Debris Management Plan
Hurricane Katrina

Louisiana

DEBRIS MANAGEMENT PLAN
HURRICANNE KATRINA
DR-FEMA-1603-LA

Table of Contents

5.0 Appendices

5.1 Catastrophic Death from Natural Disaster, Guidelines for Cremation of Animal Carcasses (USDA)

5.2 Hazardous Materials and Waste Removal Plan (EPA)

5.3 Building/property Evaluation Decision Trees (EPA)

5.4 EPA & Federal Partners Warn Of Potential Environmental Health Hazards (EPA)

5.5 Notification to the Public on the Identification and Handling of Common Household Waste (HHW) Products (EPA)

5.6 Decision Tree on Final on Disposition of Structures (EPA)

5.7 ATC-45 Rapid Evaluation Safety Assessment Form (USACE)

5.8 State of Louisiana TEMPO School Location for Asbestos (LDEQ)

5.9 Condemnation and Demolition of Buildings (USACE)

5.10 Louisiana Approved Debris Sites List (LDEQ)

5.11 LDEQ Hurricane Katrina Debris Management Plan (LDEQ)

5.12 Draft Operations Plan – Debris Removal, Debris Reduction, and Site Management Hurricane Katrina Recovery Mission (USACE)

5.13 Tables of Debris Estimates in Louisiana (LDEQ)

5.14 EPA Guidance on Demolition, Burning, and Opening Closed Landfills (EPA)

5.15 EPA Access Authority (EPA)

5.16 FEMA Guidance Documents (FEMA)

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1.0 PURPOSE

The intent of this debris management plan is to formalize a process that will enable the State of Louisiana, Environmental Protection Agency (EPA), U.S. Army Corps of Engineers (USACE), and the Federal Emergency Management Agency (FEMA) to comprehensively manage funding for large scale and complex debris clearances.

The plan will address the responsibilities of the various Federal, State and local governmental agencies to manage the removal and disposal activities for the designated parishes. This plan will also assist the Federal agencies, State, and parishes with contracting and contract monitoring in order to avoid controversial eligibility, contractual, and environmental problems.

Hurricane Katrina created massive amounts of debris in Louisiana that must now be removed. Federal agencies have worked with the State of Louisiana and local authorities to address the many issues raised by the need for prompt, safe removal. Much debris management has already occurred. This document sets forth a debris management plan that identifies the federal and state agencies involved in debris removal efforts and their respective responsibilities. More importantly, it specifies the steps that are being taken by federal, state and local agencies to manage and remove the debris. While the plan takes into account applicable legal requirements, it represents a broader vision of how to handle debris in ways that achieve timely removal, public health protection, and efficiencies through recycling and reuse of salvageable debris. To the extent circumstances change, this plan may be revised as appropriate. Attached as appendices are relevant state and federal documents and other reference materials related to debris management operations in Louisiana.

2.0 PARTICIPATING AGENCIES

Federal:

Federal Emergency Management Agency, Lead Federal Agency
Environmental Protection Agency
U.S. Army Corps of Engineers
United States Department of Agriculture (USDA) / Natural Resources Conservation Service (NRCS)
United States Coast Guard (USCG)
United States Forest Service (USFS),
Department of Transportation/Federal Highway Administration (DOT/FHWA)
United States Fish and Wildlife Service (USFWS)
The Centers for Disease Control and Prevention/Agency for Toxic Substances and Disease Registry (CDC/ATSDR)

State:

Louisiana Office of Emergency Preparedness
Louisiana Army National Guard (LANG)
Louisiana Department of Environmental Quality (LDEQ)
State Highway Administration
Department of Natural Resources
State Fire Marshal
Department of Public Health
State Levee Board
Louisiana State Police (LSP)
Louisiana Department of Natural Resources (LDNR)
Louisiana Department of Wildlife and Fisheries (LWLF)
Louisiana Culture, Recreation, and Tourism (LCRT)
Louisiana State Fire Marshals Office (LFMO)

Local:

Parish Homeland Security and Emergency Preparedness
Department of Public Works (DPW)
Solid Waste Department (SWD)
Parks, Building Inspectors
Parish Sheriff's Offices

2.1. PARTNERSHIPS

2.1.1 Commitment To Coordination Among State, Local, & Federal Agencies

Projects of the size and scope of the response to the aftermath of Hurricane Katrina can not be successfully completed without close coordination and collaboration by Federal agencies, State agencies, and Parish governments. Coordination prevents misunderstandings, duplication of effort, and delays. Each organization that is represented in this Plan brings the necessary strengths, knowledge, experience and resources to ensure that this Plan will be implemented as rapidly as possible in order to make it possible to begin the rebuilding.

2.1.2 Process For State Requests For Federal Assistance

Under a Stafford Act supported disaster response, Federal agencies work very closely with our local and State partners conducting joint assessments and determining the scope of work within the environmental mission. After field assessments are complete, the local or State agency/entity defines the need and specific assistance required by the federal government.

As part of the FEMA process, the local or State agency/entity develops an Action Request Form identifying the specific work or mission being requested. For the environmental mission under the FEMA command structure, EPA coordinating Emergency Support Function (ESF) #10 (Oil and Hazardous Materials Response) and USACE coordinating ESF #3 (Public Works and Engineering) can assist local or State officials in completing the Action Request Form. The request is then submitted to the State Emergency Operations Center (EOC) to be reviewed and signed by the State Coordinating Officer (SCO).

Once signed, the Action Request Form is provided to the FEMA Operations representative in the State EOC for action. The Action Request Form is then forwarded to FEMA's Joint Field Office (JFO) where the mission is formally tasked, tracked, and funded under an existing environmental Mission Assignment in ESF #10 or ESF #3, or a new Mission Assignment is created for that task. EPA through ESF #10 and USACE through ESF #3, will notify FEMA when the requested task or work is completed and the Mission Assignment will be closed once all financial matters are addressed.

3.0 MISSION STATEMENT

3.1 GENERAL

On 29 August 2005, areas of southern Louisiana received severe damage from Hurricane Katrina. These damages resulted in a request for a Presidential Major Disaster Declaration within the State of Louisiana, and its amendment (1 of 3), as they pertain to debris removal. This declaration was issued on August 29, 2005.

Initial Federal Register Notice (August 29, 2005)

> "The parishes of Acadia, Ascension, Assumption, Calcasieu, Cameron, East Baton Rouge, East Feliciana, Iberia, Iberville, Jefferson, Jefferson Davis, Lafayette, Lafourche, Livingston, Orleans, Pointe Coupee, Plaquemines, St. Barnard, St. Charles, St. Helena, St. James, St. John, St. Mary, St. Martin, St. Tammany, Tangipahoa, Terrebonne, Vermilion, Washington, West Baton Rouge, and West Feliciana for Public Assistance Categories A and B (debris removal and emergency protective measures), including direct Federal assistance. For a period of up to 72 hours, assistance for emergency protective measures, including direct Federal assistance, will be provided at 100 percent of the total eligible costs. The period of up to 72 hours at 100 percent excludes debris removal."

Amendment No. 1 (September 1, 2005)

> "I amend my declaration of August 29, 2005, to authorize Federal funds for debris removal and emergency protective measures (Categories A and B), including direct Federal assistance, under the Public Assistance program at 100 percent of total eligible costs, for a 60-day period retroactive to the date of the major disaster declaration. This adjustment to State and local cost sharing applies only to Public Assistance costs and direct Federal assistance eligible for such adjustments under the law."

Hurricane Katrina directly impacted 31 parishes, resulting in 55 million total cubic yards of debris. This debris contains unknown amounts of Hazardous Household Waste (HHW) and Hazardous Toxic Waste (HTW). Additionally debris within the flood zone has been impacted by uncontrolled release of sewage and petroleum hydrocarbons (other sources of contamination are not known). An estimated 600,000 residential structures were impacted - 77% were totally destroyed. Over

6,000 commercial structures were impacted - 67% were totally destroyed. The New Orleans Metropolitan area was under water with pumping operations continuing. Emergency debris clearance will begin in the outlying areas and structure demolition will be needed on a large-scale basis. Presidential declaration for Category A and B has been made requesting full funding authority.

Currently there are 31 Parishes (Table 1) that have been designated for debris removal under public assistance for debris. Because of the expedited nature of the declaration, preliminary damage assessments are being conducted.

3.2 ESTIMATED QUANTITIES OF DEBRIS IN LOUISIANA

The Agencies developed estimates for the quantities of debris. This continues as an ongoing process and revisions will follow. Appendix 5.13 includes tables of debris estimates. In addition to special wastes such as household hazardous wastes, cars and boats, appliances, and so forth, approximately 50 million cubic yards of debris already needs removal, and 70 million cubic yards or more may be created by future demolition of structurally unsound or uninhabitable buildings and homes.

3.3 CLEARING PLAN FOR DESIGNATED EMERGENCY ROUTES

This is the responsibility of State and local governments, in association with police and fire officials. Debris removal for this portion of the mission can be handled by State or local forces. If State or local contractors have an existing competitively bid contract with a government agency and if that contract is reimbursable under the FEMA Public Assistance Program, the contractors may be used.

3.4 LOUISIANA PARISHES DESIGNATED FOR DEBRIS REMOVAL

TABLE 1 - LOUISIANA PARISHES DESIGNATED FOR DEBRIS REMOVAL

Acadia Parish	Lafayette Parish	St. Martin Parish
Ascension Parish	Lafourche Parish	St. Mary Parish
Assumption Parish	Livingston Parish	St. Tammany Parish
Calcasieu Parish	Orleans Parish	Tangipahoa Parish
Cameron Parish	Plaquemines Parish	Terrebonne Parish
East Baton Rouge Parish	Pointe Coupee Parish	Vermilion Parish
East Feliciana Parish	St Bernard Parish	Washington Parish
Iberia Parish	St. Charles Parish	West Baton Rouge Parish
Iberville Parish	St. Helena Parish	West Feliciana Parish
Jefferson Parish	St. James Parish	
Jefferson Davis Parish	St. John the Baptist Parish	

4.0 CONCEPT OF OPERATION:

4.0.1 Debris/Demolish Coordinating Committee

There are a number of entities involved in debris operations, and there are a myriad of issues that will be addressed in this plan. Specific plans are attached as appendices to this plan. Agencies represented should include:

All Federal, State, and local response agencies will operate under the Unified Command System (UCS). LOHSEP will activate Debris Task Force that is comprised of appointed members from LOHSEP, LDEQ, LCRT, LDHH, LDOTD, LDAF and Federal agencies [FEMA, USACE (ESF #3), EPA (ESF #10)]. The designee of the Adjutant General will co-chair the Debris Task Force with the FEMA Deputy Public Assistance Officer for Debris (DPAOD). The Debris Task Force may be comprised of multiple working groups as appropriate. For Hurricane Katrina, there will be working groups for Inundated and Non-Inundated areas. The operation will be divided into phases.

4.1 GENERAL RESPONSIBILITIES

As more fully discussed in the plan, each agency has prescribed responsibilities.

U.S. Army Corps of Engineers (ESF #3):

1. Provide personnel for the debris removal team for mission execution.
2. Obtain a contractor to execute the mission in accordance with this agreement.
3. Coordinate landfill and burn site operations and arrange for final disposal of the debris.

State of Louisiana:

1. Provide Rights of Ways, Hold Harmless Agreements.
2. Obtain all rights of entry and permits within its scope of authority.
3. Establish criteria and procedures for classifying debris, selecting disposal methods, and approving disposal operations.
4. Condemn the properties and provide a list of condemned structures, demolition priorities, and designations to appropriate landfill.
5. Forward to FEMA Region VI collected demolition/debris removal related insurance proceeds from insured landowners.

U.S. Environmental Protection Agency (ESF #10):

1. Manage hazardous and toxic materials
2. Establish household hazardous waste collection centers.
3. Assist with white goods disposal including removal of CFCs.
4. Assess and monitor environmental impact of debris management activities.

4.1.1 Debris Categories and Lead Agencies

Debris categories (e.g. household hazardous waste, cars, vegetative debris), along with their methods of handling and disposition, procedures, and issues, are described in detail in:

Appendix 5.11 for activities performed by the State,
Appendix 5.12 for activities performed by the USACE and its contractors,
Appendix 5.2 for activities performed by the EPA and its contractors, and
Appendix 5.1 dealing with carcasses and animal wastes.

4.1.2 Phased Approach – Prioritization of Debris Removal

To the extent practicable, a phased approach to debris management will be pursued according to the guidelines below (some of these phases may happen concurrently):

Phase One: Emergency Debris Clearance: State and Local resources will perform emergency debris clearance.

Phase Two: Removal/Reduction/Disposal: USACE contractors will be responsible for the removal, reduction, and disposal of storm generated debris

Phase Three: Removal/Reduction/Disposal of Curb Side Debris: USACE contractors will be responsible for the removal, reduction, treatment where necessary, and disposal of storm generated debris.

Phase Four: Removal/Reduction/Disposal of Demolition Materials (This phase of the plan shall specifically address activities within New Orleans):

USACE contractors will be responsible for the removal, reduction, treatment where necessary, and disposal of storm generated debris, along with coordination with all appropriate agencies.

Volume of debris destined for landfills will be reduced by recycling, grinding, and other approved methods. In addition, open or air curtain burning may be used.

Note: All the partners will be working concurrently to address areas of responsibility. See also, Appendix 5.12.

4.2 OTHER RESPONSIBILITIES

4.2.1 Collection and Sorting of Debris

Designated State and parish officials are responsible for determination of clearing priorities.

Sectoring will be the responsibility of USACE.

Disposal methods for debris may include on-site treatment, disposal and/or landfills. Various types of landfills will be utilized including permitted hazardous waste, construction and demolition (C&D) or solid waste. In addition, emergency disposal sites may be authorized by LDEQ. On-site disposal may include the use of Resource Conservation and Recovery Act (RCRA) units.

Storm-generated abandoned personal property will be handled in accordance with State and local laws and local office of emergency planning policies. In absence of individuals being able to salvage personal property such as boats, cars and motor homes, etc., disposal, removal, and or reduction will be in accordance with local regulations.

During the immediate debris removal response, the State of Louisiana and local parishes will utilize local landfills for emergency route clearing operations. This operation should only include removal of debris to re-open major routes in the affected area. Contaminated debris will be managed by the EPA and USACE and include health and safety provisions, waste characterization, profiling, treatment, packaging, transportation, and disposal as appropriate. Source removal of contamination may also be performed under contaminated debris actions. Household hazardous waste and other hazardous materials discovered during Phases One through Four debris removal will be addressed by EPA after relocation to central collection points in accordance with ESF #10. Tracking of manpower and equipment usage is required throughout all phases of the recovery mission by the appropriate State agency.

Procedures for collecting and sorting debris are discussed in Greater Detail in Appendix 5.11 and 5.12.

Collection of Household Hazardous Waste and Orphan Drums & Containers

The collection and disposal of household hazardous waste and orphan drums & containers will be tasked to ESF #10. EPA will continue to set up collection points in communities for household hazardous wastes. The hazardous and toxic waste material, beyond contaminated debris will be removed by the appropriate state agency, or assisted by contractors working under an EPA mission assignment at the pick-up sites. Most hazardous and toxic waste will consist of containers filled with fuel oil and propane tanks, containers of unidentified material, paint, pesticides, and herbicide containers, spoiled food, Freon removal and batteries.

This topic is discussed in greater detail in Appendices 5.2, 5.11, and 5.12.

Collection of Liquid and Semi-Liquid Wastes

The collection and disposal of liquid and semi-liquid wastes will be tasked to ESF #10. This topic is discussed in greater detail in Appendices 5.2, 5.11, and 5.12.

Collection of Garbage Waste

Garbage disposal will be in appropriate landfills equipped for handling methane. This is discussed in greater detail in Appendices 5.11 and 5.12.

Collection of Vegetative Debris

This is discussed in greater detail in Appendices 5.11 and 5.12.

Timber Salvaging

Recognizing the inherent value of fallen trees that may have economic value and the need to reduce waste volumes and find beneficial reuses, every reasonable effort will be followed to salvage timber and locate private entities for collection and processing.

The State Forester (Cyril Legune 225-925-4500) estimates that $1.5 billion board feed of soft saw timber (pine) and 800 million board feet of hardwood has fallen and available for reclamation. The State Forester is working with timber companies to recover as much of the downed timber as possible. The first priority is to clear and manage areas of fallen timber near urban areas in order to reduce

fuel source (i.e. prevent fires). Other areas will be managed as timber companies can complete the work.

Building/Structural Debris

A large number of damaged homes will be assessed in accordance with this plan as more fully described herein (Appendices 5.6, 5.9, 5.11, 5.12, and 5.14). The Louisiana Department of Environmental Quality has provided the following estimates of the evaluations that will be made in the four parishes as shown:

Parish	Total Number of Homes	Estimated Percentage of Homes Damaged	Estimated Number of Homes Damaged
Orleans	215,091	80%	172,078
Plaquemines	10,481	100%	10,481
St. Bernard	26,790	90%	24,111
Jefferson	187,907	30%	56,372
Total Homes Damaged			263,037

For those homes that will have to be demolished, the LDEQ plan outlines work to take place in 4 square block increments. Assessments will be made to determine whether the resulting debris can be reused, removed to landfills, burned or otherwise disposed. Where burning may occur, above ground pits will be constructed and air curtain destructors equipped with misters will be employed to burn waste. Ash will be collected and disposed or reused based on representative sampling results. Monitoring will be conducted for asbestos, lead, and other potential hazards. The LDEQ's best case estimate using this scenario indicates the demolition will be complete and sites ready to rebuild in six months following the necessary approvals under applicable state and federal statutes and/or authorities.

The EPA and LDEQ are refining a guidance document relating to asbestos management strategies during demolition, and it will be added to the next update of this document.

Sediment Management

Sediment samples will be analyzed to determine the contaminant levels. Based on those findings, USACE will determine the appropriate disposal methods which may include such options as: utilization of sediment as daily landfill covers, disposal in place, or disposal in an appropriate landfill. See Appendix 5.11 for Louisiana's requirements on sediment.

Special Wastes (Automobiles, white goods, boats, electronics, etc.)

This is discussed in more detail in Appendices 5.2, 5.11, and 5.12. In addition estimates of the quantities of special wastes can be found in Appendix 5.13. See also, Section 4.6 on Beneficial Reuse of Debris.

Animal Carcasses

Animal carcasses will be disposed of in a sanitary manner by cremation, deep burial, or rendering. Companion animals will be disposed by local agencies (NCRS). See Appendix 5.1.

Human Remains

Human remains (HR), when discovered, will be flagged and reported to the appropriate authorities, e.g., National Disaster Medical System (NDMS), Disaster Mortuary (D-MORT), and operations will cease in the immediate area.

4.2.2 Disposition Of Debris

Open Burning Site Selection and Guidelines

Both the state and the USACE set specific guidelines for selecting sites for waste accumulation, debris management, and controlled open burning. Procedures are also established to insure efficient combustion of debris. These procedures are described in detail in Appendices 5.11 and 5.12

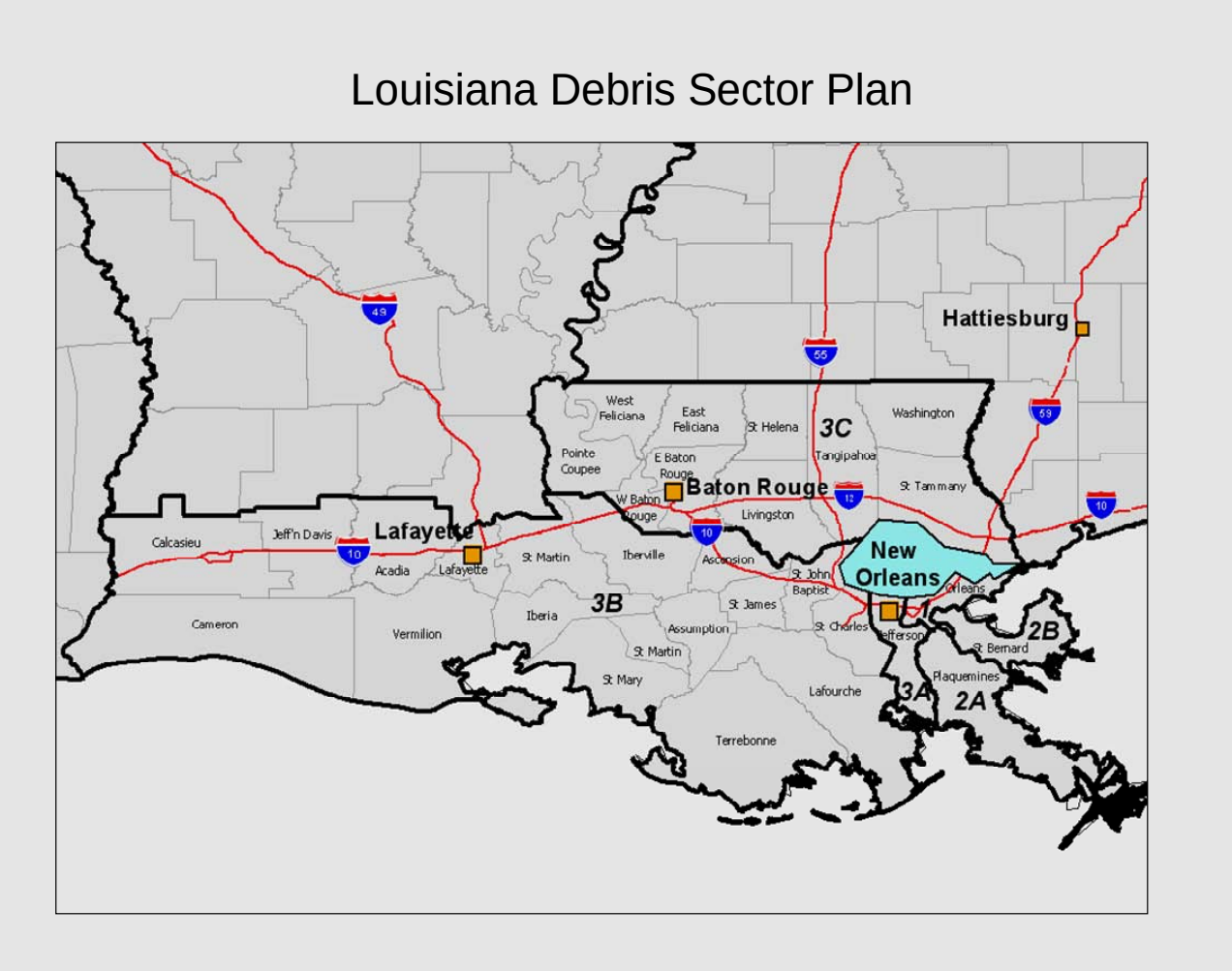
The EPA will also establish an air monitoring network to help assess air quality impacts during debris management activities. EPA has issued guidance on Demolition, Burning, and Opening Closed Landfills is included in Appendix 5.14.

Existing Landfill Capacity, Siting of New Landfills, and Debris Management Sites

The LDEQ and the Parish governments are actively identifying potential staging and disposal sites. Appendix 5.10 includes a map of known potential sites and a table describing the available land disposal sites. The table includes information on location, permit status, owner/operator, auxiliary capabilities at the site, and estimates of remaining capacity. Appendix 5.10 also includes a table of approved debris management sites for such activities as: temporary storage, chipping, and burning.

4.3 SECTOR PLAN FOR DEBRIS MANAGEMENT

FIGURE 1 – LOUISIANA DEBRIS SECTOR PLAN



USACE will be responsible for the following sectors:

Sector 1 – Orleans Parish
Sector 2a – Plaquemines Parish
Sector 2b – St. Bernard Parish
Sector 3a – Jefferson Parish
Sector 3b – Calcasieu, Cameron, Jefferson Davis, Acadia, Lafayette, Vermilion, Iberia, St. Martin, St. Mary, Iberville, Ascension, St. James, St. John the Baptist, Terrebonne, Lafourche, St. Charles Parishes.
Sector 3c – St. Tammany, Washington, Tangipahoa, St. Helena, East Feliciana, East Baton Rouge, West Baton Rouge, Pointe Coupee, West Feliciana, and Livingston Parishes.

4.3.1 Disposal Site Locations

It is the responsibility of the state and/or local government to determine and approve the use of these sites.

Permits: All applicable/required permitting for which the State has authority (i.e., oversize loads) for any portion of the debris mission is the responsibility of the State of Louisiana.

Right of Entry and Hold Harmless Agreements: It is the responsibility of the State of Louisiana and Parishes.

Haul Routes: It is the responsibility of the State of Louisiana and Parishes to determine the best possible haul route to the disposal areas. State and Parish government agencies will be responsible for maintenance of the haul route; i.e., clean up of debris that falls from trucks during hauling.

Pick-up Operation: The state and local governments will have the responsibility, based on the estimated quantities of debris, to determine how many passes will be required to clear all eligible debris from the right-of-ways within the affected area. This applies in location where mass demolition is not required.

Hours of Operation: 0700 hrs – 1900 hrs, seven days a week.

Disposal Sites: In general, it will be the responsibility of the State of Louisiana to determine the disposal site locations and address any issues regarding wetlands, vegetation, baseline surveys, proximity to housing, schools, etc. (especially with incineration).

Traffic Control: It will be the responsibility of the Contractor to ensure that there is safe access in and out of the disposal sites. The Traffic Control personnel (flagmen) are required at all entry and exit points.

Site layout: It will be the responsibility of the Contractor to ensure that there are separate or specifically designated areas for stockpiles, towers for Quality Assurance (QA) and Quality Control (QC) personnel, household waste, HAZMAT materials (if they are not removed at the pick up sites), etc.

Contaminated debris will be removed by USACE under ESF3. Management of such debris may include waste characterization, waste classification, treatment, packaging, transportation, and disposal. Additionally source removal of contaminated media beneath the debris may occur.

4.4 REPORTING

Regular reporting will be accomplished by the appropriate agency responsible for collection of the data. Initially, the reporting cycle will be daily. Issues concerning the mission and responsibilities will be brought forth as they happen, but will be reflected in the progress report. The Debris/Demolish Coordinating Committee consisting of representatives of all involved agencies will meet to coordinate priorities and issues. Progress reports will be provided to all partners in this Plan.

4.5 HEALTH AND SAFETY PLANS FOR WORKERS

The USACE, EPA, and LDEQ have all developed health and safety plans to help ensure the safety of workers. These are available from the agencies upon request.

4.6 BENEFICIAL REUSE OF DEBRIS

4.6.1 Principles

To the extent feasible, hurricane and demolition debris materials for reuse, recycling, and energy recovery should be identified. These can be effective in reducing the volume of debris and should be the first option considered when determining the disposition of debris. The opportunities for recycling, reuse, and energy recovery are presented during several phases of the recovery effort. Materials to be recycled or reused could be identified and segregated prior to building demolition, during the reoccupation of buildings, or during the renovation phase. New construction will also result in waste generation with recycling or reuse opportunities.

Table: Preliminary List of Materials that have Strong Recycle or Reuse Potential:

Segregated Material	**Potential for Reuse/Recycling/Energy Recovery**
White goods (refrigerators, freezers, stoves, etc.)	1. Metal recovery and recycling 2. Freon recovery
Electronics (television sets, computers, cell phones, etc.)	1. Reuse of usable computer equipment. 2. Recovery of precious metals 3. Parts recycling
Concrete	1. Recycling for roadbed use
Structural steel	1. Recycle
Wood/Timber (whole trees)*	1. Recover for lumber 2. Chipping for mulch 3. Energy recovery
Woody vegetative debris*	1. Chipping for mulch 2. Energy recovery
Clean (unpainted) structural wood*	1. Reuse for construction 2. Energy recovery
Automobiles	1. Metal recycling
Tires	1.Crumb rubber for roadways 2. Energy recovery 2. Engineering uses
Biomass (also see woody vegetative debris)*	1. Energy recovery

* Note: The presence of the Formosan termite in certain Parishes may limit reuse and energy recover options. See Appendix 5.11 for guidance.

Additional reuse, recycling and energy recovery options may exist. They should be used where appropriate.

4.6.2 Innovation Ideas

Innovative ideas for dealing with debris should be encouraged, in particular, those that result in recycling, reuse, and energy recovery. There are several participating agencies that are receiving contact concerning these ideas and proposals.

EPA, together with the USACE, and other interested agencies will work to ensure that viable proposals are shared and evaluated.

4.6.3 Industry Partners

Companies are volunteering to help in the clean up effort. As with innovative proposals, EPA, together with the USACE, and others, will work to ensure that this type of information is shared and evaluated.

4.6.4 Biomass - Energy Recovery

Biomass should be evaluated for possible energy recovery. Combustion units that can utilize chipped material should be considered. The Formosan termite infestation may limit the shipment of biomass. Appendix 5.11 contains Formosan termite control guidance

4.7 LEGAL LIMITATIONS/CHALLENGES

In carrying out these debris management functions, and depending on the particular facts, certain legal issues may arise. In such instances, you should consult with your agency’s legal counsel's office.

4.7.1 Legalities of Entering Onto Private or Public Property

Some general guidance and legal authorities for entering private or publicly owned land can be found in Appendix 5.15.

4.7.2 Activation of Federal Authority for Debris Management

To respond effectively to these emergency conditions, FEMA has broad authority to address demolition and removal of debris, and EPA is among the agencies which are tasked by FEMA to help conduct this response. The attached documents (see Appendix 5.16) specify the threshold requirements for FEMA and other federal agencies (acting at FEMA's direction) to be able to undertake demolition

and removal activities. In addition, they describe how coordination between all levels of government should occur. Lastly, each federal agency should take care to ensure that it is conducting its activities in accordance with FEMA's mission statement.

4.8 ENVIRONMENTAL JUSTICE

Hurricane Katrina's devastating impact on Louisiana communities, particularly low-income and minority populations, underscores a need to ensure that our systems of environmental decision-making meet the goals of environmental and public health protections for all segments of the populations–in particular those who are most vulnerable and lack basic resources for recovery. Throughout the recovery effort, agencies will ensure that implementation of debris management activities do not have disproportionately adverse effects on minority and low-income communities.

4.8.1 Sampling/Health Assessments

This plan includes commitments to ensure that effective measures are in place to protect human health during demolition and removal activities. A comparison of sampling locations in communities with high proportions of minority and low-income residents to sampling locations as a whole shows that these communities are being sampled at least as thoroughly as other areas.

EPA and the CDC/ATSDR are evaluating the overall health status of the impacted areas. As areas are identified for re-opening, health assessment information is developed and publicly shared.

4.8.2 Community Outreach and Involvement

The dispersion of Hurricane Katrina evacuees to various locations across the country will present a unique challenge to ensuring effective community involvement and communications. Communications and outreach efforts will be developed jointly and coordinated among affected agencies. The debris team anticipates the use of the Public Affairs ESF-15 to assist with outreach.

4.8.3 Coordination with Other Agencies

To address the wide range of impacts that resulted from Hurricane Katrina, a coordinated response from agencies at the Federal, state and local level is appropriate and will be implemented. Information sharing and regular communications will ensure the identification of effective solutions.

4.9 USACE CONTRACTOR

The USACE Contractor was awarded a competitively bid contract by the US Army Corps of Engineers to perform debris removal and disposal operations following a disaster. The contractor will be responsible for complying with all federal, state, and local laws and regulations. The contract payment method has been determined prior to the start of any contract work. Data, such as quality control reports, truck counts, total yardage, safety, etc., will be reported daily to USACE. The contractor will be responsible for the debris from pick-up to final disposal.

A qualified USACE contractor will be utilized for contaminated debris management. The contractor will be responsible for complying with all applicable federal, state, and local standards and regulations. Cost reimbursable contracting will provide the mechanism for CDM contract work. Data, such as quality control reports, debris removal, treatment, disposal, and costs will be reported to USACE on a daily basis. The contractor will be responsible for the debris from pick-up to final disposal.

4.10 CONCLUSION

The intent of this plan is to clearly define and agree to the debris removal/disposal mission and related responsibilities, the responsibilities of the State of Louisiana and the overall concept of operations for mission execution. All parties agree to support this partnership to a successful completion of this emergency mission.

APPENDICES

5.1 Catastrophic Death from Natural Disaster, Guidelines for Cremation of Animal Carcasses (U.S. Department of Agriculture)

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APPENDIX 5.1

Catastrophic Death from Natural Disaster, Guidelines for Cremation of Animal Carcasses (USDA)

CATASTROPHIC DEATH FROM NATURAL DISASTER

Guidelines for Cremation or Burial of Animal Carcasses

Dead animal disposal can be performed by various methods. Cremation and burial are acceptable methods of disposing of dead animals. This plan will address both methods.

Project sponsors seeking assistance in the cremation or burial of animal carcasses must contact Natural Resources Conservation Services (NRCS) Liaison at 504-858-3385 or the NRCS State Environmental Engineer at 318-473-7674. The request must include a description, scope and location of the problem. Once NRCS has received a request, NRCS will establish a team to evaluate the site and complete a Damage Survey Report (DSR). After an agreement is entered into with the sponsor, NRCS will immediately hire a contractor to either cremate or bury animal carcasses within the following guidelines.

Cremation methods include incineration or air-curtain pit burning. Incinerators shall be dual burning Type 4 (human and animal remains) approved for use within the state. Air curtain pit burning incorporates an earthen pit and blower. The blower and pit make up an engineered system which is precisely configured to properly function. The blower must have adequate air velocity to provide a "curtain effect" to hold smoke in and to feed air to the fire below. Ashes resulting from cremation are considered a solid waste and may be buried on site if soils and water table conditions allow. If conditions are not suitable for on site burial, ashes will be disposed of in an approved landfill. In either case, Department of Environmental Quality (LDEQ) and Louisiana Department of Agriculture and Forestry (LDAF) will be contacted before burning carcasses. If possible LDAF will have the state veterinarian present during carcass cremation. Single Point of Contact for notifying DEQ of intent to burn animal carcasses is (225) 219-3640 or (888) 763-5424. LDAF State Veterinarian can be reached at 225-575-2527 and USDA Veterinarian at 225-389-0436.

The burial method requires the animal carcass being placed in a pit or trench not less than six feet deep in the disposition of carcasses of large animals such as cows and horses with a minimum of four feet of soil covering the carcasses. The burial pit for smaller animals such as swine shall be not less than four feet in depth with a minimum of two feet of soil covering the carcasses. Carcasses shall be placed side by side or end to end. Carcasses shall not be stacked on top of each other. The soils shall be impervious and suitable for waste disposal. Burial will be two feet or greater above the soil seasonal high-water table. Additionally, burial locations shall be outside of floodplain, at least 300 feet up gradient and 200 feet down gradient from private well, water bodies, streams, public areas and not within 500 feet of a public well. The finished burial site cover shall be shaped so drainage and runoff will be away from the pit or trench.

APPENDIX 5.2

Hazardous Materials and Waste Removal Plan (EPA)

Hazardous Materials and Waste Removal Plan

1.0 Introduction

This Hazardous Materials and Waste Removal Plan (HMWRP) was prepared to address the management of orphaned or damaged containers, substances and wastes and Hazardous Household Wastes (HHW) resulting from Hurricane Katrina. These hazardous materials may be comprised of corrosives, flammables, reactive or otherwise toxic materials found in the storm debris and affected areas where flooding occurred as a result of the storm surge or rising flood waters. Additionally, flood damaged wastes from individual residences will be addressed.

The HMWRP does not apply to areas not impacted by storm surge or flood waters and does not replace existing hazardous waste collection plans for those municipalities in areas not affected by the hurricane.

Radiation screening capability will be provided at designated waste collection and temporary storage areas.

2.0 Scope of Work and Responsibilities

This work plan will involve the collection, removal, staging, sampling and characterization (as needed) of hazardous materials in the areas as defined above. The recovered waste may be further bulked or consolidated based on the volumes encountered and compatibility factors. Hazardous Categorization (HAZCAT) of unknown substances and wastes and candidate waste streams for bulking will be performed during the course of the task order. Disposal sampling and profiling of bulked, and non-bulked, substances and wastes and final disposition of the waste will be considered a significant part of the Statement of Work (SOW).

Labeled drums and containers (including transformers) that can be identified back to a particular manufacturing facility will be returned to the manufacturer and/or distributor. To manage costs and time, identified drums and containers will be picked up and removed at the manufacturer's expense.

Local governments can accomplish cleanup objectives by utilizing their existing staff, contracting with a debris removal vendor, or by participating in Direct Federal Assistance (DFA). If a local government entity decides to apply for and accept DFA, the United States Army Corps of Engineers (USACE) will be responsible for all phases of the debris removal process, for those properties determined to be inhabitable. USACE will interface with local and State officials to determine an appropriate area in which to collect and temporarily store hazardous materials segregated from the debris so removed. The United States Environmental Protection Agency (USEPA) will provide a point of contact (POC) to USACE for coordination of the hazardous materials that have been segregated at the point of collection and at the point of disposal. USEPA will provide technical assistance to USACE, as requested, at the segregation points. USEPA will be responsible for collecting hazardous substances and wastes that are deposited curbside by property owners in the areas impacted by storm surge or flood waters.

"White goods" removed from inhabitable properties will be addressed at the segregation point selected by the USACE, with refrigerants removed by USEPA contractors. Electronic materials will be likewise segregated and recycled, if possible.

3.0 Proposed Management Approach and Procedure

Hazardous materials containers and/or debris found in public and right-of-way areas will be collected by USACE and/or USEPA contractors and will be staged to secured storage areas established in each parish or county. For those properties determined to be inhabitable, USACE will move hazardous materials to an area that does not impact the debris removal process or hinder recovery efforts. USEPA and USACE will coordinate the collection of these wastes from mutually agreed upon locations. As practical, it is recommended that USEPA and USACE personnel and contractors work in conjunction to assist with the prompt identification, recovery and proper segregation of any substances and wastes that appear to be hazardous.

USACE and USEPA will coordinate with parish or county officials to identify general debris and waste collection areas and secure approvals for use of these facilities. USEPA will work closely with appropriate state and local officials to identify and select areas to temporarily store hazardous substances and wastes that are removed from impacted areas.
These storage locations may require some degree of security while wastes are in residence awaiting disposal. Outside security services may be contracted for these storage locations at the discretion of USEPA representatives.

USACE and USEPA will request that a POC for the county or parish be identified to liaise with in the event that a hazardous materials spill or leak is observed, or if human remains are suspected or discovered, and to resolve property access concerns. If leaking containers or spills are found that may have an acute impact on human health and/or the environment, USEPA will immediately implement a removal process to address the issue. If human remains are discovered, USACE will immediately notify the aforementioned county or parish POC and discontinue operations and secure the area until the remains can be properly removed.

Residents of areas impacted by storm surge or flood waters that are able to access their property will be notified by means of information sheets and will be responsible for positioning unusable or damaged household hazardous waste (HHW) curbside. USEPA will remove these materials for proper disposal.

4.0 Proposed Disposal Approach and Procedure

For the purposes of this proposed plan, recovered hazardous wastes or substances will be managed by means of the following approach:

- Labeled or stenciled drums or containers that identifies the manufacturer or distributor will be returned to the manufacturer at his or her expense;
- Recycling of recovered materials such as batteries, mercury (non-elemental), or other candidate wastes or substances; and

- Off-site transportation and disposal (T&D) of all other waste products, either in containers or in bulk.

All waste products collected during the course of the removal effort shall be transported from established waste storage areas within ninety (90) days of collection and waste declaration.

For joint activities conducted with USACE, efforts will be made to coordinate waste collection and segregation at both the affected property being addressed as well as the point of disposal. Thorough segregation of hazardous materials is required before the storm debris can be rendered suitable for burning or incineration. If storm debris is found to be extensively commingled with HHW, the disposal of the mixed waste will be accomplished in the same facility currently being used by the locality for common household waste.

5.0 Requirements for Counties or Parishes not Participating in DFA

For counties or parishes not participating in the HMWRP, the above procedures must be followed. It will be the responsibility of local officials awarding debris removal and/or disposal activities to ensure that contractors adhere to the process as outlined above.

Contractors tasked to remove storm debris and related waste materials must complete all tasks as assigned by USACE representatives. Furthermore, any contractor tasked to perform hazardous waste disposal must complete all tasks outlined above and others that may be assigned to the locality and/or contractor by USEPA.

6.0 Contact Information

USEPA will provide contacts to local and State environmental representatives for notification of removal of segregated hazardous materials, substances or wastes. USEPA will also provide technical assistance, as requested, by USACE, State, or local officials.

In USEPA Region 6, for parishes impacted by storm surge and/or flooding as a result of Hurricane Katrina, residents in the area of concern will be asked to call (800) 401-1327 for further information, advice or assistance.

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White Goods Management Plan

1.0 Introduction

This waste specific management plan has been prepared to address the collection, staging and disposition of refrigerated containers ("white goods") recovered from areas impacted by storm surge and/or flooding caused by Hurricane Katrina. White Goods Appliance for cooling may contain Freon (R-22/R-12), which contains chlorofluorocarbons (CFC s), hydro chlorofluorocarbons (HCFC s) or ammonia. Appliances manufactured prior to 1979 may have capacitors which contain PCB s. Other potentially hazardous chemicals include mercury (switches and gauges) and oils (transmissions and compressors). EPA will be responsible for decommissioning of white goods by removing refrigerants or other hazardous materials and recycling them or disposing of them at a hazardous waste disposal facility.

2.0 Scope of Work

The scope of work referenced by this plan will require coordinating joint federal efforts to safely collect, stage and decontaminate white goods during the course of waste debris recovery efforts and/or demolition of structures deemed inhabitable. While a majority of these goods will be collected, segregated and transported to pre-designated waste reduction sites, contingencies should be established to address these wastes at pre-designated collection points that may be practical for more rural areas.

3.0 Proposed Organizational Approach

To accomplish the objectives of this plan, close coordination and scheduling between the US Army Corps of Engineers (USACE) and the US Environmental Protection Agency (USEPA) will be critical. This coordination will facilitate collection and removal in a timely and expeditious manner. Liaison between these agencies will require dedicating a central Point of Contact (POC) from both agencies with the authority to assign and allocate resources and jointly prepare schedules for removal activities in storm affected areas.

4.0 Proposed Operational Approach

Once temporary and semi-permanent waste staging locations are identified and prepared (preferably at waste reduction facilities in secure areas), resources will be deployed to support USACE debris removal efforts by retrieving staged white goods and transporting these goods to the pre-designated collection point. These resources will be tasked with having the appropriate resources to promptly remove the units from ongoing USACE operations with a minimum amount of disruption to USACE efforts.

Once the containers have been transported to designated collection point(s), air monitoring will be conducted. The purpose of the survey will be to record and confirm the appropriate level of personal protection required to safely access these containers and remove the contents

(refrigerants and spoiled foodstuffs). Due to the nature of the hazards likely to be present, white goods decontamination units should be located in remote sections of the pre-designated collection points.

Decontamination units will be tasked with the safe removal of residual refrigerants and spoiled foodstuffs from the recovered containers. This capability will include the temporary storage of the removed and containerized waste products until transportation to the CERCLA approved disposal facility is scheduled.

4.0 Proposed Decontamination Approach

Based on the results from the pre-entry air monitoring survey, the appropriate level of personal protection will be designed and utilized.

Once the “white good” has been collected, inventoried and staged to the appropriate decontamination unit, the unit will be properly readied for cleaning. This process will first involve removing any residual refrigerant and safely storing these recovered products away from the container being decontaminated. Properly certificated personnel will be tasked with performing this task in a safe and efficient manner.

Wet decontamination methods will likely follow the refrigerant removal process. This decontamination approach is designed based on the assumption that prolific fungus and mold growths will be observed inside the container. A dilute bleach solution will be applied in sufficient applications to properly sterilize the unit in a well ventilated location.

Spoiled food stuffs, and the gases produced during this decomposition process, will pose significant hazards to decontamination personnel and will require prompt containerization upon removal. These containers will be labeled to reflect declaration date, accumulation date and waste classification and will be temporarily stored until disposal procurement has been finalized. The decontaminated and deactivated refrigerated unit will be disposed of, or recycled if practical, at a properly permitted facility.

Private Property Debris Removal Relating to Hurricane Katrina

The purpose of this fact sheet is to clarify FEMA's policy and eligibility criteria as it pertains to debris removal from private property under the Public Assistance Program. FEMA's regulation at 44 CFR 206.224 addresses debris removal eligibility.

(a) Public interest. Upon determination that debris removal is in the public interest, the Regional Director may provide assistance for the removal of debris and wreckage from publicly and privately owned lands and waters. Such removal is in the public interest when it is necessary to:

(1) Eliminate immediate threats to life, public health, and safety; or
(2) Eliminate immediate threats of significant damage to improved public or private property; or
(3) Ensure economic recovery of the affected community to the benefit of the community-at-large

The words "public interest" are key to understanding eligibility for private property debris removal. The public interest criterion requires that the debris removal **benefit the general public** and not just an individual or a limited group of individuals within the community.

Many areas of the southern Louisiana have already been declared eligible to receive public funding for private debris removal because it has been determined to be in the public interest.

For more information, please see Appendix 5.16: FEMA Guidance Documents.

APPENDIX 5.3

Building / Property Evaluation Decision Trees (EPA)

Building/Property Evaluation Decision Trees

The following are recommended procedures; they do not prohibit or preclude alternate approaches.

Initial Decision Tree

Water receded?

Has the water receded and is the building/structure accessible? If yes, proceed to next step. Utilize aerial photos, recon reports, etc. to determine if the water has receded.

Monitor Progress

Monitor the situation in the vicinity of the building/structure and proceed to the next step once access to the area can be safely obtained.

Building/Property Impacted by Hurricane?

This will be determined by City, Parish, or State governments with information and support provided by the Federal Government in the form of aerial photos, Geographical Information Systems, maps, etc. This evaluation will in the majority of cases require a visual inspection of individual properties. This inspection will need to be conducted from a “safe distance”; meaning the ambient environment in the vicinity of the building has been cleared by EPA/ATSDR/LDEQ/local health department.

Reason to suspect contamination?

Is there reasonable cause to suspect contamination? For the purpose of this Decision Tree, reasonable shall be defined as objectively justifiable suspicion that is based on specific facts or circumstances.

Process per standard EPA/LDEQ protocol

This is essentially a routine EPA or LDEQ site where there are no observed effects from the hurricane. For example, property located above the flood zone with no physical damage from the hurricane that has a leaking above ground storage tank.

NFA (No further action)

NFA is based on the assumption that a building/structure was not negatively impacted by the hurricane and no hurricane associated contamination is reasonable anticipated. Therefore, this property would not require action or would be processed via standard insurance vehicles.

Environment Safe to enter? Structurally Sound?

The “environment Safe to Enter” question will involve conducting a hazard analysis. The hazard analysis should be conducted using air, and sediment sampling data collected during the initial response as well as historical data such as hazardous materials facilities in the area, documented spills, contamination, etc.

The “structurally sound” component of this rung will involve a visual inspection of the building/property conducted by a structural engineer or other competent person(s), such as a building inspector. The structural engineer/competent person should initial the appropriate block on the building/property checklist (to be developed) to indicate the structure, or portion there of, is safe to enter from a structural perspective.

Historically significant?

The definition of “Historically Significant” shall be defined by the involved parties (applicable historic preservation teams). Generally, these properties includes any building, structure, or land area that is:

- Listed in the National Register of Historic Places, or Located in a registered historic district and certified by the U.S. Department of the Interior as being historically significant to the district. The "structure" may be a building, portion of a building (such as a facade or part or whole of the interior), or a bridge, ship, railroad car, dam, or any other kind of structure.
- **Add additional** definitions from SHPO, city, parish, state

New Orleans Municipal, Louisiana State, FEMA historic groups identify buildings/properties of historical significance. Provide property address, building/property name if applicable, historical significance, value on scale of 1-10 (1 being low, 10 being a critical property of great historic significance.

Proceed to standard evaluation decision tree

The standard evaluation decision tree is intended for non-historically significant buildings/properties. See Standard Evaluation Decision tree for details of this process.

Proceed to Historic Property Evaluation Decision Tree

Go to reference decision tree for historic properties.

Historic Property Evaluation Decision Tree

EPA/LDEQ Site?

START to pull all EPA/LDEQ reportable data: [Risk Management Plan Facilities, Underground Storage Tanks (USTs), Toxic Release Inventory Facilities, National Priority List sites, Facility Response Plan (FRPs) etc.????] START work with LQEQ to accomplish this task.

These properties will be identified in a GIS database and individual properties will be identified by color and possibly linked with supporting information such as chemical inventories, etc.

These sites will be processed by special operations teams which will be formed to handle exceptional buildings/properties.

Turn over to special operations team

Special Operations Teams S OPS will process sites that are known or suspected to be contaminated from EPA/LDEQ sites. These will typically be industrial facilities/business properties.

Conduct Environmental Assessment

This is an assessment of the property and will likely include asbestos, lead based paint, mold, Total Petroleum Hydrocarbons and a variety of analytes to be named later. This process should proceed similar to a Real Estate Transfer with a due diligence approach to evaluating the property.

Permit Owner to Remove Personal Items- Historic Preservation Review

This assumes property is environmentally and structurally “safe” to enter. “Safe” may range from safe for the general population to safe for trained personnel wearing appropriate PPE. The owner may be permitted to enter in street clothes or may be required to wear booties, Tyvek and a dust mask or non-elastomeric face piece. Decisions will have to be made regarding which items can be removed depending on the nature and extent of contamination as well as the properties (permeable, impermeable, etc) of the items to be removed.

The historic preservation review process involves allowing historic preservation assessment teams to enter a building/property and evaluating the historic value of the property.

Can building/structure be decontaminated reasonably?

This will be an iterative evaluation process that will involve an assessment of the physical condition of the property, the type and extent of contamination, the intrinsic value of the property and a number of other factors, including the historic value of the property.

Ultimately, it will come down to the practicality of decontaminating the property and associated costs versus demolition.

This process will likely require a team of structural engineers, environmental remediation experts and historical preservation assessment teams.

Guidance will need to be provided on this. Specifically, cost estimates will need to be developed.

There will also need to be discussions regarding who funds the decontamination.

Decontaminate

This will involve removal of household hazardous waste (paints, cleaners, degreasers, industrial chemicals, asbestos, lead based paints) as well as decontamination of residual contamination associated with storm damage.

Clean/decontaminate/remediate building/property.

Verify clean

Who certifies clean_____
Sample for_____

City/Parish issues occupancy certificate.

Submit findings to Stakeholders for Re-evaluation

In the event that a property has been evaluated and determined to be impractical to decontaminate, the Historic Preservation Assessment Teams (HPAT) should be consulted for further consideration. The degree and extent of contamination should be explained to the HPAT as should the mechanisms for decontamination/remediation. The HPAT should them provide another final determination regarding the disposition of the property.

Stakeholders indicate demolish

Proceed to demolition phase.

Evaluate for demolition

Building/properties designated for demolition should be evaluated to determine the appropriate method of demolition. Appropriate should consider expediency as well as environmental concerns such as asbestos, lead based paint as well as other analyses.

Demolish

Demolish per appropriate methodology.

Stakeholders want decontamination attempt

Re-insert property back into the Decontaminate slot on the decision tree.

Standard Property Evaluation Decision Tree

Same as Historic Property Decision Tree with the exception of the historic components.

Demolition Procedures

Building/Property Designated to be Demolished

Building/property has already been evaluated and slated for demolition.

Remove Hazardous Materials that can practically be removed

Implement appropriate Air Monitoring and Contingency Plan

Demolish Building/Property

Segregate demolition waste and dispose of as appropriate

APPENDIX 5.4

EPA & Federal Partners Warn of Potential Environmental Health Hazard (EPA)

EPA and Federal Partners Warn of Potential Environmental Health Hazards When Entering Homes and Business after Hurricane Katrina

Cleanup activities related to returning to homes and businesses after Hurricane Katrina can pose significant health and environmental challenges. People may be exposed to potentially life-threatening hazards posed by leaking natural gas lines, and carbon monoxide poisoning from using un-vented fuel-burning equipment indoors. During a flood cleanup, failure to remove contaminated materials and to reduce moisture and humidity may present serious long-term health risks from micro-organisms, such as bacteria and mold.

When citizens are authorized by local authorities to return to their homes and businesses, federal authorities urge people to take the following precautions:

Be Aware of Possible Combustible or Explosive Gases - Many natural gas and other fuel lines were broken during Hurricane Katrina and highly explosive gas vapors may still be present in many buildings. In addition, methane and other explosive gases may accumulate from decaying materials

Open all windows when entering a building. If you smell gas or hear the sound of escaping gas:

- Don't smoke, light matches, operate electrical switches, use either cell or conventional telephones, or create any other source of ignition.
- Leave the building immediately; leaving the door open and any windows that may already be open.
- Notify emergency authorities. Don't return to the building until you are told by authorities that it is safe to do so.

Avoid Carbon Monoxide Poisoning - Carbon monoxide (CO) is a colorless, odorless gas that is produced when any fuel is burned and that can kill you at high levels.

- Do not use fuel-burning devices such as gasoline-powered generators, gasoline-powered pressure washers, camp stoves and lanterns, or charcoal grills in homes, garages, or any other confined space such as attics or crawl spaces, or within 10 ft. of windows, doors or other air intakes. Opening doors and windows or using fans will not prevent CO buildup in the home. Have vents and chimneys checked to assure that debris does not block or impede the exhaust from water heaters and gas furnaces.
- If you start to feel sick, dizzy or weak while using a generator, get to fresh air right away. The CO from generators can readily lead to full incapacitation and death.

Avoid Problems from Mold, Bacteria and Insects - Standing water is a breeding ground for a wide range of micro-organisms and insects, such as mosquitoes. Mosquitoes can spread diseases like West Nile Virus. Micro-organisms, including bacteria and mold, can become airborne and be inhaled. Where floodwater is highly contaminated, as it is in many areas of the Gulf Coast, infectious disease is of concern.

- Remove standing water as quickly as possible.
- Remove wet materials and discard those that cannot be thoroughly cleaned and dried, ideally within 48 hours. While smooth, hard surface materials such as metal and plastics can often be cleaned effectively, virtually all building contents made of paper, cloth, wood and other absorbent materials that have been wet for longer than 48 hours may need to be discarded as they will likely remain a source of mold growth.
- Dry out the building. The heavily contaminated flood waters resulting from Hurricane Katrina contain micro-organisms and other contaminants that can penetrate deep into soaked, porous materials and later be released into air or water. Completely drying out a building that has been immersed in contaminated flood waters will take time and may require the extensive removal of ceiling, wall, insulation, flooring and other materials as well as, in some cases, extensive disinfection. The growth of micro-organisms will continue as long as materials remain wet and humidity is high. If a house or building is not dried out properly, a musty odor, signifying growth of micro-organisms, can remain long after the flood. When fumes are not a concern and if electricity is available and safe, closing windows and running a

dehumidifier or window air conditioner can be an effective way to remove moisture if the damage is moderate.
- Reduce your exposure to air and water contaminants. Every effort should be made to limit contact with flood water. This includes the breathing of water vapors or mists formed from the contaminated water; this may occur when water is pumped or sprayed. If removing materials or furnishings already contaminated with mold or when cleaning significant areas of mold contamination or generally disinfecting areas soiled by flood waters, federal authorities recommend limiting your exposure to airborne mold spores by wearing gloves, goggles, and wearing an N-95 respirator, if available, or a dust mask.

Avoid Problems from the Use of Cleaners, Disinfectants, and Pesticides - Disinfectants, sanitizers, and other pesticides can contain toxic and potentially hazardous substances.

- Mixing certain types of household cleaners and disinfectants can produce toxic fumes and result in injury and even death. Do not mix them or use them in combination.
- Read and follow all label instructions carefully.
- Provide fresh air by opening windows and doors. Remain in a room no longer than necessary. Allow adequate time for the area to air out.
- If there is no standing water in the building and it is safe to use electricity, use fans both during and after the use of disinfecting, cleaning, and sanitizing products. Be sure that before using any electrical appliances, that they are properly grounded, and where possible, connected to a ground break equipped electrical source.
- Keep all household products locked, out of sight and out of reach of children. Use child-resistant packaging properly by closing the container securely after each use. Keep items in original containers. Call 1-800-222-1222 immediately in cast of poisoning.

EPA Urges Avoiding Problems from Airborne Asbestos and Lead Dust - Elevated concentrations of airborne asbestos can occur if asbestos-containing materials present in many older homes are disturbed. Pipe or other insulation, ceiling tiles, exterior siding, roof shingles and sprayed on-soundproofing are just some of the materials found in older buildings that may contain asbestos. Buildings constructed before 1970 are more likely to contain asbestos. Airborne asbestos can cause lung cancer and mesothelioma, a cancer of the chest and abdominal linings. Lead is a highly toxic metal which produces a range of adverse health effects, particularly in young children. Many homes built before 1978 may contain lead-based paint. Disturbance or removal of materials containing lead-based paint may result in elevated concentrations of lead dust in the air.

- If you know or suspect that your home contains asbestos or lead-based paint and any of these materials have been damaged or will otherwise be disturbed during cleanup, seek the assistance of public health authorities and try to obtain help from specially trained contractors, if available.
- If possible, removed materials should be handled while still wet or damp, double bagged and properly labeled as to contents.
- In handling materials that are believed to be contaminated with asbestos or lead, EPA recommends that, at a minimum, you wear gloves, goggles, and most importantly, OSHA-approved respiratory protection, if available.
- While still wearing a mask, wash hands and clothing after handling such materials.
- If at all possible, avoid activities that will generate dust, such as sweeping or vacuuming debris that may contain asbestos or lead.
- Take precautions before your contractor or you begin remodeling or renovations that disturb surfaces that may contain lead-based paint (such as scraping off paint or tearing out walls):
- Have the area tested for lead-based paint.
- Do not use a belt-sander, propane torch, heat gun, dry scraper, or dry sandpaper to remove lead-based paint. These actions create large amounts of lead dust and potentially harmful fumes.
- Temporarily move your family (especially children and pregnant women) out of the apartment or house until the work is done and the area is properly cleaned. If you can't move your family, at least completely seal off the work area.

Properly Dispose of Waste - Caution must be exercised to assure that all waste materials are removed and disposed of properly. Open burning of materials by individuals should be avoided. Improperly controlled burning of materials not only represents significant fire hazards but can also produce additional hazards from the vapors, smoke, and residue that are produced from the burning.

For those who have access to the internet, here are links to additional information:

- For more detailed information and guidance on mold prevention and cleanup, visit: http://www.epa.gov/mold or call **IAQINFO at 800-438-4318**.
- EPA recommends that those dealing with extensive flood damage obtain and follow the detailed guidance in the American Red Cross/FEMA publications Repairing Your Flooded Home: http://www.redcross.org/services/disaster/0,1082,0_570_,00.html
- For more information on safe management of asbestos, visit: http://www.epa.gov/asbestos/ashome.html
- For more information on safe management of lead-based paint, visit: http://www.epa.gov/oppt/lead/
- Federal Emergency Management Agency's Flood Web site - http://www.fema.gov/hazards/floods/
- CDC Hurricanes Health and Safety: http://www.bt.cdc.gov/disasters/hurricanes/
- National Institute for Occupational Safety and Health -- Storm and Flood Cleanup http://www.cdc.gov/niosh/topics/flood/
- U.S. Department of Health and Human Services (HHS), Centers for Disease Control and Prevention's (CDC) Emergency Preparedness and Response web page, "Protect Yourself from Mold" - http://www.bt.cdc.gov/disasters/mold/protect.asp

APPENDIX 5.5

Notification to the Public on the Identification and Handling of Common Household Waste Products (EPA)

Notification to the Public on the Identification and Handling of Common Household Waste (HHW) Products

When returning to hurricane-damaged homes and buildings, the following additional information provides general guidance to help address potential hazards in structures damaged by Hurricane Katrina.

Be on the alert for leaking containers and reactive household chemicals, such as caustic drain cleaners and chlorine bleach. Take the following necessary precautions to prevent injury or further damage:

- Keep children and pets away from leaking or spilled chemicals.
- Do not combine chemicals from leaking or damaged containers as this may produce dangerous or violent reactions.
- Do not dump chemicals down drains, storm sewers, or toilets.
- Do not attempt to burn household chemicals.
- Clearly mark and set aside unbroken containers until they can be properly disposed of.
- Leave damaged or unlabeled chemical containers undisturbed whenever possible.

Individuals should exercise caution when disturbing building materials to prevent physical injury or other health effects. Building materials may contain hazardous materials such as asbestos that, when carried by the air, can be breathed in and cause adverse health effects.

Debris-management programs, including household hazardous waste collection and disposal programs are being initiated. These collection areas will be set-up at various locations. It may take days or weeks before all communities have HHW collection areas operational. Additional information will be forthcoming.

Additional information can be found by calling 800-401-1327.

EPA is asking for your help to properly dispose of household products containing potentially hazardous ingredients that might be found in your garage, basement, or other storage area in a home. HHW may also be found anywhere that the water may have moved the items. The EPA urges the public to exercise caution and report concerns. Please bring these items to your curb.

List of Common HHW Products

Cleaning Products

- Oven cleaners
- Drain cleaners
- Wood and metal cleaners and polishes
- Toilet cleaners
- Tub, tile, shower cleaners
- Bleach (laundry)
- Pool chemicals

Indoor Pesticides

- Ant sprays and baits
- Cockroach sprays and baits
- Flea repellents and shampoos
- Bug sprays
- Houseplant insecticides
- Moth repellents
- Mouse and rat poisons and baits

Automotive Products

- Motor oil
- Fuel additives
- Carburetor and fuel injection cleaners
- Air conditioning refrigerants
- Starter fluids
- Automotive batteries
- Transmission and brake fluid
- Antifreeze
- Batteries

Workshop/Painting Supplies

- Adhesives and glues
- Furniture strippers
- Oil or enamel based paint
- Stains and finishes
- Paint thinners and turpentine
- Paint strippers and removers
- Photographic chemicals
- Fixatives and other solvents
- Taxidermy chemicals

Lawn and Garden Products

- Herbicides
- Insecticides
- Fungicides/wood preservatives

Other Flammable Products

- Propane tanks/home heating oil
- Other compressed gas cylinders
- Kerosene
- Lighter fluid
- Diesel fuel/gas/ oil mixtures/gas/oil mix

Miscellaneous

- Batteries
- Mercury thermostats or thermometers
- Fluorescent light bulbs or old ballasts
- Driveway sealer
- Pharmacy items
- Damaged oxygen bottles
- Brake linings

CAN NOT ACCEPT :

- Complete automobiles, boats, or motor homes.
- Wastes from large commercial facilities (Walmart, HomeDepot, etc.), from regulated facilities, or industrial wastes (ie. dry cleaner fluids or filters).
- Animal carcasses and animal manure.

- Human wastes or other biological (anything blood-related or bodily fluids, home IVs, tubing or dialysis equipment, etc.), sharps or needles, and/or caskets.
- Spoiled food or moldy items.

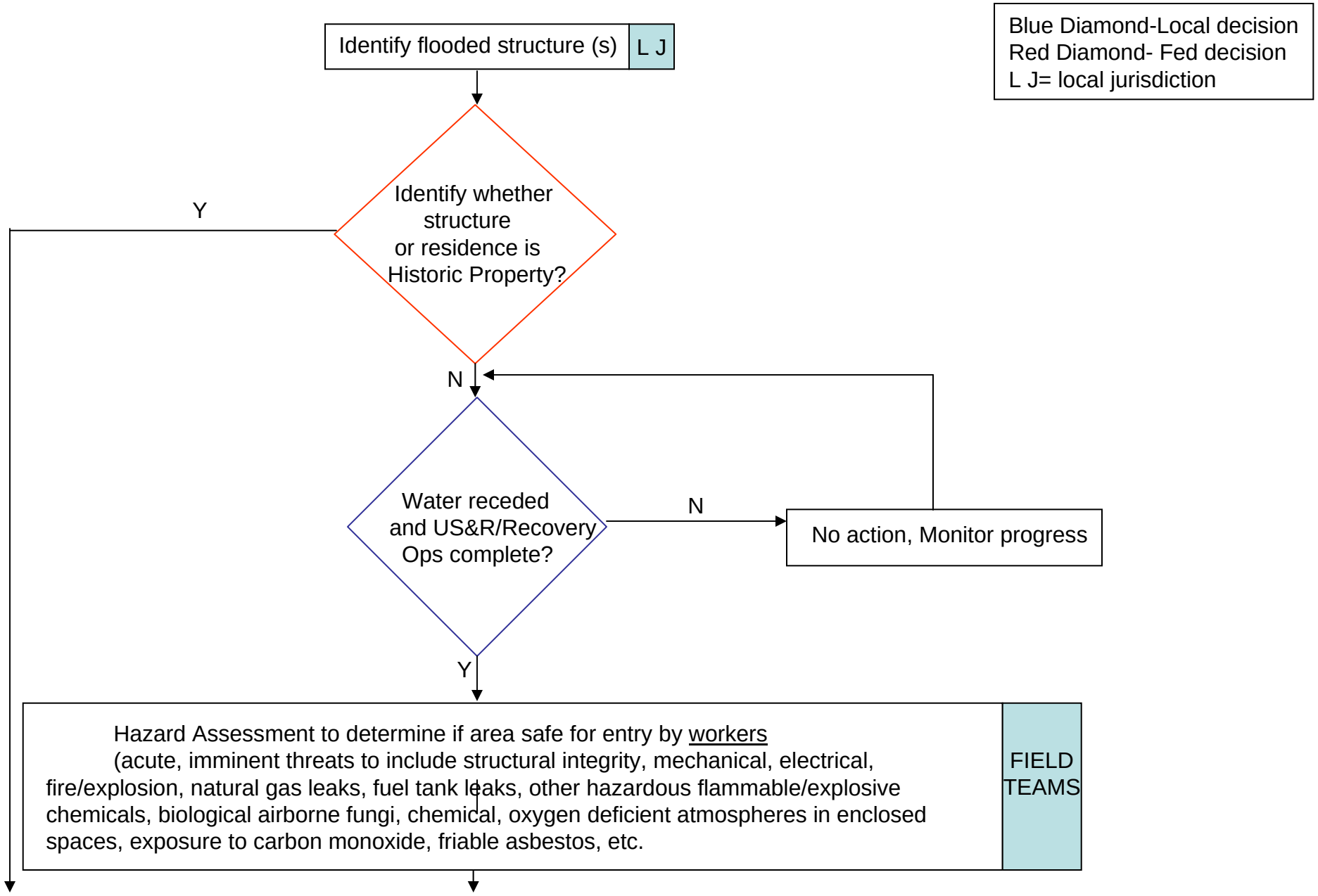
APPENDIX 5.6

Decision Tree on Final Disposition of Structures (EPA)

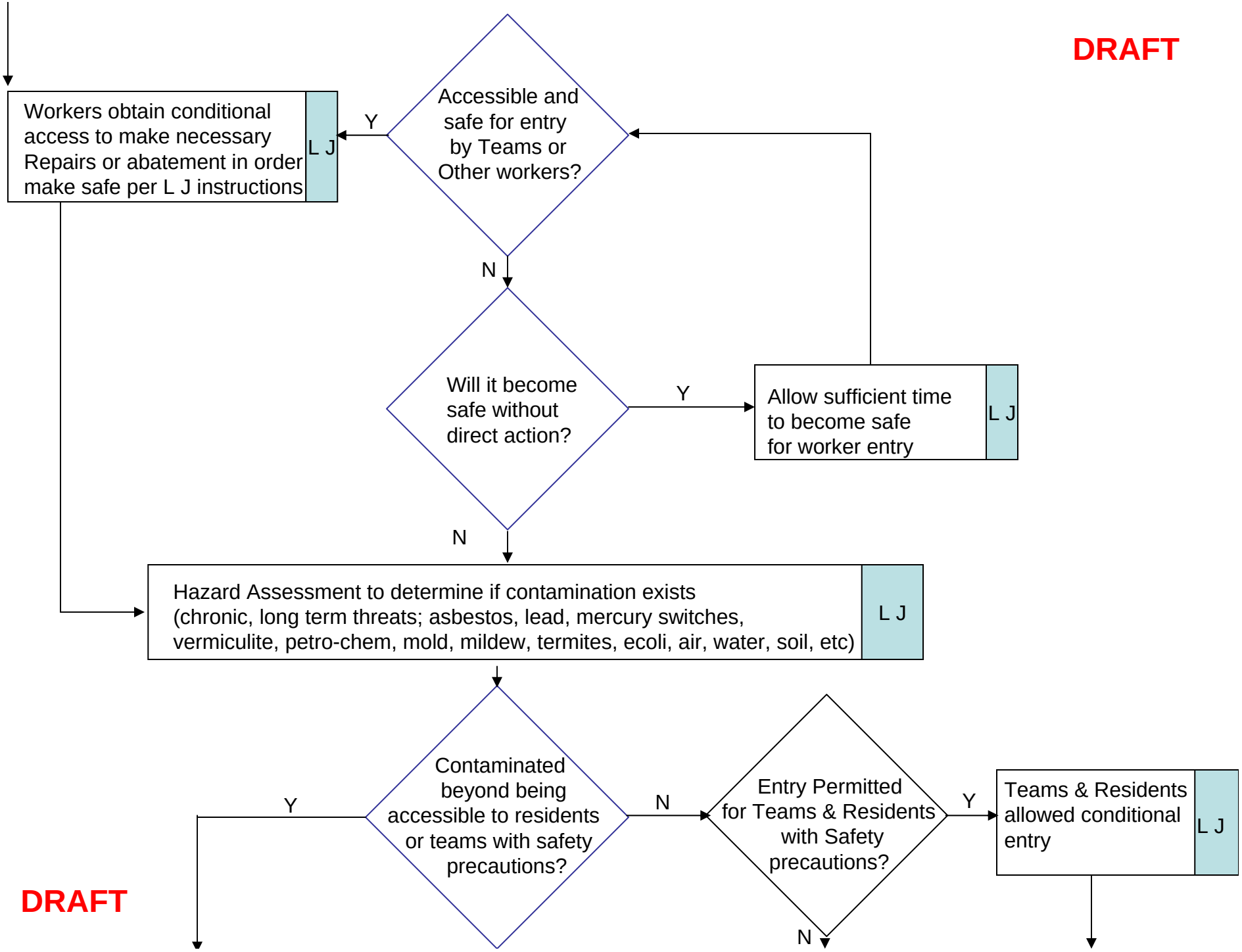
DRAFT

Process for decision making regarding disposition of residences and structures possibly damaged and/or contaminated by Katrina. Not applicable to the debris in right-of-way.

DRAFT

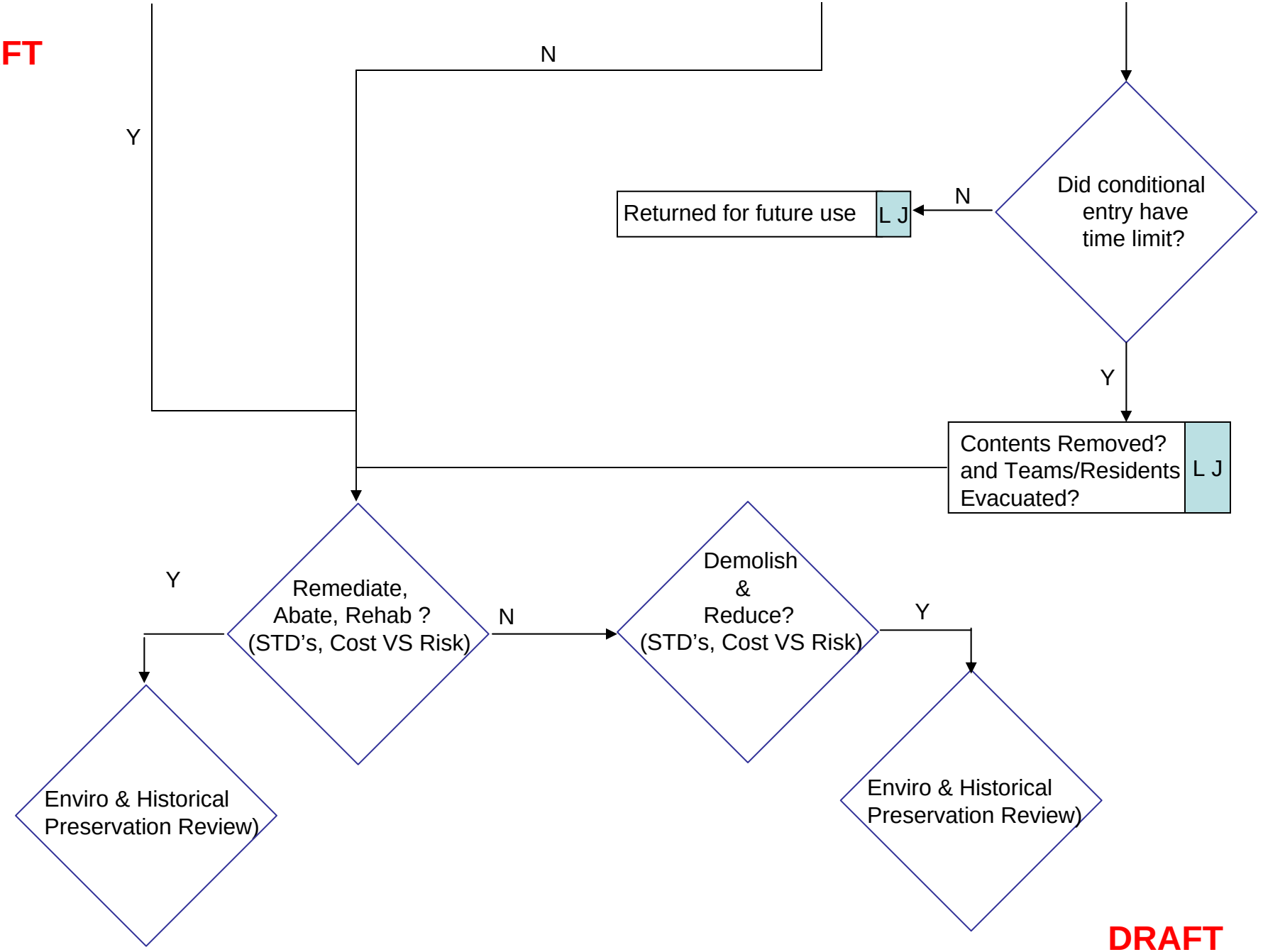


DRAFT


Accessible and safe for entry by Teams or Other workers?
Y
Workers obtain conditional access to make necessary Repairs or abatement in order make safe per L J instructions
L J
N
Will it become safe without direct action?
Y
Allow sufficient time to become safe for worker entry
L J
N
Hazard Assessment to determine if contamination exists (chronic, long term threats; asbestos, lead, mercury switches, vermiculite, petro-chem, mold, mildew, termites, ecoli, air, water, soil, etc)
L J
Contaminated beyond being accessible to residents or teams with safety precautions?
Y
N
Entry Permitted for Teams & Residents with Safety precautions?
Y
N
Teams & Residents allowed conditional entry
L J

DRAFT

DRAFT


N
Y
Did conditional entry have time limit?
N
Returned for future use
L J
Y
Contents Removed? and Teams/Residents Evacuated?
L J
Y
Remediate, Abate, Rehab ? (STD's, Cost VS Risk)
N
Demolish & Reduce? (STD's, Cost VS Risk)
Y
Enviro & Historical Preservation Review)
Enviro & Historical Preservation Review)

DRAFT

APPENDIX 5.7

ATC-45 Rapid Evaluation Safety Assessment Form (USACE)

ATC-45 Rapid Evaluation Safety Assessment Form

Inspection

Inspector ID: _____ Inspection date: _____

Affiliation: _____ Inspection time: _____ ☐ AM ☐ PM

Areas inspected: ☐ Exterior only ☐ Exterior and interior

Building Description

Building name: _____

Address: _____

_____

Building contact/phone: _____

Number of stories: _____

"Footprint area" (square feet): _____

Number of residential units: _____

Type of Building

☐ Mid-rise or high-rise
☐ Low-rise multi-family
☐ Low-rise commercial
☐ Pre-fabricated
☐ One- or two-family dwelling

Primary Occupancy

☐ Dwelling
☐ Other residential
☐ Public assembly
☐ Emergency services
☐ Commercial
☐ Offices
☐ Industrial
☐ Government
☐ Historic
☐ School
☐ Other: _____

Evaluation

Investigate the building for the conditions below and check the appropriate column.

Observed Conditions:	Minor/None	Moderate	Severe
Collapse, partial collapse, or building off foundation	☐	☐	☐
Building significantly out of plumb or in danger	☐	☐	☐
Damage to primary structural members, racking of walls	☐	☐	☐
Falling hazard due to nonstructural damage	☐	☐	☐
Geotechnical hazard, scour, erosion, slope failure, etc.	☐	☐	☐
Electrical lines / fixtures submerged / leaning trees	☐	☐	☐
Other (specify) _____	☐	☐	☐

Estimated Building Damage
(excluding contents)

☐ None
☐ > 0 to < 1%
☐ 1 to < 10%
☐ 10 to < 30%
☐ 30 to < 60%
☐ 60 to < 100%
☐ 100%

☐ See back of form for further comments.

Posting

Choose a posting based on the evaluation and team judgment. Severe conditions endangering the overall building are grounds for an Unsafe posting. Localized Severe and overall Moderate conditions may allow a Restricted Use posting.

☐ **INSPECTED** (Green placard) ☐ **RESTRICTED USE** (Yellow placard) ☐ **UNSAFE** (Red placard)

Record any use and entry restrictions exactly as written on placard: _____

_____

_____

Number of residential units vacated: _____

Further Actions

Check the boxes below only if further actions are needed.

☐ Barricades needed in the following areas: _____

_____

☐ Detailed Evaluation recommended: ☐ Structural ☐ Geotechnical ☐ Other: _____

☐ Substantial Damage determination recommended

☐ Other recommendations: _____

_____

☐ See back of form for further comments.

APPENDIX 5.8

Louisiana TEMPO School Locations for Asbestos (LDEQ)

TEMPO Schools in Katrina Area for Asbestos

	A	B	C	D	E	F
1	**Master A**	**Master Ai Name**	**Physical Address Line 1**	**City**	**ZIP**	**Parish**
2	171	Westbank Catherdral Academy	7301 Lapalco Blvd	Marrero	700720000	Jefferson
3	179	Heritage Academy Inc	2900 Wytchwood Dr	Metairie	700030000	Jefferson
4	184	Kehoe-France Day School	720 Elise Ave	Metairie	70003	Jefferson
5	187	Jefferson Heights Jr Academy	625 Newman Ave	Jefferson	701210000	Jefferson
6	206	River Oaks School	1525 River Oaks Rd W	Jefferson	701810000	Jefferson
7	211	Elmwood Academy	1517 Carol Sue Ave	Gretna	700560000	Jefferson
8	223	Jefferson Parish School Board	501 Manhattan Blvd	Harvey	700580000	Jefferson
9	246	First Assembly Academy	2001 Airline Hwy	Metairie	700010000	Jefferson
10	4901	Maggiore Elementary School	2504 Maine Ave	Metairie	700030000	Jefferson
11	4903	TH Harris Middle School	911 Elise	Metairie	700030000	Jefferson
12	4904	Helen Cox Middle School	2201 Lapalco Blvd	Harvey	70058	Jefferson
13	8093	Jefferson Parish School Board	4600 River Rd	Marrero	700720000	Jefferson
14	33862	LW Higgins High School	7201 Lapalco Blvd	Marrero	70072	Jefferson
15	34745	LA Training Institute	3225 River Rd	Bridge City	70094	Jefferson
16	37084	Cuillier Career Center	1429-B Ames Blvd	Marrero	70072	Jefferson
17	70323	UNO - Causeway Campus	3330 N Causeway Blvd	Metairie	70002	Jefferson
18	71705	St Martin's Episcopal School	5309 Airline Hwy	Metairie	70003	Jefferson
19	71744	Archbishop Rummel High School	1901 Severn Ave	Metairie	70001	Jefferson
20	84076	AC Alex Elementary School	4600 River Rd	Marrero	700721942	Jefferson
21	85157	Allen Ellender Middle School	4501 Ames Blvd	Marrero	70072	Jefferson
22	87990	Joshua Butler Elementary School	300 Fourth St	Westwego	504341135	Jefferson
23	88326	West Jefferson High School	2200 Eighth St	Harvey	70058	Jefferson
24	88779	Marie Riviere Elementary School	1564 Lake Ave	Metairie	70005	Jefferson
25	89559	Marrero Middle School	4100 Seventh St	Marrero	70072	Jefferson
26	90663	John Martyn High School	1108 Shrewsbury Rd	Jefferson	70121	Jefferson
27	91019	Shaw High School	1000 Barataria Blvd	Marrero	70072	Jefferson
28	91097	Green Park Elementary School	1409 N Upland	Metairie	70003	Jefferson
29	91678	Homedale Elementary School	500 Maple Ave	Harvey	70058	Jefferson
30	91688	Terrytown Elementary School	550 E Forest Lawn Dr	Gretna	70056	Jefferson
31	91740	Airline Park School	6201 Camphor St	Metairie	70003	Jefferson
32	91756	L W Rupple Elementary School	2820 Mt Kennedy Dr	Marrero	70072	Jefferson
33	91875	Riverdale Middle School	3900 Jefferson Hwy	Jefferson	70121	Jefferson
34	92049	Harold Keller Elementary School	5301 Irving St	Metairie	70003	Jefferson
35	93190	Live Oak Manor School	Corner Acadia Dr & Halle	Waggaman	70094	Jefferson
36	93196	Washington Elementary School	606 Clay St	Kenner	70062	Jefferson
37	96280	Metairie Grammar School	201 Metairie Rd	Metairie	70005	Jefferson
38	99057	Vic A Pitre Elementary School	1528 Spruce St	Westwego	70094	Jefferson
39	99379	Community Independent Concepts	822 Behrman Hwy	Gretna	70056	Jefferson
40	99387	Patrick G McCrossen MD	3500 N Causeway Blvd Ste 300	Metairie	70002	Jefferson
41	99412	H P Viering Sr Adult Education Center	815 Huey P Long Ave	Gretna	70053	Jefferson
42	99627	Ames Elementary School	500 Pine St	Marrero	70072	Jefferson
43	100058	Kate Middle Elementary School	1407 Virgil St	Gretna	70053	Jefferson
44	100059	St Phillip Neri School	6600 Kawannee Ave	Metairie	70003	Jefferson
45	100069	St Mary Magdalene School	6425 W Metairie Ave	Metairie	70003	Jefferson
46	100213	St Edward the Confessor School	4901 W Metairie Ave	Metairie	70001	Jefferson
47	100245	Harahan Elementary School	6723 Jefferson Hwy	Harahan	70123	Jefferson
48	101943	Remington College	3200 Cleary Ave	Metairie	70002	Jefferson
49	104108	Archbishop Shaw High School	100001 Salesian Ave	Marrero	70072	Jefferson
50	104172	Miller Wall Elementary School	2001 Bonnie Ann Dr	Marrero	70072	Jefferson
51	107106	Christ the King School	2106 Deerfield Dr	Terrytown	70056	Jefferson
52	107781	St Christopher the Martyr School	3900 Derbigny St	Metairie	70001	Jefferson
53	110732	Downing School	544 E William David Pkwy	Metairie	70005	Jefferson
54	111243	Atonement Lutheran Church & School	6205 Vets Memorial Blvd	Metairie	70003	Jefferson
55	111244	Bonnabel High School	8800 Bruin Dr	Metairie	700033499	Jefferson
56	111246	Bridge City Elementary School	1805 Bridge City Ave	Bridge City	70094	Jefferson
57	111248	Concordia Lutheran School	6700 Westbank Expressway	Marrero	70072	Jefferson
58	111249	East Jefferson High School	400 Phlox St	Metairie	70001	Jefferson
59	111250	Faith Lutheran School	300 Colonial Club Dr	Harahan	70123	Jefferson
60	111251	Grace King High School	4301 Grace King Dr	Metairie	70002	Jefferson
61	111252	Grand Isle High School	Ludwig Ln	Grand Isle	70358	Jefferson
62	111253	Gretna II School	700 Amelia St	Gretna	70053	Jefferson
63	111272	Hazel Park Elementary School	8809 Jefferson Hwy	River Ridge	70123	Jefferson
64	111275	Henry Ford Jr High School	435 S Jamie Blvd	Avondale	70094	Jefferson
65	111276	JC Ellis Elementary School	801 Brockenbraugh Ct	Metairie	70005	Jefferson

TEMPO Schools in Katrina Area for Asbestos

	A	B	C	D	E	F
66	111277	John Clancy School	8900 21st St	Kenner	70062	Jefferson
67	111278	Lincoln Elementary School	1429 Ames Blvd	Marrero	70012	Jefferson
68	111279	Livaudais Jr High School	925 Lamar Ave	Gretna	700534598	Jefferson
	111280	Lutheran High School	3864 17th St	Metairie	70002	Jefferson
	111281	Marinatha Christian School	6529 Linda St	Marrero	70072	Jefferson
71	111282	Marrero Christian School	2590 Barataria Blvd	Marrero	70072	Jefferson
72	111283	Matas Elementary School	1101 Elise St	Metairie	70003	Jefferson
73	111284	JD Meisler Middle School	3700 Clearly Ave	Metairie	70002	Jefferson
74	111286	Vic Pitre School	1525 Spruce St	Westwego	70094	Jefferson
75	111287	Salem Lutheran School	418 Fourth St	Gretna	70153	Jefferson
76	111288	Riverdale High School	240 Riverdale Dr	Jefferson	70121	Jefferson
77	111289	Seven Oaks Academy	1901 36th St	Kenner	70065	Jefferson
78	111296	Elm Grove School	1121 Pailet	Harvey	70058	Jefferson
79	111299	Ridgewood Preparatory School	201 Pasadena Ave	Metairie	70001	Jefferson
80	111827	Estelle Elementary School	2800 Barataria Blvd	Marrero	70072	Jefferson
81	112608	Westewgo Elementary School	537 Ave D	Westwego	70094	Jefferson
82	112629	John Ehret High School	4300 Patriot St	Marrero	70072	Jefferson
83	112632	Phoebe Hearst School	5208 Wabash St	Metairie	70001	Jefferson
84	112634	St Rosalle School	601 Second St	Harvey	70058	Jefferson
85	112635	Grandville T Woods Elementary	1037 31st	Kenner	70062	Jefferson
86	112644	St Angela Merici School	901 Beverly Gardens Dr	Metairie	70002	Jefferson
87	114002	American Coastline University - Internatior	5000 W Esplanade Ave Ste 197	Metairie	70126	Jefferson
88	115192	Norbert Rillieux Elementary School	7121 River Rd	Waggaman	70094	Jefferson
89	115195	Roosevelt Middle School	3315 Maine Ave	Kenner	70065	Jefferson
90	116751	Deckbar Elementary School	2012 Jefferson Hwy	Jefferson	70121	Jefferson
91	120283	St Angela Merici	835 Melody Dr	Metairie	70002	Jefferson
92	121835	Delgado Community College - Jefferson Pa	1900 Lafayette	Gretna	70054	Jefferson
93	123603	Harvey Kindergarten	3400 Sixth St	Harvey	70058	Jefferson
94	130738	Immaculate Conception School	601 Ave C	Marrero	70072	Jefferson
95	130740	Immaculata High School	537 Ave D	Marrero	70072	Jefferson
	130741	Visitation of Our Lady School	3500 Ames Blvd	Marrero	70072	Jefferson
	130742	McDonogh #26 Elementary School	1200 Jefferson St	Gretna	70053	Jefferson
	130743	Ella C Pittman Elementary School	3800 13th St	Harvey	70058	Jefferson
99	130744	Fred Douglas Elementary School	1400 Huey P Long Ave	Gretna	70053	Jefferson
100	130746	Ella Dolhonde Elementary School	219 Severn Ave	Metairie	70001	Jefferson
101	130747	George A Cox Elementary School	2630 Belle Chasse Hwy	Gretna	70053	Jefferson
102	130748	Victory Academy	3804 Transcontinental Dr	Metairie	70002	Jefferson
103	50	Warren Eastern High School	3019 Canal St	New Orleans	000000000	Orleans
104	168	Arden Cahill Academy	1871 Farrogut St	New Orleans	701140000	Orleans
105	170	The Louise School	1507 Magazine St	New Orleans	701530000	Orleans
106	174	Jayne Wallace School	6536 Coveview St	New Orleans	701260000	Orleans
107	175	Davis Development Center	11110 Lake Forest Blvd	New Orleans	70128	Orleans
108	192	Word of Faith Academy	13123 10 E Service Rd	New Orleans	701280000	Orleans
109	193	Learning Academy	3121 Louisiana Pkwy	New Orleans	701250000	Orleans
110	209	L J Hamilton School	1823 Washington Ave	New Orleans	701130000	Orleans
111	214	Gables Academy	3900 General Taylor St	New Orleans	701250000	Orleans
112	224	Our Lady of Good Counsel School	1215 Louisiana Ave	New Orleans	70115	Orleans
113	1585	Xavier University of LA	7325 Palmetto St	New Orleans	701250000	Orleans
114	2371	Tulane University - Tulane Uptown Campu	6823 St Charles Ave	New Orleans	70118	Orleans
115	3057	University of New Orleans	2000 Lakeshore Dr	New Orleans	70148	Orleans
116	3231	Tulane University Health Sciences Center	1430 Tulane Ave	New Orleans	70112	Orleans
117	3996	Lorraine Hansberry Elementary School	1339 Clouet St	New Orleans	70117	Orleans
118	3997	AP Tureaud Elementary School	2021 Pauger St	New Orleans	701160000	Orleans
119	4915	St Raymond Elementary School	3720 Paris Ave	New Orleans	701220000	Orleans
120	4918	St Raphael Elementary School	5601 Elysian Fields Ave	New Orleans	701220000	Orleans
121	5638	Loyola University	6363 St Charles Ave	New Orleans	70118	Orleans
122	7514	LA Technical College - Sidney N Collier Car	3727 Louisa St	New Orleans	70126	Orleans
123	8243	John F Kennedy High School	5700 Wisner Blvd	New Orleans	701240000	Orleans
	8259	Johnson Lockett Elementary	3240 Law St	New Orleans	701260000	Orleans
	10147	Delgado Community College	615 City Park Ave	New Orleans	701190000	Orleans
	11716	Memorial Baptist Kindergarten	5701 Veterans Memorial Hwy	New Orleans	700030000	Orleans
127	11843	Academy of the Sacred Heart Mater Campi	4301 St Charles Ave	New Orleans	701154798	Orleans
128	11856	St Andrew School	8012 Oak St	New Orleans	701182799	Orleans
129	11857	Stuart Hall School	2032 S Carrolton Ave	New Orleans	701180000	Orleans
130	29947	Delgado Community College Fire School	13200 Old Gentilly Rd	New Orleans	70129	Orleans

TEMPO Schools in Katrina Area for Asbestos

	A	B	C	D	E	F
131	30055	University Printing - Tulane University	6400 Willow St	New Orleans	701185698	Orleans
132	36659	Booker T Washington Senior High School	1201 S Roman St	New Orleans	70125	Orleans
133	36773	Corinthian Schools - Bryman College	2322 Canal St	New Orleans	70119	Orleans
[illegible]	72276	Orleans Parish School Board	801 Patterson St	New Orleans	701141137	Orleans
[illegible]	73499	Holy Cross School	4950 Dauphine St	New Orleans	70117	Orleans
136	83897	UNO Tech Center	1600 Canal St Ste 500	New Orleans	70112	Orleans
137	85831	Tulane University School of Medicine Chari	1532 Tulane Ave	New Orleans	70112	Orleans
138	87983	John W Hoffman Elementary School	2622 S Prieur St	New Orleans	70125	Orleans
139	87989	Jean Gordon Elementary School	6106 Catham Dr	New Orleans	70112	Orleans
140	88137	John McDonough High School	2426 Esplanade Ave	New Orleans	70119	Orleans
141	88144	Henderson Elementary School	1912 Whitney Ave	New Orleans	70114	Orleans
142	88415	Jesuit High School	4133 Banks St	New Orleans	70119	Orleans
143	88918	Sarah Allen Child Development	2321 Thalia St	New Orleans	70113	Orleans
144	89232	The Louise S McGehee School	2343 Prytania St	New Orleans	70130	Orleans
145	89300	Our Lady Star of the Sea School	1835 St Roch Ave	New Orleans	70117	Orleans
146	89302	Joseph Craig Elementary School	1423 St Philip St	New Orleans	70116	Orleans
147	89465	Our Lady of Holy Cross College	4123 Woodland Dr	New Orleans	70131	Orleans
148	89516	Behrman Elementary School	715 Opelousas Ave	New Orleans	70114	Orleans
149	89517	Drew Elementary School	3819 St Claude Ave	New Orleans	70117	Orleans
150	89547	Willaim J Guste Elementary School	2625 Thalia St	New Orleans	70113	Orleans
151	89583	Charles J Colton Middle School	2300 St Claude Ave	New Orleans	70117	Orleans
152	89965	Edison Elementary School	1339 Forstall	New Orleans	70117	Orleans
153	90667	Frederick Douglass High School	3820 St Claude Ave	New Orleans	70117	Orleans
154	91017	Landry Senior High School	1200 Whitney Ave	New Orleans	70114	Orleans
155	91093	Sherwood Forest Elementary School	4801 Maid Marion Dr	New Orleans	70128	Orleans
156	91099	O Perry Walker School	2832 Gen Meyer Ave	New Orleans	70144	Orleans
157	91657	Corinthian Schools - Bryman College	1202 Elmwood Park Blvd	New Orleans	70123	Orleans
158	91672	Johnson Elementary School	1800 Monroe St	New Orleans	70118	Orleans
159	91687	Banks Elementary	1307 Dryades St	New Orleans	70113	Orleans
160	91690	Sophia Wright Middle School	1426 Napoleon Ave	New Orleans	70119	Orleans
[illegible]	91697	Ben Franklin Elementary School	1116 Jefferson Ave	New Orleans	70115	Orleans
[illegible]	91743	Allen Elementary School	5625 Loyola Ave	New Orleans	70115	Orleans
[illegible]	91754	Dwight D Eisenhower Elementary School	3700 Tall Pines Dr	New Orleans	70131	Orleans
164	91768	Louise S McGehee School	1538 Phillip St	New Orleans	70130	Orleans
165	91855	Cameron College	2740 Canal St	New Orleans	70119	Orleans
166	91873	John Dibert Elementary School	4217 Orleans Ave	New Orleans	70119	Orleans
167	91874	Mary Bethune Accelerated School	4040 Eagle St	New Orleans	70118	Orleans
168	91877	Carver Middle School	3019 Higgins Blvd	New Orleans	70126	Orleans
169	92046	Rabouin High School	727 Carondelet St	New Orleans	70122	Orleans
170	92139	Chester Elementary School	3929 Erato St	New Orleans	70125	Orleans
171	93493	Paul Dunbar School	9330 Forshey St	New Orleans	70118	Orleans
172	94417	Banneker Elementary School	421 Burdette St	New Orleans	70118	Orleans
173	96455	St Benedict the Monk School	5010 Piety St	New Orleans	70126	Orleans
174	97385	UNO National Biodynamics Lab	13800 Old Gentilly Rd Bldg 420	New Orleans	70129	Orleans
175	98652	Laurel Elementary School	820 Jackson Ave	New Orleans	70130	Orleans
176	99015	Langston Hughes Elementary School	3519 Trafalgar St	New Orleans	70126	Orleans
177	99272	Tulane University Public Health	1440 Canal St	New Orleans	70112	Orleans
178	99621	St Francis Xavier Cabrini School	1500 Prentiss Ave	New Orleans	70122	Orleans
179	99678	St Pius X School	6600 Spanish Fort Blvd	New Orleans	70124	Orleans
180	99682	Edward Hynes Elementary School	990 Harrison Ave	New Orleans	70124	Orleans
181	99683	Edwards Elementary School	3039 Higgins Blvd	New Orleans	70126	Orleans
182	99684	Fisk-Howard Elementary School	211 S Lopez St	New Orleans	70126	Orleans
183	99688	Abramson High School	5552 Read Ave	New Orleans	70127	Orleans
184	99691	Audubon Montessori School	428 Broadway St	New Orleans	70118	Orleans
185	99694	Gordon Elementary School	6101 Chatham Dr	New Orleans	70122	Orleans
186	99737	Brother Martin High School	4401 Elysian Fields Ave	New Orleans	70122	Orleans
187	99741	Clark Senior High School	1301 N Derbigny	New Orleans	70116	Orleans
188	99744	Cohen Senior High School	3520 Dryades	New Orleans	70115	Orleans
[illegible]	99745	Corpus Christi School	2022 St Bernard	New Orleans	70116	Orleans
[illegible]	99750	Crossman Elementary School	4407 S Carrolton Ave	New Orleans	70119	Orleans
[illegible]	99752	Dannell Elementary School	3411 Broadway St	New Orleans	70125	Orleans
192	99755	De La Salle High School	5300 St Charles St	New Orleans	70115	Orleans
193	99758	Fortier High School	5624 Freret St	New Orleans	70015	Orleans
194	99764	Galvez Elementary School	3811 N Galvez St	New Orleans	70117	Orleans
195	99931	Frantz Elementary School	6811 N Galvez St	New Orleans	70117	Orleans

TEMPO Schools in Katrina Area for Asbestos

	A	B	C	D	E	F
196	99933	Derham Middle School	2600 S Rocheblave St	New Orleans	70125	Orleans
197	99934	Gentilly Terrace Elementary School	4720 Painters St	New Orleans	70122	Orleans
198	99935	Green Middle School	2319 Valence St	New Orleans	70115	Orleans
[illegible]	99936	Habans Elementary School	3819 Hershel St	New Orleans	70126	Orleans
[illegible]	99937	Kohn School	4001 N Roman St	New Orleans	70117	Orleans
201	99938	Lafayette School	2727 S Carollton Ave	New Orleans	70118	Orleans
202	99939	Lawless Elementary School	2330 Andry St	New Orleans	70117	Orleans
203	99941	Robert E Lee Elementary School	1607 S Carrollton Ave	New Orleans	701182892	Orleans
204	99942	Littlewoods Elementary School	10200 Curran Blvd	New Orleans	70126	Orleans
205	99943	Live Oak Middle School	3128 Constance St	New Orleans	70115	Orleans
206	99944	Livingston Middle School	7301 Dwyer Rd	New Orleans	70126	Orleans
207	99945	Lockett Elementary School	3230 Law St	New Orleans	70117	Orleans
208	100047	Morris Jeff School	800 N Rendon	New Orleans	70119	Orleans
209	100048	McDonough #36 School	2101 Freret	New Orleans	70119	Orleans
210	100049	Lusher Alternative Elementary School	7315 Willow St	New Orleans	70118	Orleans
211	100050	Lusher Elementary School	719 S Carrollton Ave	New Orleans	70119	Orleans
212	100051	Martinez Kindergarden	1767 N Roman St	New Orleans	70118	Orleans
213	100052	McDonough #24 Elementary School	421 Bernadette St	New Orleans	70126	Orleans
214	100053	McDonough #32 School	800 DeArmas	Algiers	70114	Orleans
215	100054	McDonough #35 High School	131 Kerleorec St	New Orleans	70116	Orleans
216	100055	Tubman Elementary School	2013 General Meyer Ave	New Orleans	70114	Orleans
217	100060	Wicker Elementary School	2011 Bienville St	New Orleans	70112	Orleans
218	100061	Wilson Elementary School	3617 General Pershing St	New Orleans	70124	Orleans
219	100062	Woodson Middle School	2514 Third St	New Orleans	70113	Orleans
220	100064	Xavier Preparatory School	5116 Magazine St	New Orleans	70115	Orleans
221	100066	St Joseph Central	3774 Gentilly Blvd	New Orleans	70126	Orleans
222	100067	St Johns Lutheran School	3937 Canal St	New Orleans	70119	Orleans
223	100068	St Marys Academy	6905 Chef Menteur Hwy	New Orleans	70126	Orleans
224	100070	St Marys Gym	1201 Chartres St	New Orleans	70116	Orleans
225	100071	St Monica School	2323 S Galvez St	New Orleans	70125	Orleans
[illegible]	100203	Parkview Elementary School	4617 Mirabeau Ave	New Orleans	70126	Orleans
[illegible]	100204	Phillips Jr High School	1200 Senate St	New Orleans	70119	Orleans
[illegible]	100205	The Primary School	7945 Edgelake Ct	New Orleans	70126	Orleans
229	100206	Prince of Peace Lutheran School	9301 Chef Menteur Hwy	New Orleans	70127	Orleans
230	100207	Rogers Elementary School	2327 St Philip St	New Orleans	70119	Orleans
231	100209	Rosenwald Elementary School	6501 Berkly Dr	New Orleans	70131	Orleans
232	100210	Sacred Heart Gym	200 S Rendon St	New Orleans	70125	Orleans
233	100211	Schaumburg Elementary School	9400 Springwood Dr	New Orleans	70127	Orleans
234	100212	Schwarte Elementary School	709 Park Blvd	New Orleans	70126	Orleans
235	100662	St Alphonsus Church School	2001 Constance St	New Orleans	70130	Orleans
236	101855	Sylvania Willams School	3127 Martin Luther King Blvd	New Orleans	70125	Orleans
237	104107	St Augustine High School	2600 AP Tureaud Ave	New Orleans	70119	Orleans
238	104559	Abrams Elementary School	6591 Virgilian Ave	New Orleans	70126	Orleans
239	106179	Lawless High School	5300 Law St	New Orleans	70017	Orleans
240	107797	Bradley Elementary School	2401 Humanity	New Orleans	70122	Orleans
241	109835	Newcomb Day Care Center	1305 Broadway Ave	New Orleans	70118	Orleans
242	111822	Alice Hart School	5300 Berkley Dr	New Orleans	70131	Orleans
243	111823	Barbara Jordan Elementary School	4348 Reynes St	New Orleans	70126	Orleans
244	111984	Former Delgado Nursing School	450 S Claiborne	New Orleans	70112	Orleans
245	112594	Rivers Fredrich School	1932 Touro St	New Orleans	70116	Orleans
246	112600	Gentilly East Head Start	4347 Reynes St	New Orleans	70126	Orleans
247	112601	Fisher Elementary School	1801 Whitney Ave	New Orleans	70114	Orleans
248	112602	McDonough #39	5800 St Roch Ave	New Orleans	70122	Orleans
249	112603	Jones Valenca School	1901 N Galvez St	New Orleans	70119	Orleans
250	112612	Marianities of Holy Cross	1011 Gallier St	New Orleans	70117	Orleans
251	112613	Myrtle Banks School	1307 Oretha Haley Blvd	New Orleans	70126	Orleans
252	112614	Mercy Academy	2020 Calhoun St	New Orleans	70118	Orleans
253	112616	Pierre Capdau School	3821 Franklin Ave	New Orleans	70122	Orleans
[illegible]	112617	Counseling & Testing Center	6901 Willow St	New Orleans	70118	Orleans
[illegible]	112633	Sister of the Holy Family	6901 Chef Mentuer Hwy	New Orleans	70126	Orleans
[illegible]	113479	St Mary of the Angels School	3501 N Miro St	New Orleans	70117	Orleans
257	113621	Phillips Elementary School	3800 Cadillac St	New Orleans	70126	Orleans
258	114000	American Coastline University - Institute fc	7508 Hayne Blvd	New Orleans	70126	Orleans
259	114010	Summit University of New Orleans	7508 Hayne Blvd	New Orleans	70126	Orleans
260	114479	Academy of Sacred Heart	4521 St Charles St	New Orleans	70115	Orleans

TEMPO Schools in Katrina Area for Asbestos

	A	B	C	D	E	F
261	117378	New Orleans Municipal Training Academy	13400 Old Gentilly Rd	New Orleans	70129	Orleans
262	117612	St David School	1230 Lamanche St	New Orleans	70007	Orleans
263	118199	Holy Rosary Academy	3368 Esplanade Ave	New Orleans	70119	Orleans
[illegible]	120216	Bauduit Elementary School	3649 Laurel St	New Orleans	70115	Orleans
[illegible]	122542	Xavier University of Louisiana	1 Drexel Ave	New Orleans	70125	Orleans
266	212	Promised Land Academy	Rt 1 Box 109	Braithwaite	700400000	Plaquemines
267	213	River Oaks Academy	Rt 1 Box 511	Belle Chasse	705440000	Plaquemines
268	8232	Belle Chasse High School	3346 Hwy 23	Belle Chasse	700370000	Plaquemines
269	42859	Belle Chasse Middle School	13476 Hwy 23	Belle Chasse	70037	Plaquemines
270	96495	Belle Chasse State School	Hwy 23	Belle Chasse	70037	Plaquemines
271	97089	Port Sulphur High School	165 School Rd	Port Sulphur	70663	Plaquemines
272	109769	Buras High School	35655 Hwy 11	Buras	70041	Plaquemines
273	43354	Sebastien Roy Junior High School	4301 Bayou Rd	St. Bernard	70085	St. Bernard
274	69419	St Bernard Chalmette High	2224 Palmisano Blvd	Chalmette	70043	St. Bernard
275	87338	Caroline Pre School	100 Llama Dr	Arabi	70032	St. Bernard
276	98137	PGT Beauregard Middle School	1201 Bayou Rd	St. Bernard	70085	St. Bernard
277	99661	Chalmette High School	1101 E Judge Perez	Chalmette	70043	St. Bernard
278	99663	St Claude Heights Elementary School	7200 Alexander Ave	Arabi	70032	St. Bernard
279	99665	Lacoste Elementary School	1101 E Judge Perez	Chalmette	70043	St. Bernard
280	99668	Chalmette Middle School	75 Chalmette Circle	Chalmette	70043	St. Bernard
281	99670	Andrew Jackson High School	201 8th St	Chalmette	70043	St. Bernard
282	105198	Meraux Elementary School	3200 E St Bernard Hwy	Chalmette	70043	St. Bernard
283	108663	Arabi Elementary	721 Friscoville Ave	Arabi	70043	St. Bernard
284	108664	Archbishop Hannan High School	2501 Arch PM Hannan Blvd	Meraux	70075	St. Bernard
285	108665	Trist Middle School	3433 Lionel Dr	Meraux	70075	St. Bernard
286	111825	CF Rowly Elementary School	49 Madison Ave	Chalmette	70043	St. Bernard
287	112615	St Louise De Marillac School	1914 Ayock St	Arabi	70032	St. Bernard
288	112636	St Robert Bellarmine School	815 Badger Dr	Arabi	70032	St. Bernard
289	114003	Elaine P Nunez Community College	3700 LaFontaine St	Chalmette	70043	St. Bernard
290	166	Richard Wise School	Hwy 191 W	Lacombe	704450000	St. Tamman
[illegible]	210	Emerson Academy	1050 Old River Rd	Slidell	704610000	St. Tamman
[illegible]	5111	Elmer E Lyon Elementary School	1615 N Florida St	Covington	704330000	St. Tamman
[illegible]	5114	Slidell High School	1 Tiger Dr	Slidell	704582046	St. Tamman
294	19076	Mandeville Middle School	2525 Soult St	Mandeville	704486228	St. Tamman
295	38283	St Tammany Parish Library/Headquarters	21st Ave & Monroe St	Covington	70433	St. Tamman
296	42248	Creative Child Learning Center Inc	4441 Iberville St	Mandeville	70471	St. Tamman
297	42665	Northlake Christian School	70104 Wolverine Dr	Covington	70433	St. Tamman
298	42769	Parent Teacher Child Services Inc	1335 Soult St	Mandeville	70448	St. Tamman
299	43023	Regina Coeli Child Development Center	60366 S 24th	Lacombe	70445	St. Tamman
300	43389	Sixth Ward Elementary School	72360 Hwy 41	Pearl River	70452	St. Tamman
301	43396	St Tammany Parish School Board - Slidell I	1 Coast Blvd	Slidell	70458	St. Tamman
302	43397	Northshore High School	100 Panther Dr	Slidell	70461	St. Tamman
303	43398	Madisonville Elementary School	113 C S Owens Rd	Madisonville	70447	St. Tamman
304	43399	St Tammany Parish School Board - Coving	19380 Claiborne St	Covington	70433	St. Tamman
305	43400	Chahta Ima Elementary School	27488 Pichon Rd	Lacombe	70445	St. Tamman
306	43401	Folsom Junior High School	80355 Hay Hollow Rd	Folsom	71437	St. Tamman
307	43402	Fifth Ward Junior High School	81419 Hwy 21	Bush	70431	St. Tamman
308	43403	St Tammany Parish School Board - Slidell S	100 Stone Rd	Slidell	70460	St. Tamman
309	43404	Fountainbleau Junior & Fountainbleau High	100 Bulldog Dr	Mandeville	70471	St. Tamman
310	43405	Boyet Junior High School	59295 Rebel Dr	Slidell	70461	St. Tamman
311	43406	Bayou Lacombe Middle School	27527 St Joseph St	Lacombe	70445	St. Tamman
312	84068	St Tammany Parish School Board	PO Box 940	Covington	70434	St. Tamman
313	84069	Pine View Middle School	1115 W 28th Ave	Covington	70434	St. Tamman
314	90844	Pearl River K-3 School	Hwy 41	Pearl River		St. Tamman
315	91727	Mandeville Jr High School	639 Carondelet St	Mandeville	70448	St. Tamman
316	91736	St Scholastica Academy	122 S Massachusetts St	Covington	70433	St. Tamman
317	91738	St Paul High School	917 S Jahncke Ave	Covington	70433	St. Tamman
318	91809	Salmen High School	4040 Berkley Rd	Slidell	70458	St. Tamman
[illegible]	96255	Karate USA Inc	4420 Hwy 22	Mandeville	70471	St. Tamman
[illegible]	99857	Florida Ave Elementary School	324 Florida Ave	Slidell	70434	St. Tamman
[illegible]	99875	Slidell Junior High School	333 Pennsylvania Ave	Slidell	70458	St. Tamman
322	101163	Fontainebleau High School	100 Bulldog Dr	Mandeville	70471	St. Tamman
323	103197	Covington Elementary School	325 S Jackson	Covington	70433	St. Tamman
324	108875	St Peter School	228 E Temperance St	Covington	704333196	St. Tamman
325	108879	St Tammany Junior High School	701 Cleveland Dr	Slidell	70458	St. Tamman

TEMPO Schools in Katrina Area for Asbestos

	A	B	C	D	E	F
326	108884	Pearl River Junior High School	39395 Pine St	Pearl River	70452	St. Tamman
327	108891	Pearl River High School	39110 Rebel Ln	Pearl River	70452	St. Tamman
328	108970	Madisonville Junior High School	106 Cedar St	Madisonville	70434	St. Tamman
	108990	Delta Junior College	101 Collins Rd Ste 131	Covington	70433	St. Tamman
	108994	Christ Episcopal School	120 N New Hampshire	Covington	70433	St. Tamman
331	108997	Church of Faith Academy	237 Airport Rd	Slidell	70469	St. Tamman
332	109007	Abita Springs Junior High School	72079 Maple St	Abita Springs	70420	St. Tamman
333	111463	Folsom Elementary School	82144 Hwy 25	Folsom	70437	St. Tamman
334	111820	Abney Elementary School	825 Kostmayer Ave	Slidell	70439	St. Tamman
335	120321	Slidell Special Education Complex	2552 Sergeant Alfred Dr	Slidell	70458	St. Tamman
336	123409	Pitcher Junior High School	415 S Jefferson	Covington	70433	St. Tamman
337	124278	C J Schoen Middle School	300 N Jefferson Ave	Covington	70433	St. Tamman
338	124370	Salmen High School	4040 Berkley St	Slidell	70458	St. Tamman
339	129056	Brooks Curriculum	2752 Fourth St	Slidell	70458	St. Tamman
340	130074	Mandeville High School	One Skipper Dr	Mandeville	70471	St. Tamman
341	130080	Riverside Elementary School	38480 Sullivan Dr	Pearl River	70452	St. Tamman
342	130081	Honey Island Elementary School	500 S Military Rd	Slidell	70461	St. Tamman
343	130082	Little Oak Middle School	59241 Rebel Dr	Slidell	70461	St. Tamman
344	130736	Clearwood Junior High School	130 Clearwood Dr	Slidell	70458	St. Tamman
345	130737	Mandeville High School	240 Cypress	Mandeville	70448	St. Tamman
346	130739	Little Oak Elementary School	250 Rebel Dr	Slidell	70461	St. Tamman
347	130745	Covington Special Education School	801 N Tyler	Covington	70433	St. Tamman
348	3009	LA Tech College - Sullivan Campus	1710 Sullivan Dr	Bogalusa	70427	Washington
349	5595	Thomas Junior High School	30341 Hwy 424	Franklinton	704380000	Washington
350	91692	Pleasant Hill Elementary School	725 Ave C	Bogalusa	704273798	Washington
351	91733	Long Avenue Elementary School	1100 Long Ave	Bogalusa	70427	Washington
352	91772	Bogalusa Jr High School	1403 North Ave	Bogalusa	70427	Washington
353	93654	Angie Junior High School	64433 Dixon St	Angie	70426	Washington
354	94396	Wesley Ray Elementary School	30523 E Wesley Ray Rd	Angie	70426	Washington
355	94401	Varnado High School	25543 Washington Ave	Angie	70426	Washington
	94402	Varnado Elementary School	64139 Jones Creek Rd	Angie	70426	Washington
	94403	Pine School	27164 Hwy 62	Franklinton	70438	Washington
	94405	Mt Hermon School	36119 Hwy 438	Mount Hermon	70450	Washington
359	94407	Enon Elementary School	14058 Hwy 16	Franklinton	70438	Washington
360	105514	Bogalusa High School	100 M J Israel Dr	Bogalusa	70427	Washington
361	106790	Columbia St Magnet School	1020 Columbia St	Bogalusa	70427	Washington
362	109977	Ben's Ford Christian School	59253 Mt Pleasant Rd #2	Bogalusa	70427	Washington
363	109979	Annunication School	511 Ave C	Bogalusa	704273797	Washington
364	109981	Byrd Avenue Elementary School	1600 Byrd Ave	Bogalusa	70427	Washington
365	109982	Bowling Green School	700 Varnado St	Franklinton	70432	Washington

APPENDIX 5.9

Condemnation and Demolition of Buildings (USACE)

DRAFT
Condemnation and Demolition of Buildings

Demolition Subcommittee
Version: 09/12/2005
DRAFT VERSION

OBJECTIVE

Develop a checklist and/or flow diagram that can be used as a tool by state and local government entities to assist them in making a decision on the condemnation and demolition of public and private buildings and residences.

CONSIDERATIONS

The decision on condemnation and demolition of public and private buildings and residences rests solely with state and local government. Listed below are several of the considerations and factors that will need to be considered:

- State and local abatement authorities should be followed
- The requesting entity indemnifies the Federal Government and its employees, agents, and contractors.
- Insurance coverage must be researched to avoid duplication of benefits.
- Right-of-entry and hold harmless agreements should be acquired.

Reference Recovery Division Policy number 9523.13 for further explanation.

Historic Preservations

Compliance with sections 106 and 110 of the National Historic Preservation Act will need to be integrated into the decisionmaking process for the condemnation and demolition of buildings in the eight (8) Louisiana Parishes affected by Hurricane Katrina. The Louisiana State Historic Preservation Office (SHPO) has identified the following list of historic resources that are of particular concern:

- National Historic Landmarks
- National Register of Historic Places (National Register) listed properties and historic districts
- Local landmarks, as defined by the local agencies
- Properties and historic districts constructed prior to 1960 and potentially eligible for the National Register for their significance at the local, state, and national levels

- Archeological sites listed on the National Register or potentially eligble for listing
- Cultural landscapes
- Museum collections
- Archival and library collections of exceptional significance

FEMA and SHPO propose to asses and review all buildings in the affected parishes for their National Resister eligibility and current condition. It is anticipated that this would be conducted by a team of individuals including architects, architectural historians, and other professionals, of which at last one of whom would be from the local area. These teams would use the results of the field assessments activities to recommendwhich properties will be retained, which may be demolished after documentation and/or salvage for local reuse, and which may be demolished with no additional work needed.

In some instances, condemnation and demolition activities may impact nearby historic resources including archeological sites. Areas which may be demolished and which are located near high ground may have the potential for listing on the National Register. The use of machinery, and other actions, such as bulldozers, may cause an adverse effect during demolition and debris removal due to equipment operation and exposure.

Other Environmental Laws and Executive Orders

All demolition and debris disposal activities must be in compliance with all local and state laws, ordinances and permits or permit requirements.
Additionally such activities must comply with all applicable substantive Federal Laws and Executive Orders. (i.e. - National Environmental Policy Act, Section 7 of the Endangered Species Act, Section 404 of the Clean Water Act, Executive Orders 11988 [Floodplain Management] and 11990 {Protection of Wetlands], Executive Order 12898,
[Environmental Justice])

11990FEMA in partnership with the applicable State and Federal Agencies will assist the local governments in compliance with the various laws and Executive Orders.

Condemnation Criteria

Structural
Buildings and residences that are not structurally sound can be condemned.

Environmental Health

Toxic, reactive, ignitable, and\or corrosive media, as defined under RCRA, within private property can activate a condemnation.

Concentrations of contamination causing human health or environmental concerns may trigger condemnation.

Environmental Cost Ranges

Though all environments can be decontaminated given sufficient time and money, the following is provided to provide a basis to evaluate abatement vs demolition evalutions.

Mold ($0.75 – $12.50\ft^2)

Lead ($2.75 – $12.50\ft^2)

Asbestos ($2.75 – $35.00\ft^2)

Other environmental contamination ($0.25-$1000\ft^2)

DRAFT CHECKLIST

Condemnation and Demolition of Buildings
Demolition Subcommittee

Version: 09/12/2005
DRAFT VERSION

The following checklist provides a basis to evaluate condemnation decisions.

_____Condemnation authority established at local, parish, and state level.

_____Condemnation notification established at local levels.

_____Historic preservation considerations satisfied under applicable sections 106 and 110 of the National Historic Preservation Act.

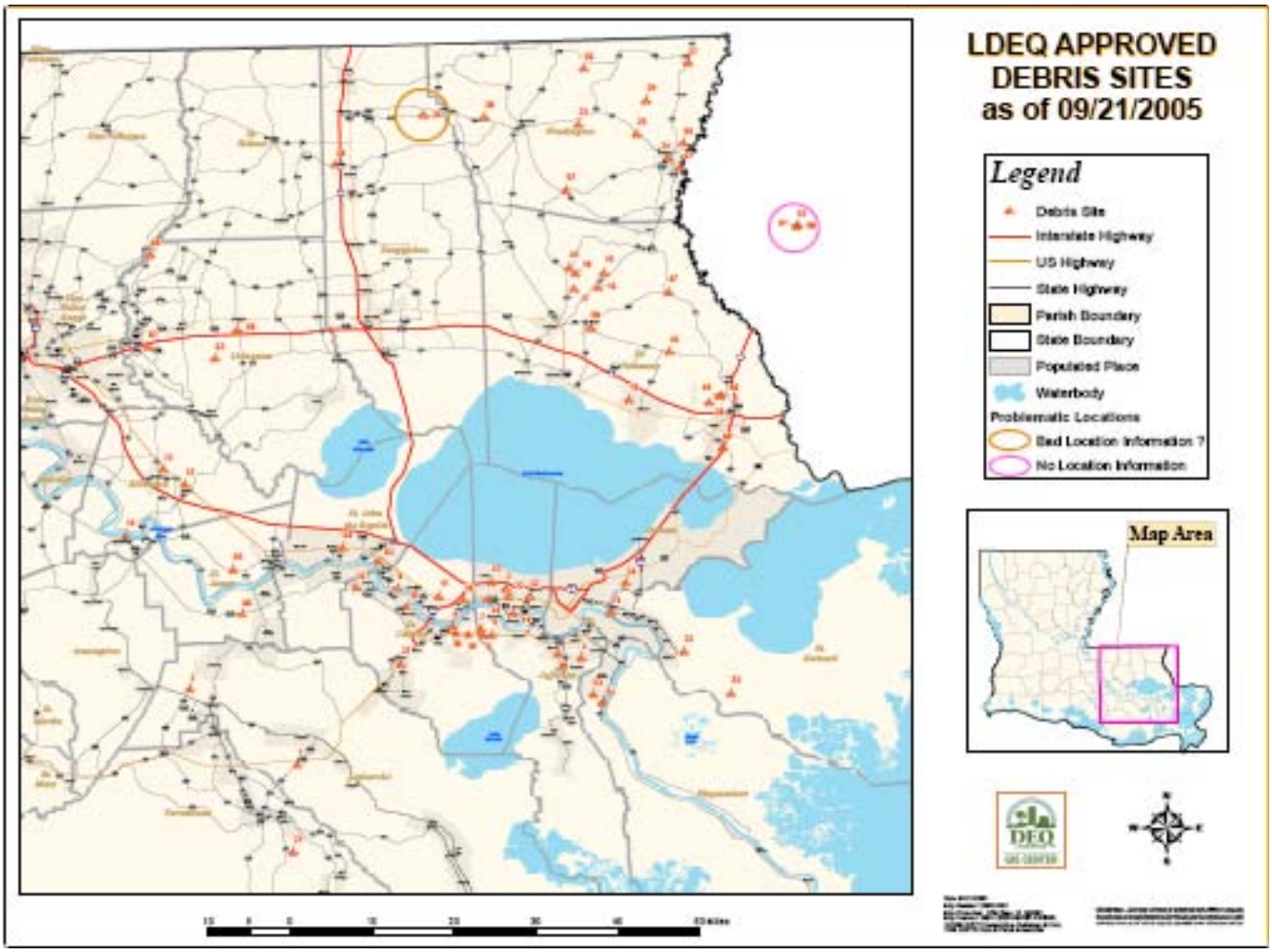
_____Structural Integrity of the property.

_____Public Health and environmental conditions within properties creates health risks.

_____Costs for eligible stabilization under public assistance.

APPENDIX 5.10

Louisiana Approved Debris Sites List (LDEQ)


LDEQ APPROVED
DEBRIS SITES
as of 09/21/2005
Legend
Debris Site
Interstate Highway
US Highway
State Highway
Parish Boundary
State Boundary
Populated Place
Waterbody
Problematic Locations
Bad Location Information ?
No Location Information
Map Area
DEQ

Facility Name	ID #/(AI#)	Status	Type	Contact	Address	Phone	Parish	Owner/ Operator	lats	longs	2005 remaining capacity
Acadia Parish Landfill	D-001-1522/P-0029 (20036)	Operating	II	Raymond Breaux	611 Petal Rd., Egan, LA 70531	337-783-4834	Acadia	Parish	30,15,26	92,31,00	4.5 M T
Coast Guard Rd. Landfill	D-075-1639/P-171R1 (20061)	Operating	I & II	Kevin Guidry	P.O. Drawer 647. Venice, LA 70091-0647	504-534-7886	Plaquemines	Tidewater Landfill, Inc.	29,15,12	89,21,27	461,000 T
Colonial Landfill (BFI)	TD-005-0532/P-0021 (4803)	Operating	I & II	Ricky Falgoust	P.O. Box 605, Sorrento, LA 70778	225-675-8021 225-778-3800	Ascension	BFI	30,08,59	90,51,37	2.8 M T
CWI, White Oaks	D-073-7744/P-0357 (42312)	Operating	I & II	Bill Hay	P.O. Box 13355 Monroe, LA 71207		Ouachita	CWI	32,29,36	91,58,28	2.5 M T
DeSoto Parish Landfill (Mundy)	D-031-1827/P-0035 (19803)	Operating	II	M. Laffitte	2712 Hwy. 84E, Mansfield, LA 71052	318-872-2500 318-872-0739 318-872-2131	DeSoto	Parish	32,03,28	93,35,23	150,000 T
East Baton Rouge North Landfill	D-033-2885/P-0269 (31128)	Operating	I & II	Jorge Ferrer	P.O. Box 1471, Baton Rouge, LA 70821	225-389-5476 225-389-5245 225-389-4813	E. Baton Rouge	Parish/BFI	30,36,10	91,13,45	23 M T
Jefferson Davis Parish Landfill	D-053-1871/P-0100 (18935)	Operating	I & II	Daniel Hylton	P.O. Box 1207, Jennings, LA 70546	337-734-4135	Jefferson Davis	Parish/BFI	30,15,54	92,51,39	3.9 M T
Jefferson Parish Landfill	D-051-0090/P-0297 (6961)	Operating	I & II	Marnie Winter	5800 Hwy 90, Avondale, LA 70094	504-436-0152	Jefferson	Parish/WM	29,55,11	90,15,25	3.6. M T
LaSalle/Grant Parish Landfill	D-059-1658/P-0119R1 (19447)	Operating	I & II	Dorsel Cobb	P.O. Box 1180, Jena, LA 71342-1180	318-992-5571	LaSalle	Parish/IESI	31,47,39	92,10,31	200,000 T
Magnolia Landfill	D-073-1848/P-0046R1 (12241)	Operating	I & II	Lyle Lewis	P.O. Box 13467, Monroe, LA 71213	318-343-5636	Ouachita	WM	32,28,51	91,59,25	8.7 M T
Reliable Landfill, Western Waste, Inc.	D-077-1314/P-0032R1 (27605`)	Operating	I & II	David Mason	P.O. Box 576, Livonia, LA 70755	225-637-3564	Pointe Coupee	WM	30,32,30	91,27,57	80 M T
River Birch Landfill	D-051-6741/P-0321 (32219)	Operating	I & II	A. J. Ward, Jr.	P.O. Box 1938, Gretna, LA 70054	504-364-1140	Jefferson (Avondale)	River Birch, Inc.	29,55,18	90,16,03	60 M T
Sabine Parish Landfill	D-085-1837/P-0170R1 (12448)	Operating	I & II	Richard Isgitt	P.O. Box 507, Many, LA 71458	318-256-6361	Sabine	IESI	31,36,20	93,32,40	600,000 T
St. Landry Parish Landfill	D-097-1836/P-0043 (19220)	Operating	II	Gary Bonvillian	P.O. Box 610, Washington, LA 70589	337-826-5211	St. Landry	Parish	30,40,58.67	92,03,45.48	3 M T
St. Mary Parish (Harold "Babe" Landry) Landfill	D-101-0079/P-0193 (9340)	Operating	II	Norris Crappell	P.O. Box 251, Berwick, LA 70342	504-385-4531	St. Mary	Parish	29,40,51,44	91,14,4,35	3.8 M T
Tangipahoa Regional Landfill	D-105-1852/P-0127 (19190)	Operating	II	Buddy Till	P.O. Box 215, Amite, LA 70422	504-748-3211 504-878-2808	Tangipahoa	Parish	30,41,12,50	90,33,55,70	697,200
Tensas Parish Landfill	D-107-0265/P-0260 (43506)	Operating	I & II	John Wynn	P.O. Box 598, St. Joseph, LA 71366	318-766-9219	Tensas	IESI	31,59,18	91,16,6	140,000 T
Timberlane Landfill	D-003-8646/P-0339 (52277)	Operating	I & II	Marvin Kelch	376 Pawnee Rd., Oakdale, LA 71463	318-335-9500	Allen	IESI	30,51,46	92,36,28	180,000 T
Union Parish Landfill	TD-111-0108/P-0179 (20131)	Operating	II	Stanley Glossen	P.O. Box 723, Farmerville, LA 71241	318-368-3296 318-368-3374	Union	Parish	32,48,57	92,23,8	40,000 T
Vermilion Parish Landfill	TDP-113-0023/P-0030 (148)	Operating	II	Ricky Leblanc	Dept. of Public Works, 8500 Birch St., Abbeville, LA 70510	337-898-4338	Vermilion	Parish	30,01,42	92,08,11	931,302 T
Washington Parish Landfill (Choctaw Rd.)	D-117-1980/P-0155 (20076)	Operating	II	Raymond Miller	26400 Buford Creel Rd., Franklinton, LA 70438	504-848-2920	Washington	Parish	30,50,47,60	90,2,29,90	42,521 T
Webster Parish Landfill	TD-119-1916/P-0165 (85534)	Operating	I & II	Aubin Feazell	P.O. Box 389, Minden, LA 71058-0389	318-377-9193	Webster	Parish/WM	32,37,37	93,23,39	1.9 M T
West Carroll Parish Landfill	D-123-2069/P-0121 (20079)	Operating	II	Clyde McBride	P.O. Drawer 630, Oak Grove, LA 71263	318-428-4835 318-428-2437	West Carroll	Parish	32,45,53	91,20,39	235,000 T
Woodside Landfill and Recycling Center, Livingston Parish	D-063-1941/P-0080R1 (11767)	Operating	I & II	David Mason	29375 Woodside Dr., Walker, LA 70785	225-665-8225	Livingston	WM	30,29,25	90,49,38	100 M T
Woolworth Road Landfill, (City of Shreveport)	D-017-1909/P-0120R1 (9077)	Operating	I & II	Fred Williams/Paul Marks	P.O. Box 31109, Shreveport, LA 71130,	318-673-6300 318-925-3500	Caddo	City/BFI	32,21,15	93,55,00	776,000 T
Hwy, 90 C&D	100642		III								80 M cu yds
Terrebonne C&D	97112		III								1.1 M cu yds
D&J Fill	28092		III								500,000 cu yds
City of Gonzales			III								closed
Total Wood (BMP) grinder											
Natural Resources Rec. C&D			III								
Iberia Parish			III								
Slidell LF			III								45M cu yds

LDEQ APPROVED DEBRIS SITEs as of 09/21/2005

		Bad Location Information (wrong parish or wrong corridate values)			
		No Location Information			
ID	**PARISH**	**NAME**	**LOCATION**	**LATITUDE**	**LONGITUDE**
1	Lafourche	Raceland Pistol Range	LA Hwy 182 off Hwy 90	29.68259	-90.64591
2	Lafourche	Thibodeaux Saw Mill	344 Greenwood of LA 308	29.82517	-90.86134
3	Jefferson	Lafreniere Park	Downs Drive off Veterans Blvd	29.99739	-90.215
4	Jefferson	Peters Road	Peters Rd S of Lapalco	29.86648	-90.06506
5	Jefferson	Hwy 90 C&D Landfill	N. side Hwy 90 5000 Hwy 90	29.91268	-90.24549
6	Jefferson	Waste Mgmt Landfill	N. side Hwy 90	29.91398	-90.26371
7	Jefferson	River Birch	N. side Hwy 90 2000 South Kenner Rd.	29.9241	-90.26814
8	St. Charles	Bonnet Carre Spillway	BC Spillway near model airplane field	30.00341	-90.43539
9	St. Charles	Davis Pond	Davis Pond diversion at River Road	29.92984	-90.32551
10	St. Charles	St. Rose levee berm	St. Rose levee off US61	29.97827	-90.30099
11	St. Charles	Cross Bayou Levee berm	Cross Bayou @ US61	29.98618	-90.35145
12	Ascension	Civic Center	Sorrento site on US 61	30.20141	-90.86423
13	Ascension	Gonzales City Site	Along RR tracks behind city maintenance yard	30.22926	-90.90784
14	Ascension	Donaldson Batture	MS River batture in downtown Donaldsonvile	30.10795	-90.98737
15	St.Tammany	Higgins Rd #1		30.573247	-89.997645
16	St. Tammany	Stranco	Hwy 1083 Allen Rd	30.546482	-90.010717
17	St.Tammany	Higgins Rd # 2	Across from site 2	30.5454	-90.06056
18	St.Tammany	Stafford Rd pit		30.57322	-90.05594
19	St.Tammany		N. Pontchartrain Rd.	30.33872	-89.95391
20	St.Tammany		Browns Village Rd	30.33069	-89.79117
21	Terrebonne Parish	Ashland landfill	landfill	29.5216	-90.65915
22	Jefferson Parish			29.983283	-90.21033
23	Washington Parish	Choctaw Rd landfill	Landfill	30.84661	-90.04178
24	Washington Parish	Temple inland papermill	Bogalusa	30.78	-89.86
25	Washington Parish		Old Bogalusa landfill	30.82625	-89.9229
26	Washington Parish	Weyerhaeuser property	Old dump on N. Choctaw Rd	30.8718	-90.3604
27	Washington Parish	Hershel Kennedy	Hwy21, 0.5 mile S. of Angie	30.9551	-89.81343
28	Washington Parish	Willie Dillon	Hwy 10, 3 miles w. of Franklinton	30.86415	-90.23446
29	Washington Parish	Werhaeuser property	Dollar Rd, 3 miles N. Hwy 10	30.88728	-89.90179
30	Tangipahoa Pariss	J.D. Stevens	Hwy 1048 Arcola, one mile west of I-55	30.78338	-90.54293
31	St. Bernard	Damino Sugar site		29.94808	-90.00175
32	St. Bernard	Old Asphalt plant site		29.87367	-89.856367
33	St. Bernard	Woodlake dump site		29.7944167	-89.76355
34	Orleans Parish	Old Gentily Rd laandfill		30.003167	-89.97033

Large Spreadsheet
Must Be Combined

LDEQ APPROVED DEBRIS SITEs as of 09/21/2005

35	St. Charles	Home Place Plantation site		29.96828	-90.41901
36	St. Charles	K.V. Landfill		30.00537	-90.51933
37	St. Charles	Brandt Dufrene		29.86301	-90.43187
38	St. Charles	Davis Pond diversion canal		29.91796	-90.31891
39	St. Charles	BFI west St.Charles		29.91567	-90.29353
40	Jefferson	Old Kmart	Lapalco and Ames	29.87579	-90.11218
41	Jefferson	Harahan playground	Hickory and 10th	29.95218	-90.20185
42	Jefferson	Betpouey property	west Met.	29.98237	-90.1668
43	Jefferson	City of Kenner	I-10, N. service Rd	30.00992	-90.24373
44	Jefferson	City of Kenner	S. Kenner site	29.97884	-90.25317
45	St.Tammany	Baker's Corner pit	hwy 40	30.58346	-90.06836
46	St.Tammany	Hickory speedway	hwy 36	30.42518	-89.86852
47	St.Tammany	Talisheek site	hwy 41	30.5346	-89.8672
48	St. Tammany	Lowe pit 3	hwy road dept.	30.34265	-89.76548
49	St.Tammany	Lowe pit 4	hwy road dept	30.34222	-89.76931
50	Orleans	Municipal Auditorium		30.65	-89.6
51	Orleans	Lake forest mal	Read Blvd	30.65	-89.6
52	Orleans	Fairground		30.65	-89.6
53	Plaquemines			29.79932	-90.0433
54	Plaquemines	industrial pipe		29.78433	-90.02531
55	Washington	Adames Estate		30.80766	-89.82827
56	Washington	Nellene Thomas		30.9499	-90.02724
57	Washington	Kenny Gatewood		30.72577	-90.0706
58	St.Tammany	Town of Abita springs		30.47262	-90.02869
59	Livingston	Charlie Watts Rd		30.48306	-90.75164
60	Livingston	Live Oak Site (dirt pit area)		30.62396	-90.92603
61	Livingston	Forest Delatte Rd. (Salvage Yard -pit)		30.45459	-90.93233
62	Livingston	Wyndell Harrell Site		30.4314	-90.79793
63	St. John	McReine Site		30.05288	-90.47343
64	St. John	Reserve Canal Site		30.07889	-90.54544
65	St. James	Grand Point Site		30.04257	-90.76895
66	St. James	St. James parish landfill		29.9614	-90.7531
67	Washington Parish	Everett King	River Side Dr.	30.76329	-89.83525
68	St. Tammany	Slidell Landfill		30.2458	-89.7656

LDEQ APPROVED DEBRIS SITEs as of 09/21/2005

OWNERSHIP	**LANDUSE**	**SITESIZE**	**RFOACCEPTA**	**USE_INITI**	**PERMIT**
Parish	"Old Landfill, firing range"	20 acres	yes	yes	yes
Private	"Sawmill, wood chipping"	5-10 acres	yes	yes	N/A
Parish	Recreation Park	~20 acres	yes	yes	N/A
Private-Condemn?	old pipe yard	60 acres	yes	no	N/A
	landfill				
	landfill				
	landfill				
USACE Federal Land	"various recreational, sand hauling"	100 acres+	yes	no	N/A
USACE Federal Land & Easement	Open Pasture cattle grazing	20 acres	check?	no	N/A
levee board	wetland berm	3 acres	no	no	
levee board	wetland berm	4 acres	no	no	
City/Parish	Open fields for Parish recreation	3-4 acres	yes	yes	N/A
City	vegetation/ asphalt deposition	2 acres	yes	yes?	
River batture	open cleared land within river levee	2 acres	yes	yes?	N/A
	Disturbed	500 ac	Yes		N/A
	Disturbed	80 ac			
	Disturbed	20 ac			
	Disturbed	40 ac			
Parish	Landfill		Yes		
	park				
	landfill				
	Paper mill				
	Closed landfill				
	Closed landfill				
	Disturbed				
	Disturbed				
	Disturbed				
	Landfill				

LDEQ APPROVED DEBRIS SITEs as of 09/21/2005

	Landfill				
	Closed landfill				
	Parking lot				
	Play ground				
	landfill				solid waste

LDEQ APPROVED DEBRIS SITEs as of 09/21/2005

DISPOSITIO	**BURN_PERMI**	**TYPE**	**ASH_DISPOS**
burn and c&d	yes	Veg	on site
chip	N/A	Veg	NA
Chip	depends?	Veg	?
burn or chip	yes	Veg	TBD
c&d			
burn	yes	Veg	on site
burn	?	Veq	TBD
burn			
burn			
chip	no	Veg	N/A
chip	no	veg	N/A
chip	no	veg	N/A
woodwaste disposal and burn		veg	
c&d		C&D	
burn			
woodwaste disposal			
burn			
burn			
burn			
chip			
burn and staging area			
chip			
c&d			
c&d			
staging and burn			
staging and disposal of wood waste			
staging and burn			
burn			
Staging and chip			
burn and chipping			
burn and chipping			
c&d			

Large Spreadsheet
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LDEQ APPROVED DEBRIS SITEs as of 09/21/2005

staging and burn			
c&d and wood wase disposal			
staging and burn			
burn			
c&d			
staging area for citizen drop off			
chip			
staging area for citizen drop off			
staging and chip of wood waste			
staging for white goods, c&d and chip of wood waste			
burn and chip			
chip and pit burner			
burn and chip			
chip			
chip and burn			
staging area for automobils staging area for automobiles staging area for automobiles			
burn, staging for white goods and c&d			
c&d and staging area for white goods			
burn			
burn			
burn			
burn only with an air curtain destructor			
burn			
burn			
burn			
burn			
chip			
chip			
burn			
burn			
burn			
c&d			

LDEQ APPROVED DEBRIS SITEs as of 09/21/2005

REMARKS	ID
Dump & burn	1
Landowner will chip and haul/sell chips	2
Burning must be 1000' away from any residence OR haul chips to BC Spillway	3
Huge abandoned oil field pipe yard under private ownership good for burning or chipping	4
	5
	6
	7
"Dump and burn in piles or rows, spread ash on site"	8
Cattle are grazing on site -fences need removal and replacement.	9
	10
	11
Small open grass field in rear of parish site with gravel substrate surrounded by hardwood trees	12
	13
	14
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wgs84 format	22
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Large Spreadsheet
Must Be Combined

LDEQ APPROVED DEBRIS SITEs as of 09/21/2005

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	45
	46
	47
	48
	49
2000 automobiles	50
5000-10000 automobiles	51
5000 automobiles	52
	53
	54
need to improve the access rd	55
	56
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	58
	59
	60
	61
	62
	63
	64
	65
	66
may require wet land determination	67
	68

APPENDIX 5.11

LDEQ Hurricane Katrina Debris Management Plan (LDEQ)

HURRICANE KATRINA

DEBRIS MANAGEMENT PLAN

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY

SEPTEMBER 28, 2005

Debris Management Plan Purpose

On August 28, 2005, Governor Kathleen Babineaux Blanco declared a state of emergency for the state of Louisiana as Hurricane Katrina approached Louisiana. On August 29, 2005, Hurricane Katrina struck Louisiana causing widespread damage, flooding and destruction. The Department of Environmental Quality has subsequently issued a number of declarations, administrative orders and waivers for local governments handling Katrina debris. On August 30, 2005 the Secretary of the Louisiana Department of Environmental Quality (LDEQ) issued a Declaration of Emergency and Administrative Order. This Declaration and Order was subsequently amended by the Secretary on September 3, 2005. Both documents are included as Attachments 1 and 2.

The purpose of this guidance is to furnish local governments with basic information on hurricane debris management within the scope of effective environmental management. While LDEQ is willing to be flexible and innovative on various approaches to handling debris issues as a result of Hurricane Katrina, it must still adhere to its mission of protecting the state's environment to the fullest extent possible under the circumstances. The Department will consider reasonable waiver requests in order to effect rapid and environmentally safe disposal, composting and waste diversion goals.

Requests for waivers and approvals for debris management sites should be routed to Dr. Chuck Carr Brown at (225) 219-3180 or Lou Buatt at (225) 219-3980.

This guide is an ongoing project. Revisions will be posted on the Department's web site.

Table of Contents

Attachments:

1. August 30, 2005 LDEQ Declaration of Emergency and Administrative Order
2. September 3, 2005 LDEQ Amended Declaration of Emergency and Administrative Order
3. Example Approval Letter for Staging and Chipping Wood Waste
   Example Approval Letter for C&D Disposal Site
5. Example Interim Operational Plan
6. Example “Burn Letter”
7. Current Katrina Contact List

Debris Management Site Selection
General Guidelines

Types of Debris Management Sites

In general, local governments will need to determine appropriate sites for the following temporary activities: staging and transfer of construction and demolition (C&D) debris; staging of vehicles and boats; staging of household hazardous waste; chipping, grinding and/or burning of vegetative debris; and staging of white goods, electronics and other consumer items. Use of a site as a permanent disposal site may also be considered.

Finding the Right Location

When selecting a debris management site, the local government will need to keep the following in mind:

1. What is the proposed use for this site?
2. Is it easily accessible?
3. Is it removed from obstructions such as power lines and pipelines?
4. Is the site considered to be a wetland area, as defined by the U.S. Army Corps of Engineers?
5. Is the general site topography conducive to the activity that will be conducted there?
6. Are there nearby residences and/or businesses that will be inconvenienced or adversely affected by use of this site?
7. Is the size sufficient for its intended use?
8. Is the soil type suitable for its intended use?
9. Can a site that has been used in the past be reactivated for this use?

In addition to the criteria listed above, LDEQ will evaluate proposed burn sites based on their location near water bodies such as rivers, lakes or streams and their proximity to occupied dwellings.

Site Approval

Upon request by the local government, LDEQ or its agent will inspect the proposed site to determine the appropriateness of its use as a debris management site. If the site is approved, LDEQ will inform the local government and will document the approval, usually by letter. The letter will contain any restrictions and operational conditions that must be adhered to. Examples of these restrictions are hours of operation and types of wastes to be allowed. Operational conditions will be outlined in an Interim Operational Plan. For examples of these documents, see Attachments 3-6.

Site Closure

Each debris management site will eventually be emptied of all material and be restored to its previous condition and use.[1] Closure must be in accordance with approved department practices and/or the interim operational plan.

Sampling of soil and/or ash that is left at the site might be required by the department. If required, the contractor will take necessary steps to ensure no environmental contamination is left on-site. Monitoring and/or remediation of a site must be coordinated through the department's Office of Environmental Assessment.

Closure should be accomplished within the time limits established by the department.

[1] If the site is used for C&D disposal and on-site closure is approved, specific tasks such as deed recordation must be accomplished.

Construction and Demolition (C&D) Debris

C&D debris may be handled in accordance with the provisions of the Department's Declaration of Emergency and Administrative Order, as amended. LDEQ expects, to the greatest extent possible, for C&D debris to either be staged at temporary sites and transported to permitted Type III facilities or to be placed into emergency disposal sites. Materials approved for receipt at these sites include roof shingles, roofing materials, carpet, insulation, wallboard, treated and painted lumber, etc.

LDEQ recognizes that decisions on the disposition of wastes and debris need to be made at the collection point. Use of best professional judgment will be necessary to determine the ultimate disposition of collected material. Contractors chosen by the local governing authority or by state or federal agencies should possess knowledge of applicable regulations and of the Declaration of Emergency and Administrative Order in order to correctly route waste streams to appropriate sites and/or facilities.

Site operations will comply with the Interim Operational Plan provided by LDEQ. It is the responsibility of the local government to provide this document to any entity that may be charged with operation of the site.

Staging/Transfer sites

Arrangements should be made to screen out, to the greatest extent practicable, unsuitable materials such as household garbage, white goods, asbestos containing materials (ACM's), and household hazardous waste. These materials should be placed in containers and transported to facilities that are approved for their receipt.

On-Site Disposal Sites

During extreme emergencies, it is necessary to allow accumulation and disposal of C&D debris at sites that are deemed appropriate but have not had time to go through the regular permitting process. LDEQ will evaluate requests by local governments and, if it is determined that a need exists, will allow disposal in this manner. If approved, operations must comply with the Interim Operational Plan provided by LDEQ.

Burning of C&D Debris

As dictated by circumstances, occasions may arise where LDEQ will allow C&D debris to be burned. While not an ordinary occurrence, it is a possibility.

LDEQ will endeavor to ensure that the location chosen for this activity is thoroughly evaluated to make any impacts as minimal as possible. Local, state and federal partners will be advised of locations that have been approved for this purpose.

Ash generated as a result of burning of C&D debris must be analyzed to determine if contaminants are present that would render the material unsuitable for use as a soil amendment, or would render the material a hazardous waste. Disposal or use of this ash must occur ONLY AFTER review of analysis results by LDEQ.

Materials approved for receipt at these sites include vegetative storm debris such as yard waste, trees, limbs, stumps, branches and untreated or unpainted wood. Sites should be identified as chipping/grinding sites and/or burn sites. All sites must be operated in accordance with the LDEQ-provided Interim Operational Plan or other department correspondence. It is the responsibility of local government to provide this document to any entity that may be charged with operation of the site. All equipment (grinders, chippers, air curtain pit burners) shall be operated in accordance with manufacturers' instructions and any applicable LDEQ permit. For an example of instructions provided for these sites, see Attachments 3-6.

Chipping/Grinding Sites

Chipping and grinding provide material for use in landscape mulch, compost preparation, and industrial boiler fuel. If preparing compost and/or mulch piles, care should be taken to reduce the potential for spontaneous combustion.

When ground organic debris is put into piles, microorganisms can very quickly begin to decompose the organic materials. The microorganisms generate heat and volatile gases as a result of the decomposition process. Temperatures in these piles can easily rise to more than 160 degrees Fahrenheit. Spontaneous combustion can occur in these situations. Spontaneous combustion is more likely to occur in larger piles of debris because of a greater possibility of volatile gases building up in the piles and being ignited by the high temperatures. If wind rows can be maintained 5 feet to 6 feet high and 8 feet to 10 feet wide, volatile gases have a better chance of escaping the piles; and the possibility of spontaneous combustion will be reduced.

Turning piles when temperatures reach 160 degrees can also reduce the potential for spontaneous combustion. Pile turning provides an opportunity for gases to escape and for the contents of the pile to cool. Adding moisture during turning will increase cooling. Controlling the amount of nitrogen-bearing (green) wastes in piles will also help to reduce the risk of fire. The less nitrogen in the piles the slower the decomposition process and consequently the less heat generated and gases released.

Large piles should be kept away from wooded areas and structures and should be accessible to fire fighting equipment, if a fire were to occur. Efforts should be made to avoid driving or operating heavy equipment on large piles because the compaction will increase the amount of heat build-up, which could increase the possibility of spontaneous combustion.

Burn Sites

Proximity to roads and dwellings is of particular importance in the selection of sites for this activity.

Open Burning. LDEQ may approve open burning of vegetative debris on a case by case basis. As with all proposed debris management sites, open burning locations must be approved by LDEQ in advance of their use.

Air Curtain Pit Burners (Air Curtains or Pit Burners). Air Curtains should be operated in accordance with manufacturers' instructions and with any applicable LDEQ permits or directives. For examples of Air Curtains, see page 6.

Disposal of Ash from Vegetative Debris Burn Sites. Ash may be land applied on site or off site. Whenever possible, soil test data and analysis of the ash should be available to determine appropriate application rates. Ash should not be applied during periods of high winds. Ash should not be applied within 25 feet of surface waters or ditches or drains on vegetated sites. These distances should be doubled on sites that are not vegetated, and the ash should be promptly incorporated into the soil.

As an alternative to land application, ash may be managed at a permitted solid waste landfill.

Assistance in obtaining soil test data and waste analysis of ash should be available through parish offices of the Extension Service.

Overview of an Air Curtain Operation

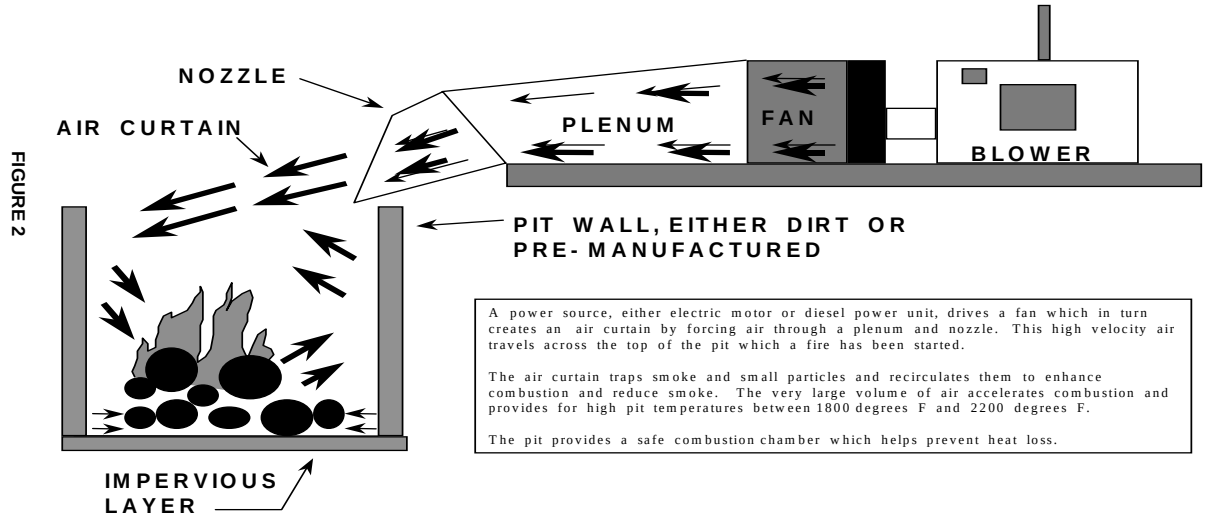


FIGURE 2

A power source, either electric motor or diesel power unit, drives a fan which in turn creates an air curtain by forcing air through a plenum and nozzle. This high velocity air travels across the top of the pit which a fire has been started.

The air curtain traps smoke and small particles and recirculates them to enhance combustion and reduce smoke. The very large volume of air accelerates combustion and provides for high pit temperatures between 1800 degrees F and 2200 degrees F.

The pit provides a safe combustion chamber which helps prevent heat loss.

Air Curtain Pit Burner

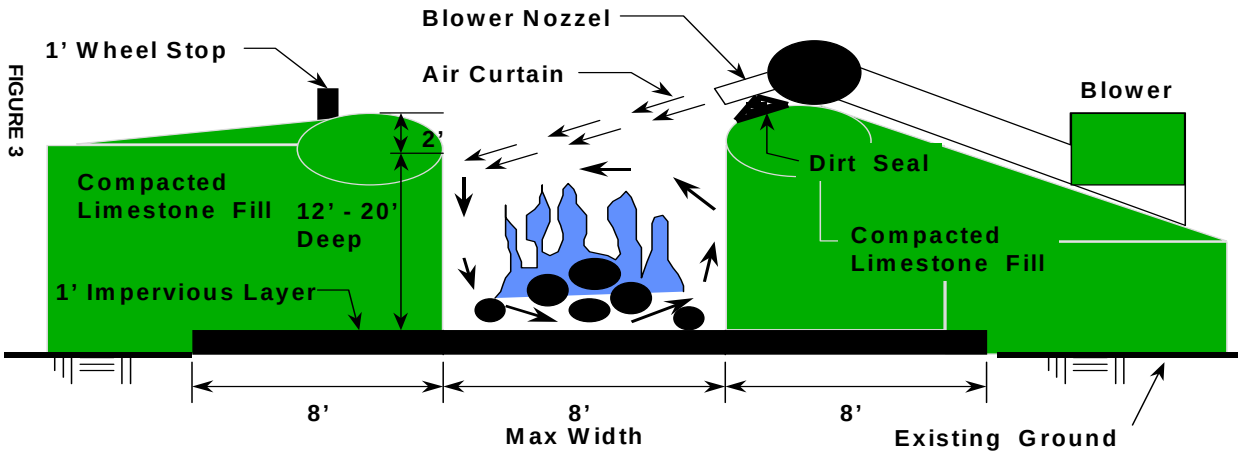


FIGURE 3

Abandoned Vehicles

1. Local governments shall designate an aggregation point for the temporary storage of abandoned vehicles. Contact DEQ for site approval.

2. Storage areas should be secure, fenced and lighted.

3. Vehicles brought to the storage areas should be site tagged, inventoried in by license plate, make, model, color and VIN.

4. Vehicles shall be staged and site tagged for easy retrieval.

5. Site operators shall forward vehicle data to the Department of Insurance for dissemination to insurers.

6. Local governments shall be responsible for the proper notification of vehicle owners.

7. Louisiana State Police will be sending Inspectors. Vehicles shall remain at the staging areas until inspected by the State Police and the National Insurance Crime Bureau.

8. Local government may request that direct federal assistance handle the disposition of unclaimed abandoned vehicles as required by state and local laws.

9. Scrap vehicles should be dismantled and properly recycled. The following materials must be recovered: gasoline and diesel fuel, refrigerants, lubricating oils, mercury ABS switches, mercury convenience switches, lead acid batteries, brake and transmission fluid, antifreeze and tires. Propane tanks and large appliances in recreational vehicles should be removed.

10. Vehicles may need to be decontaminated before leaving the aggregation site.

Abandoned Boats

1. Local governments shall designate an aggregation point for the temporary storage of abandoned boats. Contact DEQ for site approval.

2. Storage areas should be secure, fenced and lighted.

3. Boats brought to the storage areas should be site tagged, inventoried in by Department of Wildlife and Fisheries registration, make, model, color and serial number.

4. Boats shall be staged and site tagged for easy retrieval.

5. Site operators shall compare boat data with FEMA database registered boats.

6. Site operators shall forward boat data to the Department of Insurance for dissemination to insurers.

7. Local governments shall be responsible for the proper notification of boat owners.

8. Louisiana State Police will be sending Inspectors. Boats shall remain at the staging areas until inspected by the State Police and the National Insurance Crime Bureau.

9. Local government may request that FEMA handle the disposition of unclaimed abandoned boats as required by state and local laws.

10. Boats deemed for scrap should be crushed to reduce volume for easier handling and management, shredded and properly recycled when possible. The following materials must be recovered: gasoline and diesel fuel, refrigerants, lubricating oils, mercury bilge switches, propane tanks, large appliances, lead acid batteries, transmission fluid and electronics, such as, radar sets, radios, GPS units, and depth finders.

Large Appliances

1. Local governments should request or set up drop off collection sites for citizens for large appliances (white goods).

2. Local governments should require contractors demolishing condemned structures, to the greatest extent practicable, to remove and properly handle household appliances, televisions and computers, including refrigeration and freezing units at commercial locations.

3. Refrigerant containing appliances (RCAs) such as: refrigerators, freezers and air conditioning window units shall be handled in a manner which will prevent a release of refrigerants.

4. RCAs will be delivered to approved collection sites for refrigerant removal. EPA certified refrigeration technicians will remove refrigerants and handle in accordance with EPA standards.

5. Refrigerants shall be removed from condemned structures with split system air conditioning units prior to demolition. Only EPA certified refrigeration technicians will remove and handle refrigerants in accordance with EPA standards. Condensing units will then be removed from site and sent to appropriate collection site.

6. White goods (e.g., unsalvageable air conditioners, stoves, range tops, and refrigerators or freezers from which food has been removed) shall be stored in an area separate from other wastes and shall be stored in a manner that prevents vector and odor problems and shall be removed from the facility or staging aea within ninety (90) days.

7. Putrescible waste (e.g. rotting food has been removed from unsalvageable refrigerators and freezers) shall be disposed in a permitted Type II landfill.

Household Hazardous Waste

1. Local governments should request or set up drop off collection sites for citizens.

2. Precautions must be taken at these sites to prevent the release of materials into the environment. Such precautions include providing lined temporary storage areas for accumulation of the material.

3. Local governments should require that contractors demolishing condemned housing units, to the greatest extent practicable, remove and properly handle household hazardous materials such as: paints and varnishes, solvent, acids, pesticides, cleaning fluids, pool chemicals, used motor oil, propane tanks, mercury thermostats, liquid mercury, mercury containing devices, and refrigerants.

Liquefied Petroleum Gas Tanks

1. Liquefied Petroleum Gas (LPG) tanks typically contain propane gas. Propane is a flammable gas that is sometimes generically referred to as LP-Gas, LPG, or Liquefied Petroleum Gas. LPG is typically a propane-butane mixture. Propane might also contain small amounts of other flammable gasses, such as, ethane, ethylene, propylene, isobutane, or butylenes. LPG tanks may be found in a number of urban and rural environments such as motor homes, travel trailers, grills, camp stoves, lanterns, etc. Liquefied petroleum gas is stored under pressure. The gas will leak from any joint or connection which is not sealed properly.

2. Liquefied petroleum gas is heavier than air. Any significant leak will move down and stay on the ground. LPG will accumulate in any low-lying area such as depressions in the ground, drains or pits.

3. Since LPG is stored in two phases, liquid and gaseous, there is potential for either a liquid leak or a gas leak.

a. Portable, consumer type tanks will be sized from 4 to 40 pounds, though the most common tank is the 20 pound tank. Bulk tanks are often 100 to several hundred thousand pounds.
b. It is vital the all LPG tanks be located. Portable tanks can be re-located to a "staging area for recertification, refurbishment or dismantling.
c. Bulk tanks should not be moved except by properly train personnel.
d. Tanks measuring 25 gallons and larger, are suppose to be in the LPG Commission database. The data base should list where these tanks were supposed to be installed. Orphan tanks can be identified and the owners tracked down by their serial numbers.

a. If the Liquefied petroleum gas leak is a gas leak it may not be seen (because LPG is colorless), except where the leak is of sufficient size to be seen shimmering in the air.
b. When a liquid Liquefied petroleum gas leak occurs, the gas release will be seen as a patch of ice around the area of the leak, or as a jet of white liquid. This white appearance is due to the cooling effect created by the rapid expansion of the LPG liquid into a gas. The condensing atmospheric moisture makes the leak visible.

c. In concentrated amounts and in uncontrolled conditions, Liquefied petroleum gas has the potential to create a fire or an explosion.

4. Debris workers must be observant for LPG tanks. Basically, there are two types of tanks you will find. Portable and bulk.

Development comment: Liquefied Petroleum Gas Commission will coordinate this once we have them staged at a particular place. LA State Police Haz Mat Section is working to log found tanks locations and those that are still floating in the flood waters and locations of tanks after the waters recede. Once the tanks are able to be retrieved, they need to be taken to a staging area or areas and get serial numbers. Then they can then start the process of getting them properly placed with their owners Most of these tanks will be reusable and will not cause an additional problem of disposal.

Floodwater Sediment Handling Guidelines

1. Sediment samples collected by the Environmental Protection Agency (EPA) and Louisiana Department of Environmental Quality (LDEQ) in the New Orleans area have been analyzed for bacteria and chemicals. Preliminary results indicate that some sediments may be contaminated with bacteria and fuel oils. Human health risks may therefore exist from contact with sediment deposited from receding flood waters.

2. Health agencies and/or occupational health agencies may be consulted to determine appropriate exposure precautions to be taken. Workers collecting sediments from flooded areas should take necessary precautions to avoid skin contact with sediments or breathing sediment materials. Assume all sediments are contaminated.

3. Vehicles transporting sediments to aggregation points must be covered to prevent sediments from escaping.

4. Sediments need to be characterized to determine the appropriate disposal option. If warranted, some sediments may need to be disposed in a permitted hazardous waste landfill. Some slightly contaminated sediments may be disposed in a permitted industrial solid waste landfill. Uncontaminated sediments may be used as fill material.

5. Sediments arriving from sites where no sampling has taken place must be separately piled, sampled and tested before disposal. Untested sediments will be treated as hydrocarbon or heavy metal contaminated until proven otherwise.

Asbestos Debris

Licenses Required by the Louisiana State Licensing Board for Contractors (LSLBC)

Contractors performing asbestos abatement must be licensed by the Louisiana State Licensing Board for Contractors. Licensing for asbestos abatement is under the Commercial license with a specialty in Asbestos. Additional information for licensing can be found at http://www.lslbc.louisiana.gov/index.asp or by calling (225) 765-2301.

One of the licensing requirements is that one Supervisor/Contractor acting as the responsible individual for the company be accredited with LDEQ in order to get a license. The Licensing Board has expedited testing and Board approval. Time frame is approximately 2 weeks. Following approval from the Louisiana State Licensing Board for Contractors, all abatement workers/supervisors performing work in Louisiana are required to be accredited by LDEQ. The Asbestos Accreditation Form (AAC-1) can be found at www.deq.louisiana.gov/permits/asbestos/aac-1.doc. Note that there is a fee for emergency processing (3 days or less).

Accreditations and Notifications Required by La. Dept. of Environmental Quality

The Louisiana Air Quality regulations, Chapters 27 and 5151 regarding Asbestos Demolition and Renovation abatement activities as well as accreditation of Workers, Supervisor/Contractors (including air monitoring personnel), Inspectors,

Management Planners, and Project Designers are located at http://www.deq.louisiana.gov/planning/regs/title33/index.htm.

All personnel working as Asbestos Workers, Supervisor/Contractors (including air monitoring personnel), Inspectors, Management Planners, or Project Designers must be accredited by Louisiana Department of Environmental Quality. Initial and subsequent AHERA training by an EPA recognized training provider or training provider recognized by a state program with EPA authorization is required for accreditation as well as a picture for an I.D. card and fees. An Asbestos Accreditation Application can be found at http://www.deq.louisiana.gov/permits/asbestos/aac-1.doc . Also, a list of Louisiana recognized training providers can be found at http://www.deq.louisiana.gov/permits/asbestos/asbestos_training.pdf

The LDEQ has expedited the accreditation process for the Hurricane affected areas, including Hurricane related abatement, and is able to give almost immediate accreditation by letter, if necessary. Follow up certificates will be generated as soon as possible for all approved applicants. During the review process, if an applicant does not have the necessary credentials, additional paperwork will be requested. If the paperwork is not submitted, the accreditation for that person will be pulled. See Amended Declaration of Emergency and Administrative Order, number 6. **Asbestos Clean-up** on our website for abatement and training notification allowances with a 24-hour notification after commencement, and waiver of the Louisiana 2-hour regulations class at http://www.deq.louisiana.gov/news/pdf/Declarationofemergency.pdf.

The Asbestos Notification form for Demolition or Renovation can be found at http://www.deq.louisiana.gov/permits/asbestos/aac-2.pdf. Note: 10-day notification is waved for the affected Hurricane area; however, notification is required within 24 hours of abatement commencement.

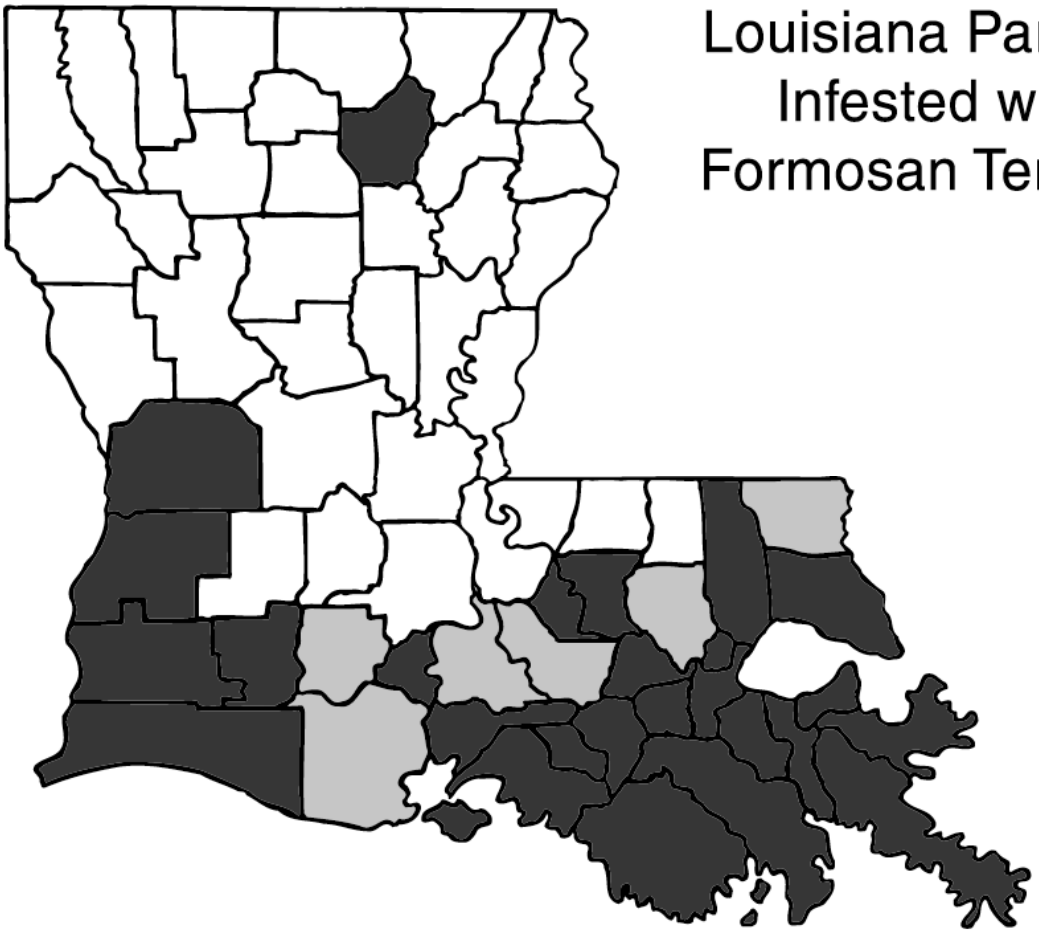
If you have any asbestos questions, please contact Jodi Miller at LDEQ at (225) 219-3004.

Formosan Termite Control

Formosan subterranean termites, *Coptotermes formosanus*, were introduced into the greater New Orleans area, as well as several other coastal cities, after World War II. By the time they were identified in 1966, they had become well established in areas throughout New Orleans and Lake Charles. The termites have had 30 years to grow and spread.

New Orleans has one of the largest and most destructive Formosan termite infestations. A humid, near-tropical climate contributes to the problem. The architectural character of the city's French Quarter or *Vieux Carre*, contributes to the problem. Many of the buildings there are historic landmarks with foundations supported by woodwork dating back to the 1700s in some cases. Row-style homes with their shared walls give foraging termite's easy access from one building to the next. This construction style hampers pest control efforts to treat or fumigate a single client's home or building.

Landfills are an ideal environment for these subterranean termites, especially in humid Louisiana. For this reason, restrictions are in place from the Louisiana Department of Agriculture and Forestry as to where in Louisiana potential Formosan termite contaminated debris might be disposed. Landfill operators, contractors and waste generators should consult with the Department of Agriculture and Forestry about proper disposal of Formosan termite debris. Contact Mr. Bobby Simoneaux at (225) 925-3763 or bobby_s@ldaf.state.la.us



Louisiana Parishes Infested with Formosan Termites

Parishes Infested

Ascension
Assumption
Beauregard
Calcasieu
Cameron
East Baton Rouge
Iberia
Jefferson
Jefferson Davis
Lafayette
Lafourche
Ouachita
Orleans
Plaquemines
St. Bernard
St. Charles
St. James
St. John the Baptist
St. Martin
St. Mary
St. Tammany
Tangipahoa
Terrebonne
Vernon
West Baton Rouge

Expected Infestation in Near Future

Acadia
Iberville
Livingston
St. Martin
Vermilion
Washington

ATTACHMENT 1

AUGUST 30, 2005 LDEQ DECLARATION OF EMERGENCY AND ADMINISTRATIVE ORDER

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY

DECLARATION OF EMERGENCY
AND ADMINISTRATIVE ORDER

Pursuant to the authority granted to me by Louisiana Revised Statutes 30:2001 *et seq.,* and particularly La. R.S. 30:2033 and 2011(D)(6), I hereby make the following findings, declaration and order:

FINDINGS AND DECLARATION

1. On the 29th day of August, 2005, Hurricane Katrina (hereinafter "Hurricane") struck Louisiana, causing widespread damage within the parishes of Ascension, Assumption, East Baton Rouge, East Feliciana, Iberia, Iberville, Jefferson, Lafourche, Livingston, Orleans, Plaquemines, Pointe Coupee, St. Bernard, St. Charles, St. Helena, St. James, St. John, St. Mary, St. Martin, St. Tammany, Tangipahoa, Terrebonne, Washington, West Baton Rouge, and West Feliciana, which parishes shall constitute the specific areas covered by this Declaration and Order. These areas shall herein be referred to as the "Emergency Areas."

2. By State of Louisiana Proclamation No. 48 KBB 2005, the Governor declared on August 26, 2005, that a state of emergency exists in the state of Louisiana, as Hurricane Katrina poses an imminent threat, carrying severe storms, high winds and torrential rain that may cause flooding and damage to private property and public facilities and threaten the safety and security of the citizens of the state of Louisiana.

3. On August 29, 2005, FEMA issued a Disaster Declaration, FEMA-1603-DR covering south Louisiana.

4. I find that the Hurricane has created conditions that require immediate action to prevent irreparable damage to the environment and serious threats to life or safety throughout the Emergency Areas.

WHEREFORE, I hereby declare that an emergency exists, and that the following measures are necessary to prevent irreparable damage to the environment and serious threats to life or safety throughout the Emergency Areas.

ORDER

Within the Emergency Areas:

1. Waste water Treatment Systems

Permittees with Louisiana Pollutant Discharge Elimination System (LPDES) permits should consider activating the upset provisions in their permits. Under upsets caused by this hurricane, the 24 hour oral notification is waived unless the non-compliance may endanger human health. Authorization is hereby granted to discharge water placed in storage tanks, other containers or vessels for the purpose of stabilization, provided that the tanks, containers or vessels had been emptied of their previous contents prior to filling with the water. To the extent practicable, discharges should not contain free oil, hydrocarbons or other pollutants in other than trace amounts. No free oil shall mean that the discharge shall not create a visible sheen. Water that accumulates in storage tanks, containers or vessels as a result of rainfall, flooding or tidal surge may be discharged under the same conditions.

2. Solid Waste Management

a. Owners and operators of solid waste management facilities permitted by the Department before the Hurricane are authorized to make all necessary repairs to restore essential services and the functionality of stormwater management and leachate collection systems damaged by the Hurricane, without prior notice to the Department. Within thirty days of commencing the work of such repair or replacement, however, the permittee shall notify the Department in writing, describing the nature of the work, giving its location, and providing the name, address, and telephone number of the representative of the permittee to contact concerning the work.

b. Uncontaminated Hurricane-generated trees, leaves, vines, twigs, branches, grass, and other vegetative debris may be disposed of in permitted Type II or Type III landfills. Disposal of any solid waste in unpermitted facilities or areas may be authorized by the Department on a case-by-case basis.

c. 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 permitted landfill.

d. Except as otherwise specifically provided herein, Hurricane-generated debris shall be disposed of in a Type II or III landfill. Non-recyclables and residuals generated from segregation of Hurricane-generated debris shall also be disposed of in a Type II or III landfill.

e. 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 wellhead protection areas or water bodies.

f. Ash from the combustion of other Hurricane-generated debris shall be disposed of in a Type II or III landfill or as specified in the Department correspondence dated August 28, 2005 to the Parish Governing Authorities. Metals or other non-combustible materials segregated from the ash residue may also be disposed of in a permitted landfill.

g. White goods (i.e. unsalvageable refrigerators, freezers, air conditioners, stoves, range tops, etc) shall be stored in an area separate from other solid wastes and shall be stored in a manner that prevents vector and odor problems and shall be removed from the facility within 90 days.

h. Putrescible waste (e.g. rotting food that has been removed unsalvageable refrigerators and freezers) shall be disposed of in a Type II landfill

i. The disposal of excessive accumulations of small animal carcasses shall be in accordance with the Louisiana Department of Health and Hospitals sanitary code. The disposal of large animal carcasses (e.g. horses, cows) shall be in accordance with the instructions from the Louisiana Department of Agriculture.

j. Permitted landfills, transfer stations, pickup stations or authorized staging areas (i.e. per Department correspondence dated August 28, 2005 to the Parish Governing Authorities) within or outside of the Emergency Area, which accept Hurricane-generated debris in accordance with the terms of this Order may accept Hurricane-generated debris for disposal or storage without the need to first modify existing permits or certifications. Operators of landfills shall seek modifications of their existing permits to address any long-term impacts of accepting Hurricane-generated debris on operations and closure that are not addressed in existing permits. Long-term impacts are those that will extend past the expiration date of this Order. The requests for modification shall be submitted as soon as possible, but no later than the expiration date of this Order. No permit fee will be required for any modifications necessitated solely by the Hurricane clean-up activities.

k. Authorizations may be issued prior to or following a site inspection by Department personnel for staging areas to be used for temporary storage and chipping, grinding or burning of Hurricane-generated debris. Authorizations may be requested by providing a notice to the Department containing a description of the staging area design and operation, the location of the staging area, and the name, address, and telephone number of the site manager as described in Department correspondence dated August 28, 2005 to the Parish Governing Authorities.

l. Hazardous waste generated as a result of the hurricane event must be separated from other hurricane generated waste and disposed of at a permitted commercial hazardous waste disposal facility. Household wastes are classified as solid wastes that are not hazardous wastes, it is imperative that the household waste collected during this event be managed not only in an environmentally sound manner but also in accordance with the appropriate LDEQ rules and regulations governing the storage and processing of this type of waste.

3. Open Burning

The Department authorizes local governments or their agents to conduct the open burning of Hurricane-generated trees, leaves, vines, twigs, branches, grass, and other vegetative debris within or outside of the Emergency Area, without prior notice to the Department and provided that the provisions of LAC 33:III.1109.D.6. are met. This order does not authorize any other outdoor burning of non-listed debris streams. Within seven days of commencing any such burning, the local government or its agent shall notify the Department in writing, describing the general nature of the materials burned, stating the location and method of burning, and providing the name, address, and telephone number of the representative of the local government to contact concerning the work and the anticipated duration of the burning event. This order does not relieve the local government or the agent from any requirement to obtain an open burning authorization from any other governmental entity empowered to grant such authorizations Notwithstanding the provisions of this paragraph, the burning of asbestos-containing materials or hazardous waste is prohibited.

4. Air Pollution Sources Other than Open Burning

The Department authorizes the minor repair of any previously permitted stationary source of air pollution that was damaged by the Hurricane to restore it to its previously permitted condition without prior notice to the Department. Within thirty days of commencing such repairs, however, the permittee shall notify the Department in writing, stating the location and nature of the work and providing the name, address, and telephone number of the representative of the permittee to contact concerning the work. Minor repairs are repairs that would not constitute reconstruction under any definition of 40 CFR part 60, 61 or 63 and that could not affect potential to emit any pollutant. Repairs that would constitute reconstruction under any definition of 40 CFR Part 60, 61 or 63, or repairs that could affect potential to emit any pollutant are not authorized by this Order.

5. Asbestos Clean-up

The Department waives the requirement for prior notification for emergency demolition or emergency cleanup of asbestos-containing material resulting from the Hurricane. Within one business day of commencing such demolition or cleanup, however, the person responsible for such work shall notify the Department in writing. The notification shall be consistent with the information on the Notice for Asbestos Demolition or Renovation form, AAC-2, and shall include the location and nature of the work and the name, address, and telephone number of the operator on the project. The procedures in LAC 33:III.5151 and LAC 33:III.Chapter 27 for handling asbestos-containing material shall be complied with during demolition and cleanup. Asbestos-containing material shall be disposed of in a Type I or II landfill in accordance with LAC 33:VII of the Louisiana Administrative Code. Burning of asbestos containing material is prohibited.

6. General Conditions

a. This Emergency Final Order does not convey any property rights or any rights or privileges other than those specified in this Order.

b. This Emergency Final Order only serves as relief for the duration of the Order from the regulatory and proprietary requirements of the Department, and does not provide relief from the requirements of other federal, state, water management districts, and local agencies. This Order therefore does not negate the need for the property owner to obtain any other required permits or authorizations, nor from the need to comply with all the requirements of those agencies.

7. General Limitations

The Department issues this Emergency Final Order solely to address the emergency created by the Hurricane. This Order shall not be construed to authorize any activity within the jurisdiction of the Department except in accordance with the express terms of this Order. Under no circumstances shall anything contained in this Order be construed to authorize the repair, replacement, or reconstruction of any type of unauthorized or illegal structure, habitable or otherwise.

8. Other Authorizations Required

Nothing in this Order shall eliminate the necessity for obtaining any other federal, state, water management district, or local permits or other authorizations that may be required.

9. Extension of time to comply with specified deadlines

For facilities regulated by the Department in the Emergency Area, this Order extends the time for a period of 30 days to comply with the following specified deadlines that occur between August 28,2005 and the expiration of this order:

a. The time deadlines to conduct or report periodic monitoring required by permits, other authorizations, enforcement actions, or settlement agreements, except for monitoring required by air permits issued under Title IV or V of the Clean Air Act or under the PSD program;

b. The time deadlines to file an application for renewal of an existing permit, except for air permits issued under Title V of the Clean Air Act.

10. Completion of Authorized Activities

a. All activities authorized under this Emergency Final Order must be commenced before the expiration of this Order unless otherwise provided in an authorization or permit. The deadline for commencement under any authorization or permit issued under this order may be extended on a showing that contractors or supplies are not available to commence the work, or if additional time is needed to obtain any required authorization from the U.S. Army Corps of Engineers.

b. A blanket approval of time extensions under Louisiana Administrative Code 33:V.1109.E.2 is necessary within the Emergency Areas for hazardous waste generators and small quantity generators for the storage of their hazardous wastes on site, pending the cleanup of the Hurricane damage and restoration of essential services. The rules authorize a thirty-day extension

because of unforeseen and uncontrollable circumstances. The specific effects of the Hurricane were unforeseen and uncontrollable. Therefore, to avoid having to issue a potentially large number of individual approvals on a case-by-case basis and waste limited agency resources during the time of emergency, the Department authorizes a general extension of time of thirty days from the expiration of this Order for all such hazardous waste generators and small quantity generators for the storage of their hazardous wastes on site, in the parishes within the Emergency Areas, and where their 90 day accumulation period expires within the term of this Order.

11. **Amendments**

This Order may be amended as required to abate the emergency.

12. ***Expiration Date***

This Emergency Final Order shall take effect immediately upon execution by the Secretary of the Department, and shall expire in 60 days from the date of execution set forth below, unless modified or extended by further order.

DONE AND ORDERED on this 30th day of August**,** 2005, in Baton Rouge, Louisiana.

_____

Mike D. McDaniel, Ph.D. Secretary

ATTACHMENT 2

SEPTEMBER 3, 2005 AMENDED LDEQ DECLARATION OF EMERGENCY AND ADMINISTRATIVE ORDER

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY

AMENDED DECLARATION OF EMERGENCY
AND ADMINISTRATIVE ORDER

Pursuant to the authority granted to me by Louisiana Revised Statutes 30:2001 *et seq.,* and particularly La. R.S. 30:2033 and 2011(D)(6), I hereby make the following findings, declaration and order, which supercede the Declaration of Emergency and Administrative Order issued by this agency on August 30, 2005 :

FINDINGS AND DECLARATION

1. On the 29th day of August, 2005, Hurricane Katrina (hereinafter "Hurricane") struck Louisiana, causing widespread damage within the parishes of Ascension, Assumption, East Baton Rouge, East Feliciana, Iberia, Iberville, Jefferson, Lafourche, Livingston, Orleans, Plaquemines, Pointe Coupee, St. Bernard, St. Charles, St. Helena, St. James, St. John, St. Mary, St. Martin, St. Tammany, Tangipahoa, Terrebonne, Washington, West Baton Rouge, and West Feliciana, which parishes shall constitute the specific areas covered by this Declaration and Order. These areas shall herein be referred to as the "Emergency Areas."

2. By State of Louisiana Proclamation No. 48 KBB 2005, the Governor declared on August 26, 2005, that a state of emergency exists in the state of Louisiana, as Hurricane Katrina poses an imminent threat, carrying severe storms, high winds and torrential rain that may cause flooding and damage to private property and public facilities and threaten the safety and security of the citizens of the state of Louisiana.

3. On August 29, 2005, FEMA issued a Disaster Declaration, FEMA-1603-DR covering south Louisiana.

4. I find that the Hurricane has created conditions that require immediate action to prevent irreparable damage to the environment and serious threats to life or safety throughout the Emergency Areas.

WHEREFORE, I hereby declare that an emergency exists, and that the following measures are necessary to prevent irreparable damage to the environment and serious threats to life or safety throughout the Emergency Areas.

ORDER

Within the Emergency Areas:

1. <u>Waste water Treatment Systems</u>

a. Permittees with Louisiana Pollutant Discharge Elimination System (LPDES) permits should consider activating the upset provisions in their permits. LAC 33:IX.2701.N.1 defines Upset as the following:

> *An exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.*

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of LAC 33:IX.2701.N.3 are met. Under upsets caused by this hurricane, the 24 hour oral notification is waived unless the non-compliance may endanger human health. Authorization is hereby granted to discharge water placed in storage tanks, other containers or vessels for the purpose of stabilization, provided that the tanks, containers or vessels had been emptied of their previous contents prior to filling with the water. To the extent practicable, discharges should not contain free oil, hydrocarbons or other pollutants in other than trace amounts. No free oil shall mean that the discharge shall not create a visible sheen. Water that accumulates in storage tanks, containers or vessels as a result of rainfall, flooding or tidal surge may be discharged under the same conditions.

Appendix A sets forth guidance to operators of sanitary waste water treatment systems to aid in the return to compliant operations to prevent further damage to the environment and serious threats to life or safety throughout the Emergency Areas.

2. <u>Solid Waste Management</u>

a. Owners and operators of solid waste management facilities permitted by the Department before the Hurricane are authorized to make all necessary repairs to restore essential

services and the functionality of stormwater management and leachate collection systems damaged by the Hurricane, without prior notice to the Department. Within thirty days of commencing the work of such repair or replacement, however, the permittee shall notify the Department in writing, describing the nature of the work, giving its location, and providing the name, address, and telephone number of the representative of the permittee to contact concerning the work.

b. Uncontaminated Hurricane-generated trees, leaves, vines, twigs, branches, grass, and other vegetative debris may be disposed of in permitted Type II or Type III landfills. Disposal of any solid waste in unpermitted facilities or areas may be authorized by the Department on a case-by-case basis.

c. 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 permitted landfill.

d. Except as otherwise specifically provided herein, Hurricane-generated debris shall be disposed of in a Type II or III landfill. Non-recyclables and residuals generated from segregation of Hurricane-generated debris shall also be disposed of in a Type II or III landfill.

e. 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 wellhead protection areas or water bodies.

f. Ash from the combustion of other Hurricane-generated debris shall be disposed of in a Type II or III landfill or as otherwise specifically authorized by the Department. Metals or other non-combustible materials segregated from the ash residue may also be disposed of in a permitted landfill.

g. White goods (i.e. unsalvageable refrigerators, freezers, air conditioners, stoves, range tops, etc) shall be stored in an area separate from other solid wastes and shall be stored in a manner that prevents vector and odor problems and shall be removed from the facility within 90 days.

h. Putrescible waste (e.g. rotting food that has been removed from unsalvageable refrigerators and freezers) shall be disposed of in a Type II landfill.

i. The disposal of excessive accumulations of small animal carcasses shall be in accordance with the Louisiana Department of Health and Hospitals sanitary code. The disposal of large animal carcasses (e.g. horses, cows) shall be in accordance with the instructions from the Louisiana Department of Agriculture.

j. Permitted landfills, transfer stations, pickup stations and authorized staging areas that have been authorized by the Department, within or outside of the Emergency Area, which accept Hurricane-generated debris in accordance with the terms of this Order may accept Hurricane-generated debris for disposal or storage without the need to first modify existing permits or certifications. Operators of landfills shall seek modifications of their existing permits to address any long-term impacts of accepting Hurricane-generated debris on operations and

closure that are not addressed in existing permits. Long-term impacts are those that will extend past the expiration date of this Order. The requests for modification shall be submitted as soon as possible, but no later than the expiration date of this Order. No permit fee will be required for any modifications necessitated solely by the Hurricane clean-up activities.

k. Authorizations may be issued prior to or following a site inspection by Department personnel for staging areas to be used for temporary storage and chipping, grinding or burning of Hurricane-generated debris. Authorizations may be requested by providing a notice to the Department containing a description of the staging area design and operation, the location of the staging area, and the name, address, and telephone number of the site manager as described in Department correspondence dated September 13, 2004 to the Parish Governing Authorities.

3. Hazardous Waste

Hazardous waste generated as a result of the hurricane event must be separated from other hurricane generated waste and disposed of at a permitted hazardous waste disposal facility. Household wastes collected during this event, which are exempt from the regulatory requirements applicable to hazardous wastes, must be managed not only in an environmentally sound manner but also in accordance with the appropriate LDEQ rules and regulations governing the storage and processing of this type of waste.

4. Open Burning

a. The Department authorizes local governments or their agents to conduct the open burning of Hurricane-generated trees, leaves, vines, twigs, branches, grass, and other vegetative debris within or outside of the Emergency Area, without prior notice to the Department and provided that the provisions of LAC 33:III.1109.D.6. are met. This order does not authorize any other outdoor burning of non-listed debris streams. Within seven days of commencing any such burning, the local government or its agent shall notify the Department in writing, describing the general nature of the materials burned, stating the location and method of burning, and providing the name, address, and telephone number of the representative of the local government to contact concerning the work and the anticipated duration of the burning event. This order does not relieve the local government or the agent from any requirement to obtain an open burning authorization from any other governmental entity empowered to grant such authorizations Notwithstanding the provisions of this paragraph, the burning of asbestos-containing materials or hazardous waste is prohibited.

b. The Department will consider, on an individual basis, requests for approval for open burning, by persons other than local governments or their agents, of Hurricane-generated trees, leaves, vines, twigs, branches, grass, and other vegetative debris. Any such burning approved by the Department must be conducted in compliance with the requirements of LAC 33:III.1109.D.6.

5. Air Pollution Sources Other than Open Burning

a. The Department authorizes the minor repair of any previously permitted stationary source of air pollution that was damaged by the Hurricane to restore it to its previously permitted condition without prior notice to the Department. Within thirty days of commencing such repairs, however, the permittee shall notify the Department in writing, stating the location and nature of the work and providing the name, address, and telephone number of the representative of the permittee to contact concerning the work. Minor repairs are repairs that would not constitute reconstruction under any definition of 40 CFR part 60, 61 or 63 and that could not affect potential to emit any pollutant. Repairs that would constitute reconstruction under any definition of 40 CFR Part 60, 61 or 63, or repairs that could affect potential to emit any pollutant are not authorized by this Order.

b. The Department will consider, on an individual basis, requests for approval for the following sources of air pollution:

i. temporary air pollution control devices, such as portable flares, used for vessel and pipeline segment purging and the limited operation of facilities with damaged vapor control equipment;

ii. portable storage tanks, used for interim storage while damaged equipment is being repaired; and

iii. repairs, other than the minor repairs addressed in Section 4.a above, of permitted stationary sources that have been damaged by the hurricane, provided that the sources are restored or replaced with equipment that is identical or the functional equivalent, to meet permit conditions.

c. The throughput of any temporary gasoline storage vessels used exclusively for providing gasoline to employees of the tank operator will not be counted toward the annual or 30-day average throughput for purposes of determining the applicability of control requirements under LAC 33:III.2131. This subparagraph applies only to gasoline provided to employees at or below the operator's cost. This subparagraph does not exempt the operator from any other applicable regulatory requirements, specifically including, but not limited to, the spill prevention and control requirements of the Louisiana Water Quality Regulations (LAC 33:IX).

6. Asbestos Clean-up

a. The Department waives the requirement for prior notification for emergency demolition or emergency cleanup of asbestos-containing material resulting from the Hurricane. Within one business day of commencing such demolition or cleanup, however, the person responsible for such work shall notify the Department in writing. The notification shall be consistent with the information on the Notice for Asbestos Demolition or Renovation form, AAC-2, and shall include the location and nature of the work and the name, address, and telephone number of the operator on the project. The procedures in LAC 33:III.5151 and LAC 33:III.Chapter 27 for handling asbestos-containing material shall be complied with during demolition and cleanup. Asbestos-

containing material shall be disposed of in a Type I or II landfill in accordance with LAC 33:VII of the Louisiana Administrative Code. Burning of asbestos containing material is prohibited.

b. The Department waives the requirement pursuant to LAC 33:III.5151.F.1 that an affected facility be thoroughly inspected for the presence~~s~~ of asbestos. Debris generated by the renovation or demolition in the affected area does not need to be handled in accordance with the requirements of LAC 33:III.5151.F unless it is known to be Regulated Asbestos Containing Material. However, appropriate personal protection equipment (e.g., tyvek suits, appropriate respirators ~~dust masks~~, etc.) are recommended.

c. The department waives the requirement pursuant to LAC 33:III.2799.E.2.b.ii, that applicants receiving training from providers not recognized by the state of Louisiana also submit proof of training in current Louisiana asbestos regulations (see LAC 33:III.2799.F.5.g).

d. The department waives the requirement pursuant to LAC 33:III.2799.F.5.c.i that recognized asbestos Training Providers give the department notice at least five days prior to class commencement (Notification must be made at least three days prior to a course when only the state regulations are to be taught.) Notice shall be provided to the department within 24 hours of class commencement.

e. Local education agencies and state government may make emergency use of a building as a school or state building. The agency making use of the building may request an extension of the deadline to inspect the building within 4 months of the decision to use the building pursuant to LAC 33:III.2707.A.2.

f. The department waives the requirement pursuant to LAC 33:III.2723.A.2 that the local education agency or state government must submit a management plan prior to any building's use as a school or state buildings. A management plan shall be submitted within 6 months of the initial use of the building.

7. General Conditions

a. This Emergency Final Order does not convey any property rights or any rights or privileges other than those specified in this Order.

b. This Emergency Final Order only serves as relief for the duration of the Order from the regulatory and proprietary requirements of the Department, and does not provide relief from the requirements of other federal, state, water management districts, and local agencies. This Order therefore does not negate the need for the property owner to obtain any other required permits or authorizations, nor from the need to comply with all the requirements of those agencies.

8. General Limitations

The Department issues this Emergency Final Order solely to address the emergency created by the Hurricane. This Order shall not be construed to authorize any activity within the

jurisdiction of the Department except in accordance with the express terms of this Order. Under no circumstances shall anything contained in this Order be construed to authorize the repair, replacement, or reconstruction of any type of unauthorized or illegal structure, habitable or otherwise.

9. Other Authorizations Required

Nothing in this Order shall eliminate the necessity for obtaining any other federal, state, or local permits or other authorizations that may be required.

10. Extension of time to comply with specified deadlines

For facilities regulated by the Department in the Emergency Area, this Order extends the time for a period of 30 days to comply with the following specified deadlines that occur between August 28,2005 and the expiration of this order:

a. The time deadlines to conduct or report periodic monitoring required by permits, other authorizations, enforcement actions, or settlement agreements, except for monitoring required by air permits issued under Title IV or V of the Clean Air Act or under the PSD program;

b. The time deadlines to file an application for renewal of an existing permit, except for air permits issued under Title V of the Clean Air Act.

11. Completion of Authorized Activities

a. All activities authorized under this Emergency Final Order must be commenced before the expiration of this Order unless otherwise provided in an authorization or permit. The deadline for commencement under any authorization or permit issued under this order may be extended on a showing that contractors or supplies are not available to commence the work, or if additional time is needed to obtain any required authorization from the Federal Emergency Management Agency, the U.S. Army Corps of Engineers, or other local, state, or federal agencies.

b. A blanket approval of time extensions under Louisiana Administrative Code 33:V.1109.E.2 is necessary within the Emergency Areas for hazardous waste generators and small quantity generators for the storage of their hazardous wastes on site, pending the cleanup of the Hurricane damage and restoration of essential services. The rules authorize a thirty-day extension because of unforeseen and uncontrollable circumstances. The specific effects of the Hurricane were unforeseen and uncontrollable. Therefore, to avoid having to issue a potentially large number of individual approvals on a case-by-case basis and waste limited agency resources during the time of emergency, the Department authorizes a general extension of time of thirty days from the expiration of this Order for all such hazardous waste generators and small quantity generators for the storage of their hazardous wastes on site, in the parishes within the Emergency Areas, and where their 90 day accumulation period expires within the term of this Order.

12. Amendments

This Order may be amended as required to abate the emergency.

13. <u>Expiration Date</u>

This Amended Declaration of Emergency and Administrative Order shall take effect immediately upon execution by the Secretary of the Department, and shall expire in 60 days from the date of execution set forth below, unless modified or extended by further order.

DONE AND ORDERED on this ____ day of _____**,** 2005, in Baton Rouge, Louisiana.

_____
Mike D. McDaniel, Ph.D. Secretary

APPENDIX A

GUIDANCE PROTOCOL FOR SANITARY WASTE WATER TREATMENT SYSTEMS

The following protocol is intended to assist operators of sanitary waste water treatment systems in the Emergency Area in start up and operation.

1. Access

Entrance to the treatment plant should be considered only after flood waters have receded enough to allow safe operation of the treatment plant including the safe conditions for staff. Accessibility to treatment plants in restricted areas may need to be cleared with the Office of Emergency Preparedness. Contact LDEQ (SPOC 225-219-3640) if assistance in gaining access to the treatment plant is required. The use of sound personal protective equipment for safety in unsanitary or unsafe conditions is required. Early return to compliant operation minimizes long term problems within the entire wastewater system.

2. Power Supply

For use of generator power, arrange for a reliable and continual fuel source. Contact LDEQ (SPOC 225-219-3640) if assistance in obtaining fuel for power generation at your treatment plant is needed. If no generation is available and you must wait for electrical providers; consider notification to residents of the effect on collection lines. If removal of clean out plugs is needed to prevent back up into homes, notify affected customers warning them to remain clear of these areas. If pump trucks are used, LDEQ can advise of locations to dispose of the pumped sewage.

3. Start Up

Once it is safe, re-power the treatment system, aerators and pumps. The primary goal is to remove sanitary wastewater from contact with humans, while making every effort to do so in a manner that is practical and least impacting on the environment. Activate disinfection units and maintain them. Initial effluent will likely be poorly treated and of a very poor quality. Adequate disinfection will be important to protect human health downstream of the discharge. If the system has been down and/or without power for an extended period of time, resident bacteria used in the treatment process may need to be re-established. Consider reseeding the system with activated sludge from operating aerated treatment plants. Several treatment plants are available for use in reseeding. Contact LDEQ for information regarding system seed sources.

4. Monitoring

Watch plant operations carefully to confirm it is functioning properly. Ensure that lift stations within the collection system are functional. Without functioning lift stations, sewage is not being removed from residences and sent for treatment. Visually observe effluent to maximize treatment effectiveness in the short term. If simple tools and/or tests are available to diagnose the plant's operational status ("sludge judge", settle-o-meter, dissolved oxygen meters, BOD analyses) use them frequently. If your plant is discharging poorly treated sewage, consider the impacts to persons, fish and wildlife downstream, including the possibility that drinking water intakes may be located downstream of your effluent. Notification to downstream users may be necessary to protect human health. Sample and analyze your effluent per LPDES requirements as soon as you are able.

5. Notifications and Documentation

Discharges that result in emergency conditions (threat to human health and the environment) must be reported immediately (1-877-925-6595). Discharges that result in

emergency conditions (threat to human health and the environment) may require notification to affected persons. Report to the DEQ any discharges that interfere with downstream uses, such as swimming or drinking water sources or if fish kills occur. Discharge Monitoring Reports (per permit requirements) should be used to notify the DEQ of non-emergency conditions. Notification to sewage users may be necessary if problem with the system prevents removal of sewage from residences (or other human contact) on an on-going basis. Notification to downstream users may be necessary to protect human health. Notify the Local Office of Emergency Preparedness when hurricane damage repairs are known – Federal Emergency Management Agency (FEMA) may be able to help with costs associated with hurricane damage.

A permittee who wishes to establish the affirmative defense of upset must document the cause of the upset, that the facility was being properly operated at the time of the upset, that notice of the upset that exceeded effluent limitations was submitted to the DEQ and that the permittee took all reasonable steps to minimize or prevent the likelihood of adversely affecting human health or the environment.

6. ***Records Management***

Hard copy or electronic copies of files associated with environmental issues for your facility may be available at the DEQ. Files destroyed by the hurricane can be obtained by the Responsible Persons for your system from the DEQ free of charge. Please contact Records Management at (225) 219-3172 or online at http://www.deq.louisiana.gov/pubRecords/.

ATTACHMENT 3
EXAMPLE APPROVAL LETTER FOR
STAGING AND CHIPPING WOOD WASTE

Mr. Eddie Howard
Ascension Parish Government
42077 Churchpoint Rd.
Gonzales, LA 70737

RE: Emergency Disaster Cleanup Sites
Ascension Parish
AI Number 83547

Dear Mr. Howard:

The Louisiana Department of Environmental Quality has reviewed your request to utilize the following site locations for the staging and chipping of woodwaste generated during Hurricane Katrina:

- 309 Mississippi St., Donaldsonville, owned by the City of Donaldsonville
- 9690 Airline Hwy, Sorrento, owned by the Ascension Parish School Board
- 42077 Churchpoint Rd., Gonzales, owned by Ascension Parish Government

An inspection of these sites was conducted by representatives of the Department. These site locations are now approved for the staging and chipping of woodwaste generated as a result of Hurricane Katrina. This approval will remain in effect until December 31, 2005. Disposal of any waste is **not** permitted at these sites.

If you have any questions contact Ms. Beth Scardina or Mr. Robert Thomas at 225-219-3070.

Sincerely,

Chuck Carr Brown, Ph.D.
Assistant Secretary

bls

c: CRO
Steve Aguillard, OEC-ED

ATTACHMENT 4
EXAMPLE APPROVAL LETTER FOR C&D DISPOSAL SITE

St. Charles Parish Police Jury
P.O. Box 302
Hahnville, LA 70057

RE: Emergency Disaster - Pre-approved Construction and Demolition Debris Disposal Site
Operation and On-Site Closure Approval
AI Number# 83573
Katrina AI# 130534
St. Charles Parish

Dear Sir:

The Louisiana Department of Environmental Quality (hereafter referred to as "Department") hereby approves the temporary disposal of construction and demolition debris (C&D) and the closure of C&D sites resulting from the widespread damage caused by Hurricane Katrina at the location identified below. Operation and closure of the site shall be in accordance with the specifications contained in the Interim Operational Plan. (Attachment 1).

- BFI (west) Landfill, Boutte 29.91567 90.29353
- K.V. Landfill 30.00537 90.51933

This approval will allow for more efficient and expeditious management of the high volumes of storm debris resulting from Hurricane Katrina and will remain in effect until December 31, 2005. However, the Department reserves the right to reduce or extend the timeframe of this temporary approval based upon the progression of the clean-up efforts associated with the aftermath of Hurricane Katrina.

The Department would like to reiterate that the commencement of the operation of at the designated location is contingent upon the approval of the affected property owner.

Only those C&D wastes generated as a result of Hurricane Katrina are to be disposed at this location. It is imperative that the debris collected as a result of this emergency event be managed not only in an environmentally sound manner but also in accordance with the appropriate LDEQ rules and regulations governing the storage, processing and disposal of this type of waste. Operation and closure of the site shall be in accordance with the specifications contained in the Interim Operational Plan. (Attachment 1)

The materials acceptable for disposal at this location consist of the following:

- Nonhazardous waste generally considered not water-soluble, including but not limited to metal, concrete, brick, asphalt, roofing materials (shingles, sheet rock, plaster), or lumber from a construction or demolition project;
- Furniture, carpet, painted or stained lumber contained in the demolished buildings;
- The incidental admixture of construction and demolition debris with asbestos-contaminated waste. (i.e., incidental asbestos-contaminated debris that cannot be extracted from the demolition debris); or
- Yard Trash

The following materials shall not be disposed of in this location's pre-approved construction and demolition debris disposal site, but segregated and transported to an LDEQ approved staging area for eventual management, recycling and/or disposal at a permitted Type II Landfill:

- White goods
- Putrescible Waste

The management of Hurricane Katrina generated debris at permitted and pre-approved C&D locations shall be between the hours of 7:00 am to 7:00 pm Central Standard Time (CST) (unless alternate hours of operation are approved by the Department).

In accordance with Act 1074 of the 1990 Regular Session, the Department will provide written notice to the local governing authority of this authorization that allows the on-site disposal of solid waste.

At least five (5) days prior to the initiation of on-site closure, the Department requires that you provide written notification to:

Louisiana Department of Environmental Quality
Office of Environmental Assessment
P.O. Box 4314
Baton Rouge, La. 70821-4314
Phone:(225)219-3236
FAX: (225)219-3239
Email: deqoea@la.gov

Within thirty (30) days after completion of on-site closure, the Department requires that you submit: (1) a letter certifying that closure was conducted in accordance with the Interim Operational Plan; (2) a copy of the public notice required upon closure of the site, (Attachment 2) and a copy of the required deed recordation certified by the Clerk of Courts Office, (Attachment 3). These documents should be sent to:

Louisiana Department of Environmental Quality
Office of Environmental Compliance
P.O. Box 4312
Baton Rouge, La. 70821-4312
Phone: (225)219-3700
FAX: (225)219-3708
Email: deqoec@la.gov

The Department will notify the local governing authority regarding the final closure of the C&D site.

If you have any questions regarding this matter, please contact Mr. Rob Thomas or Ms. Beth Scardina of the Water and Waste Permits Division at (225) 219-3070.

Sincerely,

Chuck Carr Brown, Ph.D.
Assistant Secretary

c: SERO

ATTACHMENT 5

EXAMPLE INTERIM OPERATIONAL PLAN

AUTHORIZED EMERGENCY SITES FOR DISPOSAL
CONSTRUCTION/DEMOLITION DEBRIS, WOODWASTE, YARD TRASH &
EXEMPT MATERIALS LANDFILLS

Hurricane Katrina Debris Interim Operational Plan

The operation of the disposal facility governed by this authorization will comply with the following requirements:

1. Provide adequate supervision and security of the site to control disposal of materials, allowing disposal of construction/demolition debris, woodwaste, yard trash and exempt materials as defined by LAC 33:VII.115 and as authorized for the site. Disposal of unauthorized waste is strictly prohibited and must be prevented.

2. Post a sign at the entrance to the facility listing acceptable wastes and prohibited wastes including, but not limited to, liquid waste, volatile waste, hazardous waste, flammable waste, infectious waste, domestic waste, friable asbestos and putrescible waste (garbage).

3. Personnel will maintain a daily inventory documenting each truck load of waste received and each truck load rejected at the gate. Such documentation will include some form of identification of source of generation, transporter, the approximate volume of waste received, and a general description of the waste. Also, a reason for rejecting a load of waste should be documented in the daily log.

4. All records required by this authorization will be maintained on site and available for inspection by representatives of the Department.

5. Wastes shall be dumped under supervision in the smallest practical area, spread and compacted daily. The wastes shall be deposited in such a manner as to allow daily compaction of the waste. The wastes shall be covered with twelve (12”) inches of silty clays at least every fourteen (14) days, if possible. Records will be maintained to substantiate compliance with this requirement.

6. Unauthorized waste should be segregated and placed in a container as required by LAC 33:VII.703. The unauthorized waste will be removed at least every seven

(7) days, if possible. Records documenting removal and disposal of unauthorized waste as required here must be maintained for inspection.

7. Access to the facility shall be by all weather roads that can meet the demands of the facility. Roads within the facility shall be maintained as all weather roads or the facility will provide an operational change to implement during wet weather conditions as well as a means of dust control.

8. An annual report must be submitted to the administrative authority indicating quantities and types of solid wastes (expressed in wet-weight tons per year), received from generators, during the reporting period. All calculations used to determine the amounts of solid waste received for disposal during the annual reporting period shall be submitted to the administrative authority. Annual reports shall be submitted to the administrative authority by August 1st of each reporting year.

9. Open burning shall not be practiced unless authorization is first obtained from the administrative authority and any other applicable federal, state and local authorities. Should any fire start, procedures will be initiated immediately to control and to extinguish it.

10. No solid waste shall be deposited in standing water. Before any water is pumped or drained from the site, a water discharge permit must be obtained from the Office of Environmental Services, Water and Waste Permits Division.

11. Unapproved salvaging shall be prohibited and prevented. Scavenging shall be prevented.

12. Litter both within the site and along the entrance to the site shall be controlled by use of litter fences and/or regular policing of the site.

13. Adequate equipment and personnel must be provided to achieve the operational requirements of the facility as stated here and in LAC 33:VII.721. Backup equipment shall be provided in the event of equipment breakdown. Personnel will be adequately trained in the recognition of unauthorized materials, segregation procedures, and emergency procedures.

14. In the event of unauthorized disposal or deposit at the facility the Department must be notified immediately.

15. Final compacting and grading will be completed before capping. Final cover will be completed within 90 days after final grades are reached. The side slope should be no steeper than 4(H):1(V) (for above ground) and must have a minimum of a 4 percent slope on the top of the final cap. The final cover must consist of a minimum of 24 inches of silty clays, or Department approved equivalent and 6 inches of topsoil sufficient for supporting vegetative growth.

16. After closure inspection and approval, ground cover will be planted to prevent erosion and return the facility to a more natural appearance.

17. Parish mortgage and conveyance records will be updated as required by the Louisiana Statutes and state regulations. A certified true copy will be submitted as required.

18. The integrity of the grade and cap must be maintained for no less than three years after the date of administrative authority's approval of the closure of the facility. Annual reports concerning the integrity of the cap will be submitted for a period of three years after closure.

PUBLIC NOTICE

I, _____, of _____, received authorization from the Louisiana Department of Environmental Quality, for the operation and closure of an emergency authorized construction and demolition debris disposal site. The site contains approximately _____tons of _____. It is located in Section _____,Township _____, Range _____, in _____ Parish, Louisiana.

Closure activities commenced on _____ and were completed on _____.

DOCUMENT TO BE FILED IN THE PARISH RECORDS UPON
FINAL CLOSURE OF A SOLID WASTE DISPOSAL FACILITY

_____ (Name of authorized facility owner or permit owner) hereby notifies the public that the following described property was used for the disposal of solid waste. The site was closed on _____ (date) in accordance with the Louisiana Administrative Code, Title 33, Part VII. Inquiries regarding the contents of the facility may be directed to _____(name of person with knowledge of the contents of the facility) at

_____ (address of person with knowledge of the content of the facility).

Property Description:
(Provide the specific description of the location of the facility)

_____
(Signature of Person Filing Parish Record)

_____
(Typed Name & Title of Person Filing
Parish Record)

(A true copy of the document certified by the parish clerk of court must be sent to the Louisiana Department of Environmental Quality, Office of Environmental Compliance, Enforcement Division, Post Office Box 4312, Baton Rouge, Louisiana 70821-4312)

ATTACHMENT 6
EXAMPLE "BURN LETTER"

September15, 2005

Mr. Albert LaQue, President
St. Charles Parish Government
Post Office Box 302
Hahnville, LA 70057

Re: Request for Burning Storm Debris
St. Charles Parish Government
Agency Interest No.9065 N 29.91796
Davis Pond Diversion Canal Site W 90.31891

Dear Mr. LaQue:

The Louisiana Department of Environmental Quality (DEQ) has received your letter dated September 14, 2005, requesting permission on behalf of St. Charles Parish Government to burn storm debris.

According to Louisiana Air Quality Regulations, in particular LAC 33:III.1109.B, outdoor burning is prohibited. No person shall cause or allow the outdoor burning of waste material or other combustible material on any property owned by him or under his control except as provided in LAC 33:III.1109.C and D.

In accordance with LAC 33.III.1109.D.9.c, a one-time exception is hereby granted by the DEQ regarding procedures for burning storm debris. DEQ will allow fires purposely set as a part of an organized program to dispose of storm debris, such as leaves, limbs, trees, and other vegetable matter, if the following conditions are met:

1. If the burning is conducted continually, that it will not create a nuisance or health hazard:

2. Fire-fighting personnel will be advised of the burning events;

3. The debris is at least one thousand (1,000) feet (305 meters) from any inhabited dwelling;

4. The burning is controlled so that the emission of smoke, suspended particle matter, or uncombined water or any air contaminants or

combination thereof, does not cross a public road and create a traffic hazard by impairment of visibility;

5. Care is used to minimize the amount of dirt on the material that is being burned;

6. Heavy oils, asphaltic materials, items containing natural or synthetic rubber, or any materials other than plant growth which produce unreasonable amounts of smoke may not be burned; nor may these substances be used to start a fire;

7. Prevailing winds at the time of the burning must be away from any city, town or airport, the ambient air of which may be affected by smoke from the burning; and

8. This exception applies only to burning conducted at the Davis Pond Diversion Canal Site, located at U.S. Highway 90 and Diversion Canal, St. Charles Parish, Louisiana.

To expedite the collection and disposal of related debris, we hereby issue this temporary exception allowing this open burning of storm debris through December 31, 2006.

Be advised that this exception to burn does not authorize the creation of a public nuisance as identified in LAC 33:III.1109.D and does not excuse the person responsible from the consequences of or the damages or injuries resulting from the burning.

If you have any questions regarding this matter, please contact Mr. Steve Aguillard of the Enforcement Division at (225) 219-3718.

Sincerely,

Harold Leggett, Ph.D
Assistant Secretary

HL:SRA

c: Capital Regional Office

ATTACHMENT 7
CURRENT KATRINA CONTACT LIST

LDEQ KATRINA RESPONSE TEAM CONTACT NUMBERS (area code 225 unless otherwise listed)
Revised 9/23/05

24-HOUR HOTLINE --- (888) 763-5424 or (225) 219-3640

ASSIGNMENT	NAME	WORK PH
Aerial Data / Overflight / Agriculture Liaison	Jeff Nolan	219-3931
Aerial Recon Team Leader / HAWK	Bruce Hammatt	219-4070
Air Dispersion Modeling	Wilbert Jordan Jim Hazlett	219-3233 219-3484
Air Pollution Issues	Chris Roberie	219-3482
Asbestos & Lead issues	Jodi Miller	219-3004
Brownfields	Raul Busquet	219-3197
Communications	Karen Gautreaux Darin Mann Rodney Mallett Jean Kelly Office Emer Prep Desk	219-3951 219-0860 219-3964 219-3966 287-7619
Complaints / Compliance Inspections	Mike Algero	219-3611
Debris Coordinator / FEMA Backup Debris Coordinator	Steve Aguillard Robert Thomas	219-3718 219-3060
DHH Contact	Bobby Savoie	763-3590
Emergency Declarations & Rules	Herman Robinson Lou Buatt	219-3980 219-3980
Emergency Operations Center	DEQ Staff	925-7395
Emergency Response Team	Jeff Meyers	219-3624
Enforcement / Office of Emergency Prep Staffing	Peggy Hatch	219-3712
EPA Region 6	Sam Coleman David Gray	219-0879 219-0879
Executive Assistance	Marian Mergist	219-3950
FEMA Liaison Backup	Bijan Sharafkhani Rob Thomas	219-3462 219-3060
Field Activity Coordinator	Hal Leggett	219-3710
Field Response	Blaise Guzzardo	219-3699
Human Resource Issues	Thomas Bickham	219-3839
Information Technology Issues	Thomas Bickham	219-3839
Laboratory Analysis	Mitch Mitchell	219-9880
Maps / GIS Coordinator	Kevin Sweeney	278-8903
Media Liaison	Darin Mann	219-0860
Monetary Donations	Thomas Bickham Herman Robinson	219-3839 219-3980
New Orleans Mayor's Office	Yarrow Ethridge	219-3972
Offers of Resource Assistance	Karen Gautreaux	219-3951

Oil Spill (LOSCO) Liaison LOSCO Spokesperson Oil Spill / Coast Guard Spokesperson	Keith Jordan Karolien Debusschere Petty Officer Russ Tippets	219-3613 219-5800 252-267-4344
Office of Emergency Preparedness (OEP)	DEQ Staff	287-7621
Permit Variances	Chuck Brown	219-3180
Radiation Sources/Contamination	Ronnie Wascom Mike Henry Joe Noble	219-3015 219-3366 219-3643
RECAP/ Toxicity	Tom Harris	219-3421
Refinery Startup	Chuck Brown	219-3180
Regional Response Team Liaison	Bob Hannah	219-4082
Response, Assessment and Recovery Plan	Mike McDaniel Thomas Bickham	219-3950 219-3839
Spill Prevention & Control	Chris Piehler	219-3609
Vendor / Innovative Technology Assessment	James Brent Percy Harris	219-3393 Fax: 219-3474 219-3389
Underground Storage Tanks	Raul Busquet	219-3197
Visitors Housing and Logistics	Tom Patterson	219-0744
Wastewater Systems / Treatment	Chris Piehler Lenny Young	219-3609 219-3013
Water Issues	Chris Piehler Barbara Romanowsky	219-3609 219-3483

APPENDIX 5.12

Draft Operation Plan- Debris Removal, Debris Reduction, and Site Management Hurricane Katrina Recovery Mission (USACE)

*Notes: The Draft Operation Plan, prepared by USACE contractor ECC, is included in this Debris Management Plan as an example of the procedures that the USACE contractor will follow in debris handling. It is anticipated that future revisions to the Draft Operation Plan will be made, as needed.

Based on discussions between EPA and USACE, the following clarifications are made:

- Phase 1 of the ECC's three phases approach, found in this appendix, accomplishes the same tasks as Phases 1 and 2 of the Debris Management Plan. ECC's Phases 2 and 3 of this appendix correspond to Phases 3 and 4 of the Debris Management Plan.

- The ECC Draft Operation Plan describes an USACE contractor role in managing household and other hazardous wastes. EPA has responsibility for these wastes under ESF #10. However, it is anticipated that the USACE contractor will encounter debris with co-mingled hazardous materials during their assigned operations. The USACE contractor will be responsible for separating hazardous waste for ultimate disposition by EPA.

- The ECC Draft Operation Plan currently does not include procedures to handle petroleum impacted debris. Information on procedures to follow for all categories of waste disposal can be found in Appendix 5.11: LDEQ Debris Management Plan (LDEQ). The USACE contractors are required to follow LDEQ procedures for disposal of each debris category.

US ARMY CORPS OF ENGINEERS
Mississippi Valley Division
New Orleans District

DRAFT

OPERATIONS PLAN

DEBRIS REMOVAL, DEBRIS REDUCTION, AND SITE MANAGEMENT
HURRICANE KATRINA RECOVERY MISSION

Prepared for

United States Army Corps of Engineers
New Orleans District

New Orleans, Louisiana

Contract No. W912P8-05-R-0048
Delivery Order No. 0001

ECC
1746 Cole Boulevard, Suite 350
Lakewood, Colorado 80401

DRAFT

OPERATIONS PLAN

DEBRIS REMOVAL, DEBRIS REDUCTION, AND SITE MANAGEMENT HURRICANE KATRINA RECOVERY MISSION

21 September 2005

I hereby certify that the enclosed Operations Plan, shown and marked in this submittal, is that proposed to be incorporated with Contract Number W912P8-05-R-0048, Delivery Order 0001 for *"Debris Removal, Debris Reduction, and Site Management, Hurricane Katrina Recovery Mission"*. This Quality Control Plan is submitted for Government approval.

Reviewed by:

Operations Manager Date

Program Quality Control Manager Date

Accepted as a submittal:

USACE Contracting Officer Date

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

LIST OF FIGURES

LIST OF ACRONYMS AND ABBREVIATIONS

APP	Accident Prevention Plan
C&D	construction and demolition
CO	Contracting Officer
COR	Contracting Officer's Representative
CQA	Certified Quality Auditor
DFW	definable feature of work
DO	Delivery Order
DOR	Daily Operations Report
DOT	Department of Transportation
DQCR	Daily Quality Control Report
ERRO	Emergency Response and Recovery Office
FEMA	Federal Emergency Management Agency
FOIP	voice over IP
FTE	full time equivalent
HHW	household hazardous waste
IDW	Investigation Derived Waste
LOE	level of effort
NTP	Notice to Proceed
OM	Operations Manager
OP	Operations Plan
OSHA	Occupational Health and Safety Administration
PAO	Public Affairs Office
PE	Professional Engineer
PPE	personal protective equipment
PgM	Program Manager
PMO	Program Management Office
QC	quality control
QCP	Quality Control Plan
QCSM	Quality Control System Manager
SBA	Small Business Administration
SOP	standard operating procedure
SOW	Scope of Work
SRL	Spill Response Leader
SSHO	Site Safety and Health Officer
SSHP	Site Safety and Health Plan
TDSR	Transfer, Disposal, Storage and Recycling
USACE	United States Army Corps of Engineers

1.0 EXECUTIVE SUMMARY

This Draft Operations Plan (OP) has been prepared by ECC Operating Systems (ECC) in response to the Contract Number W912P8-05-R-0048, Delivery Order (DO) 0001 issued by the United States Army Corps of Engineers (USACE) to provide debris management services in the Gulf Coast Region of the United States in the wake of Hurricane Katrina.. This plan is a living document and subject to revisions as needed. ECC has prepared this Operations Plan for the Removal and Reduction of Debris resulting from storm damage due to the impact from Hurricane Katrina in southern Louisiana. ECC understands the critical role this operations plays in the USACE Office of Homeland Security ESF-3 debris mission for the Emergency Response and Recovery Office (ERRO) efforts. ECC has been tasked with management of debris removal and reduction services in designated ERRO Sections 2A, 2B and 2C. Figure 1 (to be inserted) presents the location map with areas of operation for ECC and the other ERRO debris response contractors. ECC will coordinate with the other contractors to ensure fair work practices, equal opportunity and effective and efficient execution of the mission. The plan provides a general outline, sequence of events, organizational structure, and schedule to successfully complete the project in concert with the stake-holder's objectives. It also outlines our management, removal, volume reduction and technical plans. Additional plans and reports will be prepared and submitted in accordance with the contract as follows:

C1.6.1/C2.5.1- Daily Reports
C1.9.3/C2.8.3- Accident Prevention Plan (APP)
C2.7.3- Site Management Plan

ECC's Program Team is located in New Orleans, Louisiana and is staffed with ECC personnel, local hires, and qualified subcontractors. The ECC Program Management Office (PMO) is staffed with approximately 20 technical and project management professionals; they include specialists in project controls, procurement, safety, quality, and construction. This team is equipped with a cadre of systems, tools, and procedures. ECC will utilize prior working relations with in-parish contractors to assure responsiveness, continuity and cost effectiveness to USACE, the City of New Orleans and other State and local agencies. A field office and man camp will be established in the Queen & Crescent Hotel facilities at 344 camp Street New Orleans LA to accommodate the ECC Operations Manager, quality control (QC) manager, security, and field engineers. The office and man camps will be constructed of pre-fabricated units near the ammunition depot.

A meeting was held with USACE, Louisiana Department if Environmental Quality (LDEQ), Occupational Safety and Health Administration (OSHA), US Environmental Protection Agency (EPA), Orleans Department of Sanitation and the USACE ACI debris response contractors to discuss the overall approach to debris management. During this meeting it was determined that the work would be divided into three phases:

Phase I:	Emergency Road and Right of Way Clearing
Phase II:	Curbside Removal Operations
Phase III:	Private Property Debris Removals and Demolition (if authorized)

This plan presents the operational approach for the ECC team to execute the debris removal mission for the USACE ESF-3 teams. Due to the large amount of destruction in the aftermath of Hurricane Katrina, it is expected that Phase III will be requested by the Parishes and State in certain areas that were flooded. This version of the plan fully addresses Phase and Phase II operations. Phase III operations, if required, will be addressed by an updated version of this plan.

Primary consideration will be to cost effectively remove and reduce debris and hurricane generated waste in a manner that protects the public health. Table 1 presents the potential waste stream summary and a discussion of the options available to LDEQ and the parishes for debris management.

Table 1. Debris Waste Stream Management

Debris Category	Status	Issues/Options	Effectiveness/Cost
Green Waste (S)	Co-mingled, priority removal	1. Phase I & II reduction site management 2. Phase III option of burning at site 3. Ash disposal	1. Standard debris response mission parameters 2. Above ground air curtain burners 3. Evaluate ocean or marshland disposal of ash per LDEQ exemptions.
C&D Waste (S)	Expect considerable amount of C&D waste during Phase III demolition operations	1. Segregation costs for burning of combustibles in local or regional burn sites. 2. Available landfill or ocean burning options 3. Landfill restrictions for Formosan subterranean termite contaminated debris	1. Evaluate economic benefit of hiring local labor to segregate non-permissible items 2. Evaluate low cost of landfill tipping fees and or bulk ocean burning operations. 3. Consult with the Department of Agriculture and Forestry regarding restrictions and proper disposal of termite infested C&D waste.
White Goods &A/C Units (S)	ESF 10 (USEPA) to implement curbside CFC removals	Utilization of Jefferson Parrish landfill for centralized storage; EPA pick up of white goods at regional sites	Evaluate using EPA contracts to handle turn-key white goods program.
Metals (S)	Co-mingled	Recycler pick-up at curb	Identify local permitted and reputable scrap recyclers.
Residual Solids & Spoils (S)	Large quantity in flooded areas	LDEQ is permitting temporary staging and storage areas	Utilization of closed landfills may place waste into RCRA O&M program- need to evaluate if warranted based upon analytical results; need to determine LDEQ Section 307 exemption requirements.

Table 1. Debris Waste Stream (Continued)

Debris Category	Status	Issues/Options	Effectiveness/Cost
Boats, Autos, Tires, Electronics (S)	Boats an autos parked on high ground prior to flooding are now abandoned; tires and electronics co-mingled	1. Boats handled by USCG 2. Autos stored for parishes @ 90 day period 3. Tires managed under Title 33, Chapter 2, Section 105	1. Evaluate temp storage areas until USCG can remove 2. Scrap autos need to have haz-waste removed (ESF 10) 3. Need local permitted tire recyclers
Household Hazardous Waste (H)	ESF 10 EPA will manage	EPA contractor to pick up at curb	ECC teams to segregate curbside for EPA; EPA to schedule pick-ups at regional debris reduction sites.
Universal Waste (H)	ESF 10 EPA will manage; co-mingled with C&D during Phase III demo	Need to evaluate LDEQ HHW exemption or manage as universal waste stream	ECC teams to segregate from C&D prior to burning or landfill; if HHW, then can LDEQ can authorize disposal to direct landfill if advisable.
Mixed, Process or Listed Waste (H)	ESF 10 EPA or USACE ESF-3 may manage	Need to evaluate impacts of industrial spills and potentially responsible parties	ECC teams to coordinate with USACE ESF-3 resources in impacted areas to implement spill response mechanisms using most appropriate means

(S)= Solid Waste
(H)= Hazardous Waste

In addition to the above items, there remain several global decisions that need to be made by the State of Louisiana to address final management of the anticipated debris waste streams, as follows:

- Utilization of closed landfills may impact permitted O&M plans at these facilities resulting in significant long-term (up to 30 years) costs to owner/operators or the State. Careful consideration of the use of these facilities and types of waste deposition should be utilized prior to approval of these facilities.

- Burning of construction & debris (C&D) waste should be evaluated based upon
  1. Quantities & cost of potential segregation of non-permissible combustible items (plastic, carpets, ACM, etc.);
  2. Economic benefits of local labor utilization for segregation operations;
  3. Sampling and analysis protocols and recordkeeping for proper ash management.

- Management of residual solids and spoils left from the flooding will need to be defined by LDEQ for sampling, testing, & recordkeeping protocol. Also, ECC will need criteria for LDEQ identified storage and stock-pile areas to be exempted from solid waste regulations under Title 33, Subpart 1, Chapter 3, Section 307.

- ECC will need criteria for ocean barge burning of C&D waste to be potentially permitted by LDEQ.

USACE points of contact for ECC under this contract include:

- Tim Gouger – SME
- Mike Dietl – Mission Manager
- Floyd Bolton – Resident Engineer
- April Fontaine – ESF 3 Action Officer

ECC points of contact have been provided to the USACE.

The objective of this OP is to describe the field operations that will be conducted to remove debris from impacted sites, segregate the debris, reduce the volumes of debris generated, and transport and dispose of the debris at designated facilities.

1.1 Site Background

On August 29, 2005, Hurricane Katrina struck the Gulf Coast (Gulf of Mexico) of the United States, making landfall at Gulfport, Mississippi. The project location and affected areas are shown in Figure 1. Hurricane Katrina hit the mainland as a Category 4 storm with maximum sustained winds of 145 miles per hour and devastated the region from New Orleans, Louisiana to Pensacola, Florida with storm surges, heavy rains, flooding, and damaging winds. In addition, three canal levees within the New Orleans Greater Metropolitan Area breached within 24 hours after Hurricane Katrina passed through the area. The hurricane caused damage to power lines and utility poles; flooded roads and communities; destroyed or damaged homes, buildings, bridges, facilities, and other structures; and left debris strewn across a wide area of the Gulf Coast. The subsequent flooding of New Orleans further damaged homes, buildings, facilities, and other structures, and created a large area impacted with various contaminants (oil, gasoline, chemicals, sewage, etc.) associated with a large urban, commercial, and industrial center.

On August 30, 2005, the head of Federal Emergency Management Agency (FEMA) stated that President Bush authorized federal disaster aid (disaster number FEMA-1426-DR) for Louisiana, Mississippi, Alabama, and Florida to supplement local recovery efforts. Disaster funding has been approved under Categories A-G, of which Category A is Debris Removal.

1.2 Scope of Work

ECC is assisting in the disaster relief efforts in the aftermath of Hurricane Katrina, a federally declared disaster. The purpose of the DO is to eliminate immediate threat to life, public health and safety; prevent significant damage to improved public/private property; and ensure economic recovery of the affected community.

The scope of work (SOW) for ECC includes providing management, supervision, labor, tools, and equipment to perform debris removal, reduce waste volumes, and transport waste [with the exception of household hazardous wastes (HHW)] to designated sites and landfills, as defined in the contract specifications. The waste generally consists of green waste (grass, shrubs and trees, or vegetative debris); construction and demolition (C&D) debris (lumber, concrete, asphalt, masonry, metals and plastic); household debris; HHW; metal debris; white goods (refrigerators, stoves, dishwashers, etc.); and earth materials (rock, sand, gravel, silt and clay).

The waste reduction areas are shown in Figure 1. ECC activities will not interfere with federal, state and local disaster response and recovery efforts. Dumpsite and hauling activities will be conducted during daylight hours; grinding work will be conducted 12 hours a day. Waste reduction by incineration will be conducted 24 hours a day. All activities will be conducted 7 days a week, unless otherwise directed by the Contracting Officer (CO) or the Contracting Officer's Representative (COR).

Based on the site evaluation and SOW, the following tasks will be accomplished:

- Mobilization (complete within 96 hours of award);
- Assume management of and/or construction, management, and supervision of debris reduction sites;
- Safety assessment of debris sites;
- Collection of HHW;
- Collection of commercial hazardous materials and/or hazardous waste (as directed by the CO/COR);
- Phase I debris removal on roads;
- Phase II debris removal on sides of roads;
- Phase III demolition of damaged buildings or structures (as directed by the CO/COR);
- Loading and transporting debris to debris reduction sites;
- Decontamination and remediation of work areas, as needed;
- Segregation of debris (HHW, recyclable metals, recyclable waste, C&D debris, etc.);
- Volume reduction of debris (as directed by the CO/COR);
- Transportation of recycled metals, green waste, hazardous materials/waste, and C&D debris to recycling centers, designated sites, or Landfills;
- Site restoration of debris reduction sites; and
- Demobilization.

2.0 PROJECT ORGANIZATION

This section of the OP identifies and describes key project and QC personnel; presents a QC organizational chart; and describes personnel qualifications and training.

ECC's QC team consists of the Program Manager (PgM), the Operations Manager (OM), and several Quality Control System Managers (QCSMs). An ECC organizational chart is presented in Figure 2.

2.1 Program Manager

The Program Manager, Rick Ebel, will represent ECC in all aspects of its work under the project contract and is responsible for the following:

- Coordination of all work performed by the contractor and its subcontractors for the project;
- Serving as a liaison with the contracting agency and all other federal, state, and local agencies;
- Allocating appropriate resources for the project; and
- Ensuring that the Quality Control Plan (QCP) is approved by the contracting agency prior to commencement of the field operations.

2.2 Operations Manager

The OM, Prashant Khanna, is responsible for the following:

- Review of all work in progress and submittals;
- Resolution of project quality issues;
- Development of project plans, reports and associated documentation;
- Scheduling of activities and adhering to or adjusting the project schedule;
- Monitoring overall safety performance of field personnel;
- Correcting any work practices and/or conditions that may result in injury and/or exposure to hazards;
- Immediately stopping ECC (including subcontractor) operations in the event of an emergency or serious hazard in order to protect personnel, the community, and the environment; and
- Ensure that proper equipment is provided, utilized and maintained in accordance with manufacturer recommendations.

Mr. Khanna will be supported by up to three additional deputies to execute these responsibilities in the three individual parishes.

2.3 Program Quality Control Manager

Richard Gioscia is the Program Quality Control Manager. Mr. Richard Gioscia has overall responsibility and authority for development and management of the Programmatic Quality Control Plan. Mr. Gioscia will serve as a technical advisor on quality-related matters and resource to the QCSM. The duties of the Program Quality Control Manager will include the following:

- Review and approve the project QCP;
- Appoint the project QCSMs;
- Audit the implementation of the QCP; and
- Provide guidance for corrective actions and modifications to the QCP, as needed.

2.4 Quality Control System Manager

The QCSM will report directly to the OM. The duties of the QCSM will include the following:

- Supervise overall site operations, such as waste transportation and placement, waste reduction, waste transportation;
- Oversee traffic control;
- Ensure compliance with Contract plans and specifications;
- Maintain communication between project management and project team members;
- Ensuring compliance with the Accident Prevention Program (APP) and QCP;
- QC of project plans and project data;
- Ensuring no deviations occur from Standard Operating Procedures (SOPs) or the SOW;
- Communication of planned and completed tasks, results of testing and inspections, and proposed activities;
- Track and report in Daily Operations Reports (DORs) to the COR the labor and equipment used, waste volumes reduced, transported and their disposition;
- Track and report in Daily Quality Control Reports (DQCRs) to the COR all QC activities conducted for the site(s);
- Provide QC oversight to subcontractor data collection and reporting efforts;
- Verify that incoming loads consist of C&D debris;
- Oversee debris delivery and placement by subcontractor personnel;
- Coordinate QC requirements at the landfill, to include coordination with the COR for approval of waste placement at the landfill; and
- Verify subcontractor compliance with the APP.

2.5 Field and Subcontractor Personnel

ECC will utilize senior management staff to manage subcontractors in the field operations. The proposed teams to execute debris removal field operations:

ECC Standard Work Team
- Parish Deputy Operations Manager (1 per Parish)
- Work Superintendent (1 per 10 removal teams)
- Team Foreman
- Laborers (4)
- Equipment Operators (2)
- Truck Drivers (12)

Although ECC expects subcontractors to ensure QC of their own work, ECC will remain responsible for site supervision, inspection, and approval of all subcontracted work. All subcontractors will report to the ECC OM or his designee, and furnish all personnel, equipment,

and materials required for their delegated tasks. All subcontractors will agree to adhere to the procedures identified in the project plans and to follow the procedures and QC (and site safety) protocols designated therein.

All field/subcontractor personnel assigned to the project will follow the requirements of the APP and QCP and are responsible for the following:

- Present appropriate certifications, training records, and other documents;
- Act in a responsible and cautious manner at all times so as to prevent accident, injury and/or hazard exposure to themselves and co-workers;
- Report any and all deviations from QC procedures to the Site Safety and Health Officer (SSHO), OM, and/or the Operations Foreman;
- Follow instructions and directions of the SSHO and OM;
- Follow all field QC procedures for all definable features of work (DFWs);
- Perform only those tasks they are instructed to perform and they are trained, qualified, and capable of completing at the time of assignment; and
- Ensure no work tasks are performed in deviation from the QCP and/or the initial instructions without the expressed authorization and additional instruction of the OM and/or SSHO.

2.6 Personnel Qualification and Training

Project staff members will be qualified to perform their assigned duties. This will be accomplished by:

- Establishing and enforcing the minimum qualification requirements for key positions;
- Verifying initial and continued proficiency; and
- Implementing a formal training program.

2.6.1 Personnel Training

Minimum qualification requirements for key positions on this project have been established by reviewing contractual and other project-related requirements. The qualifications of the proposed personnel have been verified with respect to these requirements. Project personnel will not be assigned to a position or job for which they do not meet the minimum qualifications. In the event that additional assignments are made, the qualifications of the assigned personnel will be evaluated and documented as prescribed herein.

Senior technical staff members will provide on-the-job training for newly assigned technical personnel. The training will address topics related to their job requirements and techniques, and will emphasize problem prevention. The senior staff members will monitor the work performed by newly assigned personnel. The frequency of the monitoring will depend on the demonstrated proficiency of an individual to perform his or her assigned duties.

2.6.2 Quality Management Training

All QC, management, and professional personnel will be trained to the requirements of this QCP. In addition to technical training and past field experience, ECC QC personnel are trained in the USACE "Construction Quality Management for Contractors". Personnel will be selected with experience and training that matches the scope of work expected at the site.

2.6.3 Safety and Health Training

Job safety training and worker health monitoring requirements have been established in accordance with ECC and contract policies and procedures, as specified in the APP. On-site task-specific training may take place, as needed, for new activities. Daily tailgate safety meetings will be held to ensure all personnel are aware of and trained in their duties, and know of the associated hazards and mitigation measures.

3.0 FIELD OPERATIONS

Execution of the field operations will begin upon the receipt of Notice to Proceed (NTP) from the USACE CO. Within 24 hours, the OM, Prashant Khanna, will report to the site along with key staff to begin DO execution. The OM will be well prepared for this, having already been involved in DO preparation and negotiations with the USACE CO.

The OM will oversee mobilization and manage the field crews through his deputies and the superintendents. Each field execution team will be managed by a Foreman and 10 foremen will in turn report to one superintendent.

- Mobilization of personnel, equipment, materials, and subcontractor support will be performed as a progressive buildup to full strength for the assigned TO within 96 hours. ECC can add additional capacity for expanded response as requested by USACE.

Full-scale operation for removal of a minimum of 12,000 cubic yards per day and coordinated site management and continual reduction of debris volumes is a key factor in our strategy.

- The **Phase I** debris removal teams will be deployed per USACE COR direction and be managed by experienced ECC or subcontractor superintendents and staffed by local laborers and operators from our subcontractor pool. These teams will be flexible in deployment tasks, integrating with local community residents and responding to the needs of the local community leaders within their daily tasks and their USACE EFO counterparts in the field.
- **Phase II** site management/debris reduction will be focused on the efficient receipt of debris from our removal team's operations, in addition to any public debris collection and removal operations approved by the USACE for management at our sites. This operation will be an orderly, systematic management process that segregates the waste into green, white, hard-fill, and hazmat materials for proper and cost-effective processing. The debris site management team will work closely with the USACE COR EFO's to insure adequate QA/QC documentation of all operations for payment and field corrective actions. In addition, this team will provide the USACE with cost saving ideas, such as alternate disposal sites for waste stream including recycling options.
- **Phase III** private property demolition and debris management has not yet been authorized under this response action. Planning currently underway indicates that this operation may be requested after condemnation of neighborhoods by the State of Louisiana and individual parishes. If so ordered and USACE SEF-3 tasks ECC with this mission, a work area/exclusion area will be established around the perimeter of the impacted area. ECC will assume management of the site, maintain security, and control all egress and access points. ECC will coordinate with FEMA and USACE for property surveys, human remains management, personal property inventories, and the demolition and disposal of all materials in the neighborhood. Final site conditions following the demolition will be planned with the ESF-3 USACE Civil Works teams in coordination with State and local authorities.

Definable Features of Work- Field operations will be conducted within the following definable features of work (DFWs):

- Mobilization and Project Office Set-up (complete within 96 hours of award);
- Preliminary Surveys of Clean-up Sites and Environmental Management Planning;
- Transfer, Disposal, Storage, and Recycling Site Construction;
- Phase I Debris Removal: Clearing of Roads
- Phase II Debris Removal: Clearing of debris and waste on sides of roads
- Phase III Debris Removal: Demolition of Damaged Buildings or Structures and Private Property Debris Removal;
- Loading and Transporting Debris to Transfer, Disposal, Storage, and Recycling Sites;
- Segregation of Debris (recyclable metals, recyclable waste, C&D debris, etc.);
- Debris Reduction;
- Transportation of Recycled Metals, Green Waste, Hazardous Materials/Waste, and C&D Debris to Recycling Centers, Designated Sites, or Landfills;
- Collection of HHW;
- Decontamination, Remediation and Collection of Commercial Hazardous Materials and/or Waste (as directed by the CO/COR);
- Transfer, Disposal, Storage, and Recycling Site Closeout; and
- Demobilization.

3.1 Mobilization and Project Office Set-up

Personnel, equipment, subcontractor, and other support resources will be activated to respond, and will reach full capacity at 96 hours after NTP. The ECC OM will designate operations, communications, and logistics functions upon arrival at the site. The ECC Logistics Manager will procure mobile office and support facilities and infrastructure support. Power, water, sanitation, and security, will be operational within the initial 24-hour mobilization period. The ECC IT Manager will install satellite-based internet access and voice over IP (FOIP) telephone systems. This will be in conjunction with land-line phone access, if available. This will continue to occur concurrently with the beginning of debris removal operations.
Initial mobilization in the first week of the contract award is as follows:

- ECC has offices located in Port Allen and will stage operational personnel and equipment at this location- 5 miles from USACE ERRO;
- Satellite phones on hand for remote area operations
- Finalize arrangements to forward-deploy to New Orleans ASAP
- Mobile man-camp or hotel for 250+ people ready to deploy in 7-15 days
- Local subcontractors identified for trucking, heavy equipment operations and labor
    - Capable of putting 10 debris removal teams in the field over 4-day period
    - Additional 14 teams in process
- ECC website established for gathering subcontractor information
- ECC initiating SBA and Dept of Labor liaisons for coordinated business outreach & vocational training assistance
- ECC website established for gathering personnel resumes
- Inoculate all workers for TB

- Conduct NIEHS Katrina Response Safety Training
- Perform job walks with USACE and develop estimates
- Negotiate and finalize initial Task Orders
- Gear-up field debris removal and site management operations for immediate response in critical areas
- Hire local SBs
- Use website and local ECC staff to grow SB subcontract data base
- Meet with local business representatives
- Meet with local politicians
- Negotiate Technical Assistance and Life Support Task Order
- Begin work based on USACE NTP

Additional Resource Coordinators and Subcontract Managers will bring in subcontractors and equipment as directed by the OM. All ECC and subcontractor site personnel will immediately undergo training on the comprehensive ECC Management Plan, QCP, and Site Safety and Health Plan (SSHP) by the OM, QSM, and SSHO, with particular attention to the definable features of the work and anticipated health and activity hazards of disaster response efforts. Special training will be given regarding the biohazards specific to this disaster situation. In addition, ECC will utilize the USACE safety inspection checklist to inspect equipment mobilized to the site.

The ECC OM will submit a daily site report in accordance with C.1.6.1 and C2.8.3 to the USACE COR by close of business which will include contractor's name, contract number, daily/cumulative hours for each piece of equipment, personnel (by unit cost), and cubic yards of debris removed. The Night Site Management Foreman will be responsible for completion and submittal of a daily operations report to the USACE COR for night burning activities through the OM.

3.2 Technical Assistance and Preliminary Surveys of Clean-up Sites

The USACE and FEMA have requested Technical Assistance task performance. This technical work includes, but is not limited to:

- Provide USACE and it's client technical expertise and consulting in:
    - Debris mission scoping
    - Task force safety program and industrial hygiene
    - Worker and public air monitoring
    - Hazardous materials identification, testing and classification
    - ACM identification and testing
    - Lead contaminated paint identification and testing
    - Petroleum contaminated soil, water and debris identification and testing
    - Fermosan termite inspection

- Perform reconnaissance
    - On the ground
    - Aerial

- Develop contaminated material treatment and disposal options
    - Debris
    - Household Hazardous Waste
    - Universal Waste
    - Used Oil
    - Water
    - Tires
    - Sludge
    - Soil
-
- Perform structural engineering and planning data and analysis as needed to support re-occupancy or demolition
    - Residential
    - Business
    - Public

Debris Mission Technical Assistance Staff

- ECC has the following technical staff to fulfill the Technical Assistance SOW

    - Debris mission specialist
    - Sr. Health and Safety Manager (CIH, CSP certified)
    - Health and Safety Specialist (3-one for each ECC area of ops)
    - Environmental Monitoring Manager (Air, Water)
    - Air Monitoring Technicians (8)
    - Sr. Environmental Engineer
    - Environmental Engineer
    - Environmental Scientist/Chemist
    - Toxicologist, part time
    - Architectural and Landscape Planning Engineer, part time
    - Sr. Structural Engineer
    - Structural Engineer
    - Sampling technicians (20 FTE)
    - Data Management (4 FTE)

Technical Assistance Schedule

- Technical assistance is needed for 8 months at 100% LOE and 4 months at 70% LOE

Mission Management SOW

- Provide the USACE the following management support
    - Debris Mission Operations Manager
    - Small Business Utilization Compliance and Reporting
    - Contract & Subcontract Management

Mission Management Staff

- Operations Manager
- Cost Manager
- Scheduling
- Small Business Utilization/Community Relations Manager
- Administration
- Clerk (3)
- IT

The following technical assessments will be made with USACE ERRO and SME personnel.

Site Logistics and Debris Survey- ECC will review site conditions and develop a specific local debris removal and management logistics execution strategy based upon:

1. USACE debris estimates;

2. Specific tasking under ESF-3 mission planning; and,

3. Final determinations made with other ESF mission and local parish planners.

4. These execution strategies will be finalized with the USACE EFO mission specialists in the parish work areas.

Figure 2 presents the expected waste streams to be managed in all three work zones by ECC team members.

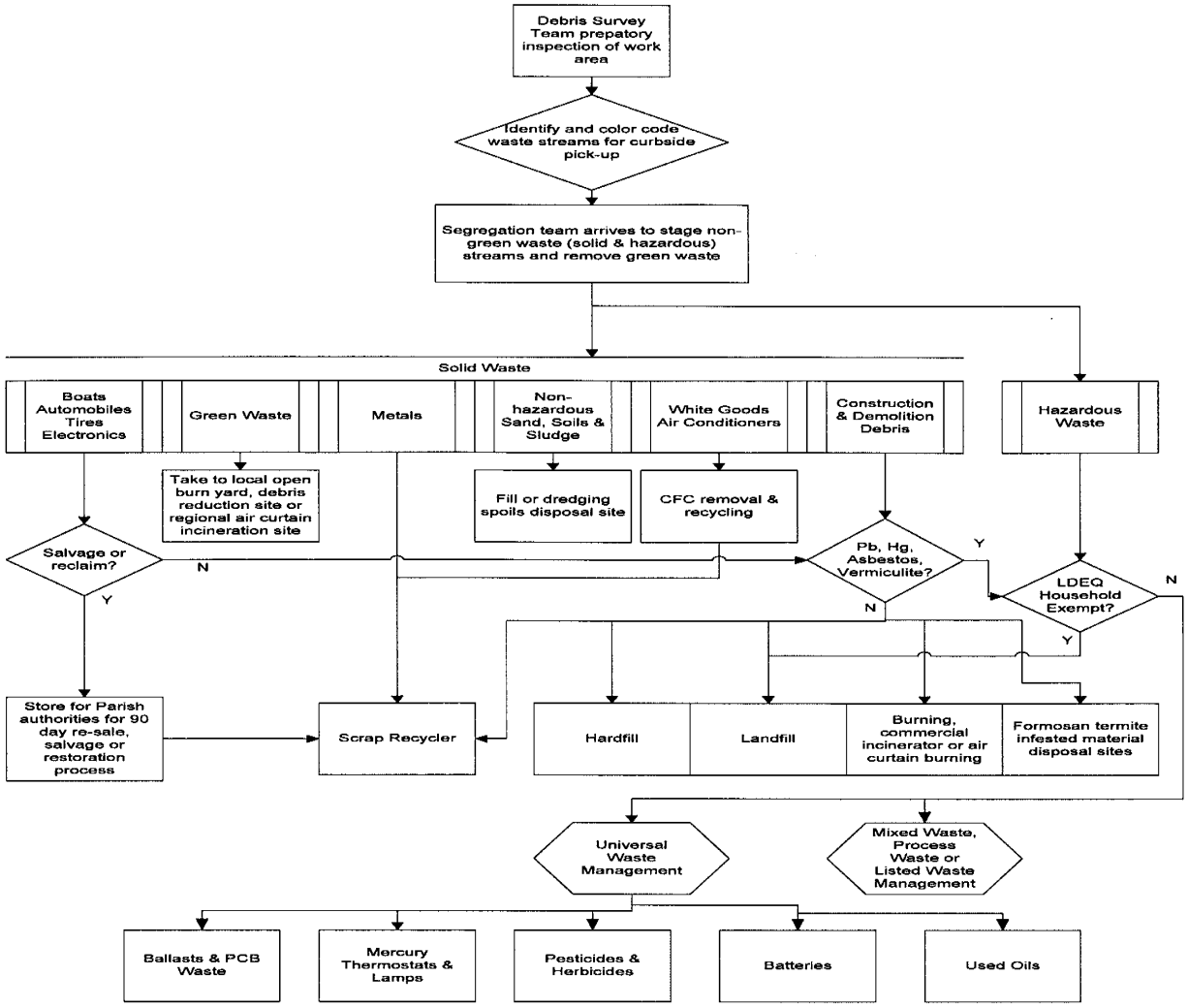

Debris Survey Team prepatory inspection of work area
Identify and color code waste streams for curbside pick-up
Segregation team arrives to stage non-green waste (solid & hazardous) streams and remove green waste
Solid Waste
Boats Automobiles Tires Electronics
Green Waste
Metals
Non-hazardous Sand, Soils & Sludge
White Goods Air Conditioners
Construction & Demolition Debris
Hazardous Waste
Take to local open burn yard, debris reduction site or regional air curtain incineration site
Fill or dredging spoils disposal site
CFC removal & recycling
Salvage or reclaim?
N
Y
Pb, Hg, Asbestos, Vermiculite?
Y
N
LDEQ Household Exempt?
N
Y
Store for Parish authorities for 90 day re-sale, salvage or restoration process
Scrap Recycler
Hardfill
Landfill
Burning, commercial incinerator or air curtain burning
Formosan termite infested material disposal sites
Universal Waste Management
Mixed Waste, Process Waste or Listed Waste Management
Ballasts & PCB Waste
Mercury Thermostats & Lamps
Pesticides & Herbicides
Batteries
Used Oils

Figure 2

Environmental Waste Stream Management Logistics - ECC will utilize the following exemptions in the LDEQ and federal environmental statutes in accordance with *Title 33, Part 5 Subpart 1* LDEQ concurrence and ESF 10 approval:

-Household Hazardous Waste; *Chapter 1, 105(d).2.a.*

-Universal Waste; *Chapter 38*

-Used Oil; C*hapter 40.*

In addition, ECC will manage any industrial hazardous waste as directed by appropriate regulations under LDEQ law.
Safety and Health Survey- ECC will complete preliminary data reviews from the CDC, parish and city monitoring teams, EPA and LDEQ sources prior to entering a work area. If no data is available ECC will perform monitoring to assess work conditions. ECC's crew will be equipped with personal protective equipment (PPE) (Level D) for general work tasks. Special conditions may warrant specific upgrades to PPE requirements. ECC's Site Health & Safety Plan describes the field conditions that will warrant such upgrades in protection.

Hazardous Waste Survey- ECC's preliminary inspection teams will review data and tour areas prior to deployment of debris removal teams. These teams will be staffed under our Technical Assessment mission representatives and be familiar with the latest data assessments from CDC, EPA, LDEQ and Parish sources. All potentially hazardous waste items will be color coded and identified clearly by fluorescent spray paint or cordoned off using physical barriers. Results of the surveys will be posted on our website in the daily reports and maps. This information will be used in developing work orders for our debris removal teams.

3.3 Site Management Plan for Transfer, Reduction, Storage and Recycling Site Construction

The Transfer, Disposal, Storage and Recycling (TDSR) Site, or Debris Reduction Site, is the main staging, segregation, and processing center for debris management. It will be optimally located near the impacted community, on public land, with a typical minimum size of 50-100 acres with buffer, and a usable transportation network. Additionally, a site inspection tower and specialized features for HHW, air curtain incineration, and ash pit will be constructed. This work will commence immediately after vegetation clearance, leveling, and grading of these designated sections.

Site Setup

ECC's pre-planning includes working with USACE to identify TDSR site location, preparing a layout, with baseline data on topography, soil/substrate conditions, hydrogeology, and final site closure/restoration requirements. A comprehensive assessment of land use (historic, present,

future) and sampling (soil, water) prior to construction may be warranted. Once approved by the COR, ECC will begin site setup.

The designed plan for unobstructed access to the TDSR site support zone and major construction and debris staging area will include a large (50-foot horizontal clearance) main access road. Smaller secondary roads (20-foot clearance) will access other designated active staging/reduction areas. The constructed roads will provide immediate dumping areas for incoming trucks containing debris, resulting in a continuous stream for segregation and reduction.

The completed TDSR site will include the following features:

- Support zone (vehicle maintenance/fueling, for mobile trailers, parking area, sanitation, and inspection tower);
- Public construction and demolition debris dump area;
- ECC C&D dump area, with an integral dumping buffer zone;
- Vegetative green waste dump area;
- Hardfill dump area;
- White Goods storage area
  (Note: primarily all White Goods will be addressed by the EPA with freon/CFC recycling processing);
- Tub grinder/chipper and Mulch area;
- Household hazard waste storage area;
- Air curtain incineration pit area, if needed; and
- Ash pit residue area.

A water truck will provide dust suppression of graded roads. ECC personnel will construct perimeter surface erosion controls using silt fencing, hay bales, with placement of culverts and rip-rap as required by site topography. Vegetation clearing and grubbing will be completed using heavy equipment, chippers, and chainsaws. All debris will be chipped and staged in a designated mulch section of the site. Equipment Operators will use a motor grader, track dozer, wheel loaders, and/or backhoes for road or turnaround construction, and general site clearing, leveling, and grading. Existing site topography will be maintained or improved for surface water runoff, and buffer zones will be created for existing surface water features, wetlands or private property.

Site security will be in place at the perimeter of the TDSR site using 6-foot-high chain link fencing. Access roads into the site will be unobstructed, with operational security provided by a flagman during daylight hours and security lights during night hours. A Traffic Control Plan will be placed into operation during construction, and daily functioning of the completed TDSR.

Prioritized truck haul routes will provide rapid access to cleared arterial and connecting streets for loading and dumping operations.

Plastic liners will be installed under stationary equipment such as generators, fueling and service areas and mobile lighting plants. The TDSR site may also be used as an equipment staging area, for fueling and equipment repair of trucks and site equipment. To prevent and mitigate spills such as petroleum products and hydraulic fluids, ECC will implement a Spill Contingency Plan for all cleanup requirements at the site. Storage tanks and containers will be positioned in lined, bermed impoundments, with fire extinguishing equipment, personnel decontamination and placards/warning signs.

Inspection Towers

The site inspection tower will be constructed concurrently with setting up mobile trailers and support features. The ECC OM will subcontract a qualified building contractor to construct the tower to meet the USACE material specifications. The tower will be constructed using pressurized wood and erected in place to a height of 10 feet above ground. Metal anchors affixed into concrete bases will secure the 6x6 support posts. The 8-foot x 8-foot floor will be constructed of 2x8 joists, 16 inches on center and covered with ¾-inch plywood. A 4-foot high wall of 2x4 studs with ½ inch affixed plywood will protect the perimeter of the floor. The roof will be covered with corrugated tin, with a minimum 7 feet of headroom below the support beams. Access to the tower will be by wood steps and handrail. A worktable will be constructed within the tower. Electrical service will be provided to the tower if practical.

Household Hazardous Waste Area

The HHW will be positioned on a level corner of the site, about 30 feet x 30 feet in area and a 10- to 15- foot buffer zone around the perimeter, constructed to allow complete containment of all staged materials. Prior to construction, the ground surface will be analyzed as a baseline for determining site closure requirements. Final grading will direct surface water run-off away from the containment area. Heavy gauge plastic will be sandwiched between two 12-inch layers of clean sand covering the area. The perimeter will be lined with hay bales, staked in place, and covered with surplus heavy mil plastic from between the sand layers. A final layer of heavy gauge plastic will completely cover the HHW containment area secured with sandbags.

Air Curtain Incineration Area

ECC will construct an incineration area, if permitted, at one side of the TDSR site with a 1,000-foot clearance from any structure and 100-foot clearance from the burn material stockpile. A 20-foot buffer zone, delineated by signs and fencing will be maintained around the incineration area. Using a hydraulic excavator, soil will be removed for the incinerator to a depth of 14 feet below grade and 8 to 9 feet wide. The pit will be no longer than the length of the blower nozzle. A two-to-one vertical to horizontal (2V:1H) compacted slope will be prepared at one end for access using a wheel loader. The excavation lining will be installed, consisting of one foot of impervious clay. The pit ends will be sealed to a height of 4 feet. A 12-inch high rigid, non-combustible stop block will be placed on one side of the pit to prevent damage to the lip edge

from the wheel loader. The pit will be constructed a minimum of 100 feet away from debris piles and 15-20 feet away from the reduction site perimeter.

For the size of the pit constructed, at least two self-contained diesel engine fan/blower venturi-tube assembly units will be mobilized. The power plants will be located away from the pit with each 24 inch x 50 foot venture-tube assembly placed at ground level, parallel to the pit's edge, secured using metal anchors and straps or wire slings. The series of exhaust openings on each tube will be positioned downward into the pit to direct the airflow at least 2 feet below the lip edge toward the opposite wall**.** The minimum nozzle velocity will be 8,800 ft/min (100mph) and volume of 900 cf/min/linear foot. The fire will be extinguished at least two hours before removal of ash begins.

Ash Pit Area

ECC will temporarily stage the ash produced from incineration operations in a level area outside and adjacent to the incineration pit. A wheel loader will be used to remove ash only when the ash stockpile reaches a height of 2 feet below the pit lip edge and the incineration flame has been extinguished for at least 2 hours. The cooled ash will be loaded into metal roll-off bins or dump trucks, and covered with tarp for offsite transportation.

3.4 Debris Removal

Debris management for Hurricane Katrina response actions entails three phases. Phase I consists of debris clearance in areas that may hinder immediate rescue efforts by public and private entities, or may pose an immediate threat to public health and safety within the disaster area. Phase II consists of the removal and disposal of debris that is determined necessary to ensure the orderly restoration of the community and to eliminate remaining threats to public health and safety. Phase III will cover private property demolition and/or debris removal. Phase III activities are not authorized under the current task orders. The phase of work to be performed will be directed by USACE. ECC understands the Stafford Act limitations placed on the USACE and will only execute debris removal operations under these directives and authorized by the Contracting Officer. The following types of debris may be encountered in removal operations or at the management site from local, state, or general public removal operations:

- Tree blow-down and broken limbs;
- Yard trash (outdoor furniture, trash cans, etc.);
- Utility poles, power, telephone and cable TV lines, transformers, and other electrical devices;
- Construction and Demolition (C&D) debris (roofs, sheds, signs, walls, etc.);
- Soil, asphalt and concrete; and
- Personal property (clothing, appliances, boats, cars, trucks, trailers, etc.).

The ECC OM will coordinate on a daily basis with the Emergency Response and Recovery Office (ERRO), USACE COR, to assign crews and equipment at strategic geographic locations

within the disaster area for rapid removal of debris. Work schedules will be 12-hour days, 7 days per week, for the various crews.

Debris removal will be under the management of the ECC Crew Foremen whose crews are comprised of 12 dump trucks of various sizes, 2 front-end loaders, and 4 laborers. Flagging and traffic direction will also be performed if needed. Communication between ECC OM, Crew Foremen, and crews will take place via portable, hand-held radios or Nextel cell phones. Satellite phones will be provided in the event that Nextel cell phones are not operable.

Recognizing that this project is planned to operate 7 days per week, 12 hours per day, ECC will build in adequate resources using multiple crews in order to allow professional and craft workers adequate time off. This crew rotation will be an important aspect of resource planning to enhance safety, minimize turn-over and optimize productivity. Debris removal activities are hazardous, and safety considerations are mandatory to reduce the chance of injury and possible loss of life. All heavy equipment will be equipped with protective cabs. All personnel must wear protective gear, such as hard hats, gloves, goggles, and safety shoes. Strict adherence to the SSHP, QCP, and Traffic Control Plan will supplement and strengthen the close and safe working relationship of ECC crews with other local and state cleanup crews. Response to Hurricane Katrina will also require special considerations related to the biological hazards currently present in New Orleans and the Gulf Port area, including e-coli and other infectious bacteria.

The ECC crew will load the staged debris using front end loaders. Large, bulk debris will be loaded into dump trucks using knuckleboom and track hoes with thumb attachments as necessary. Driveway cutouts, fire hydrants, valves, and storm water inlets will remain unobstructed. Personnel will keep clear of downed power lines and transformers until they are de-energized by public works personnel. Mobile chippers with collection trucks, fed by ground personnel with chainsaws can be used to assist in field debris reduction in the event this is more economical than performing the reduction at the staging area. Accumulated material will be transported directly to the TDSR site.

Each crew will be made up of six 16-20 CY and six 21-30 CY dump trucks. Trucking capacity and efficient use of trucks will be critical to achieving the target rate of 12,000 cubic years per day. Dump trucks will use approved routes to transport the debris to the TDSR site; their response rate is critical to the success of the removal effort. The rapid deployment of trucks within the disaster area will require constant monitoring by the ECC OM, crew, Site Foremen, and Superintendents. Two magnetic signs will be affixed to all trucks and heavy equipment per contract requirements provided by the government. All transport trucks will also require a unique identification number and hauling capacity, in cubic yards, scribed to the sides. The trucks will meet USACE specifications for hauling, rapid unloading, tailgate fencing, sideboard extensions, and signs. Over the road trucks will be licenses and plated in the state of operation and will be equipped with radios to facilitate communication in the event of an emergency.

Phase I Road Debris Removal

Road debris removal would be directed by USACE. During this phase, ECC crews will work closely with municipal workers and equipment; local, tribal, and state Department of Transportation (DOT) workers and equipment, National Guard; local contractors; US Department of Agriculture (USDA); US Forest Service; chain saw crews; and local USACE workers and equipment. Critical routes that are essential to emergency operations will be of priority for immediate debris removal. Roadway debris removal will involve opening key access arterial roads and collectors by moving debris to the shoulders of the road to expedite:

- Emergency vehicle movement;
- Law enforcement;

- Resumption of critical services, including power and water;
- Damage assessment of key public facilities like schools, hospitals, government buildings; and
- Damage assessment of municipally-owned water and wastewater treatment plants, power generation plants, airports, and seaports.

Phase II Curbside Debris Removal

As removal operations progress, the initial roadside debris piles become the dumping location for additional yard waste and other generated debris, including construction material, unusable personal property, trash, white metals such as refrigerators, washers, dryers and hot water heaters, roofing, and household, commercial, and agricultural chemicals.

ECC will maintain contact with USACE Public Affairs Office (PAO), who is crucial links to the public's participation in cleanup efforts. The PAO representatives coordinate with other public information agencies through the Emergency Response and Recovery Office to keep the public informed of all debris removal activities and schedules. Notifications to the public through bulletins, hotline notices, and public service announcements for radio and television help to expedite the debris removal process. Information includes curbside separation of burnable and non-burnable debris, recyclable materials, and HHW; keeping debris piles away from fire hydrants, valves, storm drains and driveway cutouts; and reporting illegal dump sites or incidents. Currently, EPA is planning on management of all white goods. EPA will drain Freon or other chlorofluorocarbons (CFCs) from appliances and transfer to a central location for recycling.

ECC's Debris Management Plan for Hurricane Katrina can accommodate multiple return trips through community access roadways for continued debris removal as local and state agencies transition from emergency removal (Phase I) to final debris removal (Phase II) operations. ECC will continue to provide effective debris removal in coordination with other onsite federal, state, and local response personnel and equipment, as directed by USACE. As requested, ECC will work with the USACE, PAOs, and other officials in aiding individuals sort their debris at the curb to optimize recycling. Daily update meetings will be continued at the Emergency Response and Recovery Office with key government debris managers to resolve any coordination problems between local, state, and federal debris removal efforts and disposal efforts. The meetings will also include coordination with local and State DOT, and law enforcement authorities to ensure that traffic control measures expedite debris removal activities.

Phase III Demolition & Private Property Debris Removal

Section 407 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 5173) allows for the removal of debris from private lands in a community if failure to remove debris in that community places the lives, health, and safety of those living in the community at immediate risk. Typically this is not within the USACE debris mission unless these special conditions are met. ECC is only authorized to execute curb-side removals as of 20 SEPT 2005.

However, if authorized to provide personnel and equipment, ECC will follow established USACE guidelines to ensure complete cooperation with local and state government officials including local law and/or code enforcement agencies, and the state historic preservation office. ECC will also enlist the cooperation of local businesses including real estate agencies. ECC will employ qualified contractors to remove asbestos and lead-based paint. ECC also will employ a photographer to take pictures of the sites before and after demolition. Before ECC undertakes demolition and removal of debris, it will also be necessary to secure a right of entry agreement from the property owner or appropriate government official.

Household Hazardous Wastes Removal

HHW consists of common household chemicals, propane tanks, oxygen bottles, batteries, or industrial and agricultural chemicals. These items are often mixed into the debris stream and require close attention throughout the debris removal and disposal process. The OM will assist the Emergency Response and Recovery Office staff in coordinating public participation in the curbside segregation of any HHW materials. ECC recognizes that some local community may not be in a position to separate HHW from other debris and therefore the crews handling the normal debris removal process will separate any HHW during the collection process.

In addition, ECC will designate special trained crews to collect and segregate HHW. These crews will consist of a truck and two personnel trained as per EPA requirements for handling HHW materials. The trucks will be equipped with drums and spill pans or other suitable containers for collecting and segregating HHW. The HHW collection crew will be fitted with EPA Level D or Level C safety gear as appropriate.

All HHW will be delivered to collection points designated by the COR. At the collection points HHW will be segregated by hazard class (RCRA, TSCA, FIFRA) and staged on wooden pallets within the containment area and then delivered to the designated collection point by the COR. ECC's crew of two and a truck will conduct a full sweep of the area to collect HHW at the curbside and transport to the TDSR site staging area for segregation. Pickup trucks will be used for rapid mobility to recover identified HHW.

The Hurricane Katrina conditions have likely generated contaminated debris, soils, and liquids (beyond normal HHW) requiring specialized removal. As directed by USACE, ECC will provide a trained hazardous materials crew for rapid deployment, as necessary, with equipment and materials, to contain and cleanup hazardous materials encountered. A database of employees and subcontractors possessing specialized hazardous material training consistent in 29 CFR 1910.120 will be maintained. This will allow ECC to efficiently and safely manage contaminated debris if directed by USACE. Heavy equipment may be requested for support, and dump trucks with a heavy gauge plastic liner in the bed will be used for transport of the contaminated solid bulk items to the TDSR site. Liquids, such as flammables, corrosives, or toxics, will be containerized or transferred into DOT approved drums or tanks for disposal. This work may be done in conjunction with EPA and its contractors. Support from local and state fire and police agencies will be requested for public health and safety as needed.

ECC chemists will provide oversight for receipt of HHW materials, contaminated soils, and contaminated debris at each TDSR site. The ECC chemists will coordinate segregation, staging, and rapid off-site transportation and disposal to permit continual debris reduction at the TDSR site, with the exception of HHW which will be segregated and remain at the TDSR for disposition by the EPA.

Navigation Debris Removal

Because the area affected by Hurricane Katrina has impacted a broad coastal area, debris removal from reservoirs, natural streams, engineered channels, and basins may be authorized by the USACE. Potential damage, shut down, or overflows of water intakes, storm drains, dams, or impoundments may require debris removal using available ECC crew and equipment. In addition, damage to marinas includes sunken boats, casino barges, and debris which can impede navigation. USACE and ECC coordination with US Coast Guard, state marine patrol, local government agencies, and specialty contractors in marine salvage and diving operations will be essential to provide removal safely and efficiently. ECC has also identified five specialty subs to support debris removal in canals and coastal environments, if direct by the USACE.

3.5 Debris Reduction

The ECC Debris Management Plan will employ aggressive segregation, sorting, and size reduction strategies to provide for effective reuse, recycle, and disposal of transported debris to the TDSR site. A 12-hour, 7-day work schedule at three reduction facilities will be coordinated by the ECC OM for continual reduction processing of incoming debris. Burning operations will continue on a 24-hour per day basis. Heavy equipment used in the construction of the TDSR site will be transferred to an operational debris reduction role. Addition of large, self-contained tub grinders will complete the operational status of the site.

Loaded dump trucks will arrive continuously during debris removal efforts. The ECC Traffic Control Plan will provide for the coordinated movement and control of each truck as it arrives at the site. A crew of three flagmen will assist in entrance, onsite speed control, and exit of dump trucks to the site. Specific dumping locations for debris loads will be communicated to truck drivers upon arrival. A WAD/Load ticket will be presented at the TDSR with truck owner, number, size/capacity, date, and signature of driver and dump inspector (foreman). Radio communication will prevent delays in the rapid dumping of trucks.

Considering the affects of Hurricane Katrina, C&D debris may be the largest waste stream to be handled at the site. Dump trucks will enter the TDSR and offload debris from a wide turnout staging area. Track dozers and wheel loaders will segregate large debris into C&D debris and vegetative debris. Burnable debris will be directly transferred to the air curtain incinerator pit based on the make-up of the debris. Track dozers will continually grade across the dump zone to push non-burn debris to one end. Non-burn debris and ash residue will be loaded into dump trucks for direct landfill disposal as directed by USACE, with the exception of HHW which will be segregated and remain at the TDSR for disposition by the EPA.

Disposal will be in accordance with current state, federal, and local regulations. Tipping fees will be reimbursed by the Government.

Recognizing that this project is planned to operate 7 days per week, 12 hours per day, ECC will build in adequate resources using multiple crews in order to allow professional and craft workers adequate time off. For the reduction sites, ECC will have two separate work crews per site for a total of six crews supporting three TSDRs. This crew rotation will be an important aspect of resource planning to enhance safety, minimize turn-over and optimize productivity.

Volume Reduction by Incineration

Air curtain pit incineration offers an effective means to expedite the volume reduction process by substantially reducing the environmental impacts of open incineration. The engineered features designed into the incinerator allow for a reduction rate of approximately 90 percent with limited air quality impacts. The air curtain traps smoke and small particles and recirculates them, enhancing combustion at over 2,000 degrees Fahrenheit.

As appropriate, ECC will assist the USACE, Emergency Response and Recovery Office, and PIO personnel in briefing local officials, environmental groups, and local citizens on the incineration method, operation, environmental standards, and health and safety issues. ECC will complete any required state and local permit regarding burning operations (site location, air emissions, fire protection, and water pollution control). Materials will be inspected for hazardous constituents and proper separation prior to combustion. The ECC OM will staff a rotating crew for a 24-hour, 7-day week schedule for burning. The Site Management Foreman and Night Site Management Foremen will supervise crews of three ground personnel per shift. A cycled operation of controlled burn, cool down, and ash removal will be instituted. The wheel loaders will load the burn pit from the C&D segregation in uniform layering. Diesel fuel will ignite the burn and continual supply of construction wood and vegetation debris done by the loaders. Cool down will be done as the ash mound reaches 2 to 3 feet below the blower nozzles. The fan/blowers will cease operation and the fire will be allowed to burn out and cool for a minimum of 2 hours. The ash will be removed using the sloped end of the pit by the loaders. The ash will be staged at the designated pit area, checked for hot spots, and loaded into dump trucks for landfill disposal. New debris will be layered into the incineration pit and the burning operation resumed.

Volume Reduction by Grinding and Chipping

ECC will employ large-scale grinding and chipping operations as part of the overall debris volume reduction strategy. The opportunity to reduce clean woody debris into suitable mulch for recycle or landfill cover presents a two-fold benefit to this project. Chipped organic waste is ideal for use in residential areas, orchards, or groves. Chipped organic waste can be easily stocked at designated locations for future use. However, a large number of damaged and uprooted trees present significant problems if they are pushed to the rights-of-way for chipping operations. The eventual pick-up and transport to the TDSR site facilities allow use of the large tub grinders because of their high volume reduction capacity.

The ECC mobile chipping crew's production output can average 100 to 150 cys per hour. Chainsaws will be used to assist sizing of debris to feed the chippers. Hand removal of trash or hazardous materials will take place prior to chipping. Chippers and transport trucks will employ a crew of three and will directly offload accumulated mulch at local recyclers.

In turn, the ECC chipping operation at the TDSR can average 200 to 250 cys per hour for relatively clean debris, with sizing of 4-inch length and ½-inch diameter. To help eliminate contaminants, dozers and front-end loaders with root rake attachments will be used to feed dirt and trash contaminant materials into tub grinders. Generated mulch will be stockpiled near the grinders for periodic loading using front-end loaders into recycle trucks, or transport by contractor dump trucks to designated facilities or storage areas.

Volume Reduction by Recycling

Recycling reduces mixed debris volume before it is hauled to a landfill. A recycling operation will be incorporated into the Debris Reduction Site. The following materials will be targeted for recycling.

Metals, Glass, and Plastics – Most metal debris from buildings and structures is suitable for recycling, such as trailer frames and other ferrous products. The ferrous metals will be separated using an electromagnetic instrument. Aluminum can be sorted using an eddy magnet. Metals processed for recycling will be sold to recycling firms. Bins at the shaker screen will be used to collect plastic and glass debris. The separation efficiency is dependent upon the condition and volume of the material, the proximity and price of markets, and the cost of separation and transportation to the buyer.

Soil – Cleanup operations using large pieces of equipment can pick up large volumes of soil, which is combined with other organic materials that will decompose or compost over time. Soil will be segregated by screening or shaking. This procedure can produce significant amounts of soil for the purpose of sale or recycling back into the agricultural community. This soil may also be used at local landfills for cover, as part of the TDSR site berm, or as grading compaction material for the C&D offloading area. It is generally more expensive to transport and pay tipping fees at local landfills than to sort out the heavy dirt before moving the material. Soil monitoring and testing may be necessary to ensure it is not contaminated. As dump trucks arrive at the TDSR, soil, color, and odor observation will assist in this determination. A flagman will direct contaminated dirt loads to the HHW area for further processing by an ECC chemist. Monitoring and testing of the soil may be necessary to ensure it is not contaminated with chemicals.

Wood – Woody debris will be either ground or chipped into mulch.

Construction Material – Concrete block and other building materials will be ground and used for other purposes, if there is a ready market. Construction materials will be ground to reduce volume and used for clean fill or at local landfills for cover.

Residue Material – Residue material that cannot be recycled, such as cloth, rugs, and trash, will be sent to a landfill for final disposal.

3.6 Transportation and Disposal of Wastes

As directed by the COR, the OM and Site Superintendent will oversee the offsite transportation of wastes and recyclables to designated facilities, with the exception of HHW which will be segregated and remain at the TDSR for disposition by the EPA. ECC will coordinate with local authorities and the USACE COR to provide a bill of lading, hazardous waste manifests, if applicable, or other shipping documents as needed. These shipping documents will track the waste and debris volumes to their final disposition. Each truck will present a load ticket for the QCSM's inspection prior to leaving the TDSR and upon arriving at the final disposal facility. The load ticket will show the truck owner, number, size/capacity, date, and signature of driver and dump inspector (foreman). The manifest will have required elements to include the hazard class and quantity, the generator, and other information as deemed appropriate.

3.7 TDSR Site Closeout

The following actions will be taken in closing a TDSR site, as appropriate:

- Coordinate as required with local and state officials responsible for construction, real estate, contracting, and other regarding requirements and support for implementing a site restoration plan;
- Establish a testing and monitoring program to assure proper environmental restoration of both public and leased sites with reference to appropriate and applicable environmental regulations. The intent will be to restore the site to original site conditions;
- Determine separate protocols soil testing, if needed;
- Develop decision criteria for certifying satisfactory closure based on available baseline information and prioritize site closures. ECC will develop an environmental sampling and analysis plan and submit to the USACE for review, concurrence from regulatory agencies and approval;
- Schedule closeout activities and develop cost estimates for the closeout;
- Develop administrative procedures and contractual arrangements, especially with specialty subcontractors, for closure phase; and
- Retain staff during closure phase to develop site-specific restoration for sites, as needed, based on information obtained from the closure checklist.

Environmental Restoration

The TDSR site operations may generate environmental contamination during stockpiling, sorting, incinerating, grinding, and recycling events. Contamination from petroleum spills, storm runoff, and leaching from the debris piles, incineration sites, and ash piles may also occur. Environmental restoration will begin with environmental audit/assessment to establish a testing

and monitoring program to ensure that no long-term environmental contamination is left on the site. The monitoring will be done on three different media: ash, soil, and surface water. Ground water may be included as designated by the USACE.

ECC will execute an approved monitoring plan including sampling and analysis by on-site instrumentation and QA analytical conducted by an offsite laboratory. Ash monitoring will consist of chemical testing to determine the suitability for landfill disposal. Monitoring of the soils will be by portable methods to determine if any of the soils are contaminated by volatile hydrocarbons (fuel, oils) or hazardous material (HHW). This phase of the monitoring will be done after the stockpiles are removed from the site. Monitoring of the ground and surface water at selected site locations will be performed to determine effects of rainfall leaching through either the ash areas or the stockpile areas.

Site Restoration

ECC will proceed with a final landscape restoration plan to include grading of stockpiled soils at each debris segregation area by track dozers, wheel loaders, and motor grader across the site topography. This activity will proceed as confirmation monitoring and analytical results dictate an uncontaminated environment for soils and water. The incineration pit will be backfilled, after removal and disposal of all clay and compacted to surface grade level. The HHW and ash pit staging areas will also be graded level. The inspection tower will be dismantled, and erosion control features (silt fence, hay bales) will be removed for landfill disposal, as leveling of the site is completed. Culverts and rock will also be removed if no future site erosion degradation is anticipated. The site perimeter fencing will be removed with fabric re-rolled and metal posts stacked for loading and transport by local vendor. Mobile office and supply trailers, power generators, and sanitation facilities will also be demolished by ECC in rapid succession. Final site inspections and acceptance of the restoration operations by USACE CO and property landowner will provide for complete demobilization of remaining ECC project personnel.

The ECC OM will provide oversight management for the completion and submittal of contract required reports, site documentation, and cost reconciliation to the USACE CO using USACE procedures within the USACE's period.

3.8 Demobilization

As the TDSR site is restored and debris removal and management loads reduce, crews and equipment will demobilize from operational activities. The USACE and Emergency Response and Recovery Office will authorize the reduction in labor and equipment in a phased approach. Equipment will be decontaminated and cleaned (power wash, dirt removal) prior to transportation by contract carriers to ECC and subcontractor equipment yards or rental vendors' facilities.

4.0 MEETINGS AND REPORTING

This section describes the on-site meetings and reporting requirements for this project.

4.1 On-Site Meetings

After the start of fieldwork, the QCSMs will conduct periodic QC meetings with the COR, OM, and SSHO. The meetings will be recorded in the DQCR. These meetings may be held in conjunction with other meetings (e.g., Tailgate Safety Meeting). At a minimum, the following will be covered at each meeting:

- Minutes from the previous QC meeting;
- Work or testing accomplished since last QC meeting;
- Rework items identified and/or completed since the last QC meeting;
- Submittals reviewed and approved since the last QC meeting;
- Current schedule, work to be accomplished before the next QC meeting and the documentation required;
- Status of submittals, and submittals required in the near future;
- Completion dates for rework items;
- Preparatory, Initial, and Follow-up Inspections required;
- QC and production issues, resolution of issues, and documentation required; and
- Revisions to the QCP, such as change in procedures.

4.2 Reporting

Daily QC Reports, Daily Operations Reports, and QC meeting minutes are described below.

4.2.1 Daily Quality Control Report

Each QCSM is responsible for preparing the DQCR and submitting the DQCR to the COR, with a copy to the OM. The DQCR will provide an overview of QC activities performed each period, including those performed on subcontractor and supplier activities. The DQCRs present an accurate and complete picture of QC activities. They will document both conforming and deficient conditions, and should be precise, factual, legible, and objective. Copies of any supporting documentation, such as checklists and surveillance audits, will be attached. One DQCR will be produced every day for each active site.

A field QC log will be assigned to each QCSM for documenting details of field activities during QC monitoring activities. The information in the QC log is intended to serve as a memory aide in the preparation of the DQCR and in addressing follow-up questions that may arise. SSHO input for the DQCR will be provided in writing to the QCSM at a previously agreed upon time and place, generally one hour before normal close of business.

DQCRs and QC logs used on this project are legally binding documents, subject to restrictions. Each DQCR will be assigned and tracked by a unique number comprised of the letters Laughlin followed by the date expressed as DDMMYY. Copies of QC Reports with attachments and QC logs no longer in use will be maintained in the project QC file. Upon project closeout, all QC logs will be included in the project QC file.

4.2.2 Daily Operations Report

The DOR will be prepared in accordance with , signed, and dated by the OM. The DOR will include the following information:

- Date of report, report number, name of contractor, contract number, title and location of contract and task order, and Operations Foremen present;
- Daily weather report, morning and afternoon, including maximum and minimum temperatures;
- Verbal instructions given by the government;
- Safety inspections/deficiencies, lost time accidents, hazardous materials or waste released into the environment;
- Personnel, materials, and equipment on the work site;
- Daily and cumulative hours for each piece of equipment;
- Daily and cumulative hours for personnel;
- Daily and cumulative cubic yards of debris removed; and
- Contract information.

Remarks will contain pertinent information including directions received, problems encountered during activities, work progress and delays, conflicts or errors in the specifications, field changes, safety hazards encountered, instructions given, corrective actions taken, delays encountered, and a record of visitors to the work site.

4.2.3 Quality Control Meeting Minutes

QC meeting minutes will be forwarded to the COR within 7 days of the meeting. Typically, at least one QC meeting is held during field activities duration.

4.3 Files

ECC will maintain three distinct forms of files for project documentation:

- Hard copy,
- Electronic copy, and
- Electronic backup discs.

5.0 ENVIRONMENTAL PROTECTION

This section on environmental protection describes the methods and procedures that will be used to protect human health and the environment during soil removal activities and addresses compliance with applicable regulations and special conditions such as protecting existing features, management of on-site materials, preventing and controlling spills, and management of investigation-derived wastes (IDW).

5.1 Regulatory Compliance

5.1.1 Air

The primary potential impact to air quality is from dust (particulates) generated by remediation activities. Soils contaminated with metals present the greatest threat to air quality. The soils to be excavated consist of clays and silts with sufficient natural moisture content to reduce dust emissions. However, a water truck will be on site at all times during excavation activities. This truck will be able to apply water or a water mist directly to the ground surface to reduce dust to acceptable levels. Potential dust emissions from stockpiled soils also will be mitigated by the application of water and/or by covering with a tarp.

5.2 Spill Control and Cleanup

In addition to the measures to prevent air and/or water impacts from the remediation activities, a Spill Response Plan (SRP) also has been developed and is included in the SSHP. The SRP document is designed to provide a systematic and controlled response to a material spill that could adversely impact the environment and will be consistent with the existing Omaha Contingency Plan. Portions of the SRP are discussed below.

5.2.1 Spill Response Leader

The Spill Response Leader (SRL) will be the Site Superintendent present on-site. The SRL' s responsibility will involve activating the spill response team and coordinating and overseeing the spill assessment, control, and cleanup activities. The SRL also will provide training for the spill response team and making the necessary notifications in the event of a spill.

5.2.2 Spill Response Team

The spill response team will consist of the SRL, an equipment operator, and two laborers who will be designated at the start of the project. This team will be responsible for responding to all spills. If the situation warrants an immediate response, the SRL will enlist the nearest site personnel to assist him and the response will be under his direction.

5.2.3 Solids Spills

The most likely spill during the project will involve contaminated soil released either during excavation or while in transit to the stockpile area or the disposal facility. In this case, the spilled material plus at least one (1) additional inch of underlying soil will be recovered to remove any possible impact. The recovery equipment will include on-site equipment (loader or excavator). Native uncontaminated soils will be used to construct barriers around the spill site, if necessary, and to prevent the spilled material from moving into any nearby surface water features, if present.

5.2.4 Liquid Spills

For any liquid spill, the following procedures will be followed:

1) All work in the area will stop and spill response will become top priority.
2) Site personnel will notify the SRL immediately.
3) Equipment, material, and personnel will be inspected by the SRL to address the spill in accordance with the assessment. Appropriate PPE will be identified by the SSHO and all spill response personnel will dress in the PPE. For example, a large fuel spill may require that respirators with organic vapor cartridges be worn.
4) The spill will be contained and free liquids will be pumped to an appropriate container or collected with adsorbent (e.g., kitty litter or excess native soils). The container will be labeled and evaluated for disposal.
5) Fuel spills will be cleaned up using a commercially available clay absorbent material acquired, if possible, from a local supplier or Hazco (1-800-332-0435). Hazco, Inc. offers booms, sorbent pads, and plug-N-dike sealant. The absorbent material and fuel will be containerized, characterized, and transported off-site to an appropriate facility.

For either a soil or liquid spill of significant quantity (greater than 1 cubic yard for soil or 5 gallons for a liquid), the SRL will complete an Emergency Response Report form (SSHP, Appendix N) and submit it to the CO. This form will serve as notification of the spill. If a form can not be prepared promptly, then verbal notification will be made to the CO and followed with the Emergency Response Report form.

5.2.5 Training and Notification

Prior to starting site activities and at least once every month thereafter, the Site Superintendent, as the SRL, will assemble and provide training to the spill response team on appropriate procedures. In addition to overseeing spill response activities, the SRL also will be responsible for notifying the CO, appropriate EPA officials, and the National Response Center for any reportable spill. The SRL will record the spill on an Emergency Response Report form (SSHP, Appendix N). In the event of a significant on-site or off-site spill, the SRL will assist the CO and/or EPA personnel in notifying the proper Louisiana state agency.

5.3 Contaminant Prevention Statement and Materials Management

The project team recognizes that contaminated solids and water have the potential to adversely impact environmental resources. The overriding goal of the entire remediation effort is to protect and/or restore environmental resources. The materials being removed present a potential threat to human health or the environment and every precaution will be taken to ensure proper and safe management of these materials.

Other less obvious activities associated with construction projects also have possible negative consequences if proper management techniques are not employed. The following paragraphs describe preventative measures and best management practices ECC will employ during this project to protect human health and the environment.

Solid municipal-type wastes generated during the course of the remediation activities will be placed in covered trash dumpsters and periodically removed from the applicable sites to an off-site disposal facility (municipal landfill). Any discarded materials will be controlled and/or contained on site.

Potentially dangerous or hazardous materials brought on site during the remediation activities will be strictly limited. Fuels and lubricants used for equipment will be centralized and contained. A single fuel truck will be used to transfer fuel to the equipment and to transport lubricants. Only the minimum amount will be stored on the fuel truck.

Any hazardous waste (other than remediation waste) generated from the remediation activities will be contained, stored, transported and disposed in strict accordance with federal, state, and local regulations.

5.4 Management of Investigation-Derived Waste

Investigative derived wastes (IDW) from the remedial activities will consist of used PPE and wastewater generated through the execution of this project. IDW will be managed in accordance with the EPA guidance document, “Management of Investigation-Derived Wastes During Site Inspections” published in 1991 and other applicable guidance.

Measures will be taken to control the generation of excess solid waste. Trash will be picked up and containerized for disposal. A municipal garbage dumpster will be set up in the office trailer area for domestic and sanitary waste disposal. This dumpster will be emptied on a regular basis. Wastewater will be handled in accordance with applicable federal, state, or local regulations.

IDW will be labeled and stored at an on-site location designated by the CO. The IDW staging area will be inspected daily by ECC personnel during the field program. IDW will be treated, or otherwise disposed of in accordance with applicable federal, state, or local regulations.

5.5 Inspection

If the CO notifies the OM in writing of any observed noncompliance with contract requirements or permits, the OM will inform the CO of proposed corrective action, and such action will be taken to correct the noncompliance. If corrective actions are not implemented promptly, the CO may issue an order stopping all or part of the work until satisfactory corrective action is taken.

6.0 REFERENCES

1) American National Standards Institute/American Society for Quality Control, E4-1994: *Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs*.

2) ECC, 2003. *Environmental Chemical Corporation Corporate Quality Management Program*, 30 July 2003.

3) J.M. Juran, 1988. *Juran's Quality Control Handbook, 4th Edition*, J.M. Juran, editor-in-chief

4) United States Army Corps of Engineers. 1997. *Construction Quality Management For Contractors: Student Study Guide*, United States Army Corps of Engineers, Professional Development Center.

5) J.P. Russell, 2000. *The Quality Audit Handbook, Principles, Implementation and Use, Second Edition*, ASQ Quality Audit Division, J.P. Russell, Editor, The ASQ Quality Press.

6) Dennis R. Arter. 1994. *Quality Audits for Improved Performance.*

7) Charles A. Mills, 1989. *The Quality Audit, A Management Evaluation Tool*.

8) MIL-STD-1916, Department of Defense Test Method Standard, *DOD Preferred Methods for Acceptance of Product*, 1 April 1996.

9) American Society for Quality, 1999. *The Certified Quality Manager Handbook*, Quality Management Division.

APPENDIX 5.13

Tables of Debris Estimates in Louisiana (LDEQ)

	Automobiles	Trucks	Trailers	TOTAL		# Tires (5 * auto + 5 * truck + 3 * trailer)
Orleans	303,360	60,785	12,443	376,588	0.30	557,416
St. Bernard	48,679	20,865	7,421	76,965	0.30	110,995
Plaquemines	17,987	12,014	4,536	34,537	0.30	49,084
Jefferson	435,098	147,822	41,352	624,272	0.30	911,597
Washington	25,736	15,742	7,810	49,288	0.30	69,246
St. Tammany	191,815	76,969	35,217	304,001	0.30	434,871
Tangipahoa	69,864	36,874	17,626	124,364	0.30	175,970
Lafourche	52,682	33,394	21,543	107,619	0.30	148,503
Terrebonne	69,094	39,982	36,405	145,481	0.30	196,379
TOTAL				1,843,115		2,654,061

APPENDIX 5.14

EPA Guidance on Demolition, Burning, and Opening Closed Landfills (EPA)

DEMOLITION GUIDANCE FOR STRUCTURALLY UNSOUND BUILDINGS DAMAGED BY HURRICANE KATRINA

EPA's guidance has been requested on the demolition of structurally unsound buildings damaged by Hurricane Katrina. Various federal regulations apply to building demolition activities. Areas of primary federal concern include asbestos demolition requirements, the proper disposal of electrical equipment containing PCBs (i.e., distribution transformers and capacitors) and storage tanks. EPA recognizes the difficult circumstances faced in demolishing structurally unsound buildings damaged by Hurricane Katrina may make full compliance difficult. However, in any event, you should take the actions set forth below to the extent feasible.

Efforts to restore the damaged areas to their pre-disaster condition often involve removing or repairing damaged structures. There may be a natural tendency at this stage to overlook certain hazards, such as asbestos, that are not immediately life threatening. However, such hazards are serious and may manifest themselves many years from the time of exposure and should be taken into consideration. Given the health hazards associated with asbestos, PCBs, lead, and other harmful substances, it is reasonable that adequate measures be taken during emergency situations to minimize exposure to such materials from the demolition of buildings.

The following guidelines are provided to help minimize the health, safety and environmental risks associated with the demolition of structurally unsound buildings (structures that remain standing but are in danger of imminent collapse). In the case of such buildings it would be unsafe to enter or inspect a structure to determine the amount, types, and location of building materials containing asbestos, PCBs, lead, or other harmful substances. This guidance does not apply to the demolition of hurricane damaged but structurally sound buildings.

This guidance remains in effect through December 31, 2005, and applies only to areas damaged by Hurricane Katrina.

To the extent feasible, efforts should be made to perform the following steps:

UNDERGROUND STORAGE TANKS AND ABOVE GROUND STORAGE TANKS

Releases of petroleum or hazardous substances from underground storage tanks (USTs) and above-ground storage tanks (ABTs) present significant health, safety and environmental concerns and thus should always be addressed with care. If, for example, gasoline pumps, pump station islands or vent pipes are present near a damaged building, or if an unknown tank or cylinder is discovered, halt all demolition activities, seal off the area and call the state environmental agency.

ASBESTOS

Federal asbestos regulations do not apply to the demolition of structurally unsound buildings by private individuals who contract directly with the demolition contractor for the demolition of a residential building they own having four or fewer units. However, EPA strongly recommends, for health reasons, that anyone conducting demolition activities follow this guidance.

Identifying Asbestos Containing Materials

- Asbestos-containing products, which may be part of this debris, include: asbestos-cement corrugated sheet, asbestos-cement flat sheet, asbestos pipeline wrap, roofing felt, vinyl-asbestos floor tile, asbestos-cement shingle, millboard, asbestos-cement pipe, and vermiculite-attic insulation.

- All structures (both residential and commercial) built before 1975 may contain significant amounts of asbestos. In particular large structures built before 1975 typically contain asbestos pipe wrap, siding, ceiling tiles, and other building materials high in asbestos content. Additionally, structures built after 1975 may also contain asbestos.

Notification and Expertise

- Persons conducting demolitions should notify the appropriate state/local air quality management program as early as possible prior to the start of the demolition, but in any event, no later than the following workday after starting the demolition.

- At least one person, either a government official or private contractor, trained in the asbestos NESHAP regulations should be on site or available by cell phone during the demolition to provide assistance and guidance.

Demolition

- In all instances, workers should use equipment specifically designed to protect them from asbestos exposures during demolition and handling of debris, especially respirators, as required under OSHA.

- Heavy equipment that is used to demolish structures or that is run over debris from the hurricane will rupture the building materials and may cause asbestos to be released. Therefore, it is very important to wet the structure before demolition and keep the structure wet during demolition. Wetting the structure is crucial because it reduces the potential for air migration of asbestos.

- EPA recommends knocking down each structure wall-by-wall, folding it in on itself to minimize excess breakage of asbestos containing material.

- Keep the debris wetted and covered until it is possible to consult with the asbestos trained person to segregate out asbestos containing material to the extent feasible. If asbestos is known to be present but can not be safely segregated, dispose of all the debris as if it is asbestos containing materials as discussed below.

Removal of Asbestos Containing Material

- After you have collapsed the structure, if feasible, place the asbestos containing material into leak proof wrapping. If the volume of the material precludes use of leak proof wrapping, continue to wet the asbestos containing material and use heavy lifting equipment to place the asbestos containing material into waiting dump trucks. Whenever possible, use a plastic liner in the bottom of the bed of the dump truck to minimize the leakage of contaminated water from the dump truck. If the asbestos containing material has been further broken up during the loading process, wet it down again after you load it into the dump truck.

- Cover the dump truck with a tarp, sealing it so that debris and dust can not be released during transport.

- Placard (with a large sign) the dump trucks as they are being loaded and unloaded with asbestos-containing building materials. The placard should read:

"Warning: Asbestos Hazard. Stay Away"

Disposal of Asbestos Containing Material

- Truck the debris to a landfill allowed to receive asbestos. Contact state authorities for a list of asbestos approved landfills.

- Maintain your waste shipment records.

POLYCHLORINATED BIPHENYLS (PCBs)

Identifying Electrical Equipment Which May Contain PCBs

- Liquid-filled transformers may contain PCBs. Generally, transformers mounted on utility poles are liquid filled and may contain PCBs.

- Other large transformers may be found mounted on pads outside of apartment buildings, office buildings or shopping malls, and also inside buildings, often in underground locations. Utility substations and industrial facilities may also have larger transformers present. These transformers may or may not be filled with liquid PCBs.

- Air-insulated transformers do not contain PCBs.

- In the absence of identifying information, it is best to assume a transformer may contain PCBs.

Marking and Storage of Electrical Equipment Which May Contain PCBs

- Liquid-filled transformers should be marked with the PCB $\mathbf{M_L}$ label (if the PCB $\mathbf{M_L}$ is not available, mark the container "Caution: contains PCBs"), so anyone dealing with the transformer will know that the equipment might contain PCBs. Drums or other containers containing PCB liquid should also be marked.

- Drained or damaged transformers should also be marked because residual PCB liquid may still be present.

- If possible, transformers should be moved to dry ground. If leaking, the transformers should be placed in shipping containers or covered roll-off's with a poly liner or sorbent material to prevent further spread of a spill.

Disposal of Electrical Equipment Which May Contain PCBs

- Liquid-filled transformers should be drained and sent to a chemical landfill.

- The drained liquid should be sent to a chemical or hazardous waste incinerator for disposal.

  For further information on disposal options, please call the EPA Regional PCB Coordinator for your area.

OTHER HAZARDOUS MATERIALS

If other hazardous or unknown materials, such as lead, non-liquid PCBs, solvents, pesticides, herbicides, varnishes, pool chemicals, industrial grade cleaning solutions, etc., are discovered during demolition, please immediately contact the state environmental agency for further guidance on the management of that material.

DISPOSAL OF REGULAR CONSTRUCTION DEBRIS

Other debris created by the demolition of structurally unsound buildings that do not contain asbestos, PCBs, lead, and other harmful substances, should be disposed of in an appropriate landfill or burned pursuant to the Emergency Hurricane Debris Burning Guidance issued by EPA. These guidelines do not supercede emergency orders which may be issued.

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY CONTACT INFORMATION

For a complete list of Louisiana contacts on debris management and related issues, please refer to Appendix 5.11: LDEQ Hurricane Katrina Debris Management Plan (LDEQ).

EMERGENCY HURRICANE DEBRIS BURNING GUIDANCE

EPA's guidance has been requested on the collection and disposal of debris from Hurricane Katrina, including vegetative, structural, and mixed debris. As you know, various federal regulations may apply to portions of such debris, although some federal regulations such as the asbestos demolition NESHAP do not apply to debris from structures already demolished by natural disasters (as opposed to human demolition). We recognize that the extraordinary circumstances you face in removing the debris may make full compliance difficult. However, in any event, you should take the actions set forth below to the extent feasible.

The following guidelines are provided to help minimize the health, safety and environmental risks associated with burning hurricane debris.

Good faith efforts should be made to segregate wastes prior to burning. Insofar as conditions allow, segregate the following types of materials and stage them for subsequent appropriate disposal:

automotive/ marine batteries;
pesticide cans;
explosives;
automotive oils;
fuels and fluids;
solvents;
paint thinners and stripper;
compressed gas containers;
household white goods (refrigerators, washer/dryers and stoves);
asbestos containing materials (asbestos shingles, siding and insulation);
PCBs (electrical equipment such as distribution transformers and capacitors);
electronics (televisions, radios, stereos, cameras, VCRs, computers, microwaves);
tires;
shingles;
domestic garbage; and
preserved woods.

Burning should be conducted by or under the supervision of trained local, state or Federal officials of their designees at specifically designated sites in those counties designated as disaster areas. Burning must be done in accordance with all local, state and Federal emergency orders. Emergency officials should be notified of the location of burn sites in advance. Regarding location and operation of the burn sites, where feasible:

- Piles to be burned should be at least 1000 feet from the nearest residence or roadway.
- Piles should be separated by at least 1000 feet and not be more than 45X45 feet in size.
- Prevailing winds should be monitored, and burning conducted so that smoke does not create a traffic hazard on roadways or impact nearby citizens.
- Protective clothing (dust masks or respirators, safety glasses, etc.) should be worn, if available.

Initiative should be taken to keep the local public informed. These guidelines do not supercede emergency orders which may be issued.

09/08/2005

FROM: Matt Hale, Director
Office of Solid Waste

TO: Michele Burgess
Office of Emergency Management

Re: Re-Opening of Closed Disposal Facilities

We have received several inquiries on how Federal 40 CFR Parts 257 and 258 regulations apply to debris and other material managed during emergency cleanup actions. I have provided answers below on how Federal RCRA regulations apply. These answers apply to federal regulations only, and do not address my state-specific requirements.

Q. Can State Waste Directors authorize the reopening of closed Part 257 facilities to handle debris from emergency clean-up operations?

A. Under the federal regulations, facilities that are considered Part 257 facilities (e.g., construction and demolition waste landfills) that have been previously closed can be reopened by State Directors to handle hurricane debris. Reopened construction and demolition waste landfills should be closed again at the earliest opportunity consistent with current State closure requirements for these types of facilities.

Q. Can States Directors authorize the reopening of closed Part 258 facilities to handle debris from emergency clean-up operations?

A. 40 CFR Part 258 criteria do not prohibit a State Director from reopening a closed landfill. When a MSWLF received its last volume of waste determines whether the MSWLF was ever subject to the Part 258 Criteria. Certain MSWLFs were never subject to the Part 258 requirements and were closed subject to State closure standards that were in place at the time. Other MSWLFs were only subject to the closure standards of Part 258 (i.e., Section 258.60(a)). Lastly, other MSWLFs were subjected to all the requirements in Part 258 which include final cover and post-closure care standards. Closed MSWLFs, at the State Directors' discretion and approval, can be reopened to receive debris from the hurricane. Specifically:

- MSWLFs that were subject to all the requirements in Part 258 including, closure and post-closure care standards, can be reopened at the State Director's discretion. Section 258.61(c)(3) allows the Director of an approved State program to approve disturbances of the

final cover if the owner/operator demonstrates that the disturbance of the final cover and containment system will not increase potential threats to human health and the environment. A MSWLF that was closed according to Part 258 and is reopened to receive debris from the hurricane should re-close by complying with the Part 258 closure and post-closure standards after the last receipt of hurricane debris.

- MSWLFs, subject only to the final cover requirements in Section 258.60(a), also can be reopened at the State Directors' discretion. These MSWLFs also should be re-closed consistent with current State closure requirements at the earliest opportunity after debris disposal operations are completed.

- MSWLFs never subject to Part 258 and that were closed under State law can be reopened at the discretion of the State Director. After disposing of debris, the MSWLF should be closed again consistent with current State closure requirements for MSWLFs at the earliest opportunity.

As a general matter, disposal of hurricane debris in any reopened facility (MSWLF or construction & demolition landfill) should be done in a manner that protects human health and the environment and to the extent feasible does not substantially increase the footprint of the landfill.

APPENDIX 5.15

Access Authority (EPA)

EPA ACCESS AUTHORITY

Currently EPA is working on the Gulf Coast including New Orleans under Stafford Act Mission Assignments. Section 403 — Essential Assistance provides that "Federal Agencies may on direction of the President, provide assistance essential to meeting immediate threats to life and property resulting from a major disaster." Under the heading "Work and services to save lives and protect property," Federal Agencies may "perform on public or private lands or waters any work or services essential to saving lives and protecting and preserving property or public health and safety, including — (A) debris removal, . . . (E) demolition of unsafe structures, . . .and (I) reduction of immediate threats to life, property, and public health and safety." Thus in the immediate aftermath of a disaster, there appears to be authority in the Stafford Act to enter onto private lands for specific actions.

Under Section 407 — Debris Removal, the President may direct Federal agencies "to clear debris and wreckage resulting from a major disaster from publicly and privately owned lands and waters, but "[n]o authority under this section shall be exercised unless the affected state or local government shall first arrange an unconditional authorization for removal of such debris or wreckage from public and private property, and, in the case of removal of debris or wreckage from private property, shall first agree to indemnify the Federal Government against any claim arising from such removal." Thus after the immediate activities mentioned above, the burden is on the state to obtain access.

The August 27, 2005, letter from Governor Blanco of Louisiana to the President includes the following statement on indemnification and access: "Pursuant to Sections 502 and 407 of the Stafford Act, 42, U.S.C. §§ 5192 & 5173, the State agrees to indemnify and hold harmless the United States of America for any claims arising from the removal of debris or wreckage for this disaster. The State agrees that debris removal from public and private property will not occur until the landowner signs an unconditional authorization for the removal of debris."

Should EPA not be acting under the Stafford Act and its access provisions, but rather under its own authorities, EPA would look to CERCLA and Clean Water Act (CWA) §311/OPA. CERCLA §104(e) provides authorization to enter at reasonable times any vessel, facility, establishment, or other place or property in connection with a response action authorized under CERCLA. These locations are those where any hazardous substance or pollutant or contaminant may be or has been generated, stored, treated, disposed of, or transported from and those locations from which a release has occurred or may be threatened. Additionally, EPA may enter any location to determine the need for or to effectuate a response action. EPA may also enter locations adjacent to any of these places. This authority is also stated in the NCP at 40 C.F.R. 300.400(d). The NCP specifies that there should first be a determination as to whether there is a "reasonable basis to believe that there is or has been or may be a release" before entering the locations described above. 40 C.F.R. 300.400(d)(2)(ii). In practice, EPA seeks consent before entry except in very narrow instances of true immediate emergency situations. If consent is not granted, CERCLA § 104 (e)(5) permits the President [EPA] to issue an order directing compliance. "The President may ask the Attorney General to commence a civil action to compel compliance with a request or order...[and] the court shall enjoin such interference or direct

compliance... unless... the demand for entry or inspection is arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with law."

CWA §311(c) authorizes the President (EPA) to clean up discharges of oil or hazardous substances. CWA §311(m)(2)(B) authorizes EPA to "enter and inspect" any facility to which §311 applies. CWA §308(a) provides, "Whenever required to carry out...section[] 311...the Administrator...shall have a right of entry to, upon, or through any premises in which an effluent source is located.

APPENDIX 5.16

FEMA Guidance Documents:

- Debris Removal from Private Property to Address Immediate Threats
- Memorandum – Disaster Specific Guidance #3 – Hurricane Katrina, Private Property Debris Removal in Coastal Areas
- Debris Removal from Private Property
- Fact Sheet - Debris Removal from Private Property

U.S. Department of Homeland Security
500 C Street, SW
Washington, DC 20472

FEMA

1. **Date Signed:** September 15, 2005

2. **Recovery Division Policy Number:** 9523.14

3. **Title:** Debris Removal from Private Property to Address Immediate Threats

4. **Purpose:** This policy provides guidance on the appropriate use of funding as provided for in the Robert T. Stafford Relief and Emergency Assistance Act (Stafford Act), as amended, for immediate threats relating to debris removal and disposal, including demolition of unsafe structures, when necessary (hereafter referred to as "debris removal") from private property in areas where Hurricane Katrina caused catastrophic damage. This policy applies only to Section 403 debris removal funding in the states of Alabama, Louisiana, and Mississippi.

5. **Scope and Audience:** This policy applies only to catastrophically damaged areas in the states of Alabama, Louisiana and Mississippi under DR-1605-AL, DR-1603-LA, and DR-1604-MS, respectively. It is intended to guide all personnel responsible for the administration of the FEMA Public Assistance grant program.

6. **Background:**

   A. Section 403 of the Stafford Act, 42 U.S.C. 5170b, permits FEMA to fund debris removal from private property to (1) eliminate immediate threats to life, public health, and safety; or (2) eliminate immediate threats of significant damage to improved public or private property.

   B. The regulations implementing Section 403 of the Stafford Act at 44 CFR § 206.224 establish the requirement that debris removal be in the "public interest" in order to be eligible for reimbursement. "Public interest" is defined as being necessary to:

      (1) eliminate immediate threats to life, public health, and safety; or

      (2) eliminate immediate threats of significant damage to improved property

7. **Policy:** The following guidance for reimbursement of state, county and municipal governments for costs incurred in debris removal from private property applies to major disaster declarations DR-1603-LA, DR-1604-MS, and DR-1605-AL.

A. FEMA will work with each State to designate those areas (not already designated pursuant to Disaster Specific Guidance #3 dated September 10, 2005) where the debris is so widespread that removal of the debris from private property is in the "public interest" under 44 C.F.R. § 206.224 and thus, eligible for FEMA reimbursement.

B. Any government entity that intends to remove debris from private property to address *immediate threats* must, prior to commencement of work, submit a written request to the Federal Coordinating Officer (FCO) seeking approval for reimbursement. The written request and any accompanying attachments must identify the properties or area in which the removal will occur. In addition, the government entity must determine that debris removal is necessary to address an immediate threat to life, public health, safety or property.

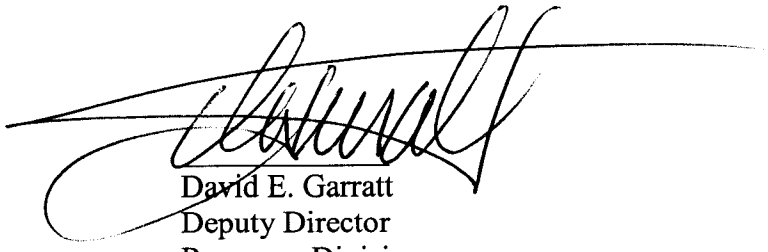
C. State and local governments must assist the federal government to prevent the duplication of benefits. The state and local government should assist the federal government in determining whether insurance coverage exists for the debris removal accomplished on each piece of private property. If it is discovered that the duplication of benefits exists, the state or local government must assist the federal government to recover such proceeds paid to the property owners. If the state or local government recovers such funds, the state or local government must remit them to FEMA in a timely manner.

D. Pursuant to the FEMA-State Agreement, if debris removal is authorized, the State agrees to indemnify and hold harmless the United States of America for any claims arising from the removal of debris or wreckage for this disaster.

8. **Authorities:** Section 403 of the Robert T. Stafford Relief and Emergency Assistance Act, as amended.

9. **Originating Office:** Public Assistance Branch, Recovery Division, FEMA, U.S Department of Homeland Security.

10. **Signature:**



David E. Garratt
Deputy Director
Recovery Division

11. **Distribution:** Regional Directors, Recovery Area Command, and Joint Field Offices in Alabama, Florida, Louisiana, and Mississippi

U.S. Department of Homeland Security
Washington, DC 20472

FEMA

September 10, 2005

MEMORANDUM

TO: Joint Field Offices
FEMA-DR-1603/1604/1605

FROM: Nancy Ward
Nancy Ward, Director
Recovery Area Command

CC: Region IV- Response and Recovery Division
Region VI- Response and Recovery Division

RE: Disaster Specific Guidance #3- Hurricane Katrina
Private Property Debris Removal in Coastal Areas

ISSUE: This memorandum serves to clarify procedures that are to be followed by each Joint Field Office (JFO) for application of Recovery Policy Number 9523.13 *Debris Removal from Private Property,* issued September 7, 2005, for removal of debris from private property in certain areas.

GUIDANCE:

For certain coastal areas in Alabama, Mississippi, and Louisiana catastrophically impacted by Hurricane Katrina, a determination has been made that it is in the public interest to remove debris from private property because an immediate threat to public health and safety exists in those areas. The areas are:

Alabama – Counties of Baldwin and Mobile.

Mississippi – Counties of George, Hancock, Harrison, Jackson, Pearl River, and Stone.

Louisiana – Parishes of Orleans (including New Orleans), St. Bernard, St Charles, St. Tammany, Jefferson, Lafourche, Plaquemines and Washington.

This determination satisfies the requirements of Paragraph 7. A. The requirement for the establishment of the applicant's legal authority in paragraphs 7. B, C, and D must still be satisfied, although the process may be abbreviated. The particular local ordinance with the authority must be cited and the statement of the local authority that the ordinance is being implemented must be provided. Indemnification of the Federal government must also be provided.

Other areas in the three states will follow the policy and procedures as provided for in Recovery Policy 9523.13.

This protocol will meet the requirements and intent of the Stafford Act while not placing an undo burden on an applicant. Questions regarding this memorandum should be directed to Steven Glenn at 404-909-1781, James Walke at 202-646-2751, or Chuck Stuart at 202-646-3691

U.S. Department of Homeland Security
500 C Street, SW
Washington, DC 20472

FEMA

1. **Date Signed:** September 7, 2005

2. **Recovery Division Policy Number:** 9523.13

3. **Title:** Debris Removal from Private Property

4. **Purpose:** This policy provides guidance on the appropriate use of funding as provided for in the Robert T. Stafford Relief and Emergency Assistance Act (Stafford Act), as amended, for debris removal and disposal, including demolition of unsafe structures (hereafter referred to as "debris removal") from private property in areas where Hurricane Katrina caused catastrophic damage. This will ensure consistency in the use of Sections 403 and 407 funding among the Joint Field Offices in the states of Alabama, Louisiana, and Mississippi. It will also decrease the time it takes to deliver funding to the catastrophically impacted areas by streamlining the process through which applicants demonstrate compliance with the requirements in Sections 403 and 407 of the Stafford Act.

5. **Scope and Audience:** This policy applies only to catastrophically damaged areas in the states of Alabama, Louisiana and Mississippi under DR-1605-AL, DR-1603-LA, and DR-1604-MS, respectively. It is intended to guide all personnel responsible for the administration of the FEMA Public Assistance grant program.

6. **Background:**

   A. Sections 403 and 407 of the Stafford Act provide FEMA authority to fund debris removal from private property, provided that the State or local government arranges an unconditional authorization for removal of the debris, and agrees to indemnify the Federal government against any claim arising from the removal.

   B. The regulations implementing Sections 403 and 407 of the Stafford Act at 44 CFR § 206.224 establish the requirement that debris removal be in the "public interest" in order to be eligible for reimbursement. "Public interest" is defined as being necessary to:

      (1) eliminate immediate threats to life, public health, and safety; or

      (2) eliminate immediate threats of significant damage to improved property; or

(3) ensure economic recovery of the affected community to the benefit of the community at large.

C. Hurricane Katrina has in some areas created catastrophic, widespread destruction resulting in vast quantities of debris which may require state or local government to enter private property to remove it in order to prevent disease and other immediate public health and safety threats. In these situations, debris removal from private property may be in the public interest and thus may be eligible for reimbursement, when the unconditional authorization for debris removal and indemnification requirements established by Sections 403 and 407 of the Stafford Act are met.

7. Policy: The following guidance for reimbursement of state, county and municipal governments for costs incurred in debris removal from private property applies to major disaster declarations DR-1603-LA, DR-1604-MS, and DR-1605-AL.

A. FEMA will work with each State to designate those areas where the debris is so widespread that removal of the debris from private property is in the "public interest" under 44 C.F.R. § 206.224 and thus, eligible for FEMA reimbursement.

B. States, counties and municipalities will ordinarily rely on condemnation and nuisance abatement authorities and obtain a right of entry from private property owners prior to the commencement of debris removal work. There may be circumstance, however, where the State or local government determines that ordinary condemnation and nuisance abatement procedures and the obtaining of a right of entry are too time consuming to address an immediate public health and safety threat.

C. Any State or local government that intends to remove debris from private property must, prior to commencement of work, submit a written request to the Federal Coordinating Officer (FCO) seeking approval for reimbursement. The written request and any accompanying attachments must include the following provisions:

(1) The request concerns conditions determined by the relevant State, county or municipal government's Department of Health or equivalent public health authority to be an immediate public health and safety threat.

(2) A detailed explanation certifying the requesting entity's legal responsibility, duty and authority to remove debris from private property,

and has satisfied all required legal process and received all necessary permissions for such actions.

(3) Confirmation that a legally-authorized official of the requesting entity has ordered the exercise of public emergency powers or other appropriate authority to enter onto private property in order to remove/reduce a public health and safety threat via debris removal.

(4) The requesting entity indemnifies the Federal government and its employees, agents, and contractors.

D. FEMA is prohibited from approving funds that would result in a duplication of benefits, and therefore, State and local governments must take reasonable steps to prevent such an occurrence. These steps include the requesting entity's agreement to research whether insurance coverage exists for the debris removal accomplished on each piece of private property in the project. If it is discovered that duplication of benefits has occurred, the State or local government must agree to make reasonable efforts to recover such proceeds paid to the property owners and remit in a timely fashion to FEMA.

E. For those instances where the State or local government determines that ordinary condemnation and nuisance abatement procedures and the obtaining of a right of entry are too time consuming, the FCO will also require a written opinion from the relevant State's Office of the Attorney General confirming the legal basis under state constitutional and statutory authority for the State, county and municipal governments to enter private property to perform debris removal.

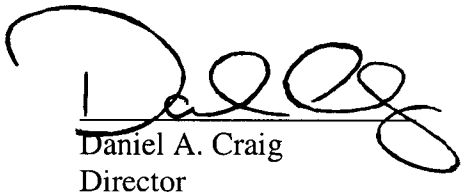
F. All private property requiring debris removal must be identified and requested to FEMA in accordance with this policy within 90 calendar days of the declaration. After FEMA approval, emergency debris removal must begin within 180 calendar days from declaration. These deadlines may be extended by the FCO based on circumstances beyond the control of the State or local government.

G. The FCO will approve or disapprove in writing each written request for private property debris removal within five business days of receiving the request from the State or local government. After receiving approval from the FCO, the State or local government may begin identified private property debris removal activities and the application process for supplemental assistance through the Public Assistance Program.

8. **Authorities:** Sections 403 and 407 of the Robert T. Stafford Relief and Emergency Assistance Act, as amended, and the implementing regulations at 44 CFR § 206.224.

9. **Originating Office:** Public Assistance Branch, Recovery Division, FEMA, U.S Department of Homeland Security.

10. **Signature:**



Daniel A. Craig
Director
Recovery Division

11. **Distribution:** Regional Directors, Recovery Area Command, and Joint Field Offices in Alabama, Florida, Louisiana, and Mississippi

FEMA

HURRICANE KATRINA

FACT SHEET

DEBRIS REMOVAL FROM PRIVATE PROPERTY

Overview

The Federal Emergency Management Agency (FEMA) has modified the policy pertaining to debris removal to facilitate the removal of the catastrophic level of debris resulting from Hurricane Katrina.

Summary

1. Debris removal from private property is eligible when it poses a threat to public health and safety and the local applicant demonstrates legal responsibility to remove it.

2. Normally, the applicant and FEMA must agree that the debris on private property poses a public health and safety threat, and the applicant must show that it followed the same procedure described in a local ordinance for removing private property debris during pre- and post-disaster environments.

3. In the past, applicants have not met the preceding requirement because their nuisance abatement or similar ordinance required lengthy notification procedures, and placement of liens on the affected properties.

4. Because of the widespread devastation caused by Hurricane Katrina, the Department of Health and Human Services declared a health emergency for multiple states. Because of this declaration, we have determined that hurricane-related debris on private property in catastrophically-affected areas poses a threat to public health and safety, and therefore meets our first criterion for eligibility for removal.

5. The current policy also streamlines the process applicants must follow to meet the legal responsibility criterion for eligibility. Specifically, an applicant need only describe the legal basis it uses to exercise its authority and legal responsibility to remove debris from private property. Applicants do not have to precisely follow their nuisance abatement - or other ordinances - that usually require placement of liens on the properties, as required in the past.

6. In addition, if local governments cannot obtain rights-of-entry to properties because owners cannot be located, the local governments can obtain an opinion from the state attorney general supporting local government authority to remove the debris.

7. The current policy more easily allows applicants to meet the eligibility requirement for removing debris from private property, by following a streamlined approval process.