



HOUSTON FIRE DEPARTMENT LIFE SAFETY BUREAU (LSB)



LIFE SAFETY BUREAU (LSB) STANDARD 17, REV. 02 TIRE CHIPPING AND SHREDDING OPERATIONS

SUPERCEDES: LSB Standard 17, Effective 5/23/03

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Approved: _____
Richard W. Galvan, Assistant Fire Marshal

Approved: _____
Tyrone G. Freeman, Fire Marshal

LIFE SAFETY BUREAU (LSB) STANDARDS ARE ESTABLISHED IN ACCORDANCE WITH PROVISIONS OF THE CITY OF HOUSTON FIRE CODE. THEY ARE SUBJECT TO THE ADMINISTRATIVE SECTIONS COVERING – ALTERNATIVE MATERIALS AND METHODS, MODIFICATIONS, AND BOARD OF APPEALS.

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LSB STANDARD 17, REV. 02
TIRE CHIPPING AND SHREDDING OPERATIONS

SECTION 17.1 --- GENERAL

17.1.1 Scope.

Tire chipping and shredding operations in the City of Houston shall be in accordance with Houston *Fire Code* and this standard.

17.1.2 Purpose.

This standard shall provide guidelines for Tire Disposers and their operations. Tire chipping and shredding operations and storage create a significant fire hazard and are rated as a very high hazard with a 'Heat of Output' Btu of approximately 15,000 output per pound of product. While more difficult to ignite than usual Class A combustibles such as paper and cardboard, once ignited the spread of fire and smoke can be rapid. The larger the storage of tire chips, the greater the fire hazard and the more difficult a fire is to control. Tire Disposers and their operations shall comply with this standard.

17.1.3 Plans.

Plot plans shall be submitted to the Code Official for all Tire Chipping and Shredding operations. Plot plans shall include fire department access roads throughout, area division of piles, pile height and width, and all exposures.

17.1.4 Permit.

A permit shall be required to use an open area or portion thereof to store tires in excess of 1,000 cubic feet. Permit applications shall be obtained at the City of Houston Permit Office, 3300 Main Street, 77002, Telephone: (713) 535-7897

SECTION 17.2 – DEFINITIONS

17.2.1 Tire Disposers.

A Tire Disposer is any person who, in compliance with all applicable state, federal and local laws, rules and regulations, disposes of or converts tires to other purposes. Including but not limited to person who:

- (a) Landfill, incinerate, or otherwise dispose of tires as waste or as fuel.
- (b) By shredding, grinding or chemically treating, reduces tires into basic components for oil carbon black, rubber, road paving, or other marketable salvage material.
- (c) Converts tires into other useful items such as doormats and sandal shoes.

SECTION 17.3 --- INSIDE BUILDING STORAGE

17.3.1 Permit.

A permit shall be required to use an open area or portion thereof to store tires in excess of 1,000 cubic feet. Permit applications shall be obtained at the City of Houston Permit Office, 3300 Main Street, 77002, Telephone: (713) 535-7897

17.3.2 Plans.

Plot plans shall be submitted to the Code Official for all Tire Chipping and Shredding operations. Plot plans shall include fire department access roads throughout, area division of piles, pile height and width, and all exposures.

17.3.3 Storage and operations inside of a building.

Storage and operations inside of a building shall be based upon standards established in NFPA 231D (Omit Appendix C and D).

SECTION 17.4 --- OUTDOOR STORAGE AND USE

17.4.1 Area division.

Every outdoor area used for storage or operation of tire chipping or shredding shall be divided into single storage and fire area combinations by a driveway 30 feet in width and main aisles 10 feet in width.

17.4.2 Area limitation.

There shall be no materials stored within a single storage area (fire area) more than 35 feet from any driveway nor more than 15 feet from a main aisle.

17.4.3 Height limitation

The height of storage piles shall be limited to 13 feet, except that single storage areas bordered on three (3) long sides by driveways or main aisles may be increased to 30 feet.

17.4.4 Drainage.

Stored material shall be arranged to facilitate and promote drainage from stored materials.

17.4.5 Access to a single fire area.

Each single fire area shall have access to a public street by a driveway (Fire Lane) of unobstructed way of at least 30 feet in width and in compliance with LSB Standard 03.

17.4.6 Screening of property.

The entire property shall be surrounded by a fence of at least 6 feet in height of non-combustible material or other suitable means to prevent access of any unauthorized persons. An adequate number of gates shall be provided in the surrounding fence or other barriers as determined by the Code Official so as to provide ready access of fire apparatus. Access gates shall be provided as per LSB Standard 04.

17.4.7 Buildings in storage areas.

Buildings in outside storage areas shall be of 1-hour rated construction as required by the City of Houston *Building Code* if located within 50 feet from the nearest storage pile.

17.4.8 Maintenance of premise.

The entire storage site shall be kept free from accumulation of unnecessary combustible materials. Weeds and grass shall be kept down and regular procedure provides for the periodic clean up of the entire area. Weed burners or any type of burning are prohibited.

17.4.9 Heating equipment.

No heating equipment shall be allowed in the storage or use area.

17.4.10 Vehicles.

All vehicles shall be garaged in separate detached buildings or parked in designated areas located 50 feet from shredding or tire chipping operations or storage. All fuel handling shall be done in accordance with applicable provisions of the *Fire Code*.

17.4.11 Fire protection.

Fire protection provided shall be in accordance with this section.

17.4.11.1 Water supply.

A fire protection system consisting of an approved monitor nozzle(s), water supply system, and fire hydrants capable of supplying the required flow shall be provided to within 150 feet of all portions of the yard and in accordance with NFPA Standard No. 24.

17.4.11.2 Fire extinguishers.

A minimum of one 4A:30BC portable fire extinguisher shall be provided for every 50 feet of unobstructed path of travel and in accordance with LSB Standard 01.

17.4.12 Fire Department notification

There shall be no delays in reporting fires. The fire department shall be immediately notified of all fires, by telephoning: **“9-1-1”**

17.4.13 Texas Commission on Environmental Quality (TCEQ) notification.

The TCEQ shall be notified of all Tire Chipping and Shredding Operations and the operation shall be in accordance with TCEQ regulations and other state and local ordinances. Where this is a conflict with this standard and other state and local requirements the most restrictive shall apply. Compliance with TCEQ rules does not indicate automatic approval for a fire department permit.

REFERENCES

1. City of Houston Fire Code, International Fire Code, 2000 edition, as amended.
2. City of Houston *Building Code*, International Building Code, 2000 edition, as amended.
3. National Fire Protection Association (NFPA) Standard No. 24, "Installation of Private Fire Service Mains and Their Appurtenances".
4. National Fire Protection Association (NFPA) Standard No. 231D, "Storage of Rubber Tires"
(Omit Appendix C and D).

Conversion factors: 1 inch = 25mm; 1 foot = 305 mm