the greatest extent possible. Within five (5) days of the initial notice, Respondent shall submit in writing the date, time, and duration of the noncompliance and the reasons for the noncompliance or delay and propose, for the review and written approval of the Commissioner, dates by which compliance will be achieved, and Respondent shall comply with any dates which may be approved in writing by the Commissioner. Notification by Respondent shall not excuse noncompliance or delay, and the Commissioner's approval of any compliance dates proposed shall not excuse noncompliance or delay unless specifically so stated by the Commissioner in writing.
22. Submission of documents. Any document required to be submitted to the Commissioner under this consent order shall, unless otherwise specified in this consent order or in writing by the Commissioner, be directed to:

Michelle L. Gore, Sanitary Engineer
Evelyn Silva, Environmental Analyst
Department of Energy and Environmental Protection
Bureau of Materials Management and Compliance Assurance
Waste Engineering and Enforcement Division
79 Elm Street, 4th Floor
Hartford, Connecticut 06106-5127


Respondent consents to the issuance of this consent order without further notice. The undersigned certifies that he/she is fully authorized to enter into this consent order and to legally bind the Respondent to the terms and conditions of the consent order.

TRIRAM CONNECTICUT, LLC

BY: 
Thomas J. Hudson, Manager

2/26/2016
Date

Issued as a final order of the Commissioner of Energy and Environmental Protection.



Michael Sullivan
Deputy Commissioner

Date 3/8/2016

Consent Order # WSWDH16001

Attachments: *Draft RCRA Closure Guidance for Generators Who Store Less Than 90 Days Container Storage Areas and Tank Systems*
Policy on Supplemental Environmental Projects, dated March 25, 1993, rev'd. February 15, 1996

Certificate of Corporate Member

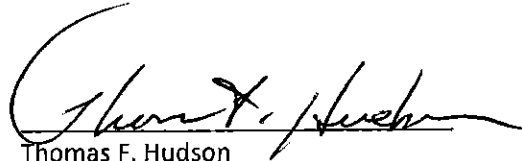
Triram Connecticut, LLC

I, Thomas F. Hudson, Member of Triram Connecticut, LLC, do hereby certify that on February 26, 2016 the following resolution was duly approved at a meeting of the Board of Directors of Triram Connecticut, LLC.

Resolved:

That Thomas J. Hudson, Manager of Triram Connecticut, LLC, is hereby authorized to enter into a certain administrative consent order between the State of Connecticut, Department of Energy and Environmental Protection, and Triram Connecticut, LLC, on behalf of the Corporation;

Date: 2 / 26 / 16



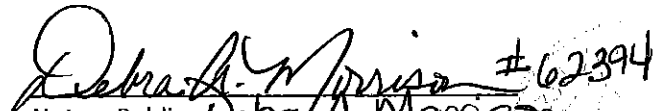
Thomas F. Hudson
Member
Triram Connecticut, LLC

Acknowledgment of Corporate Member:

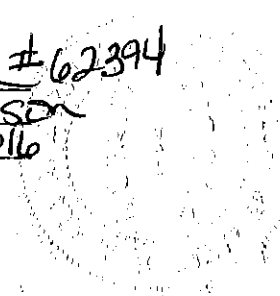
State of Rhode Island
County of Providence

On this, the 26th of February, 2016, before me, Thomas F. Hudson personally appeared and who acknowledged him/herself to be the Member of Triram Connecticut LLC being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by him/herself as Member.

In witness whereof I hereunto set my hand.



#62394
Notary Public: Debra A. Morrison
Date Commission Expires: 6/13/2016





**STATE OF CONNECTICUT
BUREAU OF WASTE MANAGEMENT
ENGINEERING & ENFORCEMENT DIVISION**

79 ELM STREET, HARTFORD CT 06106-5127

TEL. (860) 424-3366 TOLL-FREE (RCRA Questions Only): 1-888-424-4193 www.dep.state.ct.us/

**DRAFT RCRA CLOSURE GUIDANCE
FOR GENERATORS WHO STORE LESS THAN 90 DAYS
CONTAINER STORAGE AREAS AND TANK SYSTEMS**

INTRODUCTION

This document was developed by the Connecticut Department of Environmental Protection (CTDEP) to guide all persons involved in closing Resource Conservation and Recovery Act ("RCRA") container storage areas and tank systems which have been used to store hazardous waste for **LESS THAN**¹ 90 days.

These facilities, known as RCRA "generators", are subject to the provisions of Section 22a-449(c)-102(a)(2)(K) of the Regulations of Connecticut State Agencies, incorporating 40 CFR 265.111, 40 CFR 265.113(a), (b) and (c), and 40 CFR 265.114.

RCRA generator regulations require closure of hazardous waste storage areas in a manner that is protective of human health and the environment, however these regulations neither require that a closure plan be submitted for review and approval nor do they specify the steps necessary for closure. To address this gap in the regulation, this document provides guidance (not regulations) for generators who wish to close.

Generators who plan to discontinue storing hazardous waste, those who are going out of business, and those relocating a waste storage area within their facility and need to close old area(s) will use this document.

Although a written closure plan is not required by regulation or this guidance, we recommend, and in certain circumstances may require that you document all of your closure activities by photographing or video recording each closure activity, (e.g. decontamination, soil excavation, soil sampling events); maintaining analytical results of samples taken after decontamination or removal of contaminated equipment, structures and soil; and maintaining copies of manifests if decontamination activities generated waste which was disposed of offsite. This documentation may also be helpful in meeting the requirements of the Transfer Act (Section 22a-134 of the Connecticut General Statutes) if you ever sell your property.

¹For those generators who stored hazardous waste for greater than 90 days, you may be required to close in accordance with more rigorous requirements. See Attachment A for more information.

This guidance describes how, after the hazardous waste inventory has been removed from the storage facility, you must characterize any residual contamination, clean it up, and verify that the clean-up is complete.

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CHARACTERIZE THE CONTAMINATION

Characterize any residual contamination in three steps:

- I. Develop a list of **constituents of concern (COCs)**. This is a list of all hazardous constituents that were ever stored at your hazardous waste storage area(s);
- II. **Determine if structures or soils are contaminated;**
- III. **Determine the extent of contamination in soils** in order to know how much needs to be cleaned up.

Each step is explained in further detail below.

I. **Constituents of Concern (COCs)**

To develop the COCs for your storage area or tank (regulated unit) you must list all of the hazardous constituents that were ever stored there. Hazardous constituents are those listed in 40 CFR Part 261 Appendix VIII and 40 CFR Part 264 Appendix IX. The following paragraphs A through I are suggested sources of information at your site which can be used for this. You may not have to use every source if one or two sources provide a complete list:

- A. Material Safety Data Sheets,
- B. Hazardous waste inspection reports,
- C. Existing waste analysis records at your facility or the offsite licensed hazardous waste facility which received your waste,
- D. Manifests,
- E. Other environmental permits in place at the facility, e.g. a waste water permit,
- F. Groundwater monitoring parameters, if available,
- G. Interview former employees,
- H. Review CTDEP hazardous waste and water compliance files.
- I. If none of the above are available or adequate, e.g. a site has ceased operation and all records are gone or incomplete, then analyze the waste, structures and/or soil for the constituents listed in **Appendix IX** of 40 CFR Part 264:
 1. Analyze the waste (if still on site) for Appendix IX constituents. Table 1 provides guidance on sampling and analysis of wastes in addition to the following:

- a. Each waste type must be sampled in accordance with Test Methods for Evaluating Solid Waste, dated November 1986, (SW-846). The samples must be representative of all wastes stored at the regulated unit.
 - b. Any Appendix IX constituents detected in the waste that are above the lowest analytical detection level ("hits") must be added to the COC list.
2. Analyze porous secondary containment **structures** (e.g., concrete) for Appendix IX constituents. See Table 1 for guidance on sampling and analysis of porous structures. Any Appendix IX hits must be added to the COC list.
 3. Analyze surrounding and/or underlying soil for Appendix IX constituents. See Table 1 for guidance on sampling and analysis of soil. Any Appendix IX hits are added to the COC list.

II. Determine if Structures or Soils are Contaminated

If you know structures are contaminated, skip this section and go to the section titled CLEAN UP THE CONTAMINATION THAT IS FOUND. If you know soil is contaminated, skip this section and go to the section titled "Determine the Extent of Contamination in Soils". If you believe that neither structures nor soil are contaminated, use the following guidance to verify that the unit is clean.

A. Definitions

1. "**Contamination**" is defined as any COC which is found on/in structures or soil which is above the media closure criteria as measured by both TCLP and mass analysis of a representative sample.
2. "**Media Closure Criteria**" are risk-based standards for each media (structures, soil); they must be developed for each COC. They can be found in the Risk-Based Concentration Table, EPA Region III or the proposed Connecticut Cleanup Standard Regulations which contain "Numeric Cleanup Criteria". If both sources have an MCC for a given constituent, the most stringent must be used.

B. Structures

Verify that structures (e.g. concrete secondary containment system) are clean. See Table 1 for guidance on sampling and analysis of structures

1. Analyze each sample for all COCs, compare each discrete sample result (no compositing of samples) to the relevant media closure criteria. If any result exceeds the media closure criteria (MCC), then contamination is present and it must be cleaned up and verified so as described in the following sections.
2. If each discrete sample result is below the MCC then the structures can be considered free of contamination requiring remediation. Proceed to the next section on determination of the presence/absence of contamination in soils.

C. Soils

Verify that the soils are clean. Inspect the pad for cracks, gaps, slab joints, deteriorating concrete, or anything that could have allowed liquid to pass through to the surrounding or underlying soils. Consider the following:

1. If resurfacing/recoating of pad has concealed cracks, etc. go to step 3 below.
2. Inspect for the above features after a dry sweep of the pad but prior to decontamination,
3. If any of the above features are present, determine if contaminants migrated to the soils using the following procedure:
 - a. Bore a 4-inch core through the containment structure at the suspected conduit(s) and remove plug(s),
 - b. Inspect each plug cross section,
 - c. If feature (e.g. crack) extends through plug, sample each soil horizon down to groundwater or clean soil, whichever comes first, analyze (mass basis) each sample for the indicator COCs or full COC list if indicators are not detected.
 - d. If any sample exceeds MCCs in any soil type then determine the extent of the contamination as described in the next section.
 - e. If crack does not extend through plug but volatile organics are on the constituent of concern list, use a portable organic vapor analyzer to measure soil vapors in the slab borehole.
 - If volatile organics are detected in the borehole, determine extent of the volatile contamination as described in section III.
 - If volatile organics are not detected in the borehole, then further investigation for the extent of contamination in soil (described in the next section) is not necessary.
 - f. Regrout boreholes before proceeding with closure.

D. Soils Contaminated by Tank Systems

A "tank system" includes the tank, the secondary containment structure, and all ancillary equipment directly connected to the tank or secondary containment structure, including piping, pressure relief valves, instrumentation, valves, level sensors.

If you do not think the tank system leaked, verify its condition by conducting a tank system integrity assessment. If you know the tank system leaked then this

assessment is not necessary; proceed to the section titled **“Determine the Extent of Contamination in Soils”**.

The tank system integrity assessment includes:

1. An assessment of the structural integrity of each tank system which is reviewed and certified by an independent, qualified, registered professional engineer.
2. For non-enterable, underground tank systems including ancillary components, the assessment should include a leak test that meets the requirements of 40 CFR 265.191. If the tank is to be removed as part of closure, a visual inspection could be performed in lieu of a leak test.
3. All integrity assessments must include an inspection of each tank system component for cracks, leaks, corrosion, and erosion.
4. For tank systems which had secondary containment for their entire operating life, review the leak inspections or leak-detection system monitoring data to verify that no leaks ever occurred during the lifetime of the tank system. If this information is not available, conduct an integrity assessment as described above.
5. If the tank integrity assessment indicates that there was a potential for leakage then determine the extent of the contamination as described in the next section.
6. In addition to the integrity assessment, the operating practices, e.g. filling/emptying, must be evaluated for potential sources of contaminant release.
7. If tank system integrity assessment shows no corrosion, cracks, etc. and there were no spills during filling/emptying, subsoils need not be investigated for presence or extent of contamination.

- E. **If, after going through the above procedures in paragraphs A through D, no contamination is found, then closure is complete; no further characterization work or subsequent cleanup work is necessary.**

III. Determine the Extent of Contamination in Soils

If contamination is known to be present or was found to be present in soils surrounding or underlying the regulated unit during the previous exercise, the extent of contamination must be determined. Once the extent of contamination is known, you will know how much to clean up.

The following provides guidance on determining the three-dimensional extent of contamination in soils. See Table 1 for further guidance.

- A. If the regulated unit has perimeter berms or a similar feature designed to prevent lateral escape of hazardous wastes in the event of a spill, and there are no historic records of spills released beyond these barriers, then **sampling for the lateral extent of contamination beyond these barriers is not required**. Soils directly beneath the unit, however, still must be characterized both laterally and vertically.
- B. Estimate the depth and perimeter of the contamination. Sample below and outside this estimated volume.
- C. Sample borings should extend to "clean soil" or mean seasonal low groundwater, whichever comes first. Samples should be taken at each soil horizon.
- D. General Sampling and Analysis Guidance for Determining the Extent of Contamination:
 - 1. Use of one or two of the prevalent COCs (indicator parameters) for your initial sampling to save on analytical costs is allowed but the full COC list must be analyzed at the sampling round thought to be at the extent of contamination.
 - 2. For sampling of organics in soil, take from 6 inches below the surface to avoid bias due to volatilization.
 - 3. Perform all site characterization sampling prior to decontamination or removal of containment structures.
 - 4. If any sample result is in excess of any MCC then move outward and/or deeper and resample. The extent of contamination requiring remediation is defined by the outermost or deepest set of samples which contain constituents of concern at concentration levels at or below established MCCs. Once this is reached, no further sampling is necessary. Soils requiring remediation are those which lie within this sampling perimeter.

CLEAN UP THE CONTAMINATION THAT IS FOUND

Decontaminate or remove and dispose of all equipment, structures and soils measured (in the previous section) to be in excess of the media closure criteria.

I. General

- A. When you are performing the clean up, avoid creating other problems like dust, contaminated run-off, etc.
- B. When finished, all equipment used in the cleanup must be decontaminated.
- C. Properly dispose of all wastes generated by the cleanup.
- D. Backfilling of excavations
 - 1. Clean soil must be used; the location and history of the borrow site must be considered to avoid bringing contaminated material on to the site.
 - 2. Backfilled soil must be compacted when placed in the excavation in such a manner as to prevent post-closure settlement.
- E. If you are unable to clean up the contamination that was found due to its nature, extent or location you may contact CTDEP for further guidance.

II. Tank Systems

- A. We encourage removing and disposing of all in-ground and underground tanks. You may abandon in-place provided CTDEP approves in writing and the tank is filled with an inert dry sand or equivalent media.
- B. For additional information on closing tank systems, see Chapter 12 of the Technical Resource Document For The Storage And Treatment Of Hazardous Waste In Tank Systems, dated December 1986, NTIS #PB87-134391.

VERIFY THAT CLEANUP IS COMPLETE

- I. Sample all structures and soils which were contaminated and then cleaned up. Table 1 provides sampling and analysis guidance for soils, porous and non-porous structures.
- II. Media closure criteria must be achieved for each COC at each sample point; comparison of a mean concentration to clean-up criteria is *not* acceptable. Repeat the removal or decontamination of structures or soils if media closure criteria is not achieved.
- III. If subsoils are removed, the floor and sidewalls of the excavation must be sampled and analyzed.
- IV. For tank systems, the tank itself will be non-porous and will require a wipe test (see Attachment B). For tank system piping, triple rinse with an appropriate decontamination solution and analyze the final rinse for all constituents of concern to verify that all media closure criteria have been met.
- V. Media closure criteria (clean-up standards) for wipe samples is non-detect for all COCs; in cases where interferences are encountered, e.g. metals detected from a steel tank, develop a background value by sampling a similar material that was unaffected by the waste.

ATTACHMENT A:
**DETERMINING CLOSURE REQUIREMENTS FOR GENERATORS WHO STORED
HAZARDOUS WASTE GREATER THAN 90 DAYS**

In cases where a generator¹ has stored for greater than 90 days, CTDEP may require more rigorous Treatment Storage and Disposal Facility (TSDF) closure requirements. These requirements can be found in the CTDEP draft document titled RCRA Closure Plan Guidance, Container Storage Areas and Tank Systems, dated November, 1993. Some criteria we may use to decide whether to apply TSDF or generator closure requirements to a particular site are as follows:

1. The number of occurrences of greater than 90-day storage;
2. The reason(s) for greater than 90-day storage (e.g. transporter delay, weather delay);
3. The length of time waste was stored beyond the 90th day ;
4. The quantity of hazardous waste that was stored greater than 90 days;
5. The nature of hazardous waste that was stored greater than 90 days;
6. The presence/lack of secondary containment (e.g. concrete floor and berm);
7. The condition of the storage area secondary containment (e.g. presence of cracks, gaps, staining);
8. The presence of leaking containers;
9. The company's overall compliance history;
10. The groundwater classification in the area where the generator is located;
11. Storage area located indoors or outdoors;
12. Other programs involved, e.g. Property Transfer, Corrective Action;
13. Presence of groundwater contamination.

¹Generators store hazardous waste for 90 days or less

ATTACHMENT B: WIPE SAMPLING PROCEDURE

The following procedure is used to sample non-porous material to verify that media closure criteria have been achieved after decontamination or removal has been completed. Examples of non-porous material are: steel or fiberglass tanks, structural steel (painted or unpainted).

1. Select an area of 1/4 square meter on the equipment/structure to be tested.
2. For analysis of constituents of concern, saturate a cotton gauze with:
 - a. Methanol for volatiles,
 - b. Hexane-acetone mix (1:1), or methylene chloride for semi-volatiles,
 - c. Hexane for PCBs,
 - d. Dilute nitric acid (1:4 nitric acid to deionized water) for metals,
 - e. Dilute sodium hydroxide for cyanide.
3. Wipe the saturated gauze over the entire sampling area (1/4 square meter) repeatedly in the vertical direction, applying moderate pressure. Turn the gauze over and wipe repeatedly in the horizontal direction.
4. Repeat the above procedure for each additional category of COCs (a through e above) with new gauze on a newly selected 1/4 square meter sampling area.
5. Place each gauze in a separate jar with a Teflon seal and submit the samples for laboratory analysis.
6. Analyze each gauze for the appropriate contaminants of concern.

Media closure criteria for wipe samples is non-detect for all contaminants of concern. Repeat the decontamination process and resample if necessary.

Consider the potential for interferences from the material being sampled.

TABLE 1:

RCRA CLOSURE GUIDANCE FOR GENERATORS WHO STORE LESS THAN 90 DAYS SAMPLING AND ANALYSIS GUIDANCE

Objective →	Develop COCs by Appendix IX Analysis of:			Extent of Contamination in Soil		Verify Clean		
	Waste	Porous Structures	Soil	Lateral	Vertical	Soils	Porous Structures	Non-Porous Structures
Number of Samples	1 per waste type	Inorganics: 1/100 ft ² surface area but no less than 3 Organics: 1/1000 ft ² surface area	Inorganics: 1/100 ft ² surface area but no less than 3 Organics: 1/1000 ft ² surface area	1 per 20 ft of circumference outside of contaminated area, minimum 4	1 per each soil horizon down to clean soil or ground water	1/100 ft ² surface area; minimum 3	1/100 ft ² surface area; minimum 3	1/1000 ft ² surface area; minimum 1
Method to Select Sample Locations	N/A (Sample Containers and/or Tanks)	Inorganics: Random & Judgmental ¹ Organics: Use OVA ² to screen location	Inorganics: Random & Judgmental ¹ Organics: Use OVA ² to screen location	At or beyond estimated perimeter of contaminated area	At each crack, gap, or other conduit to subsoils	Random & Judgmental ¹	Random & Judgmental ¹	Judgmental ¹
Sampling Methodology (Composite, Discrete, Chip, Wipe)	Compatible wastes: Composite Incompatible: discrete	Inorganics: Composite Chips Organics: Discrete Chip	Inorganics: Composite Organics: Discrete	Discrete Soil Samples	Discrete Soil Samples	Discrete Soil Samples	Discrete chip samples	Wipe sample (See Attachment B)
Analytical Parameters	Parameters listed in 40 CFR 264 Appendix IX	Parameters listed in 40 CFR 264 Appendix IX	Parameters listed in 40 CFR 264 Appendix IX	All COCs at outermost sample; may use subset for initial samples	All COCs at deepest sample; may use subset for upper samples	All COCs	All COCs	All COCs
Analysis of Mass or Extract from Leach Procedure	Mass	Mass	Mass	Mass and leach ³	Mass and leach ³	Mass and leach ³	Mass and leach ³	Mass

¹Judgmental sample locations are chosen based on appearance, spill locations, previous analytical results, OVA readings, etc.

²OVA: portable organic vapor analyzer

³Leach values can be determined by analysis or by calculating: $[\text{Mass}(\text{mg/kg}) \times 20] = \text{leach}(\text{mg/l})$

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POLICY ON SUPPLEMENTAL ENVIRONMENTAL PROJECTS

Introduction

In the settlement of an environmental enforcement case, the Connecticut Department of Environmental Protection ("Department") will require the alleged violator to achieve and maintain compliance with State environmental laws and regulations and to pay a civil penalty. To further the Department's goals to protect and enhance public health and the environment, in certain instances one or more environmentally beneficial projects, or Supplemental Environmental Projects, may be included in the settlement. While not a formal term of art, the phrase Supplemental Environmental Project ("SEP") refers to a project that may serve in addition to a monetary penalty as the basis for the consensual settlement of an enforcement case. The following is a statement of policy by which the Department will consider exercising a discretionary decision to accept an SEP as part of the settlement of an administrative enforcement case. The Department believes that these projects, if carefully crafted and executed, provide useful environmental benefits beyond what can be secured solely through administrative orders. They can be a particularly useful vehicle in promoting pollution prevention.

Guidance for Discretion

The ultimate decision as to the settlement of an administrative enforcement case rests with the sound discretion of the Commissioner of the Department or his designee. The policies and procedures in this document are intended solely for the preliminary guidance of employees of the Department. They are not intended to, nor do they, constitute rulemaking for the agency, and they may not be relied upon to create a right or a benefit, substantive or procedural, enforceable at law or in equity, by any person. The Department may take an action that is at variance with the policies or procedures contained in this document if the Commissioner or Assistant Commissioner considers it appropriate in a specific case.

A. Criteria for SEP's

A judgment as to the appropriateness of an SEP in a particular case will generally be made in accordance with the following criteria:

1. No Potential for Further Damage to Environment from SEP

SEP's will be allowed only when the Department is satisfied that the SEP could not cause additional damage to the environment or to public health or safety if it is done poorly or if left uncompleted at any time during implementation.

2. Planned, Completed or Required Activities

An SEP will not be allowed for projects which the respondent has already completed, or which the respondent already intends to do or is likely to do.¹ An SEP will also not be allowed for activities which the respondent is required to do by statute, regulation, permit or order or which the Department has the legal authority to require the respondent to do. Under some circumstances, an SEP may provide for accelerated compliance through which a significant environmental benefit is achieved substantially sooner than is otherwise required by law (see discussion under the section entitled, "Pollution Reduction Projects" below).

3. Relationship to Monetary Penalty

An SEP will not totally displace a monetary penalty². A monetary penalty is still necessary

¹ Since the primary purpose of this Policy is to obtain environmental or public health benefits that may not have occurred "but for" the settlement, projects that have been started before the Department has identified a violation, or before the Department has initiated resolution discussions with the respondent, are not eligible as SEP's. Projects that have been committed to or started before the identification of a violation or initiation of enforcement resolution discussions may mitigate the penalty in other ways. Depending on the facts of the particular case, if a company had initiated environmentally beneficial projects before the enforcement process commenced, the initial penalty calculation could be lower due to the lack of recalcitrance, no history of other violations, good faith efforts, lesser severity of the violations, or shorter duration of the violations.

² Under the following circumstances, the Department may allow an SEP constituting a 100%, dollar-for dollar penalty offset: (1) the proposed SEP constitutes a pollution prevention or pollution reduction/waste minimization project; (2) the respondent's compliance history does not suggest a practice or pattern of non-compliance with environmental laws; and (3) the proposed penalty does not exceed fifteen thousand dollars (\$15,000). The Department may also consider

in order to assure that the Department's enforcement actions are effective in deterring future violations by this respondent and others in the regulated community. Penalties also help ensure a level playing field by ensuring that violators do not obtain an unfair economic advantage over their competitors who made the necessary expenditures to comply on time. Penalties also encourage companies to adopt pollution prevention and recycling techniques, so that they minimize their pollutant discharges and reduce their potential liabilities. Accordingly, a settlement of a case that warrants a penalty under the Department's Enforcement Response Policy shall include a monetary penalty, calculated according to the Department's Civil Penalty Policy, when adopted, which is set at a level that captures the respondents's economic benefit of non-compliance plus some appreciable portion of the gravity component of the penalty.

The degree to which the gravity component of the monetary penalty shall be adjusted to reflect the cost of the SEP shall be left to the discretion of the Department. The Department will deem the cost of a proposed SEP to be its projected cost after taxes. The respondent will be required in the consent order to agree that it will not seek or take any federal or state tax deduction, credit or benefit from the SEP. The Department will require the respondent (and generally an independent Certified Public Accountant on behalf of the respondent) to calculate the net present after-tax value of the project and certify under penalty of law that this calculation is correct (Conn. Gen. Stat. Sections 22a-6 and 53a-157 make a knowing false statement criminally actionable).

4. Availability of Resources

It is necessary for the Department to consider the availability of resources in deciding whether to accept an SEP:

a) The estimated amount of Department time and resources required for effective negotiation and drafting of SEP provisions in a consent order and for oversight by the Department of SEP implementation is an extremely important criterion to use in determining whether to include the SEP in a settlement. In addition, in deciding whether to allow an SEP or in designing the form of an SEP, the Department must consider the impact on its own programs. An otherwise eligible SEP will not be allowed if it may be inconsistent with any of the Department's ongoing programs or if it would impose a burden on a DEP program which that program is unable to assume because of resource constraints.

b) The Department will also consider whether the respondent has the technical and economic resources needed to successfully complete the SEP, and will not allow the SEP unless

full penalty mitigation by means of an SEP when the respondent is an agency, board, commission, council or department of the state, a municipality, or a non-profit organization.

the respondent has those resources. In an appropriate case, the respondent may hire outside technical help for the proposed SEP.

5. Available Only if Violations and Pollution Corrected

An SEP may be considered only if violations and all pollution created or threatened by the violations are fully corrected and abated or will be fully corrected and abated in a timely manner under an enforceable consent order. A respondent will not be given additional time to correct the violation or pollution and return to compliance in exchange for conducting an SEP.

6. Relationship to Violation ("Nexus" Requirement)

Generally, an SEP will be approved if the Commissioner determines there is a direct and appropriate relationship between the nature of the violation(s) and the environmental benefits to be derived from the SEP. Alternatively, the Commissioner may approve an SEP which, while lacking a direct nexus to the violation, either furthers the Department's statutory mission or reduces the likelihood of future violations similar to those at issue. The Department prefers SEP's with a direct nexus.

To constitute a "direct nexus" SEP, the SEP must: (i) improve the environment injured by the violation; (ii) reduce the total risk posed to public health or the environment by the violation; (iii) result in the restoration of natural or man-made environments from the actual or potential damage resulting from the violation; or (iv) protect natural environments from actual or potential damage resulting from the violation.

An "indirect nexus" SEP is an SEP consistent with this policy that substantially furthers the Department's statutory mission or reduces the likelihood of future violations similar to those at issue.

7. Initiation

The proposal to do an SEP may be initiated by either the respondent or, with the approval of the program bureau chief, by the Department. The burden of developing the SEP and convincing the staff of its benefits and likelihood of success of the SEP is the responsibility of the respondent. An SEP proposal may be made at any time during an enforcement action, although the Department should consider both the status of the action and the resources that have been committed to it before deciding whether to accept an SEP. Who in the Department has ultimate authority to approve an SEP is discussed in Section C entitled Level of Approval, below.

8. Compliance History

The respondent's compliance history and capacity to successfully and promptly complete the project must be examined during evaluation of a proposed SEP. A respondent who is a repeat offender will be a less appropriate candidate for an SEP than a first-time offender, since a repeat offender has already demonstrated an inability or unwillingness to meet environmental requirements.

9. Third Party Oversight

SEP's may require third-party oversight. In such cases, these oversight costs should be borne by the respondent, and he or she must agree as a part of the settlement to pay for an independent, third-party auditor acceptable to the Department to monitor the status of the SEP.³ The respondent will be required by the settlement to assure that the auditor submits detailed periodic reports directly to the Department, including a final report evaluating the success or failure of the supplemental project.

10. Compliance with SEP

The consent order shall specify time-specific milestones to be met in implementing the SEP, including a completion date. If the respondent does not comply satisfactorily with the terms of the SEP, he or she shall be liable for the amount by which the assessed penalty was reduced, with interest, plus an additional ten per cent charge to cover the administrative costs incurred by the Department in reviewing and approving the failed SEP. The consent order must contain a mechanism for assuring prompt payment, e.g., through stipulated additional penalties for non-payment of the amount of the penalty reduction or the posting of a letter of credit or other acceptable financial security (in the amount by which the assessed penalty was reduced) to be forfeited if the SEP is not fully implemented as approved. Financial security is particularly appropriate when the staff thinks the respondent might use a SEP commitment to delay the payment of a penalty until after the respondent places its assets out of reach or dissolves.

11. Main Beneficiary of SEP

The Department's interest in considering SEP's is to ameliorate the adverse public health and/or environmental impacts of violations. Projects are not intended to reward respondents for undertaking activities that are in their economic self interest (e.g., updating or modernizing a plant to become more competitive). Therefore, a SEP will not be approved when the respondent, rather than the public, is likely to receive the substantial share of the benefits of the SEP. However, an otherwise eligible SEP will not be disapproved simply because it contains ultimate

³ In certain cases (e.g., inland wetland violations), it may be appropriate for another governmental agency to oversee implementation of the SEP if such oversight is acceptable to the Department and the other agency is willing to do it.

economic benefits to the respondent. Indeed, a legitimate purpose of an SEP may be to provide economic incentives to prevent pollution. If the Department believes that a respondent may get a significant economic benefit from a proposed SEP, the respondent must demonstrate to the Department's satisfaction that (1) he or she would not undertake the project without the additional incentive of including it in the enforcement settlement, and (2) the public health and environmental benefits are substantial and that the public interest would be best served by providing this additional incentive.

12. Benefit to DEP Programs

SEP's shall not be used for the primary purpose of obtaining additional DEP resources that are capable of being obtained through ordinary legislative or administrative means (e.g., hiring staff or buying equipment). However, an otherwise eligible SEP will not be disallowed simply because it has the incidental effect of supplementing the Department's resources (e.g., respondent funding an environmental enhancement project which is consistent with the goals of a DEP program but beyond the ability of the Department to fund or perform, and which meets the other criteria in this policy).

B. Categories of Eligible SEP's

Eight categories of SEP's will be considered, subject to meeting the criteria described in preceding sections. Of the eight categories identified below, pollution prevention projects are preferred, especially a pollution prevention project that positively impacts communities where environmental equity⁴ may be an issue.

1. Pollution Prevention Projects

A pollution prevention project reduces or prevents the generation or creation of pollutants through source reduction, or through application of closed-loop processes.

For purposes of this policy, "source reduction" is any practice that reduces the amount of hazardous substance, pollutant or contaminant enters any waste stream or is otherwise released into the environment prior to recycling, treatment, or disposal. Source reduction may include equipment or technology modifications, process or procedure modifications, reformulation or

⁴ Since 1993, it has been the Department's written policy that no segment of the population should, because of racial or economic makeup, bear a disproportionate share of the risks and consequences of environmental pollution or be denied equal access to environmental benefits. The Department is committed to incorporating environmental equity into its policy making and its regulatory activities.

redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, inventory control, or other operation and maintenance procedures. Pollution prevention also includes any project that protects natural resources through conservation or increased efficiency in the use of energy, water or other materials. "Closed loop processes", wherein waste materials produced during a manufacturing process are returned directly to production as raw materials on site, are a type of pollution prevention.

In all cases, for a project to constitute pollution prevention, there must be an overall decrease in the amount and/or toxicity of pollution released to the environment, not merely a transfer of pollution among media. This decrease may be achieved directly or through increased efficiency (conservation) in the use of energy, water or other materials.

2. Pollution Reduction/Waste Minimization Projects

A pollution reduction/waste minimization project is defined as a project that goes substantially beyond compliance with environmental legal requirements to further reduce the amount of pollution that would otherwise be discharged into the environment. The distinction between pollution prevention and pollution reduction/waste minimization is that the former is addressed to a change in the generation of pollutants as part of the industrial process whereas the latter is addressed solely at a reduction in the level of pollutants at the point of discharge or emission (e.g., end of pipe). Under some circumstances, an acceptable pollution reduction project may encompass an accelerated compliance schedule, under which the respondent would significantly reduce pollution by complying with an existing or proposed statutory or regulatory requirement substantially sooner than is required by law. Such "accelerated compliance" projects are not allowable, however, if the regulation or statute provides a benefit (e.g., a higher emission limit) to the respondent for early compliance.

3. Public Health Projects

A public health project provides diagnostic, preventative and/or remedial components of human health care that are related to the actual or potential damage to human health caused by the violation. This may include epidemiological data collection and analysis, medical examinations of potentially affected persons, collection and analysis of blood/fluid/tissue samples, medical treatment and rehabilitation therapy.

Public health SEP's are acceptable only where the primary benefit of the project is the population that was harmed or put at risk by the violations.

4. Environmental Restoration and Protection Projects (Environmental Enhancement Projects)

An environmental enhancement project is a project that goes beyond repairing the damage done to the environment because of the violation, and enhances the environment in the vicinity of the harm caused by the violation. These projects may be used to restore or protect natural environments (such as ecosystems) and man-made environments, such as facilities and buildings, that are geographically removed from the violation. Included is any project that protects the ecosystem from degradation or improves the overall condition of the ecosystem.

With regard to man-made environments, such projects may involve the remediation of facilities and buildings, provided such activities are not otherwise legally required. This includes the removal/mitigation of contaminated materials, such as soils, asbestos and leaded paint, which are a continuing source of releases and/or threat to individuals, if this work is not otherwise required by law.

5. Environmental Assessment and Auditing Projects

An environmental auditing project may constitute an acceptable SEP. Environmental auditing that simply represents general good business practice is not acceptable under this policy.⁵ However, such a project may be considered as an SEP if the respondent undertakes additional auditing practices designed to correct existing management and/or environmental practice deficiencies that appear to be contributing to recurring or potential violations at the facility at issue and at other facilities owned or operated by the same respondent. In general, audits are acceptable as SEP's only when the respondent is a small business or government entity.⁶ These assessments and audits are acceptable as SEP's only when the respondent agrees to provide the Department with a copy of the audit or assessment results certified under penalty of law.

There are four types of projects in this category: (a) pollution prevention assessments; (b) site assessments; (c) environmental management systems audits; and (d) compliance audits.

(a) Pollution prevention assessments are systematic, internal reviews of specific

⁵ It should be noted that the Department has the authority to unilaterally order a respondent to perform environmental audits when, given the facts of the case and the compliance history of the respondent, the Department deems the audits necessary to assure continued compliance. Staff should talk to the Department's counsel in cases where such a requirement in an order would be appropriate.

⁶ For purposes of this policy, a small business is one that employs 100 or fewer individuals. Government entities are state departments and agencies, municipalities, or other political subdivisions of the state.

processes and operations designed to identify and provide information about opportunities to reduce the use, production, and generation of toxic and hazardous materials and other wastes.

(b) Site assessments are investigations of the condition of the environment at a site or of the environment impacted by a site, and/or investigations of threats to human health or the environment relating to a site. A site assessment of an appropriate site other than the site where the subject violation occurred may constitute an approvable SEP. Site assessments include but are not limited to: investigations of levels and/or sources of contamination in any environmental media at a site; investigations of discharges or emissions of pollutants at a site, whether from active operations or through passive transport mechanisms; ecological surveys relating to a site; natural resource damage assessment; and risk assessments. To be eligible for SEP's, such assessments must be conducted in accordance with recognized protocols, if available, applicable to the type of assessment to be undertaken.

(c) An environmental management system audit is an independent evaluation of a party's environmental policies, practices and controls. Such evaluation may encompass the need for: (1) a formal corporate environmental compliance policy, and procedures for implementation of that policy; (2) educational and training programs for employees; (3) equipment purchase, operation and maintenance programs; (4) environmental compliance officer programs; (5) budgeting and planning systems for environmental compliance; (6) monitoring, record keeping and reporting systems; (7) in-plant and community emergency plans; (8) internal communications and control systems; and (9) hazard identification, risk assessment.

(d) An environmental compliance audit is an independent evaluation of a respondent's compliance status with environmental requirements. The value of an environmental compliance audit for purposes of penalty mitigation under this policy is limited to the costs associated with conducting the audit. While the SEP should require all violations discovered by the audit to be promptly corrected, no credit is given for remedying the violation since persons are required to achieve and maintain compliance with environmental requirements.

6. Enforcement-Related Environmental Public Awareness Projects

These projects are defined as publications, broadcasts, or seminars that underscore for the regulated community the importance of complying with environmental laws or disseminate technical information about the means of complying with environmental laws. Permissible public awareness projects may include sponsoring and funding industry-wide seminars directly related to correcting widespread or prevalent violations within an industry, a media campaign to discourage others from similar violations, or a series of public service announcements describing how violations were corrected at a facility through the use of innovative technology and how similar facilities could also implement these production changes. Such projects must be related to the type of violations which are/were the subject of the enforcement action.

Respondents who fund or implement a public awareness project must also agree to publicly state in a prominent manner that the project was undertaken as part of the settlement of an action brought by the Department.⁷

7. Emergency Planning and Preparedness

An emergency planning and preparedness project provides assistance -- such as computers and software, communication systems, chemical emission detection and inactivation equipment, HAZMAT equipment, or training -- to a responsible local emergency response or planning entity. This is to enable these organizations to fulfill their obligations under the Emergency Planning and Community Right-to-Know Act to collect information to assess the dangers of hazardous chemicals present at facilities within their jurisdiction, to develop emergency response plans, to train emergency response personnel and to better respond to chemical spills.

8. Indirect Nexus Projects

An indirect nexus SEP is an SEP consistent with this policy that substantially furthers the Department's statutory mission or reduces the likelihood of future violations similar to those the subject of the pending enforcement action.

Examples of SEP's with an adequate indirect nexus include, in no particular order, the following:

- the purchase of open space for a not-for-profit third party (e.g. Nature Conservancy, local land trusts) to protect natural resources, preserve scenic landscapes and historical resources, or offer public recreational opportunities;
- funding greenway⁸ development by a municipality or not-for-profit third party;
- funding an enforcement related public awareness project, as described above;
- funding research projects relating to environmental protection or conservation of natural resources at a site other than that at which the violation took place;
- provide a suitable fishway to a dam or other artificial obstruction;

⁷ For all other categories of eligible SEP's, if and when the respondent disseminates publicity regarding its funding of the SEP, respondent shall include a statement that such funding is in partial settlement of an enforcement action brought by the Commissioner.

⁸ For purposes of this policy, "greenway" means a corridor of open space that: (1) may protect natural resources, preserve scenic landscapes and historical resources or offer opportunities for recreation or non-motorized transportation; (2) may connect existing protected areas and provide access to the outdoors; or (3) may be a greenspace along a highway or around a village.