

Energy Waste Management and Minimization Standard

I. STANDARD SUMMARY

- This Standard provides Entergy's basic philosophy and expectations regarding waste management issues and minimization.
- Appendix A of this Standard provides the Waste Disposal Vendor Program.
- Please refer to the detailed Standard below for further information.

II. DETAILED STANDARD

1.0 PURPOSE AND APPLICABILITY

The purpose of this standard is to define Entergy's basic position and policy regarding various aspects of solid and hazardous waste management. The standard also provides the company's philosophy and expectations regarding waste minimization and confirms management's commitment to and support for waste minimization efforts. This standard is applicable to all Entergy business functions and operations.

2.0 REFERENCES & CROSS REFERENCES

- 2.1 **Entergy System Policies and Procedures** – [Environmental Management Policy](#) and [Environmental Management System Procedure](#).
- 2.2 **Functional Policies and Guidelines** – Functional specific policies and guidelines regarding this standard are referenced at Entergy's [Environmental Strategy & Policy SharePoint](#) site and on the individual business function environmental websites.

3.0 DEFINITIONS

Solid and hazardous waste are defined in federal, state, and less frequently, local, regulations. This standard defers to those definitions. State and local regulations are sometimes more stringent or more inclusive than applicable federal regulations.

Waste Minimization is defined as the reduction of waste generation, volume, or toxicity at an Entergy location or otherwise on behalf of Entergy. Waste minimization methodologies, in general, may be described in the following list, which is arranged in a decreasing order of preference:

1. Source reduction of waste generation;
2. Use, reuse or recycling of materials at or near the point of generation;
3. Use, reuse or recycling of materials external to the point of generation;
4. Waste treatment; or,
5. Proper disposal using an Entergy-approved waste disposal vendor and site.

The goal of this Standard is to encourage higher-ranking waste and materials management decisions – that is, to prevent generation of waste by making process changes and product substitutions where appropriate and feasible, and where avoidance is not appropriate or feasible, to encourage beneficial use, reuse, or recycling.

4.0 RESPONSIBILITY

All Entergy business functions are responsible for properly managing solid and hazardous waste in accordance with applicable Federal, State, and local laws and regulations. All Entergy business functions are responsible for employing techniques to minimize waste generation. Both reducing and eliminating the generation or the toxicity of waste at the source and proper chemical product/hazardous material use and handling should be prime considerations in process design and company operations. Entergy is committed to identifying and implementing waste reduction opportunities, when practicable, through encouragement and involvement of all employees. All employees should contribute to the proper use and handling of chemical products or other materials that can result in the creation of hazardous waste.

5.0 DETAILS

Entergy is committed to excellence and leadership in protecting the environment. As part of this commitment, our objective is to properly manage solid and hazardous waste, while also working to eliminate or reduce wastes and/or the associated toxicity (i.e., source reduction), when practicable. We strive to minimize adverse impacts through appropriate waste management and minimization. By successfully reducing waste generation and toxicity at its source, the company can achieve cost savings, increase operational efficiencies, improve the quality of our products and services, maintain a safe and healthy workplace for our employees, and improve the environment. Environmental protection,

including waste management and minimization, is every employee's responsibility. Each employee is expected to perform his or her job in an environmentally sound manner and to be conscientious in following proper environmental procedures in his or her daily work. Impacts of a business function's supply chain (on-site vendors, contractors, etc.) also should be considered in assessing the ability of both the business function and the vendor/contractor to comply with legal requirements concerning waste management and minimization.

Proper management of solid and hazardous waste is critical to Entergy's success. All Entergy business functions are responsible for properly managing solid and hazardous waste in accordance with applicable Federal, State, and local laws and regulations. Additionally, Entergy establishes or confirms the following guidelines on certain waste management practices:

- All chemical products proposed for addition to Entergy's chemical inventory must be vetted and approved by the appropriate chemical control process prior to requisition, including all manufactured items for which a product Safety Data Sheet (or MSDS) is required;
- Waste disposal will occur only at sites and through the operation of vendors approved through the Waste Disposal Vendor Program. All waste or recycling vendors are to be evaluated PRIOR TO USE and approved by this process as described in Appendix A of this Standard;
- Entergy contractors are to be responsible for management and timely disposal of any waste materials generated by their activities on Entergy projects or sites, unless otherwise specified by contract;
- Employee- or contractor-generated wastes not produced by activities within the scope of employment or of the applicable contract (for example – waste from an employee's household) are prohibited from being brought onto Entergy sites or managed in Entergy waste containers (this does not apply to insignificant amounts of non-hazardous waste, as, for example, a piece of mail or trash from an employee's lunch);
- All Entergy waste containers are to be managed and secured as to prevent use by the general public;

- Hazardous wastes are to be managed in separate containers from non-hazardous wastes and in accordance with all federal, state, and local regulations (including, without limitation, any prohibition on the dilution of hazardous waste);
- Innovative remediation strategies for reducing volumes of wastes from contaminated site cleanups shall be used where feasible, approved, and allowed by oversight agencies;
- There shall be no open/outdoor burning of any manufactured product waste, including wooden materials such as pallets, cable reels, scrap wood, etc., unless allowed by applicable law and permits and approved by site management. Otherwise, open/outdoor burning should be restricted to land clearing vegetation debris immediately following its generation and must be conducted in accordance with applicable federal, state, and local laws and regulations;
- Chipped vegetation management debris generated by routine management of utility rights-of-way (by contractors or employees) must be disposed of in approved areas only and not placed in jurisdictional waters of the United States, unless allowed by applicable law and permits and specifically authorized by the Entergy project manager;
- There shall be no chipping, shredding, grinding, or shaving of used wooden utility poles or any treated wood waste. Drilling and sawing are acceptable practices to the extent that it is necessary to facilitate placement in the appropriate container – a safety representative should be contacted regarding the protective measures to be taken during these operations. Recipients of intact treated utility poles, cross arms, or other treated wood donated to the public for secondary use must be provided with a consumer information sheet identifying treatment chemical and usage restrictions;
- There shall be no landfilling of any liquid waste. If a liquid material is destined for landfilling, the appropriate solidification technology must be employed to ensure no free liquids are present;
- There shall be no deep well injection of waste material; and,
- Waste generated by equipment sent off-site for maintenance or repair should be anticipated by Entergy personnel and managed by the maintenance/repair contractor with prior input from Entergy to ensure proper management (for example, the ultimate disposal method of oil from transformers). The Entergy

Contract Manager must be aware of the waste management method and disposal facility.

Technologies, methods or chemical control processes which substitute non-hazardous materials and utilize other source reduction approaches are strongly encouraged,, to the extent economically practical, in order to reduce or eliminate hazardous or toxic waste at the point of generation. Such substitutions are viewed as a component of Entergy's overall commitment to pollution prevention.

Entergy seeks to demonstrate its corporate citizenship by setting an expectation with employees to comply with all applicable environmental regulations. Entergy promotes cooperation and coordination between industry, government, and the public toward the shared goal of reducing waste and associated toxicity at its source and recycling in an environmentally sound manner.

6.0 PROCEDURES

Business function procedures and guidelines regarding waste management should be consistent with this standard.

7.0 ATTACHMENTS

Appendix A – Waste Vendor Approval Process

APPENDIX A – WASTE DISPOSAL VENDOR PROGRAM

I. PURPOSE and SCOPE

The purpose and scope of the Waste Disposal Vendor Program (“the Program”) is to ensure that all wastes and recyclable materials which originate at Entergy facilities or operations, unless exempted in Section III A, are managed and disposed of, treated, or recycled in accordance with internal policies and applicable federal, state, and local laws and regulations. The intent of the Program is to provide a process for auditing, reviewing, and approving vendors that dispose of, treat, or recycle Entergy’s waste streams, specifically the site or physical location where the primary, secondary, and tertiary waste streams are treated, recycled, or disposed.

II. PROGRAM MANAGEMENT

Management of the Program resides in Environmental Strategy & Policy (ESP), primarily to ensure the waste disposal vendor audit/review process and waste vendor approval process are independent of the business functions and have sufficient authority to conduct objective assessments free of any conflicts of interest.

Vice-President, Environmental Strategy & Policy

- Ensures adequate resources are available to administer the Program and to ensure an effective waste vendor audit/review process and waste vendor approval process.

Environmental Strategy & Policy

- Administers the Program, providing leadership and management support;
- Provides guidance on corporate policy and expectations of the Program;
- Establishes the scope and criteria of the Program; and
- Facilitates the resolution of conflict.

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Environmental Leadership Team (ELT)

- Reviews and provides feedback on modifications to the Program; and
- Advocates the purpose, scope, and intent of the Program.

III. WASTE VENDOR AUDIT/REVIEW AND APPROVAL PROCESS

DESCRIPTION

Entergy generates wastes which can be categorized as mixed waste (hazardous and radioactive), hazardous waste, non-hazardous waste, and recyclables. Typically, Entergy audits vendors such as solid and hazardous waste treatment and disposal facilities and various recyclers. Although not required by law, conducting waste vendor audits and reviews are in the best interest of Entergy. Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA), financial liability for hazardous substance contamination can be assessed to facility owners and operators, past owners and operators, transporters selecting the facilities for treatment/disposal, and generators who use such facilities for treatment/disposal. Financial liability extends to the costs associated with potential response, removal and remedial actions, and damage to natural resources.

The following wastes and the vendors that dispose of the wastes are excluded from the program:

- Low level and radioactive wastes;
- Scrap metal for recycle that poses no potential environmental hazards or has been properly decontaminated;
- Non-hazardous wastewaters managed at a publicly owned treatment works (POTW);
- Batteries and tires that are swapped out for recycle when new ones are delivered or purchased;
- Properly drained oil filters;
- Sewage treatment sludge;
- Infectious or medical wastes when managed at a State Health Department Approved Facility; and

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Environmental Standards are subordinate governance documents to the Environmental Policy and Environmental Management System Procedure. These documents are reviewed annually and re-approved by the Vice President, Environmental Strategy & Policy.

- Regular municipal trash and inert, essentially insoluble material disposed of at a municipal disposal facility.

The following vendors are excluded from the program **BUT NOT** the waste generated on-site by the vendors):

- On-site environmental service vendors; and
- On-site general contractors

Only vendors approved by the Waste Vendor Review Committee are eligible to store, treat, dispose, or recycle wastes that originate at Entergy facilities or from company operations, except in emergency situations (See Figure 1). A vendor's site that has been placed on the Approved Waste Disposal Vendor List (AWDVL) is approved for disposal of all waste streams allowed by their permits unless exceptions are identified on AWDVL.

Vendors that have been acquired by or merged with other vendors will remain on the AWDVL as long as the physical site/location of disposal remains the same. In the event the acquisition or merger results in a change of the physical site/location of disposal, then the new site/location must go through the approval process described in Figure 1.

When Entergy acquires new facilities, any existing vendors utilized by the new facility will be included on the approved list and then be nominated for an audit/review and be evaluated for continued use.

All companies or individuals utilized to transport wastes covered by the Program must have all required permits, licenses, and training for all waste streams transported.

In an emergency situation when an Approved Vendor cannot be used, the business function should ensure the selected provider is qualified for one-time use (See Figure 2). Documentation shall be required to support the decision for using an alternative provider. Additionally, documentation stating that the vendor was approved for one-time use should be affixed to the shipping paper or manifest for internal auditing purposes.

The AWDVL can be found on the ESP SharePoint site:

<https://myentergy.entergy.com/sites/Environmental/SitePages/Audit%20Program.aspx>.

Each facility has the option to choose the best vendor to support its location.

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SCOPE

The scope of a waste vendor audit/review may include some or all of the following components:

- Visual inspection of the facility.
- Interviews with facility personnel.
- Historical site use inquiry.
- Review of facility Standard Operating Procedures (SOPs) for management of waste materials or safety processes.
- Identification of facility conditions, processes, materials, or wastes present that may pose an environmental and/or safety hazard.
- Review of permits, licenses, consent agreements, etc.
- Review of previous safety, health, and environmental (SH&E) audit reports, inspections, and voluntary protection program (VPP) annual assessments, where applicable.
- Review of soil surveys, topographic maps, flood plain maps, aerial photographs, etc.
- Identification of properties immediately adjacent to the facility which may have a potentially adverse environmental effect on the facility's property.
- Evaluation of insurance and financial records as they relate to the facility's ability to pay for an environmental liability.
- Review of the regulatory agency records relating to the facility's and surrounding facilities' compliance history and OSHA recordkeeping requirements.
- Review of geological, ground water, and surface water conditions of the site.
- Identification of third-party waste management firms that receive wastes from the facilities.
- Review of vendor audits conducted or contracted out by a waste broker being considered to manage Entergy materials.

VENDOR SELECTION AND AUDIT/REVIEW FREQUENCY

The goal for waste vendor audit frequency is three years across all vendor types. In the event a more detailed methodology is needed to establish audit frequency based on the perceived risk of the provider, the following factors should be considered to evaluate risk:

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- Safety performance;
- Service reliability to users (i.e., scheduled and emergency pick-ups);
- Quantity of material sent to the vendor facility;
- Type of material sent (hazardous, non-hazardous, etc.);
- Types of material that the vendor receives from other customers;
- The vendor treatment, disposal, or recycling processes (landfill, incinerator, etc.);
- Changes in waste/recyclable management practices;
- Size and financial strength of the vendor;
- Vendor location;
- Previous audits of the vendor facility;
- Vendor SH&E compliance history/reputation;
- Potential for operations to contaminate groundwater;
- Recent sale or acquisition of assets; and
- Change in compliance status.

Audit frequency is set as shown in the following table:

Vendor/Site Type	Perceived Risk	Minimum Audit Frequency
Transformer Services	High	Every 2 years
PCB Disposal/Handling		
Used Oil Recyclers	Moderate	Every 3 years
Hazardous Waste Disposal		
Universal Waste Disposal	Low	Every 4 years
Solid Waste Disposal (non-haz)		

AUDIT PROCESS

On an annual basis, ESP will review the list of approved vendors and develop an audit schedule as outlined in Section C. ESP will then acquire audits/reviews of these vendors (and their disposal facilities) through CHWMEG, Inc., or another acceptable alternative. Entergy is a member of [CHWMEG, Inc.](#), which is a non-profit consortium of waste

generators that pool resources to provide third-party reviews of waste disposal sites. Vendor site nominations are submitted to CHWMEG once per year and are either accepted into the overall program or can be “sole-sourced” through CHWMEG. An audit for a specific vendor or site can also be conducted outside of the CHWMEG process by a consulting firm or internal personnel.

A vendor audit schedule is maintained on the ESP SharePoint site and is based on the current AWDVL. ESP maintains the membership and interaction with CHWMEG.

ESP shall schedule an appropriate number of audits to insure that all vendors on the approval list are evaluated according to the schedule presented in Section C.

In order to limit Entergy’s liability associated with waste disposal and to minimize the cost of the audit program, new vendors and disposal sites should be kept to a minimum. The submittal of a business case to the Waste Vendor Review Committee and subsequent approval is required for the addition of a new vendor site. The business case must demonstrate the operational need offsets the new liability incurred.

ROLES AND RESPONSIBILITIES

Entergy’s Waste Disposal Vendor Audit Program is administered by ESP. The Entergy Waste Peer Group, Waste Vendor Review Committee, and Business Function Waste Leads support this process. Overall program management is described in Section II. Specific roles as they pertain to the waste disposal vendor audit process, however, are as follows:

Environmental Strategy & Policy

- Review and approve recommendations for process changes;
- Provide oversight and administer the process;
- Nominate facilities for inclusion in the CHWMEG review process on an annual basis;
- Facilitate the Waste Disposal Vendor Audit Review Committee process to approve or reject new vendors or continue Entergy’s relationship with existing vendors; and
- Maintain budget responsibility for the process.

Entergy Waste Peer Group

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Environmental Standards are subordinate governance documents to the Environmental Policy and Environmental Management System Procedure. These documents are reviewed annually and re-approved by the Vice President, Environmental Strategy & Policy.

- Share business function vendor usage experiences and audit/review results; and
- Coordinate with ESP to determine when changes in waste management methods are needed.

Waste Vendor Review Committee

- Participate as needed in meetings to determine the acceptability of new and/or existing waste vendors based on CHWMEG reviews results and other pertinent information.

Business Function Waste Leads

- Communicate any information to the Waste Peer Group and ESP that impacts vendors currently used or under review for use.

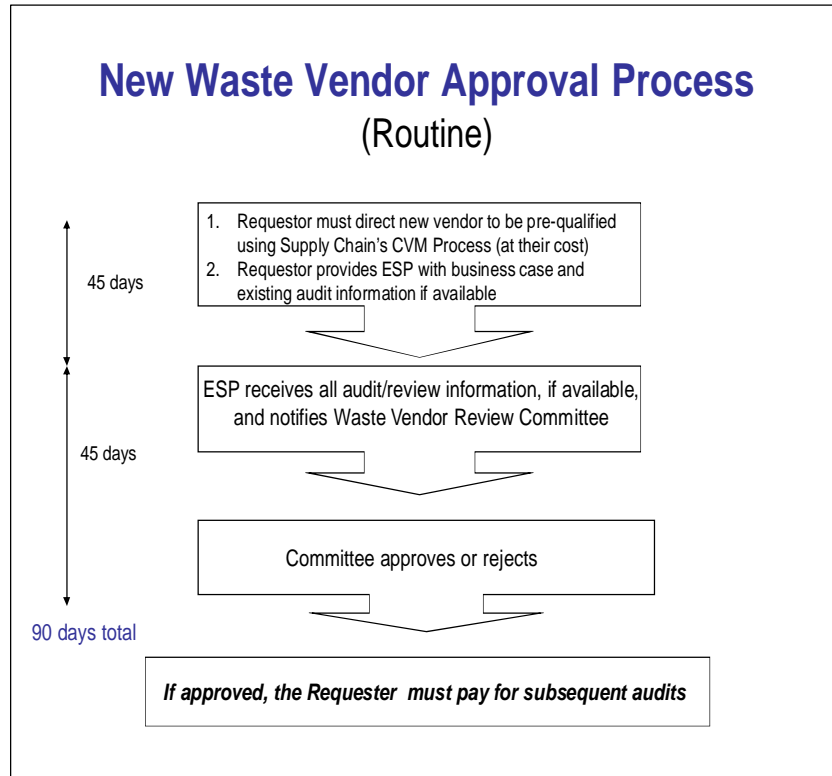
AUDIT REPORT AND RECOMMENDATION

The final audit report summarizes the findings of the audit and presents the facts and risks associated with the use of a facility or disposal site. This report, once received by ESP, will be distributed to the Waste Disposal Vendor Review Committee. Voting committee members shall represent Operations (Fossil, Nuclear, and T&D) and ESP. In the event of a tie, the Vice-President of ESP will cast the deciding vote. Non-voting members should include Legal, Supply Chain, Facilities/Real Estate, Safety, and Insurance & Risk Management. This committee is expected to examine the audit/review report (and any other pertinent information) in a timely manner in order to render an opinion to (1) accept or reject a new vendor and/or (2) determine if Entergy should continue to use the existing vendor.

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Figure 1 illustrates the routine process that must be followed to approve a new vendor. A maximum of 90 days is required to complete this process. Should a vendor be accepted to provide services for Entergy, the business function requesting the service will be required to pay for vendor audits.

Figure 1

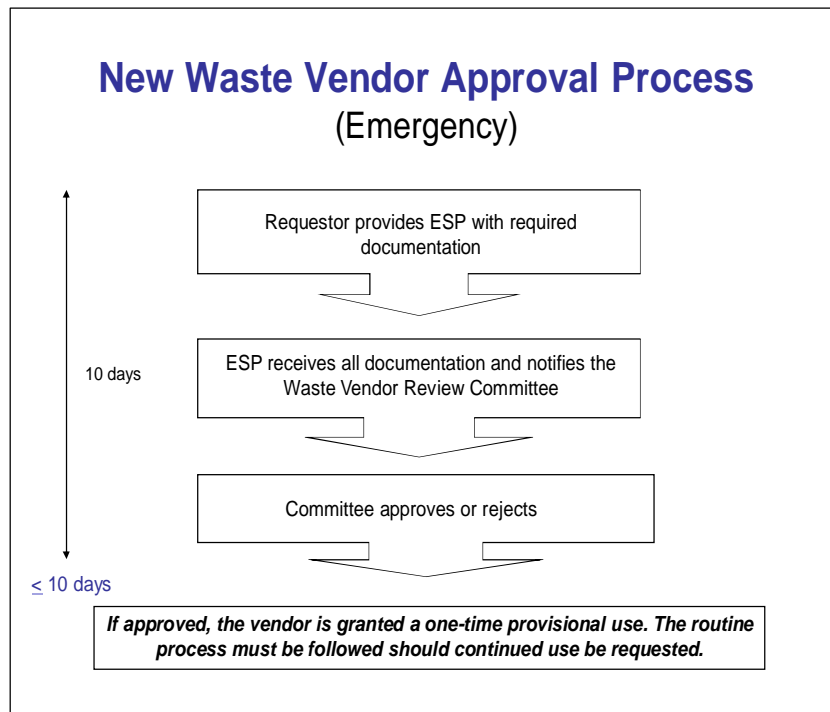


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Figure 2 illustrates the emergency process that must be followed to approve a new vendor. Up to ten business days are required to complete this process. Should a catastrophic event occur that prevents the emergency process from being followed, the business function should manage the material as needed to protect human health and the environment. The respective Vice President associated with the generating facility should be notified of this emergency situation and a copy of this notification should be placed on the shipping documentation for the material managed.

Figure 2



The review committee should reach a consensus regarding its opinion to approve or reject a potential vendor. If a consensus cannot be reached, then ESP will make the final decision in consultation with Legal.

The review committee's decision should identify any restrictions placed upon usage of the vendor and any contractual verbiage that may be required to enforce these restrictions. The committee's decision will be noted in the AWDVL. This list, along

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with copies of the audit reports and the audit schedule, will be maintained on the ESP SharePoint site.

All waste vendor audit reports will be retained by ESP according to Entergy's Record Retention Policy.