



*Florida Department of Environmental Protection
Guidance for Establishment, Operation and Closure of
Staging Areas for Hurricane-generated Debris
November 19, 2004 (updated 09-22-05)*

General Information

1. The Department of Environmental Protection (Department) understands that in addition to other requirements by the Federal Emergency Management Agency (FEMA), staging areas must be approved by the Department in order for the owner/operator of the staging area to receive Public Assistance funds from FEMA. Field authorizations for staging areas by the Department may be issued prior to or following a site inspection by Department personnel for staging areas to be used for temporary storage and processing of Hurricane-generated debris. Field authorizations for debris staging areas may only be issued by the Department subsequent to an Executive Order by the Governor declaring a state of emergency or an Emergency Final Order by the Secretary of the Department authorizing debris staging areas.
2. Field authorizations for staging areas may be requested by providing oral or written notice to the Department containing the following information.
 - A description of the staging area design: For example, is the staging area an open field or paved? Is it near bodies of water or potable wells? What areas would be used for staging debris and for processing?
 - Plans for operation of the staging area: For example will it be used for staging only or also processing? What wastes will be managed and what are the anticipated operating hours and days of the week when the site will be open? Who can bring wastes to the site? If processing occurs, what type is expected?
 - The location of the staging area should be provided including the address and if possible, its latitude and longitude or directions from major roadways.
 - The name, address, and telephone number of the site manager should be provided.
3. The Department prefers that requests for approval of staging areas be made by solid waste officials in the county or city where the staging area is located. Such staging areas do not need to be owned by the local government but must have county or city (or its designated contractors) oversight and management. The Department may consider approving the private operation of staging areas on a case-by-case basis.

4. The owner or operator of each staging area should keep records of the amount and type of waste received, waste sent off-site for disposal or recycling, and waste left on-site. Such records can be very valuable for demonstrating that the staging area has been operated in accordance with applicable regulations and orders. These records should be kept at a location designated by the site manager and made available for review by Department staff upon request.

Location of Staging Areas

5. If possible, it is advisable to test the soil, groundwater and/or surface water at a proposed staging area prior to receipt of Hurricane-generated debris to establish pre-existing conditions.
6. Staging areas for debris other than yard trash and uncontaminated vegetative debris must not be located within 500 feet of a potable water well, unless otherwise approved by the Department. Staging areas for yard trash and uncontaminated vegetative debris must not be located within 100 feet of a potable water well, unless otherwise approved by the Department.
7. Staging areas for debris other than yard trash and uncontaminated vegetative debris must not be located within 200 feet of a natural or artificial body of water, unless otherwise approved by the Department. Staging areas for yard trash and uncontaminated vegetative debris must not be located within 50 feet of a natural or artificial body of water, unless otherwise approved by the Department.
8. In no case should a staging area be located in wetlands or a water body.

Operation of Staging Areas

9. Staging areas should have:
 - Stormwater controls, such as silt fences, to prevent discharge of contaminated runoff into water bodies where such discharge may cause violations of Department standards (example: turbidity);
 - Some method to control the offsite migration of dust, wood chips or other debris residuals from vehicular traffic and from the handling of debris and ash;
 - Some type of access control to prevent unauthorized dumping and scavenging; and,
 - Spotters to correctly identify and segregate waste types for appropriate management.

10. Only construction and demolition debris, land clearing debris, yard trash, vegetative waste, or Class III waste may be stored at the staging area. Class I waste (such as household garbage, putrescible waste, or mixed wastes containing these materials) must be removed from the staging areas and disposed of as soon as practicable to prevent odor, vectors and sanitary nuisances. Again, spotters should be used during waste pickup and/or at the staging areas to correctly identify and segregate waste types for appropriate management. The following management options for the Hurricane-generated debris must be followed.
 - Class I wastes, including all mixed wastes, must be disposed of at a Class I landfill or, except for asbestos-containing materials, in a waste-to-energy facility.
 - Non-recyclables and residuals generated from segregation of Hurricane-generated debris shall also be disposed of in a Class I landfill or waste-to-energy facility.
 - Uncontaminated yard trash may be disposed of in permitted lined or unlined landfills, permitted land clearing debris facilities or permitted construction and demolition debris disposal facilities.
 - Uncontaminated yard trash and clean wood may be processed at a registered yard trash processing facility.
 - Construction and demolition debris that is mixed with other Hurricane-generated debris need not be segregated from other solid waste prior to disposal in a lined landfill. Construction and demolition debris that is either source-separated or is separated from other Hurricane-generated debris at an authorized staging area may be managed at a permitted construction and demolition debris disposal or recycling facility upon approval by the Department of the methods and operational practices used to inspect the waste during segregation.
 - Unsalvageable refrigerators and freezers containing solid waste such as rotting food that may create a sanitary nuisance may be disposed of in a Class I landfill; provided, however, that chlorofluorocarbons and capacitors must be removed and recycled to the greatest extent practicable using techniques and personnel meeting the requirements of 40 CFR Part 82.
11. Burning of Hurricane-generated yard trash, other vegetative debris, and in some cases demolition debris, provided reasonable efforts are made to limit the demolition debris being burned to untreated wood, is allowed in air curtain

incinerators (ACIs) if the conditions of the appropriate Emergency Order¹ are followed. The following additional information is provided for operation of the ACIs and management of the ash residue.

- The ACI burn area should have a minimum setback distance of 100 feet from the debris piles and 1000 feet from the nearest building, or as required by the local Fire Department.
 - Ash should be removed from the ACI burn pit when the level reaches approximately two feet below the lip of the burn pit and the burn should be extinguished 2 hours before removal of the ash.
 - As required in the Order, ash residue from the combustion of yard trash or clean wood wastes may be disposed of in a permitted disposal facility, or may be land spread in any areas approved by local government officials except in wellfield protection areas or water bodies.
 - As required in the Order, ash from the combustion of other Hurricane-generated debris shall be disposed of in a Class I landfill. Metals or other non-combustible materials segregated from the ash residue may also be disposed of in an unlined, permitted landfill.
12. Open burning of Hurricane-generated vegetative debris must receive prior authorization from the Division of Forestry. Ash from this burning may be disposed or used as described above for ACIs.
13. Chipping and/or grinding of Hurricane-generated vegetative debris is encouraged to help reduce the volume of the material. The Department recommends the following guidelines for managing the volume reduced material.
- In accordance with National Fire Protection Association², mulch and chip piles should not exceed 18 feet in height, 50 feet in width and 350 feet in length. Piles should be subdivided by fire lanes having at least 25 feet of clear space at the base around each pile. These piles should not be compacted.
 - Smoking should only be allowed in designated areas well away from the combustible material.

¹ The Emergency Orders can be obtained from the Department's website at the following address: <http://www.dep.state.fl.us/mainpage/em/>. The Emergency Orders also include information on the management of domestic wastewater residuals.

² NFPA 230, "Standard for the Fire Protection of Storage"

- Possible uses of the size reduced material include: (1) a soil amendment where it is disked into the soil or mixed with potting soil; (2) as mulch for weed control, moisture retention, soil temperature control, erosion control or slope stabilization; (3) fuel; (4) feedstock for composting operations; (5) animal bedding material; and (6) pulp wood.
- Use of the size reduced material as a soil amendment must be at normally accepted agronomic rates as determined by industry practice. Recommendations for appropriate application rates by the Institute of Food and Agricultural Sciences³ (IFAS) may be used, and can be obtained from the local IFAS Agricultural Extension agent.
- The use of mulch must be considered beneficial rather than disposal. Mulch must not be placed in water bodies or on wetlands.

Closure of Staging Areas

14. Staging areas for Hurricane-generated debris are temporary locations that can be used for the duration of the Emergency Order or as otherwise approved by the Department. The following guidelines apply to the closing of temporary staging areas.
- Owner/operators of the staging areas must contact the Department prior to closing a staging area to discuss and coordinate what will be required for closure including environmental sampling, if needed.
 - All Hurricane-generated debris must be removed by the expiration of the Emergency Order, unless otherwise approved by the Department.
 - Mulch produced from processing vegetative debris may be left on-site if prior approval is obtained from the Department. The Department will consider these requests on a case-by-case basis.
 - Areas that were only used to stage vegetative debris, or ash from burning solely vegetative debris, will not require any environmental sampling after the debris or ash is removed unless there is reason to believe that the area may have become contaminated (e.g., significant visible staining or known contaminant releases in the area).
 - Areas that were used to stage mixed debris, or ash from burning mixed debris, will normally require environmental sampling after the debris or ash is removed unless there is reason to believe that no contamination of

³ The web address for IFAS is <http://www.ifas.ufl.edu/>

the area occurred (e.g., the area is paved with asphalt or concrete and there is no visible evidence of staining or known contaminant releases).

- When environmental sampling for soils and groundwater is needed, it should typically include at least one soil sample and one groundwater monitoring well in areas showing significant visible staining or areas believed to be impacted by the staged waste or ash. Unless otherwise approved by the Department, these samples should normally be analyzed for total RCRA metals, volatile organic compounds and semi-volatile organic compounds using approved EPA methods. The Department can also require other approaches to conducting environmental sampling at staging areas on a case-by-case basis.

15. The Department must be informed in writing when all closure activities at the staging area are completed. If environmental sampling was conducted as part of the closure activities, then the closure notice should include the results of this sampling, unless otherwise approved by the Department.