

# Managing Storm Debris from Declared Disasters



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## If You Are a County or Municipal Waste Manager:

If you must manage storm debris generated by Hurricane Ike, use this document to understand relevant environmental rules. This document is intended to help you decide a reasonable course of action to follow. If you have any questions, please contact your TCEQ regional office. For your convenience, the table below lists TCEQ regions that were in Hurricane Ike's path and the counties each of these regional offices serves.

<b>In these counties:</b>	<b>Mail written notices to this TCEQ regional office:</b>	<b>Call or fax:</b>
Angelina, Hardin, Houston, Jasper, Jefferson, Nacogdoches, Newton, Orange, Polk, Sabine, San Augustine, San Jacinto, Shelby, Trinity, Tyler	TCEQ Region 10 3870 Eastex Fwy Beaumont TX 77703-1830	<b>Phone:</b> 409-898-3838 <b>Fax:</b> 409-892-2119
Austin, Brazoria, Chambers, Colorado, Fort Bend, Galveston, Harris, Liberty, Matagorda, Montgomery, Walker, Waller, Wharton	TCEQ Region 12 5425 Polk Ave. Ste. H Houston TX 77023-1452	<b>Phone:</b> 713-767-3500 <b>Faxes:</b> 713-767-3761 (Air) 713-767-3691 (Water) 713-767-3646 (Waste)
Anderson, Bowie, Camp, Cass, Cherokee, Delta, Franklin, Gregg, Harrison, Henderson, Hopkins, Lamar, Marion, Morris, Panola, Rains, Red River, Rusk, Smith, Titus, Upshur, Van Zandt, Wood	TCEQ Region 5 2916 Teague Dr. Tyler TX 75701-3734	<b>Phone:</b> 903-535-5100 <b>Fax:</b> 903-595-1562

If you are affected by Hurricane Ike and your county does not appear in this table, find contact information for the regional office that serves you online at [www.tceq.state.tx.us/goto/region](http://www.tceq.state.tx.us/goto/region).

## All Others Who Have Waste Collection Services:

Your city, county, or other local authorities will provide specific instructions on what to do with debris and other waste from Hurricane Ike. If you have received no instructions and you cannot reach local authorities, these are generally good ideas to follow until you hear from them:

As much as possible, separate debris into different piles—for example:

1. Branches, leaves, and other materials that can go into a wood chipper.
2. Metal and related materials.
3. Glass. Gather glass carefully. Before you set it out, double-bag it to avoid accidents.
4. Lumber and other debris from buildings.
5. Furniture and other large items.
6. Appliances. (Use duct tape to hold refrigerators and freezers closed.)
7. Ruined clothing and furnishings.

Set the piles as close to the road as possible:

- If you have a curb near your home, build them on top of the curb, not in the road.
- If you have a ditch and no curb near your home, build them in the grassy area between the ditch and the road. Be sure not to block the ditch or the road.

If you have questions and cannot find another place to get answers, call our Debris Management Assistance Hot Line at 800-687-7057. We will help you find and contact your local authority.

# Managing Storm Debris from Declared Disasters

## 1.0 Purpose

The purpose of this document is to provide clear guidance on options for managing and disposing debris from a disaster.

Large volumes of storm debris are generated following natural disasters such as hurricanes, floods, and tornados. The Texas Commission on Environmental Quality (TCEQ) has developed the following guidance to assist in managing and disposing of debris associated with the cleanup of areas affected by these storms.

During cleanup and recovery efforts following a severe storm, large volumes of various types of storm debris will need to be disposed. Storm debris includes:

- Trees, brush, and other vegetative matter;
- Clean lumber (not including painted, stained or chemically treated wood);
- Construction-demolition waste (sheet rock, roof shingles, treated wood, plastics, etc.);
- Other municipal solid waste (including putrescible waste including animal carcasses and special waste); and
- Hazardous waste.

## 2.0 Disaster Declarations

Significant storms are often declared a disaster area either by the Governor of Texas or the President of the United States. Among other considerations, the declaration will be specific to certain counties and allow those counties to obtain financial and technical assistance for managing the storm debris. In order to qualify for that assistance, refer to information available on the Federal Emergency Management Agency (FEMA) Web site at <[www.fema.gov](http://www.fema.gov)>.

## 3.0 Sorting and Stockpiling Debris Prior to Disposal or Burning

Various state and federal regulations apply to the disposal of specific types of debris. The TCEQ recognizes that under the difficult conditions following a severe storm, full compliance with these regulations may significantly delay the removal of storm debris from affected areas. With this in mind, wastes should be sorted to the maximum extent possible and only vegetation and clean wood waste types should be burned. Stockpiling waste prior to burning is covered by an authorization to burn the waste. Options for disposal of segregated debris that should not be burned are summarized in Attachment A and discussed in later sections of this document.

## 4.0 Options for Burning

### 4.1 Outdoor Burning

The TCEQ authorizes certain types of outdoor burning in [30 TAC Chapter 111, Subchapter B](#). For more information see [Outdoor Burning in Texas](#) (TCEQ publication RG-049).

In response to Hurricane Ike, TCEQ has broadened the authority of county and municipal governments to burn storm debris in counties impacted by the storm, as provided in 30 TAC

§111.115, “Executive Director Approval of Otherwise Prohibited Outdoor Burning.” This authorization has been provided via letters issued to individual impacted counties, and may be viewed online at <<http://www.tceq.state.tx.us/response/burnletters.html>>.

Please note that all such burning is limited to the burning of brush, trees and other plant growth, or untreated lumber that is causing a detrimental health and safety condition. All burning is limited to storm debris resulting from Hurricane Ike.

TCEQ may extend enforcement discretion to individuals in these counties provided you contact your county and/or municipal authorities to determine how they wish to handle the burnable debris (e.g. will they pick it up, or let you drop off at a staging area?). If both the county, and if applicable, the city allow, you may burn limbs, trees, and other plant debris yourself, provided you do not create a nuisance condition or a traffic hazard, as prohibited by 30 TAC §101.4 and 101.5 respectively, you comply with all general requirements in 30 TAC §111.219 (except §111.219(2) if the municipality allows) and you do not violate any local ordinances.

Please realize that several counties have indicated they will allow this type of burning, but they wish to wait until they can ensure that fire protection personnel and equipment are available and fully operational.

Anyone wishing to file a complaint regarding inappropriate burning may call the TCEQ Environmental Complaints Hot Line at 888-777-3186 or send an e-mail to <[complaint@tceq.state.tx.us](mailto:complaint@tceq.state.tx.us)>.

## ***4.2 Trench Burning (Air Curtain Incinerators)***

TCEQ rules authorize the use of ACIs in the disposal of debris during emergency cleanup operations such as the removal and disposal of debris from a hurricane or other significant storm event.

### **What is an ACI?**

An ACI is “an incinerator that operates by projecting a curtain of air across an open chamber or pit in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor.”

### **What is trench burning?**

Trench burning is the operation of an ACI using a trench and air manifold system.

### **What debris may be authorized to be burned in an ACI without a case-by-case review?**

- Trees, brush and other vegetative matter;
- Clean lumber (not including wood that has been painted, stained, or pressure treated with chemicals); and
- Animal carcasses.

### **How do I obtain authorization for use of an ACI?**

ACIs used in the cleanup of storm debris listed above from a **declared** disaster are exempt from registration requirements. Instead, verbal notification to your local TCEQ regional office prior to burning is required to provide general information on the burning activities for our records. Depending on the emergency, someone from the regional office may visit the site to assess the

situation. Once the regional office has granted permission during these circumstances, no permit is necessary as long as the agreed limitations are followed.

### **Where can I operate an ACI?**

In an effort to reduce the potential of nuisance conditions, ACIs must be operated at least 300 feet from the nearest property line and any other facility with an air permit. If the distance requirement cannot be met, please contact your applicable TCEQ regional office for a case-by-case review. Inside the front cover of this document you will find a list of TCEQ regional offices and their contact information.

### **How long can I operate a portable ACI?**

Portable facilities temporarily located at a site can operate for up to 180 consecutive calendar days or 600 hours, whichever occurs first. Once the ACI is no longer in operation, it must be removed from the site. If operation of the ACI is necessary for a longer period of time, please contact your applicable TCEQ regional office for a case-by-case review for an extension.

### **Are there any other operational requirements for ACIs?**

ACIs must be operated as outlined in TCEQ rules. However, the TCEQ recognizes that there may be circumstances in which operating an ACI within the provisions of the rules may not be practical. In these cases, please contact your applicable TCEQ regional office prior to burning for a case-by-case review.

### **Ash Disposal**

The ash generated from an ACI can be disposed in a landfill. If a trench burner is used, the ash can be disposed of in the burn trench, however a separate trench cannot be created for ash disposal.

### **Record Keeping Requirements**

The operation of an ACI should be recorded and compliance demonstrated including utilizing a run time meter, maintaining written records or log of the hours of operation, operational or location requirements, and any operating instructions being followed by the operator. Ash from trench burning which is left in place it must be deed recorded.

### **Federal Requirements**

As long as the ACI is being used to dispose of debris created from a declared disaster within eight weeks of the event, federal requirements do not apply to the ACI.

## **5.0 Options for Management of Segregated Debris**

Options available for management of segregated storm debris are summarized in Attachment A.

### ***5.1 Construction-Demolition Debris Disposal***

Construction-demolition waste is defined in TCEQ rules as “waste resulting from construction or demolition projects: includes all materials that are directly or indirectly the by-products of construction work or that result from demolition of buildings and other structures, including, but not limited to, paper, cartons, gypsum board, wood, excelsior, rubber, and plastics.”

## **How should construction-demolition waste be disposed?**

Most construction demolition waste should be disposed of in a permitted landfill. See Attachment A for disposal options for other wastes that may have resulted from demolition such as clean lumber, household/commercial waste, white goods, household hazardous waste, compressed gas containers, tires, and vegetation.

### ***5.2 Household Hazardous Waste Collection***

The TCEQ can assist communities with the implementation of a collection method for storm victims to safely dispose of unusable household hazardous waste (HHW). Substances normally found in homes include:

- paints, thinners and turpentine, furniture strippers, wood preservatives, stains and finishes;
- pesticides, insecticides, flea collars and sprays, roach and ant killers, rat and mouse poisons, and herbicides;
- oven, toilet, drain, and rug and upholstery cleaners;
- bleaches, disinfectants, mothballs, ammonia-based and powdered cleansers, and swimming pool chemicals (i.e. chlorine tablets, muriatic acid, salts, etc);
- floor and furniture polish;
- household and automobile batteries; and
- automotive products, including antifreeze, transmission and brake fluids, motor oil, and gasoline wastes.

This material is usually segregated as residents and businesses gather debris and clean their houses. These HHW should be stored in a safe place for later disposal.

Normally, municipal landfills are able to accommodate the small quantities of hazardous wastes generated by households without threat to the environment. The extent of the emergency however, may increase the volume of household hazardous waste to levels that may be unsuitable for disposal in a landfill. Counties or cities can collect the household hazardous waste using a staging area to store the waste for collection and disposal by a contractor. Prior to initiating this HHW collection, you should contact the TCEQ.

If you have any questions regarding household hazardous wastes issue or if you are a public official in one of the affected counties declared eligible for relief and need assistance for household hazardous waste issues, please contact your local Disaster District Office or the TCEQ.

### ***5.3 Non-Household Hazardous Waste Disposal***

If drums or other containers of hazardous or unknown wastes are identified in any of the affected counties, you can call the State of Texas 24-hour spill hot line at 1-800-832-8224 to report the location of the containers.

Do not approach containers of unknown substances or hazardous materials.

### ***5.4 Animal Carcass Disposal***

Preferably, dead animals should be buried in pits or trenches, or by mounding. Disposal of dead animals should always be done in a manner that protects public health and safety, does not create a nuisance, prevents the spread of disease, and prevents adverse effects on water quality. The owner or operator of a farm or facility is responsible for disposal in a timely and sanitary manner.

These TCEQ regulatory guidance publications offer useful information about carcass disposal:

- *Disposal of Domestic or Exotic Livestock Carcasses* (RG-419)
- *Outdoor Burning in Texas* (RG-049)

### **On-Site Burial**

It is recommended that you call the TCEQ regional office in your area for assistance if you intend to bury more than 10 carcasses in one location. Inside the front cover of this document you will find a list of TCEQ regional offices and their contact information.

The burial site should not be located in an area with a high water table or with very permeable soils. Animals should be buried far enough from standing, flowing, or ground water to prevent contamination of these waters, and in an area not likely to be disturbed in the near future. Pits or trenches are recommended to be 3 to 5 feet deep with stable slopes (but not greater than 3 percent). Where possible, it is best to dig to clay subsoil, but not so deep as to risk the walls caving in. All dead animals shall be covered the same day of burial with at least 3 feet of cover.

Suggested burial setbacks should be at least 300 feet from the nearest drinking water well and at least 300 feet from the nearest creek, stream, pond, lake, or river. The burial site cannot be located in a floodplain and must be at least 200 feet from adjacent property lines.

A metes and bounds description of the burial site must be recorded in the county deed records unless the site has a certified Water Quality Management Plan (WQMP). When a disaster has occurred, recording the site on the deed *before* the animals are buried is not required. The deed recordation can be done at a later date when the emergency is over. While there is no specific timeframe for deed recording, this documentation can be used in filing insurance claims, for income tax purposes, and possible financial assistance.

A sample affidavit giving a description of the number of carcasses, and a general description of the burial location is available from the TCEQ. The TCEQ's approved Affidavit of Facts, or an affidavit providing a description of the number of carcasses and a general description of the burial location may be used. Contact the regional office that serves your county (see the list inside the front cover of this document) or the TCEQ central office at 512-239-0436 for assistance obtaining these documents.

### **Off-Site Disposal**

Non-diseased animals may also be disposed of in a Type I Municipal Solid Waste Landfill, with a renderer, or in a commercial waste incinerator.

### **Outdoor Burning**

If unable to bury or landfill animals, then outdoor burning is allowed. Nuisance conditions should be avoided, and burning should not occur when a traffic hazard would be created. The animals must be burned until the carcass is thoroughly consumed.

If an animal is suspected to have died from a disease, then on-site burning is required. An ACI may be used, if available. If disease is suspected, contact the Texas Animal Health Commission. Also, refer to *Outdoor Burning in Texas* (TCEQ publication RG-049) for additional guidance.

### **Call Before You Dig on Your Property!**

It is important to call 1-800-344-8377 (DIG-TESS) or 1-800-545-6005 (Texas One Call) before you dig on your property to make sure you will not accidentally hit a gas or utility line.

**Attachment A**  
**Options for Management of Segregated Storm Debris**

<b>Waste Type</b>	<b>Examples of Waste Type</b>	<b>Disposal/Burn Option</b>
Vegetation	Trees, Brush	Preferred: Recycle Option: Outdoor burn using an ACI, if possible Option: Type IV MSW Landfill Option: Type I MSW Landfill
Clean Lumber	Lumber, siding, plywood and similar wood materials that have not been painted, stained or chemically treated	Preferred: Recycle Option: Outdoor burn using an ACI, if possible Option: Type IV MSW Landfill Option: Type I MSW Landfill
Animal Carcasses	Non-diseased poultry, cattle, domestic animals	Preferred: On-site burial/ mounding Preferred: MSW Type I Landfill Option: Outdoor burn, using an ACI if possible Option: Off-site disposal using a renderer or a commercial waste incinerator
	Diseased poultry, cattle	Preferred: Outdoor burn using an ACI, if possible
Household/ Commercial Waste	Putrescible waste	MSW Type I Landfill
	Garbage, refuse, rubbish	MSW Type I Landfill
Construction or Demolition Waste	Asbestos containing debris -shingles, siding, insulation, tiles	MSW Type I Landfill w/ Special Waste Authorization
	Painted/stained/treated wood	Preferred: MSW Type IV Landfill Option: MSW Type I Landfill
	Non-asbestos roof shingles	Preferred: Fuel source for cement kilns with appropriate air authorization Option: MSW Type IV Landfill Preferred: MSW Type I Landfill



<b>Waste Type</b>	<b>Examples of Waste Type</b>	<b>Disposal/Burn Option</b>
	Sheetrock	Preferred: MSW Type IV Landfill Option: MSW Type I Landfill
White Goods	Refrigerators	Preferred: Recycle Option: MSW Type I Landfill
	Stoves	Preferred: Recycle Option: MSW Type I landfill
	Washer/Dryers	Preferred: Recycle Option: MSW Type I landfill
	Batteries	Preferred: Recycle (Lead acid batteries are not allowed in MSW landfills). Option: Utilize an HHW Collection Event
Household Hazardous Waste	Cleaning products	Option: HHW Collection Event Option: MSW Type I Landfill Option: Permitted HW facility
	Paints, Solvents	Option: HHW Collection Event Option: MSW Type I Landfill Option: Permitted HW facility
	Pesticides	HHW or Pesticide Collection Event
	Automotive products	Option: HHW Collection Event Option: MSW Type I Landfill Option: Permitted HW facility
	Electronics: VCRs, Computers, TVs, etc.	Option: Recycle HHW Collection Event Option: MSW Type I Landfill Permitted HW facility
Compressed Gas Containers		Recycle
Tires		Pick-up by authorized Scrap Tire Transporter or delivery to authorized processing or end-use facilities.